



Developing a Model to Improve the Professional Competence of Rural Kindergarten Teachers in Guangxi

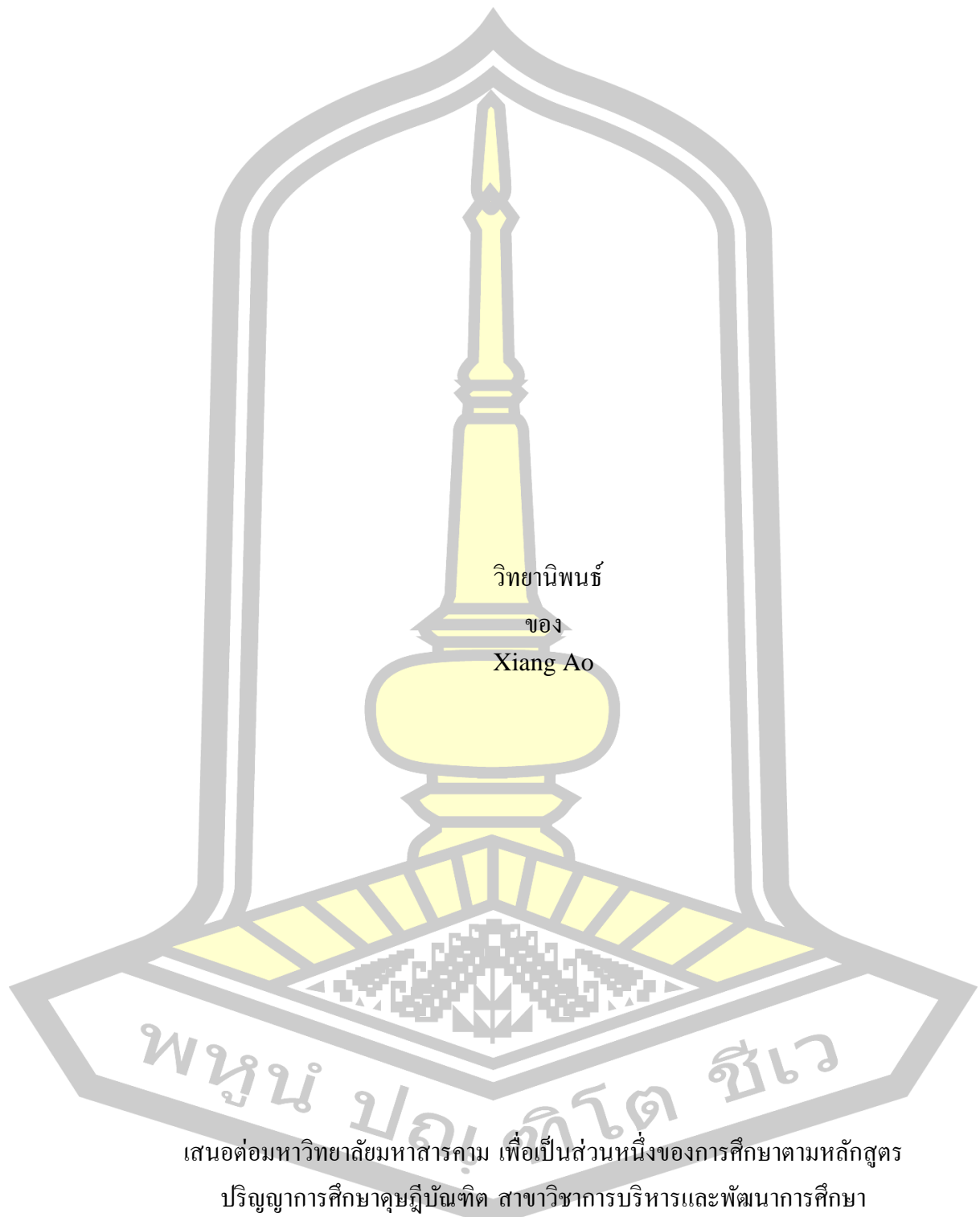
Xiang Ao

A Thesis Submitted in Partial Fulfillment of Requirements for
degree of Doctor of Education in Educational Administration and Development

October 2024

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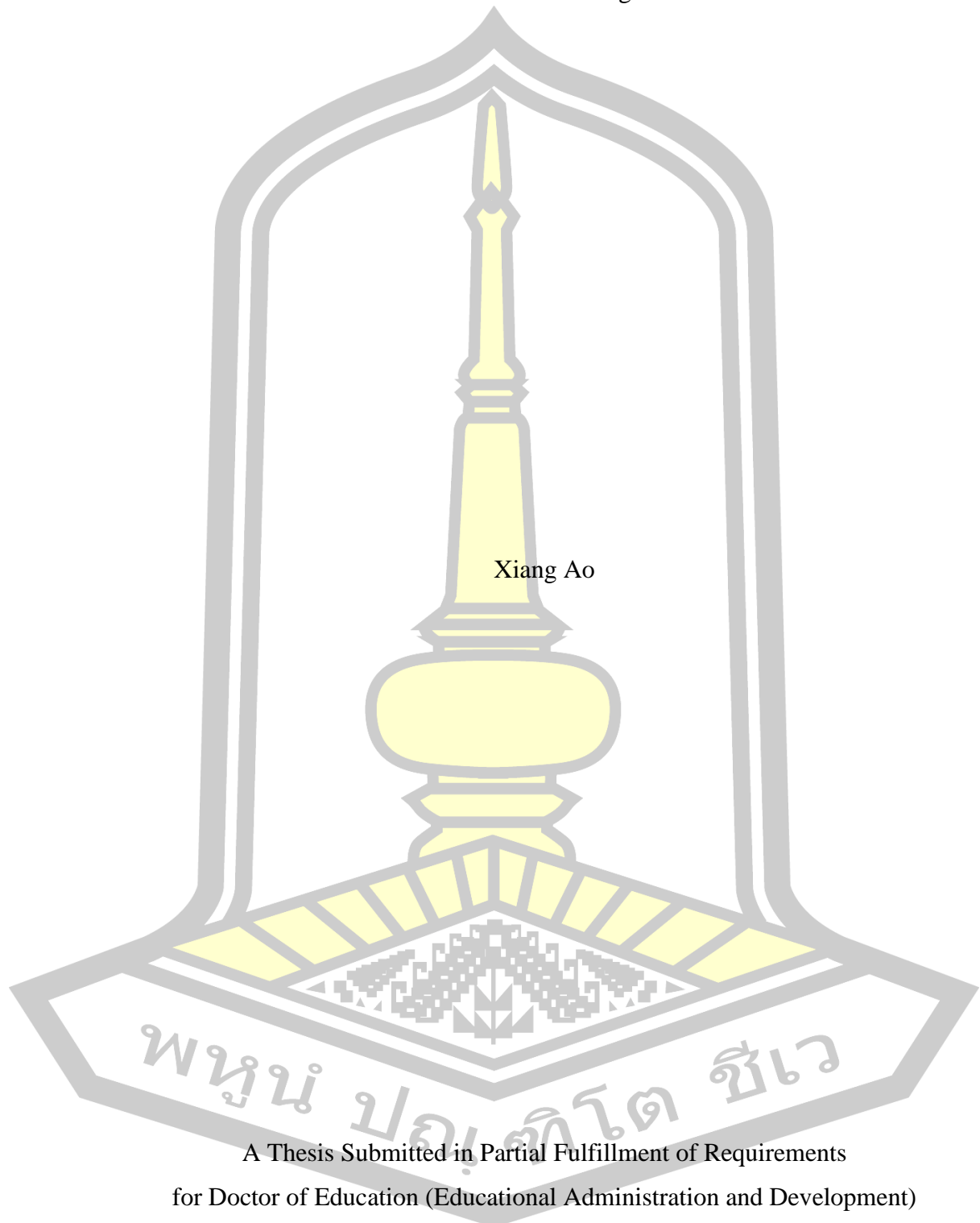


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Developing a Model to Improve the Professional Competence of Rural Kindergarten
Teachers in Guangxi



Xiang Ao

A Thesis Submitted in Partial Fulfillment of Requirements
for Doctor of Education (Educational Administration and Development)

October 2024

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ABSTRACT

The objectives of this research were: 1) to investigate components and indicators of the professional competence of rural kindergarten teachers, 2) to explore the existence condition, desired condition, and the priority needs of the professional competence of rural kindergarten teachers in Guangxi, and 3) developing a model to improve the professional competence of rural kindergarten teachers in Guangxi. The research methodology is divided into 3 phases: Phase 1: To investigate components and indicators of Professional Competence of Rural Kindergarten Teachers in Guangxi by using analysis and synthesis of Professional Competence of Rural Kindergarten Teachers in Guangxi from Principles, concepts, theories and related research. They were evaluation of suitability by five experts. The Expert 5 consisted of academics, educators and principals. Phase 2: Explore the existence condition, desired condition, and the priority needs of the professional competence of rural kindergarten teachers in Guangxi. 399 samples from rural Guangxi. The research tools are 5-point estimation scale questionnaire and interview outline. Phase 3: Developing a model to improve the professional competence of rural kindergarten teachers in Guangxi. The research tools were interview form and assessment form. The statistics used for data analysis were percentage, mean, standard deviation and need index.

The results of the study revealed that

1. There are 7 components and 23 indicators of rural kindergarten teachers' professional competence. The results of suitability evaluation of five qualified experts were at the highest level.

2. The conditions for the existence of professional competence of rural kindergarten teachers in Guangxi, it is presented at a medium level. The existence of desirable conditions for improving the professional competence of kindergarten teachers in rural Guangxi, it is presented at a very high level. Indicators of priority needs of professional competence of kindergarten teachers in rural Guangxi. From most to the

lowest: 1) reflection and development competence; 2) environment creation and utilization competence; 3) game activity support and guidance competence.

3. In order to improve the professional competence of rural kindergarten teachers in Guangxi, a model was designed based on the modified values of PNI from previous survey studies. The model consists of 1) principles, 2) objectives, and 3) contents and methods, including 70% learning by doing, 20% learning from others, and 10% learning through courses. Methods of professional competence for rural kindergarten teachers in Guangxi, including work shadowing, mentoring, distribution, coaching, interpersonal networks, and training.4) Evaluation5) Conditions for success. The results show that the model is suitable and the feasibility fruit is very high.

Keyword : Rural Kindergarten Teachers, Professional Competence, Professional Competence for Development, Model Development



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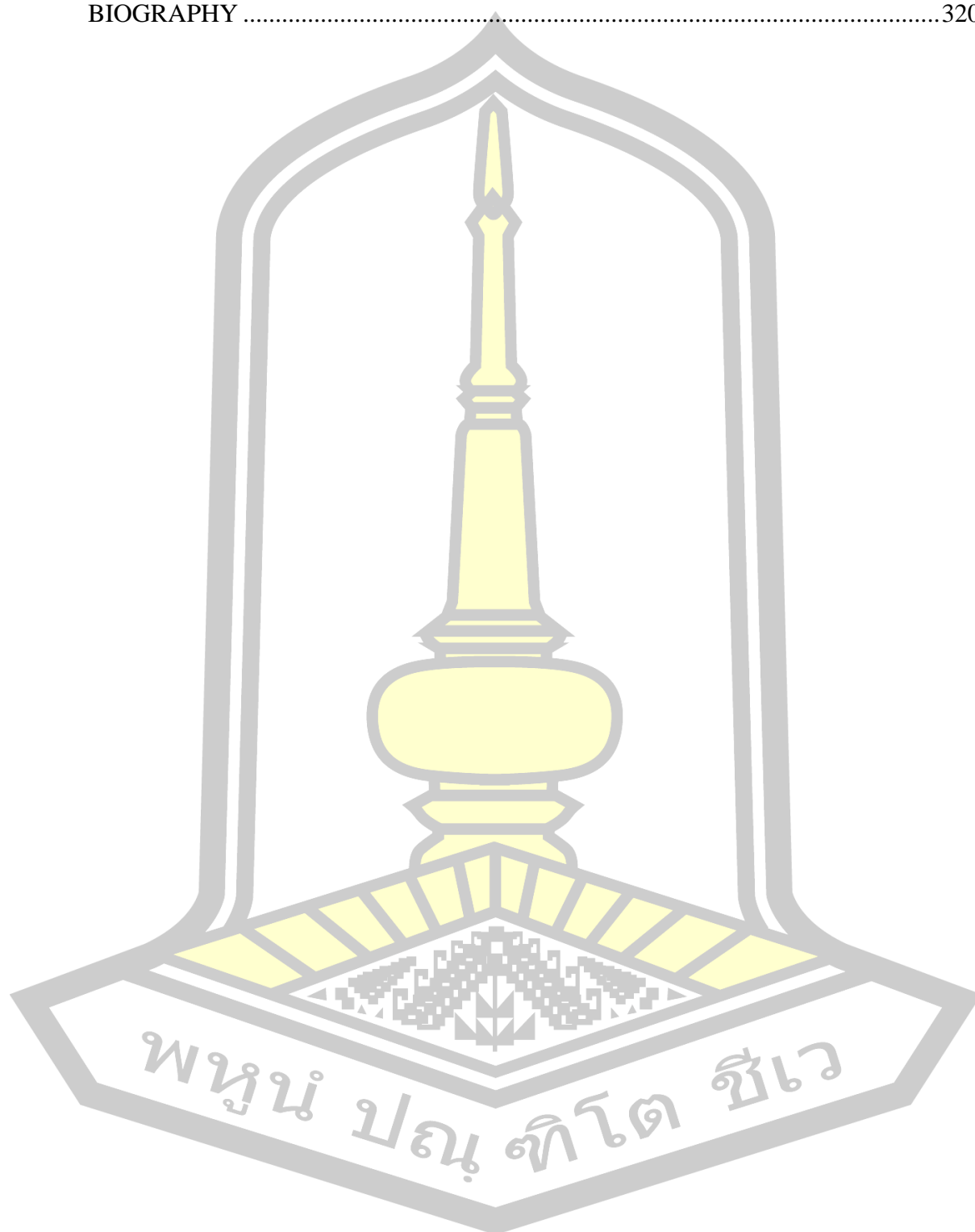
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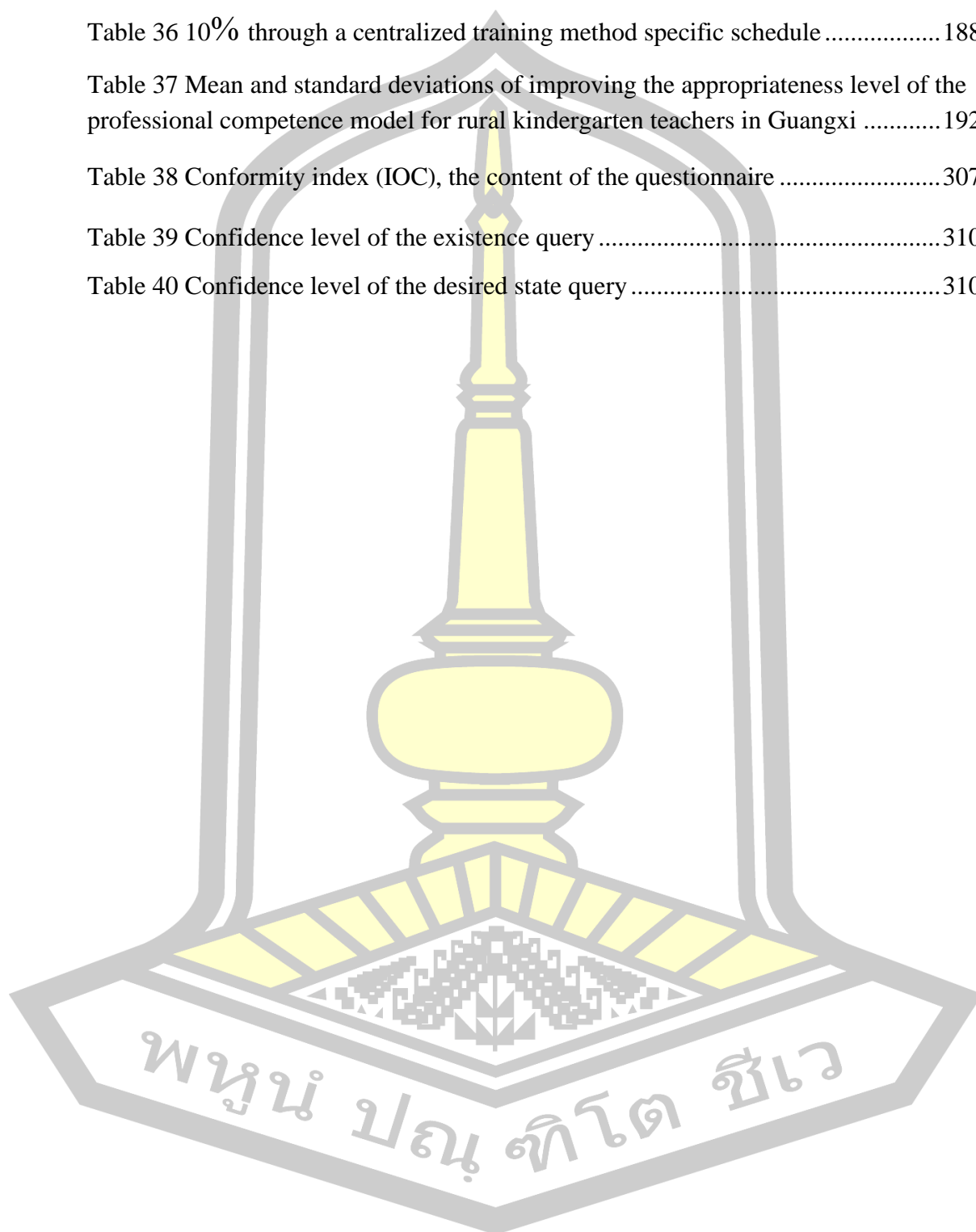


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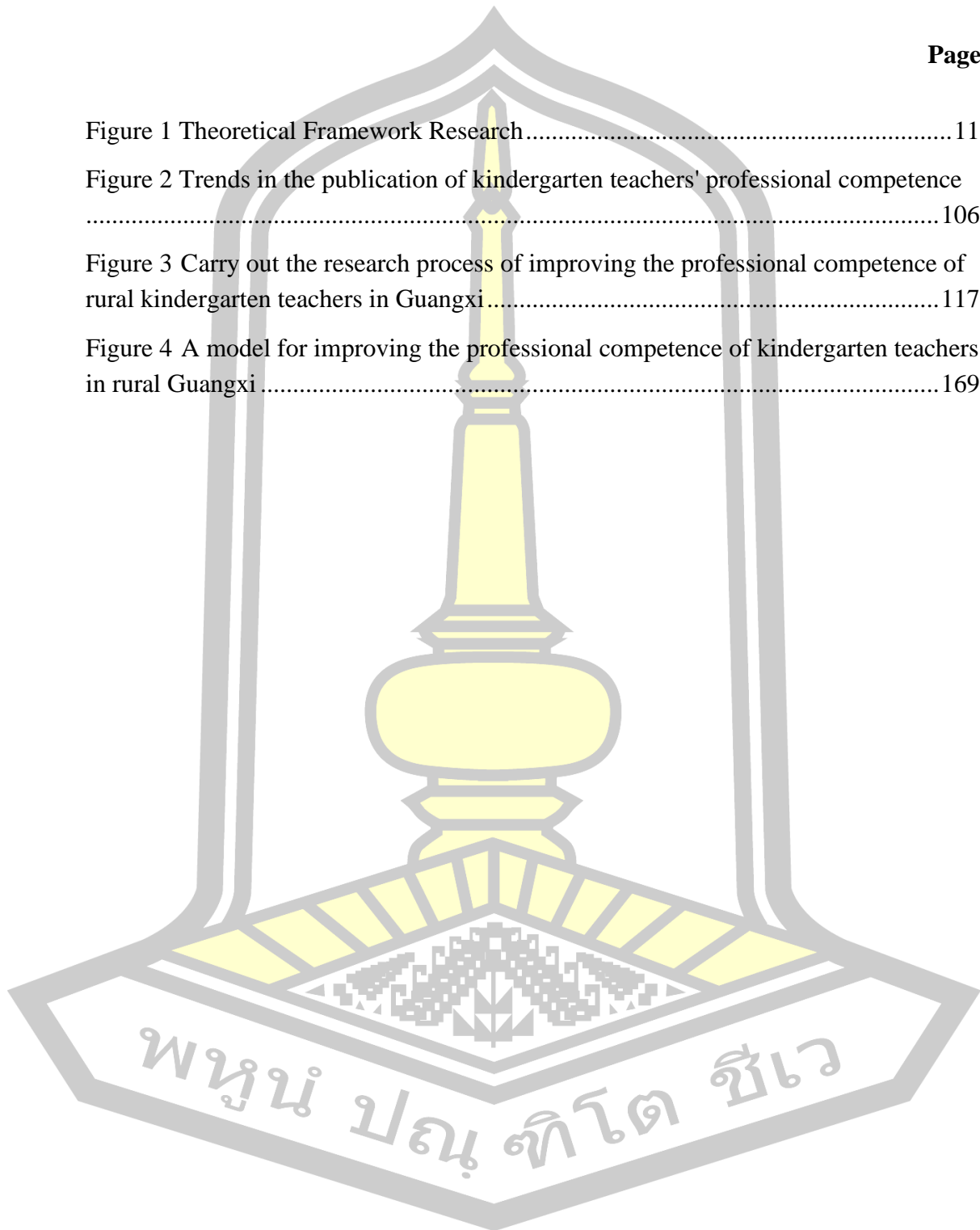
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CHAPTER I

INTRODUCTION

Background

China urgently needs to train a group of rural kindergarten teachers with excellent professional competence. According to the statistics Communique on the Development of National Education in 2022 released (Ministry of Education of the People's Republic of China, 2023), kindergarten teachers are the largest group of full-time teachers in China's non-compulsory education stage, and rural kindergarten teachers account for the majority. The professional competence of rural kindergarten teachers is related to the future of the country.

Improving the professional competence of rural kindergarten teachers is a “need” for China's rural revitalization strategy. The working report at the 19th National Congress of the Communist Party of China (CPC) proposed a rural revitalization strategy, elevating rural construction to an important national strategy for the new era (Xi Jinping, 2017). Rural prosperity is national prosperity, and rural decline is national decline. The implementation of the rural revitalization strategy has important practical significance and far-reaching historical significance. In the opinions on the implementation of the rural revitalization strategy, it is clearly proposed to “give priority to the development of rural education”, “develop rural pre-school education”, and “coordinate teachers in urban and rural areas, tilting them towards rural areas, and build a strong rural teaching force” (CPC Central Committee and State Council, 2018). In the Action Plan for Revitalization of Teacher Education (2018-2022), it is mentioned that “a large number of teachers specializing in preschool education with a degree or higher who care for young children and are good at childcare will be trained for kindergartens, and the level of teacher training specifications will meet the needs of guaranteeing national education and the cultivation of innovative talents.” (Ministry of Education and other five departments, 2018). Improve the supply of teacher resources and promote the equitable development of education. Strengthen the training of teachers in central and western regions and rural schools, with a focus on providing teachers for precise poverty alleviation in education in remote, impoverished and ethnic

areas. The state has clearly defined the value orientation of rural revitalization of education from the height of top-level design; rural preschool education is an important part of rural education, and the professional development of rural kindergarten teachers is the key to the development of rural preschool education.

Improving the professional competence of rural kindergarten teachers is a “requirement” for practicing the Professional Standards for Kindergarten Teachers. Qualified teachers are the basic guarantee for the normal development of education and the successful realization of educational goals. The professional competence of kindergarten teachers is the core content of their professional growth and training. In the Professional Standards for Kindergarten Teachers (for Trial Implementation), it is pointed out that among the three-dimensional space, 14 fields and 62 basic requirements of the professional standards, professional competence accounts for 7 fields (50%) and 27 basic requirements, or 44% of the content of the professional standards, reflecting the core status of the kindergarten teacher's professional competence (Ministry of Education of China, 2012). Rural kindergarten teachers' professional development is a process in which workers in rural early childhood education institutions continuously combine planned professional thinking and professional practice to improve their professionalism. In the process of rural kindergarten teachers' professional development, their professional ideas and professional competence for improvement are particularly important and urgent, and the planning document that leads the professional development of rural kindergarten teachers is the “professional standard” (Xu Wei and Ma Lizhi, 2020).

Rural kindergarten teachers are the incubators of the country's future talent revitalization. The revitalization of rural preschool education is inextricably linked to the professional competence of rural kindergarten teachers, and the construction of a professional kindergarten teaching force is related to the improvement of the quality of rural early childhood education, the revitalization of rural talents and the future of rural revitalization. In the opinions on the implementation of the strategy of rural revitalization, it is clearly stated that the three phases of goals in 2020, 2035 and 2050 need to be supported by the most fundamental revitalization of talents. And children who are now in the pre-school education stage will become the absolute main force for

the realization of the future milestones of the rural revitalization strategy (CPC Central Committee and State Council, 2018).

Rural kindergarten teachers are the seed planters for the transmission and innovation of rural culture. Rural kindergarten teachers are not only a carrier for promoting excellent traditional culture, popularizing advanced scientific knowledge, and understanding national education policies and related regulations, but also a bridge for open dialogue between urban and rural areas and for integrating rural and urban cultures, and they are also builders who cultivate good local village family customs and rules and promote rural civilization. The Strategic Plan for Rural Revitalization (2018-2022) points out that “village types” are divided into the gathering and upgrading category, the suburban integration category, the characteristics protection category, and the relocation and annexation category, especially the characteristics protection category, in which villages are rich in local cultural resources. Organic integration of local culture and preschool education, so that preschool children can receive systematic culture and civilization inculcation from childhood, which can effectively promote the establishment of rural social sentiment and the inheritance of local cultural genes (State Council of the Central Committee of the Communist Party of China, 2018).

The development of professional competence for kindergarten teachers in rural China is not encouraging. Many professionals in the field of preschool education recognize that the relative backwardness of rural conditions, the implementation of the national “three-child” policy, the shortage of rural kindergarten teachers, and the large number of non-professional kindergarten teachers in the countryside have led to a poor level of overall development, which limits the overall level of rural kindergarten teachers. Although rural early childhood education is an important part of China's early childhood education, it is a weak link, and the professional competence of its kindergarten teachers is weak (Li Ya, 2019). Only some of the rural kindergarten teachers have a professional background in preschool education, while the rest of the teachers have been transferred from elementary school, from other professions, and there are also many “locals” who do not have relevant qualifications (Guo Li, 2021). Although governments at all levels have appropriately supplemented the number of full-time kindergarten teachers in rural areas by means of entry exams and integrated urban-rural kindergartens, the rapid increase in the number of young children enrolled

in kindergartens and the pace of training and replenishment of teachers have not been able to keep up with the development of the practice (Li Yang and Chen Xi, 2018).

It is urgent to improve the professional competence of kindergarten teachers in rural Guangxi. Rural areas in Guangxi are limited by development history, natural conditions and other objective reasons, and rural kindergartens in Guangxi have many problems and deficiencies in the process of development, especially the lack of teachers' professional level directly affects the healthy growth of rural children. The level of professional competence for rural kindergarten teachers is closely related to the high-quality development of preschool education in Guangxi. Rural kindergarten teachers' communication and cooperation competence, daily life organization and conservation competence, and incentive and evaluation competence are relatively strong, while reflection and development competence, educational activity design and implementation competence, and game activity support and guidance competence are weak and need to be improved urgently (Zhu Ling, 2021). Rural kindergarten teachers do not have enough awareness of self-reflection and self-development competence, and do not realize the importance of continuous learning and constant improvement of their own quality for professional competence for professional development, which also indicates that there is not enough guidance from the kindergarten garden (Yang Li, 2017).

The dimensions of professional competence of rural kindergarten teachers are basically the same as those of urban kindergarten teachers. The developmental orientation and professional competence for rural kindergarten teachers should be in the two dimensions of adaptation and qualification, and they should be adaptable to the current requirements of kindergarten educational activities and master the corresponding requirements, mainly understanding and mastering the requirements of pre-school educational activities (Yan Zhonglian and Li Rongxiang, 2016). Therefore the components and indicators of rural kindergarten teachers' professional competence became the main focus of this study. According to the search for a large amount of information to summarize the researchers on the components of the professional competence of kindergarten teachers gradually converge to seven professional competences, namely, environment creation and utilization competence, daily life organization and conservation competence, game activity support and guidance

competence, educational activity design and implementation competence, incentive and evaluation competence, communication and cooperation competence, and reflection and development competence.

In the COVID situation, the work field of rural kindergarten teachers has become a combination of online and offline, the education object of rural kindergarten teachers has become a combination of children and parents, and the acquisition of rural kindergarten teacher resources has become the integration of kindergarten and society. (Zhang Xinxin,2021) pointed out that during the epidemic period, kindergarten teachers faced many new changes and challenges in terms of educational field, educational objects, educational resource acquisition, educational content and educational behaviors.

Therefore, for the above reasons, the researchers are interested in developing a model to improve the professional competence of rural kindergarten teachers in Guangxi. The mode is divided into five parts: principles, objectives, methods, evaluation and success conditions. Based on the 70 20 10 learning rule, the methods of job shadowing, mentoring, assignment, coaching, networking, training are used. Researchers use the results to develop a improve rural kindergarten teachers in Guangxi mode of professional competence, hope to establish and improve the rural kindergarten teachers growth and development of support and service system, under the rural revitalization strategy, the government, universities, rural kindergarten hand in hand, promote the rural preschool teachers professional growth, cultivate suitable for Guangxi rural kindergarten stay, teaching, development of qualified teachers, to promote the development of rural early childhood education career in Guangxi.

Research Questions

This research has three questions, these are:

1. What are the components and indicators of the professional competence of rural kindergarten teachers?
2. How are level of existence condition, desired condition, and the priority needs of the professional competence of rural kindergarten teachers in Guangxi?

3. How are model to improve the professional competence of rural kindergarten teachers in Guangxi?

Research Objectives

This research has three objectives, as follows:

1. To investigate components and indicators of the professional competence of rural kindergarten teachers.
2. To explore the existence condition, desired condition, and the priority needs of the professional competence of rural kindergarten teachers in Guangxi.
3. Developing a model to improve the professional competence of rural kindergarten teachers in Guangxi.

Research Significances

By conducting this study, it is hoped that this study will add more options to improve the professional competence of kindergarten teachers.

1. Rural kindergarten teachers

This study of Guangxi rural kindergarten teachers 'professional competence development present situation, expectations and good demand research, emphasizes the necessity of improving the kindergarten teachers' professional competence, we can further mining from the theoretical perspective, one is rich education theory, improve the competence of kindergarten teachers 'professional research not only emphasizes the practical education, also helps to enrich education theory, through the study of teachers' professional competence, we can understand the role and influence of teachers in preschool education more deeply, add new dimensions to the pedagogy theory system. The second is interdisciplinary integration. Existing research has covered a number of disciplines, such as psychology, pedagogy and management. Future research can further explore the intersection between these fields and realize the interdisciplinary integration of knowledge, so as to provide richer theoretical support for improving the professional competence of kindergarten teachers,

and help to further supplement, improve and enrich the theoretical system of teachers' career development.

2. Kindergarten

The conclusion of this study can provide a basis for kindergartens to formulate the professional development plan of rural kindergarten teachers. Based on the results of the questionnaire survey, this paper explores the factors affecting the professional competence of rural kindergarten teachers. Some of the perspectives and contents of these studies are innovative, which provide a good theoretical reference and basis for the research of the professional competence of rural kindergarten teachers in China, fill in the shortcomings of the existing research in related fields, and have a reference role for the strategy of improving the quality of rural kindergartens.

3. Education administrative department

The conclusion of this study for the education administrative department to carry out rural kindergarten teacher training and local pre-service normal education guidance ideas and Suggestions, meet different regions, social background and cultural background of kindergarten teachers' demand, to promote education fair, narrow the gap in education, better meet the needs of the development of different children, promote rural children comprehensive and harmonious development of body and mind, better use of education theory and practical skills, provide children with more inspiring and targeted education, so as to improve the quality of education, promote the sustainable development of rural preschool education career.

Scope of Research

1. Scope of content

1.1 Components and Indicators of The professional competence of Teachers in Rural Kindergartens in Guangxi Starting from the research and synthesis of the literature by various scholars, the professional competence of teachers in rural kindergartens in Guangxi includes seven components:

- 1.1.1 Environment creation and utilization competence
- 1.1.2 Daily life organization and conservation competence
- 1.1.3 Game activity support and guidance competence

1.1.4 Educational activity design and implementation competence

1.1.5 Incentive and evaluation competence

1.1.6 Communication and cooperation competence

1.1.7 Reflection and development competence

1. 2 Principles of professional competence development of rural kindergarten teachers in Guangxi, starting from the research and synthesis of documents from scholars and educators. It includes three important learning principles:

1.2.1 70% Practical learning

1.2.2 20% Learning from others

1.2.3 10% Learning through training

1.3 Methods of professional competence of rural kindergarten teachers in Guangxi, the researchers studied various literature. The components of an adaptive leadership development approach include:

1.3.1 Job shadowing

1.3.2 Mentoring

1.3.3 Assignment

1.3.4 Coaching

1.3.5 Networking

1.3.6 Training

1.4 Components of the model, the researchers studied various documents.

The components of the program include:

1.4.1 Principles

1.4.2 Objective

1.4.3 Contents and Methods

1.4.4 Evaluation

1.4.5 Success conditions

1.5 Develop the process to improve the professional competence model of Guangxi rural kindergarten teachers through the following steps :

1.5.1 Investigate the professional competence of teachers in rural kindergartens in Guangxi.

1. 5. 2 Exploring the existence condition, desired condition, and the priority needs of professional competence of rural kindergarten teachers in Guangxi.

1.5.3 Developing a model to improve the professional competence of rural kindergarten teachers in Guangxi.

1.5.4 Evaluation the suitability and feasibility of the model to improve the professional competence of rural kindergarten teachers in Guangxi.

2. Population and Samples

Phase 1: Study components and indicators of Professional Competence of Rural Kindergarten Teachers in Guangxi by using analysis and synthesis of Professional Competence of Rural Kindergarten Teachers in Guangxi from Principles, concepts, theories and related research. They were evaluation of suitability by five experts. The Expert 5 consisted of academics, educators and principals.

Phase 2: Study of the existence condition, desired condition, and the priority needs of the professional competence of rural kindergarten teachers in Guangxi.

1) The population is the kindergarten teachers, leaders of the Education Bureau and kindergarten principals working in rural areas of Guangxi in 2023. Of 78,571 people, including 68,300 kindergarten teachers, 71 Education Bureau leaders, and 10,200 kindergarten principals.

2) The sample group consisted of rural kindergarten teachers, rural kindergarten directors, and directors of education, and was calculated by comparing the total population to the table prepared by Krejcie and Morgan (1978) and using stratified random sampling techniques. This resulted in a sample of 399 persons, including 346 rural kindergarten teachers, 52 rural kindergarten directors, and 1 director of education.

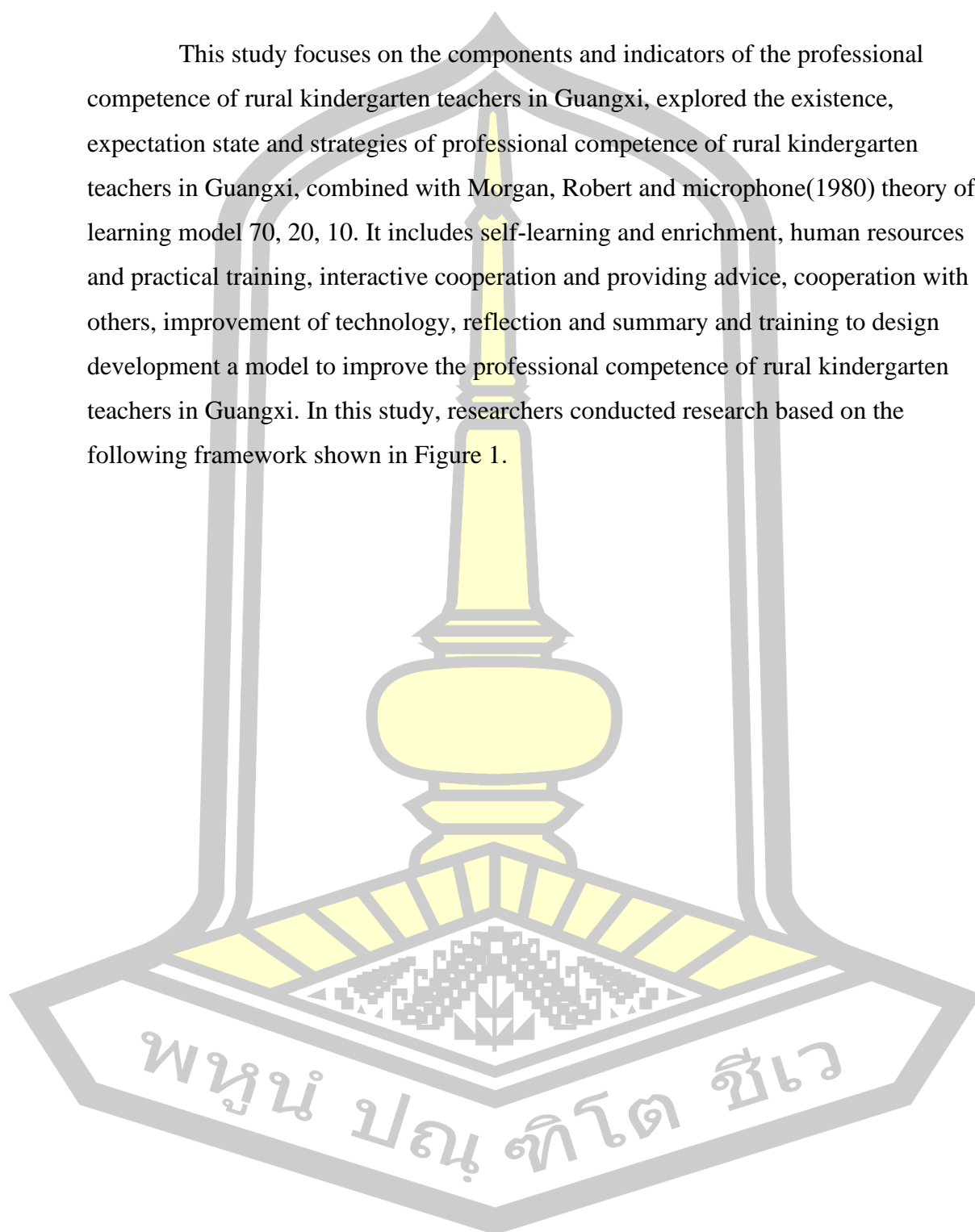
Phase 3: Developing a model to improve the professional competence of rural kindergarten teachers in Guangxi.

1) Five experts, including scholars, educators and school principals, to conduct in-depth interviews on the principles and methods of the model to improve the professional competence of kindergarten teachers in rural Guangxi.

2) Five experts, including scholars, educators and principals, assessed the suitability of the model to improve the professional competence of rural kindergarten teachers in Guangxi.

Theoretical Framework

This study focuses on the components and indicators of the professional competence of rural kindergarten teachers in Guangxi, explored the existence, expectation state and strategies of professional competence of rural kindergarten teachers in Guangxi, combined with Morgan, Robert and microphone(1980) theory of learning model 70, 20, 10. It includes self-learning and enrichment, human resources and practical training, interactive cooperation and providing advice, cooperation with others, improvement of technology, reflection and summary and training to design development a model to improve the professional competence of rural kindergarten teachers in Guangxi. In this study, researchers conducted research based on the following framework shown in Figure 1.



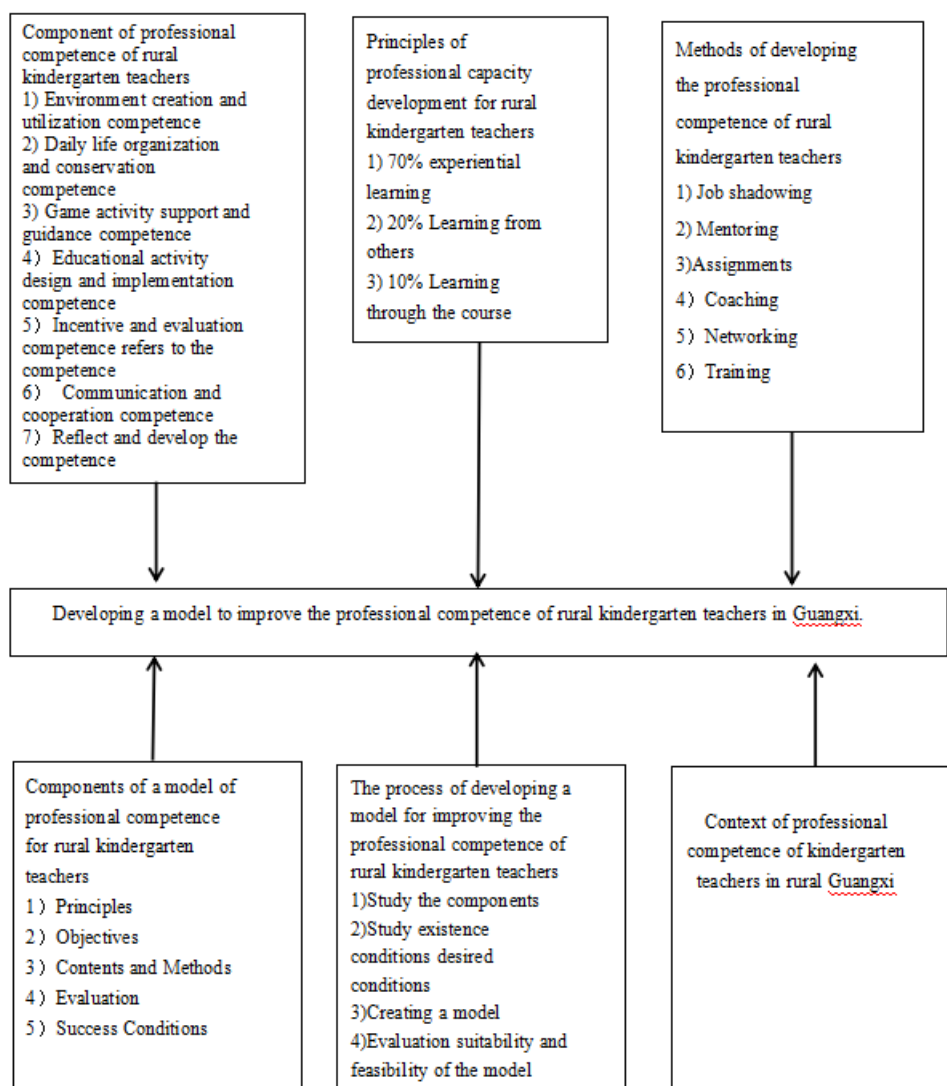


Figure 1 Theoretical Framework Research

Term Definition

1. The professional competence of rural kindergarten teachers refers to rural kindergarten teachers the comprehensive qualities and skills of rural kindergarten teachers in the areas of environment creation and utilization, day-life organization and care, support and guidance of play activities, design and implementation of educational activities, motivation and evaluation, communication and cooperation, reflection and development.

1.1 Environment creation and utilization competence refers to rural kindergarten teachers have competence in establishing good teacher- child relationships, establishing classroom order and rules, creating educational environments that help promote children's growth, learning, and play, and utilizing resources wisely.

1.2 Daily life organization and conservation competence refers to rural kindergarten teachers have competence in organizing the kindergarten day in a scientific and rational manner, giving good care to children, and fully reflecting the integration of care and education.

1.3 Game activity support and guidance competence refers to rural kindergarten teachers have competence in play activity support, rationalizing the use and design of space and material preparation for play activities, and guiding children to acquire developmental competence in all aspects of play activities.

1.4 Educational activity design and implementation competence refers to rural kindergarten teachers have competence in the design of scientific educational activities, the ability to tailor teaching to the needs of the individual, the use of appropriate educational organization, and the ability to guide young children in active learning.

1.5 Incentive and evaluation competence refers to rural kindergarten teachers have competence in focusing on children's daily performance, effectively utilizing a variety of methods to evaluate children, and effectively using the results of evaluations to guide activities.

1.6 Communication and cooperation competence refers to rural kindergarten teachers have competence in communicating with children, listening well, collaborating with colleagues, communicating with parents, and assisting the preschool in building partnerships with the community.

1.7 Reflection and development competence refers to rural kindergarten teachers have competence in gathering and analyzing relevant information for reflection, exploring issues in educational work for learning and research, and developing professional development plans.

2. Rural kindergarten teachers professional competence development refers to the principles of professional competence for rural kindergarten teachers, methods of development and factors influencing it.

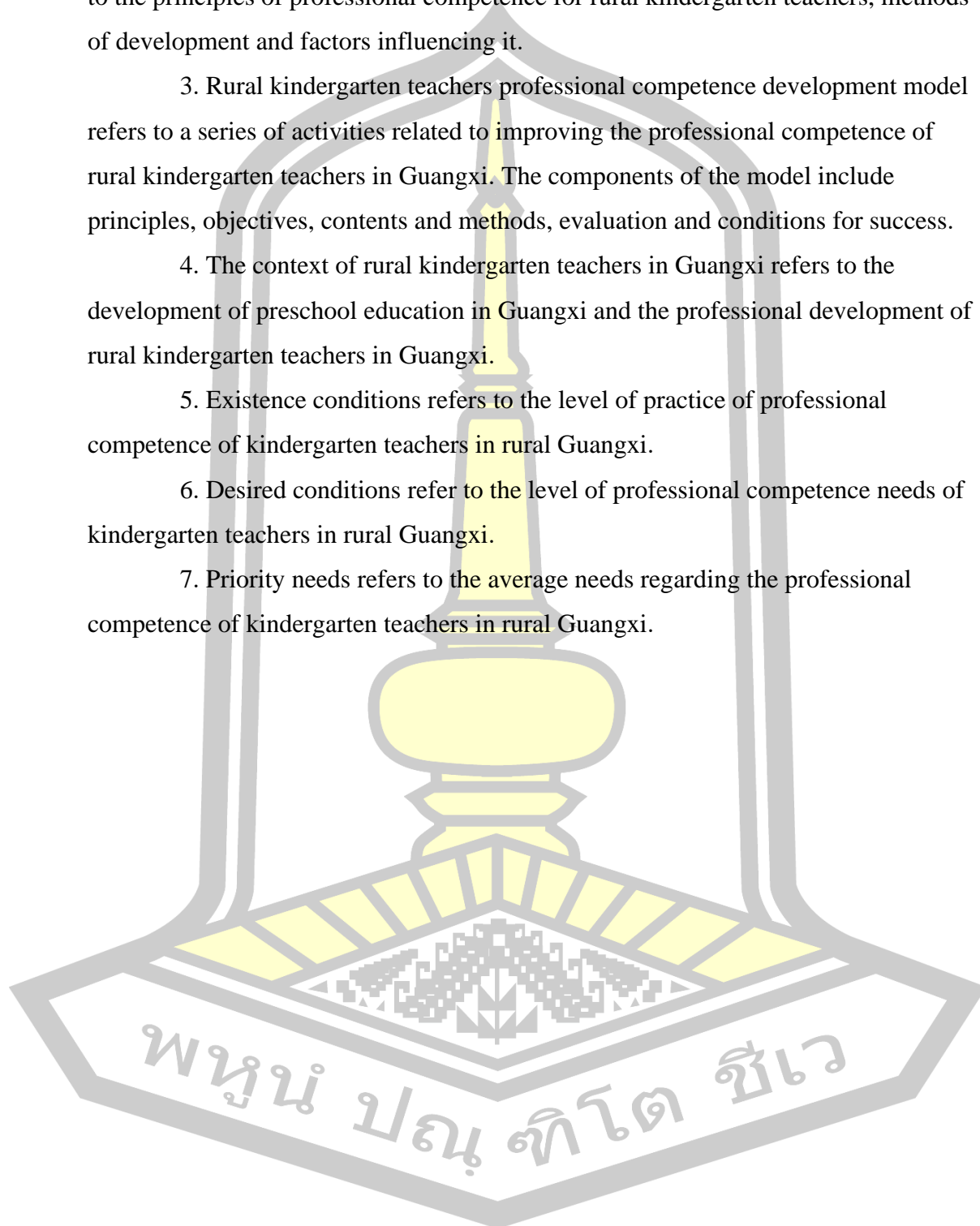
3. Rural kindergarten teachers professional competence development model refers to a series of activities related to improving the professional competence of rural kindergarten teachers in Guangxi. The components of the model include principles, objectives, contents and methods, evaluation and conditions for success.

4. The context of rural kindergarten teachers in Guangxi refers to the development of preschool education in Guangxi and the professional development of rural kindergarten teachers in Guangxi.

5. Existence conditions refers to the level of practice of professional competence of kindergarten teachers in rural Guangxi.

6. Desired conditions refer to the level of professional competence needs of kindergarten teachers in rural Guangxi.

7. Priority needs refers to the average needs regarding the professional competence of kindergarten teachers in rural Guangxi.



CHAPTER II

LITERATURE REVIEW

Developing a model for improve the professional competence of kindergarten teachers in Guangxi. The researcher examined the principles, concepts, and theoretical perspectives from the literature and related research findings. The objective was to be helpful in defining the conceptual framework of the study including the research process and through the conceptual development pathway. Theories included:

1. Professional competence of rural kindergarten teachers
 - 1.1 Concept of professional competence of rural kindergarten teachers
 - 1.2 Components of professional competence of rural kindergarten teachers
2. Professional competence development of rural kindergarten teachers
 - 2.1 Principles for the development of professional competence for rural kindergarten teachers
 - 2.2 Methods of developing professional competence for rural kindergarten teachers
 - 2.3 Factors affecting the development of professional competence of rural kindergarten teachers
 - 2.4 Needs assessment for the development of professional competence for rural kindergarten teachers
3. Development model of professional competence for rural kindergarten teachers
 - 3.1 Meaning of rural kindergarten teachers professional competence model
 - 3.2 Components of rural kindergarten teachers professional competence model
 - 3.3 Rural kindergarten teachers professional competence model development
4. Context of rural kindergarten teachers in Guangxi
 - 4.1 Development of Preschool Education in Guangxi

4.2 Professional Development of Rural Kindergarten Teachers in Guangxi

5. Related Research

1. Professional competence of rural kindergarten teachers

1.1 Concept of professional competence of rural kindergarten teachers

1.1.1 The concept of teacher professional competence

Teachers' professional competence is the support point for the achievement of teachers' professional growth, which is a specialized term with the emergence of the international trend of professionalization of the teaching profession, the development of the understanding of the complexity of educational activities and the reassessment of the value of education function, with the characteristics of individuality, contextualization, innovation and development. Kratz was the first to launch a study on teacher professional competence in 1896, and then the research in this area gradually increased, and many scholars have studied this issue.

Wu Zhihua and Liu Haimin (2004), in their research, specifically expressed teacher professional competence as the personality psychological characteristics of teachers in the process of successfully accomplishing teaching tasks while engaging in educational and teaching activities.

Hao Linxiao and Folding Yandong (2004) suggested that teachers' professional competence mainly refers to the educational skills that are necessary for teachers to utilize educational rationality and experience, flexibly cope with educational situations, and react with agile educational behaviors to promote students' development in educational teaching activities.

Zhang Jie (2011) proposed that teacher's professional competence is the ability and competence to successfully accomplish a certain task developed by teachers in educational and teaching activities.

Yang Jie (2014) proposed that teacher's professional competence is the professional wisdom and subjective power demonstrated in dealing with ambiguous, variable, and complex educational situations by removing the reserve of professional knowledge and the skillfulness of professional skills.

Zhang Dan (2019) proposed that teacher professional competence is the teaching ability that teachers need to have to engage in educational work, which is gradually formed in the practice of education and teaching, and influences the level of physical and mental development of students and the quality of education and teaching, and it is one of the components of the professional qualities of teachers.

Yan Yaling (2021) pointed out that teachers' professional competence refers to the requirements for teachers to be able to fulfill the teaching tasks, to have qualified knowledge and to express the required or desirable level of business, which simply means that the competence possessed is able to meet the requirements for the practice of teaching.

In summary, the core of professional competence for teachers is that teachers utilize their knowledge, experience and skills in the process of education and teaching to flexibly respond to various educational situations and solve educational problems, thereby promoting the development of students. This comprehensive competence not only affects the quality and effectiveness of teaching, but also serves as an important guarantee of teachers' competence in their profession. A comprehensive analysis of teachers' professional competence is undoubtedly the key to enhancing our profound knowledge of kindergarten teachers' professional competence.

1.1.2 The concept of kindergarten teachers professional competence

Lian Yueh (2009) proposed that the professional competence of kindergarten teachers is the sum of competences formed and expressed by kindergarten teachers in educational and teaching activities, which indirectly or directly affect the quality of educational activities and determine the implementation and completion of educational activities, and it is the specialized competence necessary for engaging in early childhood education activities.

Liu Zhanlan (2012) proposed that kindergarten teachers' professional competence for kindergarten teachers is unique and comprehensive, and should emphasize the important value of kindergarten's combination of preservation and teaching, the use of play as the basic activity, the environment and the life of young children's development, which is all-encompassing and multifaceted.

Lin Jing (2016) proposed that kindergarten teachers' professional competence for kindergarten teachers is the competence that kindergarten teachers should have in order to successfully complete the tasks of kindergarten education and teaching and to promote the physical and mental health development of young children in educational and teaching activities, and to deal with and solve the various problems, conflicts, and contradictions in kindergarten education and teaching by utilizing their own existing experience, knowledge, and so on.

Jin Yanjun (2017) proposed that the professional competence of kindergarten teachers refers to the competence of kindergarten teachers with professional concepts and teacher ethics and professional knowledge embodied in the process of early childhood education.

Li Ya (2019) proposed that rural kindergarten teachers' professional competence refers to the professional competence they should have in educational and teaching activities, as well as their teaching competence.

Ruoyu Storm (2019) proposed that the professional competence for kindergarten teachers refers to the educational skills embodied by kindergarten teachers engaged in the work of teaching and learning in order to successfully complete the teaching task and utilize a variety of educational resources to promote the comprehensive development of young children.

Li Xiaoli (2020) proposed that the professional competence of kindergarten teachers refers to the professional quality of kindergarten teachers to be able to complete the teaching tasks of kindergartens and provide help to young children in all aspects of growth, including not only the mastery of theoretical knowledge of education, teaching practical ability and other professional competence, but also professional attitudes toward young children, work, parents of young children, and the park, as well as a certain amount of teaching emergencies according to the timely and efficient Competence to change the teaching arrangement.

Guo Wenfang (2020) suggested that the professional competence of kindergarten teachers reflects their professional knowledge, attitudes and abilities, including teaching competence, activity organization, communication, self-improvement and other aspects.

Mao Han, Lu Qing (2021) suggested that kindergarten teachers' professional competence for kindergarten teachers refers to the dynamic power to accomplish and promote the development of preschool education work in several dimensions of competence, professional skills, professional knowledge, and emotion, on top of physical and psychological qualities.

Xiao Junwei (2022) defined kindergarten teachers' professional competence for kindergarten teachers as the specialized competence in pre-school education that can complete the tasks of kindergarten education and teaching by utilizing all kinds of educational resources in pre-school preservation and teaching, promote the healthy and comprehensive development of young children, and meet the professional standards of kindergarten teachers.

Ao Simeng (2023) suggested that kindergarten teachers' professional competence is a blend of knowledge and skills embodied by kindergarten teachers in their daily educational work.

In summary, kindergarten teachers' professional competence is a multidimensional competence formed and manifested by teachers in early childhood education and teaching activities, which has rich and wide connotations, and is an important factor influencing and determining the quality of kindergarten education, as well as an important measure of kindergarten teachers' professional level. Kindergarten teachers need to utilize a variety of educational resources, combine their own experience and knowledge, deal with and solve various problems in education and teaching, ensure the healthy development of children's bodies and minds, and meet professional standards and show professional wisdom and comprehensive quality. In this study, the professional competence of rural kindergarten teachers is defined as the comprehensive qualities and skills of rural kindergarten teachers in the areas of environment creation and utilization, day-life organization and care, play activity support and guidance, educational activity design and implementation, motivation and evaluation, communication and cooperation, reflection and development.

1. 2 Components of professional competence of rural kindergarten teachers

1.2.1 Components of teacher professional competence

Li Bin (2005) The U.S. Department of Education formulated the U.S. teaching competence standards for primary and secondary school teachers in 1987, which clearly stipulates that teachers should have the following professional competence: the ability to pay full attention to students and care about student learning; the ability to skillfully teach students subject matter knowledge; and the ability to manage and supervise students' learning.

Wang Ling (2006) France has introduced standards of professional competence for primary and junior high school teachers in 1994 and 1997 respectively, that is to say, proficiency in the knowledge of the subject they teach; the ability to organize, will be able to analyze the teaching situation; control of all kinds of classroom behaviors, understanding of students' individual differences; and a professional work ethic.

Franziska, Vogt, Rogala.(2009) Teachers' competence in teaching consists of four aspects: subject knowledge, pedagogical diagnosis, use of teaching methods and teaching management.

Ye Lan (2001) Teachers' professional competence consists of six components: understanding and interacting with others; organization and management; educational research; organization and transformation of information; use of multiple teaching methods and information reception.

Hao Linxiao and Folding Yandong (2004) suggest that teacher professional competence is elaborated horizontally and vertically respectively. Teaching competence and educational competence make up teacher professional competence, which is horizontal; vertically, pre-professional competence, professional awareness, generative competence, and professional adjustment competence are also included.

Zhang Tingkai (2009) The study of the components of teachers' professional competence can start from the five aspects of curriculum management, competence of implementation, competence of resource integration and utilization, information processing and feedback, and curriculum evaluation.

Li Fang (2010) The structure of teachers' professional competence consists of physical quality, psychological quality, teacher ethics, liberal arts literacy, educational professionalism, and subject-specific professional standards. The development level and overall effect of these six indicators have a key role in the level of development of teachers' professional competence for.

Liu Jianzhi (2018) The structural elements of teachers' professional competence as teachers' professional competence consists of four elements: teaching cognitive competence, teaching operational competence, teaching monitoring competence and educational research competence.

In summary, different countries and scholars have different understandings and standards of what constitutes teacher professional competence, but generally emphasize that teachers need to have comprehensive professionalism and multifaceted competencies to ensure teaching quality and promote student development. The structure of teachers' professional competence is a complex and multidimensional concept, which covers not only educational and pedagogical competence, but also vertical dimensions such as professional awareness, generative competence, and professional adaptive capacity. In addition, the structural elements of teachers' professional competence involve multiple aspects of teaching cognition, operation, monitoring, educational research, and other specific competencies such as interaction with students, classroom management, transfer of subject knowledge, and professional ethics. Specific to each detail point can be found that researchers' studies in this field still study more on theoretical knowledge and practical competence, but less on teachers' own internal emotional competence.

1.2.2 Components of kindergarten teachers professional competence

Morrison (1988) suggests that kindergarten teachers' professional competencies include: 1) understanding early childhood education, 2) understanding knowledge of children's early developmental growth, 3) focusing on curriculum design, 4) creating a developmentally appropriate environment for children, 5) making sound choices in educational methodology, 6) appropriately applying child management skills, and 7) establishing constructive connections with children's families.

Kang Jianqin (2007) suggested that the components of professional competence for kindergarten teachers mainly include: 1) observe and understand young children competence, 2) utilize the environment for education competence, 3) educate in the context of the day competence, 4) provide integrated education competence, 5) integrate Educational resources competence, and 6) professional development competence.

Ye Li (2008) suggested that the components of professional competence for kindergarten teachers include 1) teaching competence, 2) evaluate young children competence, 3) develop teaching resources competence, 4) cooperate with parents competence, 5) communicate with young children competence, 6) evaluate teaching competence, 7) self-development competence, 8) reflect on teaching competence, 9) collaborate with colleagues competence, and 10) maintain routines competence.

Hu Caiyun (2010) suggested that kindergarten teachers' professional competence includes: 1) create an educational environment competence (physical environment, psychological environment), 2) organize the day-to-day life of young children competence (arranging the day's activities, organizing teaching and living activities), 3) cooperate competence (with colleagues and parents), and 4) evaluate and reflect competence (evaluating young children, self-evaluation and reflection).

Peng Bing (2011) suggested that the professionalization of kindergarten teachers is summarized into six areas: 1) creating an educational environment, 2) designing and implementing educational activity exhibitions, 3) skills in working with parents, 4) conducting educational evaluations, 5) carrying out individual education, and 6) conducting in-depth educational research.

Liu Liqiong (2011) suggested that professional competence for kindergarten teachers consists of eight areas, which are 1) teaching; 2) childcare; 3) assessment; 4) classroom management; 5) administration; 6) communication; 7) emotional management; and 8) professional development.

Australian Ministry of Education (2011) in the National Professional Standards for Teachers issued by Australia, there are four teacher professional levels (graduate, competent, mature, and leader), and specific requirements for professional knowledge, professional practice, and professional development for each level of teachers, among which the professional practice and professional development

requirements are: 1) being able to plan and implement effective teaching and learning, 2) creating and maintaining a safe and supportive learning environments, 3) assess feedback and report on student learning, and 4) contribute to the educational community.

UK Ministry of Education (2012) teachers' Standards in the UK focus on the continuity, sequential and cumulative nature of teachers' professional development, while considering the laws and needs of the stages of teacher development, its government has made detailed provisions around professional qualities, knowledge and understanding, and professional skills, which professional skills include: 1) planning, 2) teaching, 3) evaluation monitoring and feedback, 4) reflecting on teaching and learning, 5) learning environments , and 6) teamwork.

China Ministry of Education (2012) the Professional Standards for Kindergarten Teachers (for Trial Implementation) points out the basic requirements for the professional qualities of a qualified kindergarten teacher, provides a basic guideline for leading the development of kindergarten teachers' professional competence for kindergarten teachers, and provides an important basis for kindergarten teachers' cultivation, training, and entry into the profession. The Professional Standards make requirements for the professional competence for kindergarten teachers in three dimensions: professional philosophy and ethics, professional knowledge and professional competence, in which the professional competence for kindergarten teachers is meticulously and comprehensively demanded, and the professional competence for kindergarten teachers is structured according to the main duties and basic work content of the kindergarten teachers into: 1) environment creation and utilization competence, 2) daily life organization and conservation competence, 3) game activity support and guidance competence, 4) educational activity design and implementation competence, 5) incentive and evaluation competence, 6) communication and cooperation competence, 7) reflection and development competence. With a total of 27 specific requirements, accounting for 43.5% of the basic content of the professional standards for kindergarten teachers. The standard is designed to meet the requirements of all kindergarten teachers throughout the country, both in urban and rural areas.

Liu Qian (2013) classified the professional skills of early childhood teachers into six areas based on their childcare activities in kindergarten, which include: 1) early childhood care, 2) kindergarten environment creation, 3) early childhood play design and organization, 4) early childhood teachers' verbal communication, 5) early childhood behavioral observation and recording and diagnosis, and 6) early childhood teachers' cooperative learning and other skills.

Zhao Fangfang, Zhang Guirong (2014) in Exploring the professional skills training strategies of kindergarten teachers researchers divided the components of kindergarten teachers' professional competence into : 1) language-based skills of kindergarten teachers, 2) artistic skills, and 3) teaching skills.

Gao Qian (2015) suggested that the components of rural kindergarten teachers' professional competence mainly include: 1) understanding young children and communicating with young children, 2) communicate competence, 3) create the environment competence, 4) design and organize the activities competence, 5) the use of resources; 6) teaching strategies, 7) the basic professional competence (playing the piano, singing, painting, dancing, etc.), 8) conduct educational research competence, and 9) reflect on education competence.

Song Sheng (2015) proposed that the professional competence of kindergarten teachers was divided into eight dimensions: 1) observe and understand young children competence, 2) classroom management, 3) create and utilize environments competence, 4) educational and teaching competence, 5) the competence to carry out parental work, 6) textbook research competence, 7) general knowledge, and 8) skill literacy.

Zhou Yongbo (2015) in his study divided kindergarten teachers' professional competence for 1) observation and understanding of young children, 2) environment creation and utilization competence, 3) daily life organization and conservation competence, 4) game activity support and guidance competence, 5) educational activity design and implementation competence, 6) incentive and evaluation competence, 7) communication and cooperation competence, 8) reflection and development competence.

Yang Jing, Yu Wei (2015) Russia, according to the characteristics of the new era, in its latest version of the Professional Standards for Kindergarten Teachers,

the professional competence of kindergarten teachers puts forward higher kindergarten teachers in addition to the requirements, the document states that 1) with the regular teaching, 2) play competence, 3) mastery of the psychological characteristics of children aged 3-6 years old, and 4) information technology application competence.

Yang Ruiyuan (2015) suggests that the Korean Ministry of Education, on the basis of a systematic study of advanced kindergarten teachers' policies, adopted the Kindergarten Teacher Appointment and Training Improvement Program in 2010, and the Korean Ministry of Education identified six areas of professional competence for kindergarten teachers through the study of advanced kindergarten teachers' education policies and the development of related programs. The main areas are: 1) teaching personality and professional development, 2) understanding learners, 3) curriculum management, 4) interpersonal relationships and communication, 5) information literacy, and 6) classroom management.

Wang Haiying (2016) studied the analysis of the components of professional competence for kindergarten teachers, and in the study, the components of professional competence for kindergarten teachers were considered to include 1) communication skills, 2) organize the day competence, 3) self-development, and 4) support play activities competence.

Liu Sibao (2017) The following nine components appear as key elements of the standards in the U.S. Standards for the Professional Preparation of Early Childhood Teachers, as revised in 2010: 1) cultural competence, 2) knowledge and application of ethical principles; communication skills, 3) mastery of relevant theories and research, 4) skills in identifying and utilizing professional resources, 5) investigative skills and knowledge of research methodologies, 6) collaborative skills, 7) teaching and mentoring, 8) advocacy skills, 9) leadership competence.

Yang Da (2017) through questionnaires and data analysis in the current situation study of the professional development support system for rural kindergarten teachers in Sichuan Province, it was concluded that the components of professional competence for rural kindergarten teachers are as follows: 1) teaching; 2) evaluating young children; 3) self-development; 4) communicating with parents; 5) cooperating; 6) evaluating instruction; 7) developing instructional resources; 8) reflecting on

instruction; 9) maintaining routine events; 9) communication; 10) maintaining routine events.

Zheng Xiaoyan (2018) proposed in her study that rural teachers' professional competence specifically includes 1) teaching organization; 2) language presentation; 3) teaching reflection; and 4) conducting teaching research.

Feng Dahong (2019) classified rural kindergarten teachers' professional competence for the study into: 1) environment creation and utilization competence, 2) daily life organization and conservation competence, 3) game activity support and guidance competence, 4) educational activity design and implementation competence, 5) incentive and evaluation competence, 6) communication and cooperation competence, 7) reflection and development competence.

Sun Guanfeng (2019) classified the professional competence for rural kindergarten teachers into: 1) environment creation and utilization competence, 2) daily life organization and conservation competence, 3) game activity support and guidance competence, 4) educational activity design and implementation competence, 5) incentive and evaluation competence, 6) communication and cooperation competence, 7) reflection and development competence.

Chen Haiyan (2019) suggested that the professional competence of early childhood teachers should contain basic and essential competence, of which: 1) plan and implement the curriculum competence, 2) carry out one-day activities competence, 3) set up a good educational environment competence, 4) carry out and guide play activities competence, 5) evaluate and encourage young children competence, and 6) play, sing, draw, and dance competence, and other basic competence are considered to be basic competences for early childhood teachers; while 7) communication and expression competence, 8) reflection and development competence, 9) active learning competence, 10) information technology operation competence, and 11) innovation competence are indispensable competences for the overall development of early childhood teachers.

Zhu Ling, Huang Zixing (2021) proposed that the professional competence of rural kindergarten teachers be classified into seven major competences, namely: 1) environment creation and utilization competence, 2) daily life organization and conservation competence, 3) game activity support and guidance competence, 4)

educational activity design and implementation competence, 5) incentive and evaluation competence, 6) communication and cooperation competence, 7) reflection and development competence.

Ao Simeng (2023) suggests that professional competence for early childhood teachers is a blend of knowledge and skills embodied by early childhood teachers in their daily educational work, which is manifested in 1) environment creation and utilization competence, 2) daily life organization and conservation competence, 3) game activity support and guidance competence, 4) educational activity design and implementation competence, 5) incentive and evaluation competence, 6) communication and cooperation competence, 7) reflection and development competence, 8) Scientific research competence.

In summary, the literature focuses differently on the components of professional competence for kindergarten teachers, but all indicate that these competences are the basis for teachers to be competent in early childhood education and to promote the holistic development of young children. These studies not only emphasize the holistic role of teachers in early childhood education, but also point out specific competence requirements and quality standards, such as understanding child development, focusing on curriculum design, managing the classroom effectively, establishing connections with parents, and self-reflection and professional competence for development. The delineation dimensions are basically the same as those for the professional competence of urban kindergarten teachers. However, the requirements are more demanding in urban areas than in rural areas, and rural areas are sufficiently adapted or qualified.

Through the theoretical conceptualization and study of the synthesis of the components of professional competence of rural kindergarten teachers, the researcher saw the existence of components with the same and consistent direction of significance, judging from the views and findings of the above mentioned scholars and institutions. Therefore, the names of the included indicators were designated. The meanings are the same or similar, but cover all the above concepts as sub-elements. The components of professional competence of rural kindergarten teachers are as follows:

Table 1 components of professional competencies of rural kindergarten teachers

Morrison (1988)	<ol style="list-style-type: none"> 1) understanding early childhood education 2) understanding knowledge of children's early developmental growth 3) focusing on curriculum design 4) creating a developmentally appropriate environment for children 5) making sound choices in educational methodology 6) appropriately applying child management skills 7) establishing constructive connections with children's families
Kang Jianqin (2007)	<ol style="list-style-type: none"> 1) observe and understand young children competence 2) utilize the environment for education competence 3) educate in the context of the day competence 4) provide integrated education competence 5) integrate Educational resources competence 6) professional development competence
Ye Li (2008)	<ol style="list-style-type: none"> 1) teaching competence 2) evaluate young children competence 3) develop teaching resources competence 4) cooperate with parents competence 5) communicate with young children competence 6) evaluate teaching competence 7) self-development competence 8) reflect on teaching competence 9) collaborate with colleagues competence 10) maintain routines competence

Table 1 (continued)

Hu Caiyun (2010)	<ol style="list-style-type: none"> 1) create an educational environment competence (physical environment, psychological environment) 2) organize the day-to-day life of young children competence (arranging the day's activities, organizing teaching and living activities) 3) cooperate competence (with colleagues and parents) 4) evaluate and reflect competence (evaluating young children, self-evaluation and reflection)
Peng Bing (2011)	<ol style="list-style-type: none"> 1) creating an educational environment 2) designing and implementing educational activity exhibitions 3) skills in working with parents 4) conducting educational evaluations 5) carrying out individual education 6) conducting in-depth educational research
Liu Liqiong (2011)	<ol style="list-style-type: none"> 1) teaching 2) childcare 3) assessment 4) classroom management 5) administration 6) communication 7) emotional management 8) professional development
Australian Ministry of Education (2011)	<ol style="list-style-type: none"> 1) being able to plan and implement effective teaching and learning 2) creating and maintaining a safe and supportive learning environments 3) assess feedback and report on student learning 4) contribute to the educational community

Table 1 (continued)

UK Ministry of Education (2012)	<ol style="list-style-type: none"> 1) planning 2) teaching 3) evaluation monitoring and feedback 4) reflecting on teaching and learning 5) learning environments 6) teamwork
China Ministry of Education (2012)	<ol style="list-style-type: none"> 1) environment creation and utilization competence 2) daily life organization and conservation competence 3) game activity support and guidance competence 4) educational activity design and implementation competence 5) incentive and evaluation competence 6) communication and cooperation competence 7) reflection and development competence
Liu Qiyao (2013)	<ol style="list-style-type: none"> 1) early childhood care 2) kindergarten environment creation 3) early childhood play design and organization 4) early childhood teachers' verbal communication 5) early childhood behavioral observation and recording and diagnosis 6) early childhood teachers' cooperative learning and other skills
Zhao Fangfang, Zhang Guirong (2014)	<ol style="list-style-type: none"> 1) language-based skills of kindergarten teachers, 2) artistic skills, and 3) teaching skills

Table 1 (continued)

Gao Qian (2015)	<ol style="list-style-type: none"> 1) understanding young children and communicating with young children 2) communicate competence 3) create the environment competence 4) design and organize the activities competence 5) the use of resources 6) teaching strategies 7) the basic professional competence (playing the piano, singing, painting, dancing, etc.) 8) conduct educational research competence 9) reflect on education competence
Song Sheng (2015)	<ol style="list-style-type: none"> 1) observe and understand young children competence 2) classroom management 3) create and utilize environments competence 4) educational and teaching competence 5) the competence to carry out parental work 6) textbook research competence 7) general knowledge 8) skill literacy
Zhou Yongbo (2015)	<ol style="list-style-type: none"> 1) observation and understanding of young children 2) environment creation and utilization competence 3) daily life organization and conservation competence 4) game activity support and guidance competence 5) educational activity design and implementation competence 6) incentive and evaluation competence 7) communication and cooperation competence 8) reflection and development competence

Table 1 (continued)

Yang Jing, Yu Wei (2015)	<ol style="list-style-type: none"> 1) with the regular teaching 2) play competence 3) mastery of the psychological characteristics of children aged 3-6 years old 4) information technology application competence
Yang Ruiyuan (2015)	<ol style="list-style-type: none"> 1) teaching personality and professional development 2) understanding learners 3) curriculum management 4) interpersonal relationships and communication 5) information literacy 6) classroom management
Wang Haiying (2016)	<ol style="list-style-type: none"> 1) communication skills 2) organize the day competence 3) self-development 4) support play activities competence
Liu Sibao (2017)	<ol style="list-style-type: none"> 1) cultural competence 2) knowledge and application of ethical principles 3) communication skills 4) mastery of relevant theories and research 5) skills in identifying and utilizing professional resources 6) investigative skills and knowledge of research methodologies 7) collaborative skills 8) teaching and mentoring, advocacy skills 9) leadership competence

Table 1 (continued)

Yang Da (2017)	1) teaching 2) evaluating young children 3) self-development 4) communicating with parents 5) cooperating 6) evaluating instruction 7) developing instructional resources 8) reflecting on instruction 9) maintaining routine events 10) Communication 11) maintaining routine events
Zheng Xiaoyan (2018)	teaching organization language presentation teaching reflection conducting teaching research
Feng Dahong (2019)	1) environment creation and utilization competence 2) daily life organization and conservation competence 3) game activity support and guidance competence 4) educational activity design and implementation competence 5) incentive and evaluation competence 6) communication and cooperation competence 7) reflection and development competence
Sun Guanfeng (2019)	1) environment creation and utilization competence 2) daily life organization and conservation competence 3) game activity support and guidance competence 4) educational activity design and implementation competence 5) incentive and evaluation competence 6) communication and cooperation competence 7) reflection and development competence

Table 1 (continued)

Chen Haiyan (2019)	<ol style="list-style-type: none"> 1) plan and implement the curriculum competence 2) carry out one-day activities competence 3) set up a good educational environment competence 4) carry out and guide play activities competence 5) evaluate and encourage young children competence 6) play, sing, draw, and dance competence 7) communication and expression competence 8) reflection and development competence 9) active learning competence 10) information technology operation competence 11) innovation competence are indispensable competences
Zhu Ling, Huang Zixing (2021)	<ol style="list-style-type: none"> 1) environment creation and utilization competence 2) daily life organization and conservation competence 3) game activity support and guidance competence 4) educational activity design and implementation competence 5) incentive and evaluation competence 6) communication and cooperation competence 7) reflection and development competence
Ao Simeng (2023)	<ol style="list-style-type: none"> 1) environment creation and utilization competence 2) daily life organization and conservation competence 3) game activity support and guidance competence 4) educational activity design and implementation competence 5) incentive and evaluation competence 6) communication and cooperation competence 7) reflection and development competence 8) scientific research competence

Table 1 (continued)

Synthesis effect	<ol style="list-style-type: none"> 1) environment creation and utilization competence 2) daily life organization and conservation competence 3) game activity support and guidance competence 4) educational activity design and implementation competence 5) incentive and evaluation competence 6) communication and cooperation competence 7) reflection and development competence 8) observing and understanding kindergartens competence 9) educational research competence 10) information technology application competence
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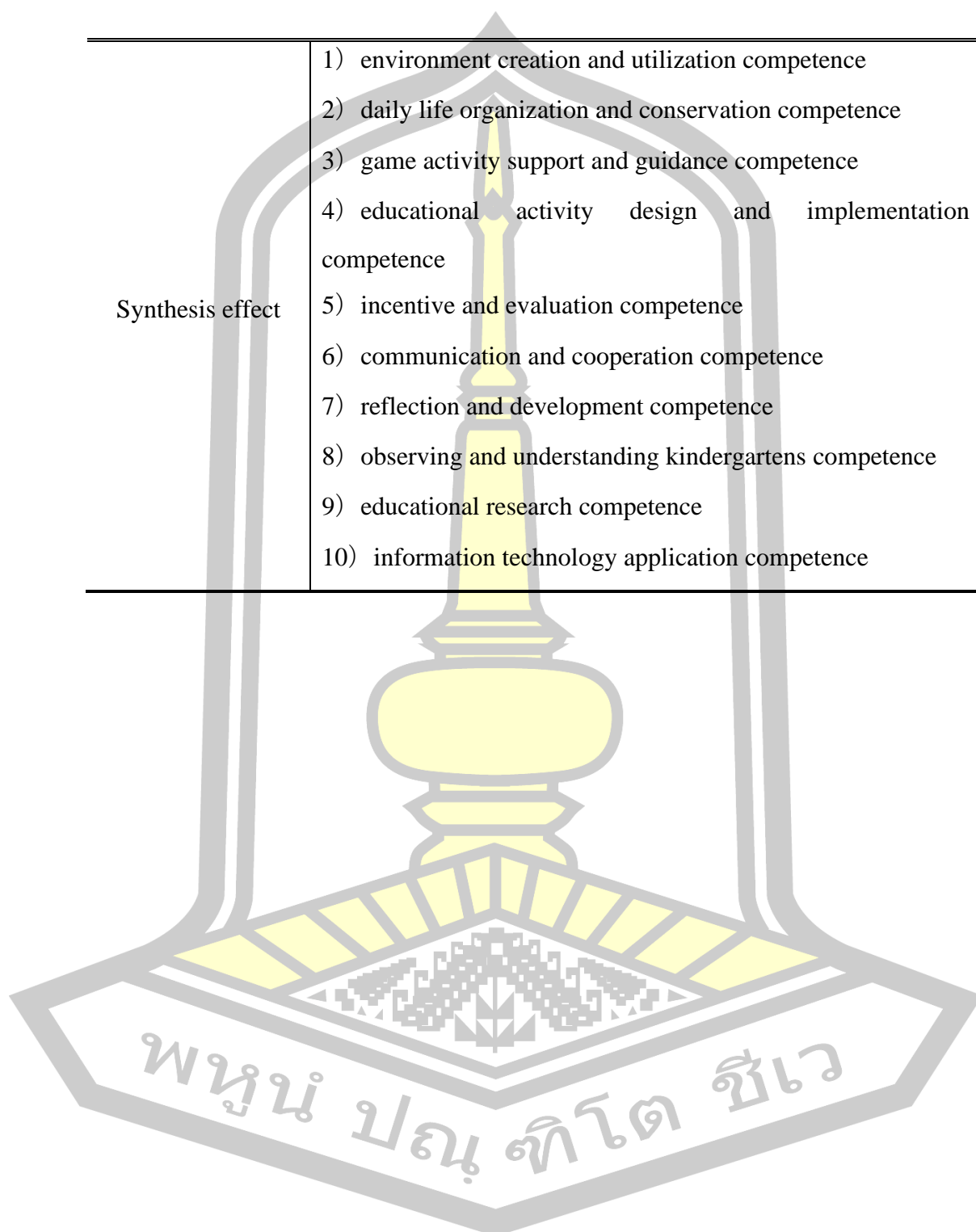


Table 2 Component analysis of professional competence of rural kindergarten teachers

Scholar	Component	88	92	72	80	84
		22	23	18	20	21
	Environment creation and utilization competence	>	>	>	>	>
	Daily life organization and conservation competence	>	>	>	>	>
	Game activity support and guidance competence	>	>	>	>	>
	Educational activity design and implementation competence	>	>	>	>	>
	Incentive and evaluation competence	>	>	>	>	>
		22	23	18	20	21
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In the analysis of the components of professional competence of kindergarten teachers obtained by various scholars and educators in Table 2, the researcher used the high-frequency consideration criterion (50% or more) to determine the components of professional competence of rural kindergarten teachers. There are seven components of rural kindergarten teachers' professional competence used in this study, which are 1) environment creation and utilization competence, 2) daily life organization and conservation competence, 3) game activity support and guidance competence, 4) educational activity design and implementation competence, 5) incentive and evaluation competence, 6) communication and cooperation competence, 7) reflection and development competence. Detailed information of each component is listed below:

Component 1: Environment creation and utilization competence

Zhang Gan and Cao Chunping (2003) mentioned that kindergarten teachers should change the traditional one-sided concept of environment creation, fully understand the meaning of kindergarten environment and environment creation, and fully realize that we should not only create a good environment in the kindergarten (including the material environment with intuition, vividness and image and the spiritual environment that embodies the subjective status of young children), but also create a good environment related to the kindergarten (e.g., family, society and nature, etc.), and only by integrating the two organically can we truly highlight the educational value of the created environment and thus promote the healthy development of young children. and nature, etc.), only through the organic integration of the two can the educational value of the created environment be truly manifested, thus promoting the healthy development of young children.

Scholar Liu Zhanlan (2012) mentions that the scope of environmental creation and utilization competence mainly refers to the classroom environment where kindergarten teachers work, and the competence requirements are also put forward in terms of creating a good spiritual and physical environment, which mainly includes four basic elements: first, the ability to establish a good relationship between teachers and children, and the ability to help young children to establish a good relationship with their peers, so that young children can feel warmth and pleasure; second, the ability to establish classroom order and rules, and to create a good environment for young children; second, the ability to establish classroom order and rules, and to create a good

environment for young children; second, the ability to establish classroom order and rules, and to create a good environment for young children. establish classroom order and rules, create a good classroom atmosphere, and make young children feel safe and comfortable; third, it is able to create educational environments that help promote young children's growth, learning, and play; and fourth, it is able to make rational use of resources, provide and make suitable play and learning materials for young children, and trigger and support young children's active activities.

Zhang Huan (2013) mentioned that through the summary, it was found that the main concerns of the researchers when discussing the physical environment were reading materials, equipment environment, lighting environment, hygiene environment, sound-controlled environment, etc.; and the creation of the psychological environment included the creation of interpersonal environment, reading instruction, and the form of reading organization.

Lin Jing (2016) mentioned that the competence of environment creation and utilization is divided into the competence of mental environment creation and the competence of physical environment creation and utilization.

Scholar Lu Chang'e (2017) mentioned, environment creation competence it is divided into two aspects of physical environment creation and psychological environment creation, in which physical environment creation includes the ability of early childhood teachers to utilize indoor and outdoor space, activity materials put, and psychological environment creation includes the ability to create a caring, supportive, and respectful environment for young children, and the ability to carry out effective interactions between teachers and children to show activities.

Zhang Wen (2018) mentioned that the competence of environment creation and utilization is divided into 2 indicators, which are: mental environment and physical environment.

Li Ya (2019) mentioned that young children's learning of knowledge is an active process, so it is necessary for early childhood teachers to have the competence of creating and utilizing the environment, in order to create a warm and comfortable learning environment for young children's learning. She divided the competence of creating and utilizing the teaching environment into two parts: the spiritual teaching environment and the physical teaching environment.

Bao Ruoyu (2019) mentioned that the competence of environment creation and utilization is divided into five indicators, which are as follows: establishing a harmonious teacher- child relationship; promoting the establishment of peer relationships among young children; creating a good atmosphere by sharing rules; and providing appropriate play materials.

Li Xiaoli (2020) mentioned that the competence of environment creation and utilization is divided into four indicators, which are: rational use of resources; creating a comfortable and safe classroom atmosphere; creating a good educational environment; and establishing good teacher-child and peer relationships.

Yan Yaling (2021) mentioned that environment is an important educational resource, but the healthy and happy growth of young children needs to create a good spiritual good environment in addition to the physical environment. Therefore, she attributed both competences, physical environment creation and spiritual environment creation, to the competence of creating the teaching environment.

Ao Simeng (2023) mentioned that the competence of environment creation and utilization is divided into 2 indicators, which are: spiritual environment and physical environment..

In summary, environment creation and utilization competence requires teachers to consider and apply a combination of aspects, including the creation of the physical and psychological environment, the rational use of resources, and the continuous optimization of the environment to support the holistic development of young children.

Through the theoretical concepts and studies on the synthesis of competence in the creation and utilization of the environment, the researcher saw the existence of components with the same and consistent direction meaning from the views and findings of the scholars and institutions mentioned above. Therefore, the names of the included indicators are designated. The meanings are the same or similar, but cover all the concepts mentioned above as sub-elements. The indicators of environment creation and utilization competence are as follows:

Table 3 Synthesis of indicators of environment creation and utilization competence

Zhang Gan, Cao Chunping (2003)	Internal environment creation	External environment creation		
Liu Zhanlan (2012)	Spiritual environment creation	Physical environment creation		
Zhang Huan (2013)	psychological environment	physical environment		
Lin Jing (2016)	Spiritual environment creation	Physical environment creation and utilization		
Lu Chang'e (2017)	Psychological environment creation	Physical environment creation		
Zhang Wen (2018)	Spiritual environment	Physical environment		
Li ya (2019)	Spiritual environment	Physical environment		
Bao Ruoyu (2019)	Common rules to create a favorable atmosphere	Building harmonious teacher-child relationships and promoting peer relationships among young children		Provide appropriate play materials

Table 3 (continued)

Li Xiaoli (2020)	Create a comfortable and safe classroom atmosphere	Creating a favorable educational environment	Build good teacher-child and peer relationships.	Rational use of resources
Yan Yaling (2021)	Spiritual environment	Physical environment		
Ao Simeng (2023)	Spiritual environment	Physical environment		
Synthesis effect	Spiritual environment creation	Physical environment creation	Build good teacher-child and peer relationships	Rational use of resources

Table 4 Indicator analysis of environment creation and utilization competence

Component	Scholar											Frequency	Percentage (%)
	Zhang Gan, Cao Chunping	Liu Zhanlan (2012)	Zhang Huan (2013)	Lin Jing (2016)	Lu Chang'e (2017)	Zhang Wen (2018)	Li ya (2019)	Bao Ruoyu (2019)	Li Xiaoli (2020)	Yan Yaling (2021)	Ao Simeng (2023)		
Spiritual environment creation	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	11	100
Physical environment creation	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	10	91
Build good teacher-child and peer relationships								✓	✓			2	18
Rational use of resources								✓	✓			2	18

From Table 4, the results of the analysis of the indicators that make up environment creation and utilization competence presented above are obtained. The researcher used the high frequency consideration criterion (50% or more) to define the indicators. There are 2 indicators of environment creation and utilization competence as follows: 1) creation of the spiritual environment and 2) creation of the physical environment.

Component 2: Daily life organization and conservation competence

Scholar Liu Zhanlan (2012) mentioned that kindergarten teachers, when organizing children's one-day life and implementing care for young children, should take meeting the needs of young children's physical and mental health development as the core goal; establish scientific and reasonable routines and work and rest time, combining education and protection; keep a certain stability and relative flexibility in the schedule; alternate movement and static in arranging and organizing the activities; transition from each link to the other in a natural, orderly, and safe manner, and reduce the amount of Waiting; but also conducive to the development of good habits in young children, specifically in the following areas: First, we must attach great importance to the health and safety of young children. Secondly, a scientific and reasonable living system should be established. Thirdly, we should pay attention to the details of life and seize the opportunity of education. Fourthly, the mutual cooperation and coordination of the teaching staff.

Wei Yuanyuan (2015) mentioned that early childhood teachers do not do whatever they want to do and however they want to do it in the one-day life of young children, they should reasonably arrange the content of the one-day life and organize it scientifically, and they should also pay attention to the care of young children. When formulating activities, they should consider the age characteristics of young children, based on the law of physical and mental development of young children, and reasonably designed according to the hardware facilities of kindergartens.

Lin Jing (2016) mentioned that the daily life organization and conservation competence of kindergarten teachers is divided into three aspects, which are: the competence of day-life activities, the competence of cultivating the basic habits of young children, and the competence of providing safe care for young children.

Zhang Wen (2018) mentioned that daily life organization and conservation competence is divided into four indicators, which are: establishing a scientific and reasonable life system; combining preservation and teaching; educational resourcefulness; and maintaining the safety of young children.

Li Ya (2019) mentioned that for kindergarten teachers, the combination of care and teaching, i. e. the combination of care and teaching, is now extremely important. Kindergarten teachers need to have the competence to take care of young children's day-to-day life in a scientific and rational way; the competence to integrate education into life and educate young children at any time during the care process; and the competence to ensure young children's safety.

Bao Ruoyu (2019) mentioned that daily life organization and conservation competence is divided into four indicators, specifically: the organization of one-day activities; random education; guiding and assisting in care work; and correctly handling accidents.

Li Xiaoli (2020) mentioned that daily life organization and conservation competence is divided into 4 indicators, which are: rational arrangement and organization of one-day life; scientific care; grasping random education in one-day activities; and effective protection of young children.

Yan Yaling (2021) mentioned that daily life organization and conservation competence is mainly composed of the following two parts: 1) the competence of early childhood teachers in guiding children to develop good living and learning habits and organizing children's orderly life in the school, and 2) the competence of early childhood teachers in dealing with the unexpected situations of children in the school in a scientific, calm, timely and effective manner.

Ao Simeng (2023) mentioned that daily life organization and conservation competence is divided into three indicators, which are: the arrangement and care of young children's life, random education and education penetration, and the safety and protection of young children.

In summary, rural kindergarten teachers need to consider a number of aspects in organizing children's day-to-day life and implementing childcare, including scientific and reasonable work and rest arrangements, attention to children's health and safety, and coordination and cooperation between caregivers and teachers. Teachers

should have the ability to organize activities flexibly, communicate well, and respond to emergencies, as well as focus on cultivating children's self-care skills and good habits to support children's holistic development.

Through the theoretical concepts and studies on the synthesis of daily life organization and conservation competence, from the viewpoints and findings of the scholars and institutions mentioned above, the researcher sees the existence of components that have the same and consistent directional significance. Therefore, the names of the included indicators are designated. The meanings are the same or similar, but cover all the concepts mentioned above as sub-elements. The indicators of daily life organization and conservation competence are as follows:

Table 5 Synthesis of indicators of the daily life organization and conservation competence

Liu Zhanlan (2012)	Health and safety of young children	Scientific and rational living system	Pay attention to the details of life and seize educational opportunities	Interaction and coordination of childcare staff
Wei Yuan Yuan (2015)	Rational design based on kindergarten hardware	Rationalizing the content of the day and organizing it scientifically		Childcare for young children
Zhang Wen (2018)	Keeping young children safe	Establishment of a scientific and rational living system	Educational resourcefulness	Combine preservation and education
Liya (2019)	Capacity to keep young children safe	Ability to take care of children's day-to-day life in a	Ability to educate young children at all times	Combine preservation and education

Table 5 (continued)

Bao Ruoyu (2019)	Proper handling of accidents	Organization of the day's activities	Randomized education	Guidance to assist with childcare
Li Xiaoli (2020)	Effective protection of young children	Rationalization and organization of the day scientific and rational manner	Grasping random education in the day's activities	Scientific conservation
Yan Yaling (2021)	The ability of early childhood teachers to deal with emergencies facing young children at school in a scientific, calm, timely and effective manner	Ability of kindergarten teachers to guide children to develop good living and learning habits and to organize children's orderly life in the kindergarten		
Ao Simeng (2023)	Security and protection of young children	Organization and care of young children	Randomized education and educational penetration	
Synthesis effect	Keeping young children safe	Rationalization and organization of the day	Randomized education	Combine preservation and education

Table 6 Indicator analysis of the organization of the daily life organization and conservation competence

Component	Scholar									Frequency	Percentage (%)
	Liu Zhanlan (2012)	Wei Yuan Yuan (2015)	Lin Jing (2016)	Zhang Wen (2018)	Liya (2019)	Bao Ruoyu (2019)	Li Xiaoli (2020)	Yan Yaling (2021)	Ao Simeng (2023)		
Keeping young children safe	√	√	√	√	√	√	√	√	√	9	100
Rationalization and organization of the day	√	√	√	√	√	√	√	√	√	9	100
Randomized education	√			√	√	√	√		√	6	67
Combine preservation and education	√	√	√	√	√	√	√			7	78

From Table 6, the results of the analysis of the indicators that make up daily life organization and conservation competence presented above are obtained. The researcher used the high frequency consideration criterion (50% or more) to define the indicators. There are four indicators of daily life organization and conservation competence as follows: 1) Ensuring the safety of children; 2) Rational arrangement and organization of the day's life; 3) Random education; and 4) Integration of preservation and education.

Component 3: Game activity support and guidance competence

Maragucci (1995) the creator of the Reggio model of education, mentioned that the role of the early childhood teacher is defined in terms of synthesis, multiple perspectives, and timely change, believing that the teacher needs to listen to young children's voices, put themselves in the position of young children's play situation and psychological state, accept young children's learning in the spirit of play, support young children in their play, create the environment needed for young children's play, prepare the play materials, actively interact with young children to help them grasp the opportunities for continuous development, carefully reflect on their play, and provide

guidance and support when the time is right. They create the environment and prepare the materials for children to play, actively interact with children to help them grasp the opportunities for continuous development, carefully observe and think about children's play, and provide guidance and support when the time is right.

Scholar Liu Zhanlan (2012) mentioned that teachers' competence in supporting and guiding young children's creative play includes four basic requirements: first, they can provide play conditions that meet young children's interests, needs, age characteristics, and developmental goals; second, they can make full use of and reasonably design the space for play activities, and provide rich and appropriate play materials to support, trigger, and promote young children's play; third, they can encourage young children to independently choose the content, partners, and materials for their play, and support young children's play; and third, they can encourage young children to independently choose the content, partners, and materials for their play, and support young children's play. Thirdly, it can encourage children to choose the content, partners and materials of the game independently, support children to take the initiative and creativity to carry out the game, and fully experience the joy and fulfillment of the game; fourthly, it can guide children to obtain the development of body, cognition, language and social and other aspects in the game activities.

Zhang Tianjun (2014) mentioned that the ways for early childhood teachers to improve their play guidance skills include: understanding kindergarten play and theoretical knowledge; grasping the key aspects of guiding young children's play; creating appropriate play environments and conditions; observing carefully and intervening appropriately in young children's play; and improving play organization competence through teaching and research.

Lin Jing (2016) mentioned that game activity support and guidance competence is divided into two aspects, the competence of early childhood teachers in providing play materials and the competence of guiding play.

Scholar Lu Chang'e (2017) mentioned that game competence, game as the basic activity of kindergarten education, it is the competence performance activities related to game design, organization and guidance.

Zhang Wen (2018) mentioned that game activity support and guidance competence is divided into 2 indicators, which are: play activity support, and play activity guidance.

Li Ya (2019) mentioned that early childhood teachers should then hold the competence of providing play conditions for children to engage in play activities, guiding children's play and directing children's play. She divided the competence of play activity support and guidance into the competence of providing play conditions for young children and guiding young children's play activities.

C mentioned that game activity support and guidance competence is divided into three indicators, specifically: using environmental materials to trigger young children's play; encouraging young children to play independently; and utilizing the educational value of play.

Li Xiaoli (2020) mentioned that game activity support and guidance competence is divided into 4 indicators, which are: experiencing the joy and fulfillment of play; guiding young children's physical and mental development; providing sufficient and interesting play materials; and providing appropriate play conditions.

Yan Yaling (2021) mentioned that game activity support and guidance competence consists of two parts, one is the competence of providing the place and atmosphere for conducting play activities; the other is the competence of using pedagogical and psychological knowledge to guide young children to conduct play. That is, the competence to provide the conditions for play and the competence to guide play activities.

Ao Simeng (2023) mentioned that game activity support and guidance competence is divided into 2 indicators, which are: the competence to support young children's play, and the competence to guide young children's play.

In summary, rural kindergarten teachers' competence in supporting and guiding young children's creative play requires comprehensive consideration in a number of areas, including designing and organizing appropriate play activities, providing rich play materials and environments, encouraging young children's independent choices and cooperation, and adapting play strategies in response to children's feedback and needs. These competences help to promote the holistic

development of young children in play, including physical, cognitive, language and social skills.

Through the theoretical conceptualization and research on the synthesis of game activity support and guidance competence, from the perspectives and findings of the above mentioned scholars and institutions, the researcher sees the existence of components that have the same and consistent directional significance. Therefore, the names of the included indicators were designated. Meanings are the same or similar, but cover all the concepts mentioned above as sub-elements. The indicators of game activity support and guidance competence are as follows:

Table 7 Synthesis of indicators of game activity support and guidance competence

Liu Zhanlan (2012)	Provide conditions for play that meet the interests, needs, age and developmental goals of young children.	Be able to make full use of and reasonably design the space for play activities and provide rich and appropriate play materials.	Encourage children to choose their own play content, partners and materials.	Guiding children's physical, cognitive, linguistic and social development through play activities
Zhang Tianjun (2014)		Creating appropriate play environments and conditions	Observe carefully and intervene appropriately in children's play	Capturing the key aspects of guided play for young children
Lin Jing (2016)		Play Materials Provided		Game instruction

Table 7 (continued)

Lu Chang'e (2017)	Game design			Game organization and instruction
Zhang Wen (2018)	Game Event Support			Game activity guide
Li Ya (2019)	Providing conditions for young children to play			Guided play activities for young children
Lu Chang'e (2017)		Utilizing environmental materials to stimulate young children's play	Encouraging independent play in young children	Utilizing the educational value of games
Li Xiaoli (2020)	Provide appropriate conditions for play	Provide adequate and interesting play materials;	Experience the joy and satisfaction of playing	Guiding the physical and mental development of young children
Yan Yaling (2021)	Playing conditions			Guided play activities
Ao Simeng (2023)	Supporting young children's play			Guided Play
Synthesis effect	Game Event Support	Play environment and materials	Encouraging independent play in young children	Game activity guide

Table 8 Indicator analysis of game activity support and guidance competence

Component \ Scholar	Malagucci (1995)	Liu Zhanlan (2012)	Zhang Tianjun	Lin Jing (2016)	Lu Chang'e (2017)	Zhang Wen (2018)	Li Ya (2019)	Lu Chang'e (2017)	Li Xiaoli (2020)	Yan Yaling (2021)	Ao Simeng (2023)	Frequency	Percentage (%)
Game Event Support	√	√			√	√	√		√	√	√	8	73
Play environment and materials	√	√	√	√				√	√			6	55
Encouraging independent play in young children	√	√	√					√	√			5	46
Game activity guides	√	√	√	√	√	√	√	√	√	√	√	11	100

From Table 8, the results of the analysis of the indicators constituting game activity support and guidance competence presented above were obtained. The researcher used the high frequency consideration criterion (50% or more) to define the indicators. There are three indicators of game activity support and guidance competence as follows: 1) support for play activities, 2) play environment and materials, and 3) guidance for play activities.

Component 4: Educational activity design and implementation competence

Scholar Liu Zhanlan (2012) mentioned that educational activity design and implementation competence puts forward specific requirements for kindergarten teachers in four aspects: first, the ability to formulate stage-by-stage plans for educational activities and specific activity programs; second, the ability to observe young children in the educational activities, adjust the activities according to the children's performances and needs, and give appropriate guidance; third, the ability to embody the basic principles of interest, comprehensiveness and living in the design and implementation of educational activities; fourth, the ability to provide more

opportunities for operation and exploration, communication and cooperation, expression and performance to support and promote the active learning of young children. basic principles of living, and can flexibly use various organizational forms and adopt appropriate educational methods; fourth, can provide more opportunities for operation and exploration, communication and cooperation, and expression and performance, and support and promote young children's active learning.

Lin Jing (2016) mentioned that educational activity design and implementation competence of early childhood teachers is divided into two aspects: the competence of planning educational activities and the competence of implementing educational activities.

Scholar Lu Chang'e (2017) mentioned that educational activity design and implementation competence refers to the competence of kindergarten teachers in designing, organizing, and evaluating educational activities in the "five fields" of kindergarten.

Zhang Wen (2018) mentioned that educational activity design and implementation competence is summarized as: the planning of activities, the objectives and contents of activities, the process and methods of activities, the teaching quality of teachers, and the effect of activities.

Li Ya (2019) mentioned that educational activity design and implementation competence of early childhood teachers can be mainly summarized into two aspects: the competence of planning educational activities and the competence of implementing educational activities.

Bao Ruoyu (2019) mentioned that educational activity design and implementation competence of early childhood teachers is divided into four indicators, which are: formulating appropriate educational activity programs, adjusting activity programs to the needs of young children, designing and implementing activities that are interesting, comprehensive, living and diversified, and guiding young children to learn actively.

Li Xiaoli (2020) mentioned that educational activity design and implementation competence is divided into 4 indicators, which are: the activity plan is adapted to the children in the class; the activity plan promotes the development of

emotional attitudes; the implementation of the activity provides opportunities for active exploration and communication; and the content of the activity is living and interesting.

Yan Yaling (2021) mentioned that before carrying out educational activities teachers write out their lesson plans according to the three-dimensional objectives, which is the competence of planning teaching activities. Planning well in advance is the only way to organize the teaching activities in an orderly manner, and the competence of implementing the teaching activities is reflected in the ability of the teachers to organize various activities such as one-day activities and outdoor activities in a complete and smooth manner. She divided the planning and implementation competence of educational activities into the planning competence of educational activities and the implementation competence of educational activities.

Ao Simeng (2023) mentioned that educational activity design and implementation competence is divided into four indicators, which are: competence in designing educational activities; competence in teaching according to the needs of the individual; competence in applying appropriate educational organization methods; and competence in guiding young children to learn actively.

In summary, educational activity design and implementation competence requires teachers to make comprehensive considerations in a number of areas, including the formulation of activity plans that meet the developmental needs of young children, the flexible adjustment and optimization of activity content, the provision of interesting and diverse educational environments, and the effective organization and evaluation of educational activities. These competences help support and promote active learning and holistic development of young children.

Through the theoretical conceptualization and study of the synthesis of educational activity design and implementation competence, the researcher saw the existence of components with the same and consistent direction meaning from the views and findings of the above mentioned scholars and institutions. Therefore, the names of the included indicators were designated. The meanings are the same or similar, but cover all the above concepts as sub-elements. The indicators of educational activity design and implementation competence are as follows:

Table 9 Synthesis of indicators of educational activity design and implementation competence

Liu Zhanlan (2012)	Developing a phased plan of educational activities and a specific program of activities	Observe children during educational activities, adjust activities according to children's performance and needs, and give appropriate guidance	Flexibility in the use of various forms of organization and the adoption of appropriate educational methods	Provide more opportunities for operation and exploration, communication and cooperation, expression and performance to support and promote children's active learning
Lin Jing (2016)	Educational Activities Program		Implementation of educational activities	
Lu Chang'e (2017)	Devise		Organization	
Zhang Wen (2018)	Planning of activities	Objectives and content of activities	Process and methodology of activities	Teachers' pedagogical qualities
Li Ya (2019)	Educational Activities Program		Implementation of educational activities	
Bao Ruoyu (2019)	Develop a program of appropriate educational activities	Adaptation of activity programs to the needs of young children	Designed and implemented to be fun, integrated, life-like and diverse	Guiding young children to active learning

Table 9 (continued)

Li Xiaoli (2020)	The activity program is adapted to the children in the class	Activity programs promote emotional attitude development	Activities are life-like and fun	Activity implementation provides opportunities for active exploration and communication
Yan Yaling (2021)	Programs of educational activities		Implementation of educational activities	
Ao Simeng (2023)	Design of educational activities	(idiom) Teach in line with the student's ability	Use of PEO methods	Guiding young children to active learning
Synthesis effect	Design of educational activities	(idiom) Teach in line with the student's ability	Implementation of educational activities	Guiding young children to active learning

Table 10 Indicators analysis of educational activity design and implementation competences

Component	Scholar									Frequency	Percentage (%)
	Liu Zhanlan (2012)	Lin Jing (2016)	Lu Chang'e (2017)	Zhang Wen (2018)	Li Ya (2019)	Bao Ruoyu (2019)	Li Xiaoli (2020)	Yan Yaling (2021)	Ao Simeng (2023)		
Design of educational activities	√	√	√	√	√	√	√	√	√	9	100
(idiom) Teach in line with the student's ability	√			√	√	√	√		√	6	67
Implementation of educational activities	√	√	√	√	√	√	√	√	√	9	100
Guiding young children to active learning	√			√		√	√		√	5	56

From Table 10, the results of the analysis of the indicators that make up educational activity design and implementation competence presented above were obtained. The researcher used the high-frequency consideration criterion (50% or more) to define the indicators. There are four indicators of educational activity design and implementation competence as follows: 1) design of educational activities, 2) teaching to the individual, 3) implementation of educational activities, and 4) guiding children to active learning.

Component 5: Incentive and evaluation competence

Xie Guofeng (2011) pointed out that kindergarten teachers' motivational evaluation refers to the process of teachers' purposeful and planned influence on young children's bodies and minds in accordance with certain educational requirements, and its purpose is to shape young children's positive self-consciousness and positive personalities by stimulating young children's motivation to learn and their self-confidence, and thus it is expressed as both an educational concept and an evaluation technique.

Scholar Liu Zhanlan (2012) puts forward three basic requirements for incentive and evaluation competence: first, the ability to pay attention to the daily performance of young children, discover and appreciate the progress of each young child in a timely manner, and pay attention to stimulating and protecting the motivation and self-confidence of the young children; second, the ability to effectively use observation, conversation, home and family contact, analysis of the work of the young children, etc., to objectively and comprehensively understand and evaluate the young children; and third, the ability to effectively use the results of evaluation to guide the next step of educational activities. evaluation results to guide the next step of educational activities.

Lin Jing (2016) mentioned that early childhood teachers with good incentive and evaluation competence can provide timely and appropriate motivation and evaluation of the problems and progress of young children's growth and development, so as to promote the healthy development of young children.

Rehanguly Wusman (2018) pointed out that the teacher's motivational evaluation is a kind of dynamic evaluation, in which the teacher gives the young children motivational language or behavioral guidance, so that the young children can

obtain self-confidence and the experience of success while discovering their own flashpoints, and through this experience to improve the personality of the young children, stimulate the motivation of the young children's learning, enhance the enthusiasm of the young children's learning, and ultimately to promote the young children's active learning.

Zhang Wen (2018) mentioned that incentive and evaluation competence is divided into 2 indicators, which are: motivation, evaluation.

Li Ya (2019) mentioned that incentive and evaluation competence of early childhood teachers specifically includes: the ability to motivate and appreciate the children's performance from time to time and the progress of the dots; the ability to do objective evaluation; and the ability to use the evaluation for the next educational activities.

Bao Ruoyu (2019) mentioned that incentive and evaluation competence of early childhood teachers specifically includes: paying attention to timely praise of young children, comprehensive and objective evaluation of young children, and effective use of evaluation results.

Li Xiaoli (2020) mentioned that incentive and evaluation competence is divided into 3 indicators, which are: discovering the appreciation of daily progress; re-stimulating their interest; and comprehensively understanding and evaluating young children.

Yan Yaling (2021) mentioned that correct behaviors are reinforced when they are praised and incorrect behaviors are corrected when they are criticized. Motivation and evaluation also have a great educational effect, can form an equal and harmonious teacher-child interaction, and can accumulate experience in carrying out the next teaching activities.

Ao Simeng (2023) mentioned that incentive and evaluation competence of early childhood teachers is divided into three indicators, which are: the basic direction of carrying out evaluation work, the basic methods that should be mastered and utilized, and the role and purpose of evaluation.

In summary, incentive and evaluation competence require teachers to take a holistic approach in a number of areas, including effectively designing and implementing motivational measures, conducting comprehensive and fair assessments,

using assessment results to adjust teaching and learning strategies, and collaborating with parents in order to promote young children's development. These competencies help to motivate, self-confidence, and self-improvement in young children, while ensuring that assessments are fair and effective to support children's holistic development.

Through the theoretical conceptualization and study of the synthesis of incentive and evaluation competence, the researcher saw the existence of components with the same and consistent directional significance from the perspectives and findings of the aforementioned scholars and institutions. Therefore, the names of the included indicators are designated. The meanings are the same or similar, but cover all the concepts mentioned above as sub-elements. The indicators of incentive and evaluation competence are as follows:

Table 11 Synthesis of indicators for incentive and evaluation competence

Xie Guofeng (2011)	Motivation and self-confidence in young children	Evaluation techniques	
Liu Zhanlan (2012)	Motivate and protect young children's motivation, self-confidence	Evaluation of young children	Effective use of evaluation results to guide the next step in educational activities
Lin Jing (2016)	Incentives	Estimation	
Rehanguly Wusman (2018)	Giving young children motivational verbal or behavioral guidance	Estimation	
Zhang Wen (2018)	Incentives	Estimation	

Table 11 (continued)

Li Ya (2019)	Motivation and appreciation	Objective evaluation by the Section	Use the evaluation for the next educational activities
Bao Ruoyu (2019)	Pay attention to your child and praise him/her in time	Comprehensive and objective evaluation of young children	Effective use of evaluation results
Li Xiaoli (2020)	Reactivate their interest	Comprehensive understanding and evaluation of young children	Discovering Appreciation for Everyday Progress
Yan Yaling (2021)	Incentives	Estimation	Gaining experience in carrying out the next pedagogical activity
Ao Simeng (2023)	Basic orientation for conducting evaluations	Basic methods to be mastered and applied	Role and purpose of evaluation
Synthesis effect	Motivation and appreciation	Estimation	Utilizing evaluation results

Table 12 Indicators analysis of incentive and evaluation competence

Component	Scholar										Frequency	Percentage (%)
	Xie Guofeng (2011)	Liu Zhanlan (2012)	Lin Jing (2016)	Rehanguly Wusman (2018)	Zhang Wen (2018)	Li Ya (2019)	Bao Ruoyu (2019)	Li Xiaoli (2020)	Yan Yaling (2021)	Ao Simeng (2023)		
Motivation and appreciation	√	√	√	√	√	√	√	√	√	√	10	100
Estimation	√	√	√	√	√	√	√	√	√	√	10	100
Utilizing evaluation results		√				√	√	√	√	√	6	60

From Table 12, the results of the analysis of the indicators that make up incentive and evaluation competence presented above are obtained. The researcher used the high-frequency consideration criterion (50% or more) to define the indicators. There are three indicators of incentive and evaluation competences as follows: 1) motivation and appreciation, 2) evaluation, and 3) use of evaluation results.

Component 6: Communication and cooperation competence

Scholar Liu Zhanlan (2012) mentions that communication and cooperation competence puts forward five basic requirements to kindergarten teachers: first, they can use age-appropriate language for teaching and learning; second, they are good at listening, amiable, and able to communicate effectively with young children; third, they are able to cooperate and communicate with their colleagues and share experiences and resources for common development; fourth, they are able to communicate and cooperate effectively with parents for common promotion of young children's development; and fifth, to be able to assist the kindergarten to establish a good relationship of cooperation and mutual support with the community.

Hardin B J, Bergen D, Hung H F. (2012) The Global Guidelines Evaluation Scale, which was developed by the International Association for the Education of Children to help administrators and teachers in early education settings to judge

whether and to what extent the services provided by the settings meet the standards set out in the Guidelines for the Parenting of Young Children in the 21st Century. The evaluation form consists of 88 items and contains evaluations of communication between teachers and families, opportunities for family involvement, and so on.

Lin Jing (2016) mentioned that communication and cooperation competence of early childhood teachers specifically contains three major aspects: the ability of early childhood teachers to communicate with young children, the ability to communicate and cooperate with parents, and the ability to communicate and cooperate with colleagues.

Scholar Lu Chang'e (2017) mentioned communication and cooperation competence, which is the ability of early childhood teachers to openly share information with others, listen to the opinions and suggestions of others, use appropriate ways of expression, communicate interpersonally, and cooperate with colleagues, parents of young children and the community to form a synergy of education, in which the language expression ability of early childhood teachers is a key ability that affects the effect of communication and cooperation.

Wen Zhang (2018) mentioned that communication and cooperation competence is divided into four indicators, which are: communication with young children, communication and cooperation with colleagues, communication and cooperation with parents, and communication and cooperation with the community.

Li Ya (2019) mentioned that the communication and cooperation competence of early childhood teachers includes several aspects of early childhood teachers' ability to communicate with young children, to communicate and cooperate with colleagues, and to communicate and cooperate with parents and the community.

Bao Ruoyu (2019) mentioned that the communication and cooperation competence of early childhood teachers include: communicating effectively with young children, discussing and sharing with colleagues, co-parenting with parents, and cooperating and helping each other with the community.

Li Xiaoli (2020) mentioned that communication and cooperation competence specifically contains: communicating with the community; communicating with colleagues; communicating with young children; communicating with parents; and communicating in accordance with the age of young children.

Yan Yaling (2021) mentioned that communication and cooperation competence are divided into: the ability to communicate and cooperate with young children, the ability to communicate and cooperate with colleagues, and the ability to communicate and cooperate with parents and the community.

Ao Simeng (2023) mentioned that communication and cooperation competence is divided into four indicators, which are: teachers and young children, teachers and colleagues, teachers and parents, and teachers and community.

In summary, communication and cooperation competence require teachers to take a holistic approach in a number of areas, including effective verbal communication with young children, building good collaborative relationships with colleagues and parents, and utilizing community resources to support the holistic development of young children. These competences help to enhance teacher-child interactions, promote the realization of educational goals and create an effective educational synergy.

Through the theoretical conceptualization and study of the synthesis of communication and cooperation competence, the researcher saw the existence of components with the same and consistent directional meaning from the perspectives and findings of the scholars and institutions mentioned above. Therefore, the names of the included indicators were designated. The meanings are the same or similar, but cover all the above concepts as sub-elements. The indicators of communication and cooperation competence are as follows:

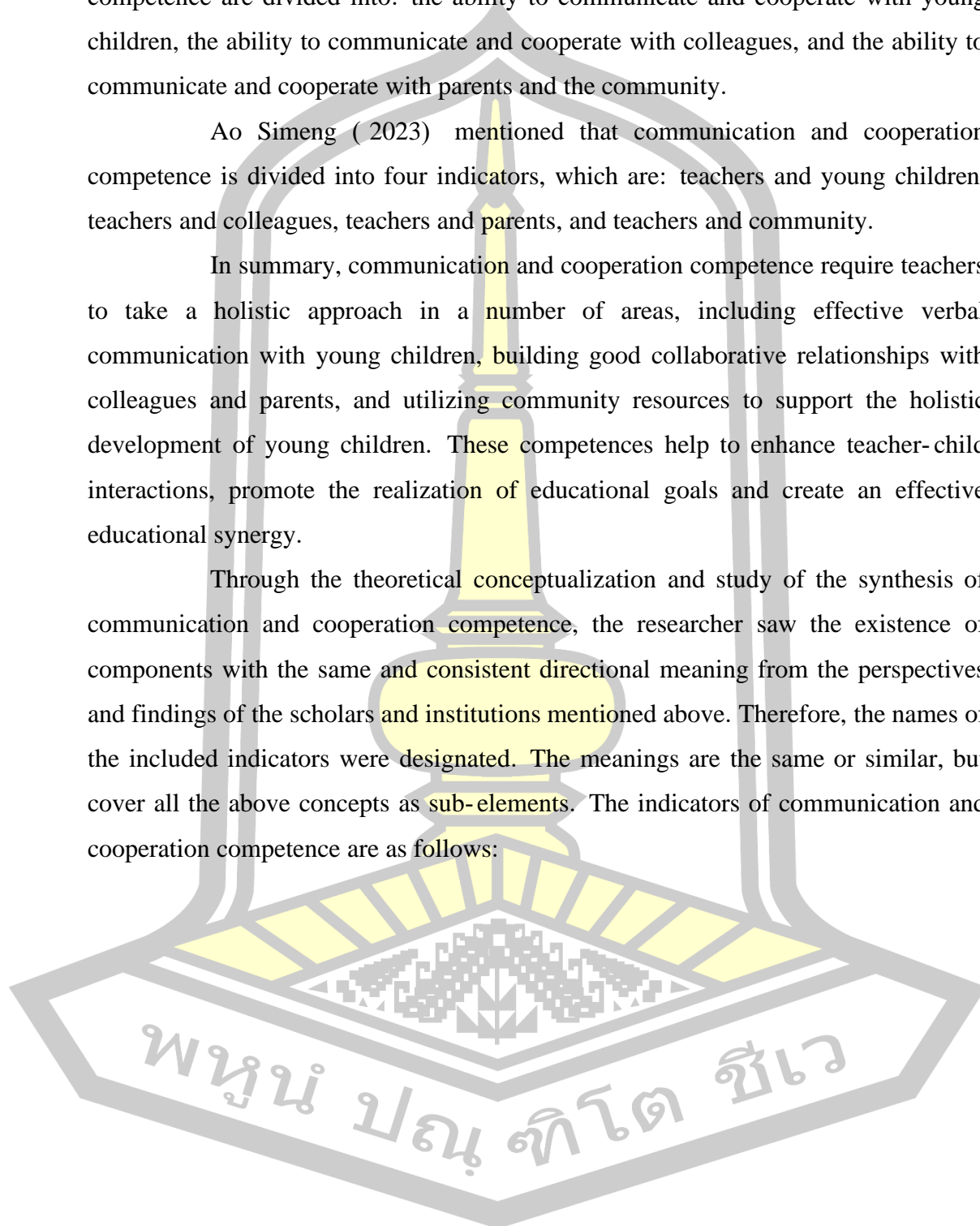


Table 13 Synthesis of indicators of communication and cooperation competence

Liu Zhanlan (2012)	Effective communication with young children	Collaborate and communicate with coworkers	Effective communication and cooperation with parents	Assisting kindergartens in establishing cooperation and mutual assistance with the community
Hardin B J, Bergen D, Hung H F. (2012)			Communication between teachers and families	Family engagement opportunities
Lin Jing (2016)	Communicating with young children	Communicate with coworkers	Communication and cooperation with parents	
Lu Chang'e (2017)	Interpersonal communication	Collaboration with colleagues	Working with parents of young children	Collaboration with the community
Zhang Wen (2018)	Communication with young children	Communication and cooperation with coworkers	Communication and cooperation with parents	Communication and cooperation with the community
Li Ya (2019)	Communicating with young children	Communicate and cooperate with coworkers	Communication and cooperation with parents	Communication and cooperation with the community

Table 13 (continued)

Bao Ruoyu (2019)	Effective communication with young children	Discussion and sharing with colleagues	Parenting with Parents	Working with the community for mutual assistance
Li Xiaoli (2020)	Communicating with young children;	Communicating with coworkers	Communication with parents	Communicating with the community
Yan Yaling (2021)	Communication and cooperation with young children	Communication and cooperation with coworkers	Communication and cooperation with parents	Communication and cooperation with the community
Ao Simeng (2023)	Teachers and young children	Teachers and colleagues	Teachers and parents	Teachers and the community
Synthesis effect	Communication with young children	Communication and cooperation with coworkers	Communication and cooperation with parents	Communication and cooperation with the community

Table 14 Indicators analysis of communication and cooperation competence

Component	Scholar										Frequency	Percentage (%)
	Liu Zhanlan (2012)	Hardin B J, Bergen D, Hung H F. (2012)	Lin Jing (2016)	Lu Chang'e (2017)	Zhang Wen (2018)	Li Ya (2019)	Bao Ruoyu (2019)	Li Xiaoli (2020)	Yan Yaling (2021)	Ao Simeng (2023)		
Communication with young children	√		√	√	√	√	√	√	√	√	9	90
Communication and cooperation with coworkers	√		√	√	√	√	√	√	√	√	9	90
Communication and cooperation with parents	√	√	√	√	√	√	√	√	√	√	10	100
Communication and cooperation with the community	√	√		√	√	√	√	√	√	√	9	90

From Table 14, the results of the analysis of the indicators that make up communication and cooperation competence presented above are obtained. The researcher used the high-frequency consideration criterion (50% or more) to define the indicators. There are four indicators of communication and cooperation competence as follows: 1) communication with young children; 2) communication and cooperation with colleagues; 3) communication and cooperation with parents; and 4) communication and cooperation with the community.

Component 7: Reflection and development competence

Schon (1983) suggests that the concept of "reflection in action" is more closely related to "reflection" and "action". Schon argues that the professional is not only applying scientific theories and ideas to practical situations, but also learning to construct and reconstruct the complex and ambiguous problems he faces, testing various interpretations and thus adjusting his behavior. Schon believes that the professional worker is not only the scientific theory, ideas applied to the actual situation it should also include learning to construct and reconstruct the complexity of the problems he faces, ambiguous to test various interpretations and thus adjust their behavior. Reflection is therefore a process in which thought and action are closely intertwined.

American scholar Valli L. (1997) pointed out that in order to cultivate teachers' ability to reflect, teacher educators must first make clear the two dimensions of reflection: first, the sociological dimension, that is, the content or scope of reflection; second, the psychological dimension, that is, the quality of reflection. By the content of reflection, we mean what teachers consider; while the quality of reflection refers to how teachers think about their teaching, i.e., the thought processes they go through. These two dimensions of reflection can be used to identify and determine what constitutes excellent teaching and can also help teachers determine if they are making informed decisions.

Scholar Liu Zhanlan (2012) mentioned three basic requirements for reflection and development competence: first, the ability to take the initiative to collect and analyze relevant information, and to continuously reflect on and improve the work of teaching and learning; second, the ability to explore and conduct research in response to the real needs and problems of teaching and learning; and third, the ability to formulate a plan for professional development, and to actively participate in professional training to continuously improve their own professional qualities.

Lin Jing (2016) mentioned that reflection and development competence is divided into several aspects: information collection ability, reflection ability, educational research ability, and professional development planning ability.

Zhang Wen (2018) mentioned that reflection and development competence is divided into 3 indicators, which are: reflection, study and research, and professional planning.

Li Ya (2019) mentioned that teachers' self-reflection and self-competence development in the teaching process are a complementary relationship. Teachers learning to self-reflect can contribute to the continuous growth of teachers' professional competence, and the continuous growth of professional competence is also the result of teachers' continuous self-reflection. The study will focus on two aspects of reflection and professional development of early childhood teachers in detail.

Bao Ruoyu (2019) mentioned that reflection and development competence are categorized into: active reflection to improve teaching and learning, generating research questions based on teaching and learning practices, and developing professional development plans.

Li Xiaoli (2020) mentioned that reflection and development competence are specifically: active reflection to improve teaching, generating research questions based on work, and professional development planning.

Yan Yaling (2021) mentioned that reflection and development competence are divided into two parts: reflection competencies and professional development competencies.

Ao Simeng (2023) mentioned that the reflection and development competence is divided into 2 indicators, which are: reflection ability and self-development ability.

In summary, reflection and development competence requires teachers to make comprehensive improvements in a number of areas, including systematic reflection on teaching and learning, formulation of individualized professional development plans, participation in professional development activities, and the use of feedback mechanisms and peer support to continuously optimize teaching practices. These competences help teachers to continuously improve the quality of their teaching and enhance their professionalism, and promote individual and team professional growth.

Through the theoretical conceptualization and study of the synthesis of reflection and development competence, the researcher saw the existence of

components with the same and consistent directional significance from the perspectives and findings of the aforementioned scholars and institutions. Therefore, the names of the included indicators were designated. The meanings are the same or similar, but cover all the concepts mentioned above as sub-elements. The indicators of reflection and development competence are as follows:

Table 15 Synthesis of Indicators for reflection and development competence

D. A. Schon (1983)	Reassessment	Act	
Valli L. (1997).	Content or scope of reflection	Quality of reflection	
Liu Zhanlan (2012)	Ongoing reflection to improve childcare	Conducting explorations and research	Developing a professional development plan
Lin Jing (2016)	Reassessment	Information gathering and scientific research	Professional Development Program
Zhang Wen (2018)	Reassessment	Study and Research	Career planning
Li Ya (2019)	Self-reflection		Professional development
Bao Ruoyu (2019)	Proactive reflection to improve child care	Generate research questions based on preservation practices	Developing a professional development plan
Li Xiaoli (2020)	Proactive reflection to improve teaching and learning	Generating research questions at work	Professional Development Program

Table 15 (continued)

Yan Yaling (2021)	Reassessment		Professional development
Ao Simeng (2023)	Reassessment		Self-development
Synthesis effect	Reassessment	Study and Research	Professional Development Program

Table 16 Indicator analysis of reflection and development competence

Component \ Scholar	D. A. Schon (1983)	Valli L. (1997)	Liu Zhanlan (2012)	Lin Jing (2016)	Zhang Wen (2018)	Li Ya (2019)	Bao Ruoyu (2019)	Li Xiaoli (2020)	Yan Yaling (2021)	Ao Simeng (2023)	Frequency	Percentage (%)
Reassessment	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	10	100
Study and Research	✓	✓	✓	✓	✓		✓	✓			7	70
Professional Development Program			✓	✓	✓	✓	✓	✓	✓	✓	8	80

From Table 16, the results of the analysis of the indicators that make up reflection and development competence presented above were obtained. The researcher used the high-frequency consideration criterion (50% or more) to define the indicators. There are three indicators of the capacity for reflection and development as follows: 1) reflection; 2) learning and research; and 3) professional development planning.

Table 17 Components, definitions and key indicators of professional competence of rural kindergarten teachers

Number	Component	Connotation	Key indicators
1	Environment creation and utilization competence	Rural kindergarten teachers to have competence in establishing good teacher-child relationships, establishing classroom order and rules, creating educational environments that help promote children's growth, learning, and play, and utilizing resources wisely.	1. Creation of a spiritual environment 2. Creation of the physical environment
2	Daily life organization and conservation competence	Rural kindergarten teachers to have competence in organizing the kindergarten day in a scientific and rational manner, giving good care to children, and fully reflecting the integration of care and education.	3. Ensuring the safety of young children 4. Reasonable arrangement and organization of the day 5. Randomized education 6. Integration of preservation and education
3	Game activity support and guidance competence	Rural kindergarten teachers to have competence in play activity support, rationalizing the use and design of space and material preparation for play activities, and guiding children to acquire developmental competence in all aspects of play activities.	7. Game activity support 8. Play environment and materials 9. Game activity guide
4	Educational activity design and implementation competence	Rural kindergarten teachers to have competence in the design of scientific educational activities, the ability to tailor teaching to the needs of the individual, the use of appropriate educational organization, and the ability to guide young children in active learning.	10. Design of educational activities 11. Teach to the person 12. Implementation of educational activities 13. Guiding young children to active learning

Table 17 (continued)

Number	Component	Connotation	Key indicators
5	Incentive and evaluation competence	Rural kindergarten teachers to have competence in focusing on children's daily performance, effectively utilizing a variety of methods to evaluate children, and effectively using the results of evaluations to guide activities.	14. Motivation and appreciation 15. Evaluation 16. Utilizing evaluation results
6	Communication and cooperation competence	Rural kindergarten teachers to have competence in communicating with children, listening well, collaborating with colleagues, communicating with parents, and assisting the preschool in building partnerships with the community.	17. Communication with young children 18. Communication and cooperation with colleagues 19. Communication and cooperation with parents 20. Communication and cooperation with the community
7	Reflection and development competence	Rural kindergarten teachers to have competence in gathering and analyzing relevant information for reflection, exploring issues in educational work for learning and research, and developing professional development plans.	21. Reflection 22. Study and research 23. Professional development planning

2. Professional competence development of rural kindergarten teachers

2.1 Principles for the development of professional competence for rural kindergarten teachers

2.1 Principles of professional development for rural kindergarten teachers

The 70/20/10 Learning Theory was first developed by Morgan, Robert, and Mack, and later formalized in *Constructing Career Development Plans* by Michelle Lombardo and Robert W. Etzinger (2000), which argues that 70% of learning comes from real-life experiences, work experiences, work tasks, and problem solving, which are the most important aspects of any learning and development program, 20% from feedback and working with other role models and observing and learning from that model, and 10% from formal training. Feedback and working with, observing and learning from other role models, and 10% from formal training. The 20/10 rule of learning emphasizes four points: the subject of learning is very important to learning; learning is rooted in authentic practice; feedback is an integral part of learning; and peers are a more important resource for learning.

Lawson (2008) states that 70-20-10 best practice is a theoretical and practical approach to learning in and out of the classroom. With leadership at the center of development, by giving leaders real learning and real action. Based on sound theories and principles and not limiting the time and duration of learning.

Jennings (2011) states that the 70:20:10 training principle emphasizes the importance of learning in the workplace environment as much of an employee's learning is done through experience, practice, dialogue and reflection in the workplace.

Rabin (2013) proposed the 70-20-10 Leadership Development Principles, a concept developed by the Center for Creative Leadership that divides leadership development principles into 10% formal and 90% informal. The informal suggests 70% learning from experience and putting it into practice in the real world, and 20% learning from learning. This is learning that is encouraged and supported by others, such as receiving mentoring from your own boss. The other 10% of formal leadership development takes place in the classroom, distance learning through e-learning or instructor learning.

Huang Hui (2018) pointed out that most of the world's top 500 companies use the "70 20 10" talent development model, such as Microsoft, Google, Apple, Samsung, Dell and other companies use the "70 20 10" talent development model. This model mainly refers to: the workplace is the most real practice field, 70% of the staff ability to enhance the "learning at work", in the work of the test of knowledge and ability, while working, learning, summarizing, summarizing and refining the thinking, extracting lessons learned, it is a very good way of training; 20% from the "learning from others". "Learning from others", 20% of the experience gained through reference to the good practices of others, learning from others, listening to share, learning from experience, standing on the shoulders of giants, in the process of growth in the exchange of 10% from the "formal training", is the first two can not be replaced. The last 10% of self-improvement comes from "formal training", which cannot be replaced by the first two. Participating in formal training, for the long term benefit of yourself and your company, is the last 10% of self-improvement.

Joshi (2018) mentions that an experimental study of the 70:20:10 model shows that career development comes primarily from practice, not just formal education and training. This accounts for 70% of their learning. 20% of their learning comes from interaction with others and observation of task performance in the workplace. Only 10% of what they learn is through participation in formal professional courses and various training programs. The focus of this model is on:

- 1) Hands-on experience, interaction, formal education and training. Hands-on experience is associated with practical skills, stretch assignments, secondments and job exchanges, tasks that provide new experiences, and challenges at work.

- 2) Interaction: in the course of their work, trainees are required to interact with others (coworkers, supervisors, managers, etc.). Trainees can learn from a variety of activities such as social learning, collaborative learning, coaching and mentoring, access to experts, debriefing and assessment.

- 3) Formal Education and Training: It is envisaged that the remaining 10% of learning is the result of participation in formal courses and training programs. This 10% of learning takes place through: formal traditional courses, structured courses,

online courses, training workshops, worker training programs, manager and supervisor training programs.

Yan Zhiyong (2019) believes that the "70 20 10" learning model reveals the process of human competence formation, emphasizes the important role of "practice" in the process of competence formation, which has been repeatedly demonstrated and practiced by scholars and enterprises at home and abroad, and provides a methodology for employee training. This law has been repeatedly demonstrated and practiced by scholars and enterprises at home and abroad, and provides a methodology for employee training, i.e. not only through training courses, but also through diversified and experiential practices to promote the "transformation" of knowledge into competence.

Puwitayaphan,A. (2010) that learning based on the concept of 70:20:10 Learning Model is a form of personnel development. There are additional research studies from various thinkers and scholars. It is considered a concept that has been accepted as effective in creating and developing personnel in the organization. Real learning It is learning through experience from real practice in the workplace. The efficiency of learning takes place in the actual workplace, about 70%, while learning from others is only 20% effective and learning from training/participating in various seminar programs. It has an efficiency of only 10%. The details are as follows.

1. 70 Learning Model is a learning model arising from work experience through seeing or touching the real thing in the real work area. or operations that are actually in the field Makes students quickly gain awareness Effective perception therefore leads to effective learning as well. Because learners will bring events or stories that they have learned to remember and show that behavior. It is like a guideline or bridge (Experience is the bridge) between practice (Practice) and concepts, principles or theories (Concept/Theory) that a person already has or has been added to. It causes awareness or accumulated experience, thus leading to learning, imitating, and acting according to the behavior that has been done from the beginning, therefore changing according to the new experience received. Leading to the creation and birth of a new behavior or a new competency of the person that affects the assigned work. To be more efficient, Competency means behavior that requires competency. capability or potential, or some textbooks can use the word Characteristics or necessary dimensions

that individuals should have in their work (Job Dimensions) . The personnel development tools used with this learning approach will focus on tools that are not classroom training as follows.

Table 18 70 Learning Mode personnel development tools

Development tools	Details of development tools
Job Shadowing/ Observation	Following a template that is a person who is accepted or is a role model in the matter that needs to be followed or observed in the behavior of the template.
Executive Job Shadowing	Template tracking focuses on senior management to observe the functionality and expressive behavior of the template, where the selected template must be accepted in the tracked matter.
Job Aids/Manuals	Learning from the code of conduct or work requirements that have been established to serve as a framework or direction for operations to be at the same standard.
Knowledge Sharing Sessions	A gathering of personnel within the organization to exchange knowledge, principles, and concepts that are relevant and can be useful in work.
Outsource/Supplier Sharing	Exchange of opinions, information and experiences received with partner companies that are partners or do business
Lesson Learn Sharing	Exchanging experiences from work Whether an error occurred or impressive experiences can be exchanged with the team to use as guidelines or lessons learned for the next work.
Self - Reflection Note	Recording information and using recorded information to review and inspect one's own work To be used as information to improve and develop the assigned work.
Secondment	Requesting to temporarily borrow personnel from one agency where they work regularly to work with another agency

Table 18 (continued)

Development tools	Details of development tools
Job Rotation	Learning additional work by switching jobs from one department to another
Special Projects	Taking on a special project that is not a job or a regular project specified in the Job Description
Cross Functional Assignment	Assignment to work with other departments in a cross functional manner Not a person from the same agency
Stretch Assignment	Challenging assignments It is work that has never been done before, different from previous work that has been done before.
Stretch Assignment	Challenging assignments It is work that has never been done before, different from previous work that has been done before.
Work with Consultants or Internal Experts	Working with consultants who work within the organization, including having the opportunity to work with experts who are individuals within the organization
Community Activities and Volunteering	Assigning or volunteering to participate in organized group or club activities. The members participating in the activity will be responsible for carrying out activities with the goal of improving and developing the work.
Interaction with Senior Management	Liaising with executives with expertise and seniority with report presentation/presentation or attending a meeting with the management team
Site Visits	Field trips to learn about practices The organization's work process is Best Practice in the matter that needs to be viewed.
Customer Visits	Visiting customers to study customer behavior Including information on customer expectations towards the use of products and services.

Table 18 (continued)

Development tools	Details of development tools
Action Research	Implementation of research by determining the subject to be researched by considering the problems in the work that arise. collecting information and applying the research results obtained to solve problems that arise on the daily work site.
Apply Best Practice	Implementing guidelines, procedures, or best practice principles until they are accepted. to apply in practice
On the Job Learning	Learning from real practice in the field, encountering real situations and real customers.

2. 20 Learning Model is a learning model that occurs from others (Learn by Others), whether it be your direct supervisor. indirect supervisor Colleagues within the department Colleagues from different departments, subordinates, customers, and partners are learning that occurs from conversation. Consultation interchange of information This requires restoring the foundation of having a good relationship between two or more interlocutors by making an appointment to talk. and exchange views with each other at times convenient for both sides. Human resource development tools (Development Tools) that are used will focus on human resource development tools that are not classroom training tools or Non Classroom Training as follows.

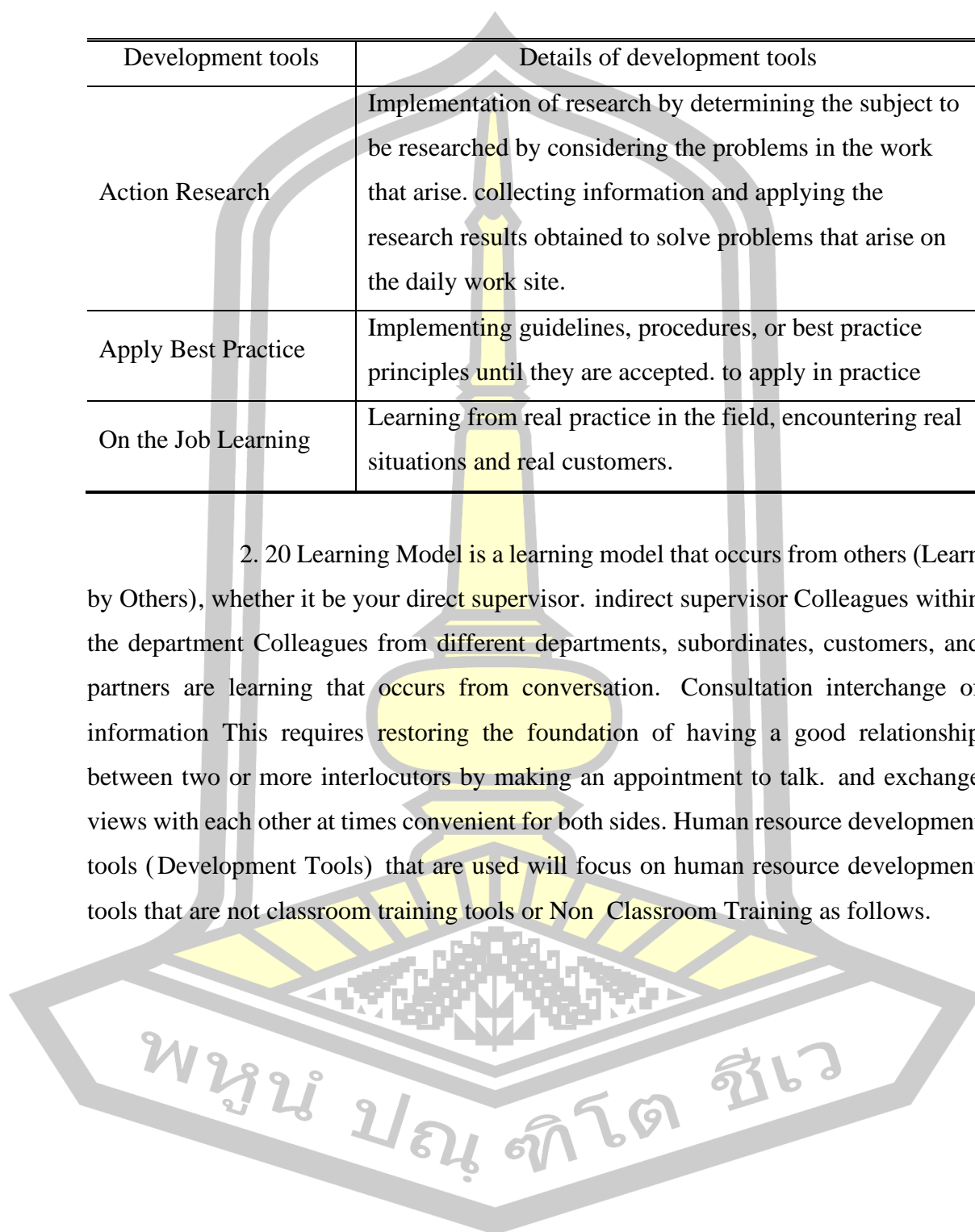


Table 19 20 Learning Model personnel development tools

Development tools	Details of development tools
Coaching from Manager/Others	Instructional instruction to spark learning by a direct supervisor or other person who is accepted by the person being taught and is ready to learn along with the instructor.
Peer Coaching	Teaching by colleagues in the same department or different departments assigned as a teacher inspires the learners to have good ideas and perspectives in their work.
Group Coaching	Guided instruction with more than 3 people who are being taught, with an emphasis on teaching to inspire the trainees to have a way of operating for the common goals of the group.
Informal Coaching	Unstructured coaching that can happen at any time Most emphasize teaching in the Life Coach style, where the instructor serves to inspire those being taught to have perspectives and ideas for living their daily lives.
Mentoring	A conversation between the mentor and the person the mentor is supervising. Focus on the mind emotion and adjustment when working with others in the organization
Teaching	telling the learner to recognize and listen Emphasis is placed on steps, methods, formats and work systems that can be put into practice by those being taught.
Counseling	Giving advice when problems arise from working in the organization The consultant will analyze the cause of the problem. and find alternative methods and approaches to solving problems

Table 19 (continued)

Development tools	Details of development tools
Mirror	Bringing what a person said or did during that time to talk about how good or bad the words and behaviors that were expressed.
Informal Feedback and Work Debriefs	Providing information about work by collecting past work results over a certain period of time to summarize whether there are good works that need to be maintained and there are areas that need to be improved.
Seeking Advice, Asking Opinions	request for advice or asking knowledgeable people about matters that they do not yet have knowledge about and lack of experience To apply the advice and opinions received to work and personal life.
360 Degree Feedback	Providing information received from people around you, whether it be your direct supervisor indirect supervisor subordinates self, colleague
Assessments Outcomes and Feedback	Evaluating the results of the work and providing feedback from the evaluation results received. The goal is to allow people to listen to feedback to improve and develop their own work.
Assessment Center	Clarification of the results of individual assessments that are conclusive by using a variety of methods. Whether it is an evaluation from a case study role play Taking tests, giving presentations
Learning and Development Center	Participating in the test from the Learning and Development Center by taking a knowledge test or a personality test and listening to the test results from the center to bring information to improve and develop ourselves

Table 19 (continued)

Development tools	Details of development tools
Learning through Team/Networks	Joining a group to become a member or network with an emphasis on groups within the organization. To provide information on principles and concepts in a particular area of interest to the group.
External Networks/Contacts	Joining groups with external networks to listen to information and requesting information for use in work
Professional Association Involvement or Active Membership	Being a member of an academic group to listen to information Useful news for work and bring the information Acquired to improve and develop work to be more efficient.
Facilitated Group Discussion by Action Learning	Being assigned to act as a director and organizing group members from people within the organization or different organizations to talk, ask questions, and exchange opinions from their experiences. By emphasizing together to find a solution from the problem.
Peer-Assisted Learning and Work Buddy	Discussing with partners assigned by superiors to help each other in work And have friends who are always there to give advice and advice on work that you do or problems that arise.

3. 10 Learning Model is a learning model that focuses on classroom training (Classroom Training) combined with learning that focuses on tools that are not classroom training (Non Classroom Training) , whether it is Learning through eLearning media and various documents It is studied through programs or courses that have already been prepared. This is another important form of development and it is necessary that the organization cannot cancel this form of learning in order to create integrated learning and result in learning for the learner. really know People development tools that are commonly used are as follows:

Table 20 10 Learning Model Personnel Development Tools

Development tools	Details of development tools
In-House Training	Learners from the same organization learn together in training courses organized by the organization. It is a training organized both internally and/or externally.
Public Training	Students from different organizations are interested in the same course. Organized by external training institutes
Seminar	Participating in group meetings where members have the same interest or expertise in the same subject to listen, get to know, and exchange views.
Workshop	Participating in group meetings where members have the same interest or expertise in the same subject, participate in practice or jointly act on a specified matter. The conclusions obtained from the seminar will be continued or not.
E-Learning	Learning via electronic media such as the internet, satellite signals, etc., including learning via On-Line according to the conditions set by the organization/institution that provides the learning media.
Certification Program	Participate in a program in a long-term course with a certificate certifying that learners are knowledgeable with an international standardized knowledge test that the institution organizes a specified learning program.
Formal Education	Continuing education at a university or college It is learning that takes time to study according to the organized program. Students can choose the program and subjects that they are interested in and have enough time to learn according to the specified program.
Reading	Reading on topics of interest to increase one's own perspective, ideas, and knowledge on the subject of interest.

In conclusion, the 70-20-10 learning theory emphasizes the importance of practical work experience, feedback, and peer learning in career development. The widespread application of this theory shows that it can effectively promote the learning and ability of employees. By combining practice, interaction and formal education, the 70-20-10 learning model provides a comprehensive methodological framework for talent training in modern enterprises. Enterprises and scholars have verified the effectiveness of the theory through different perspectives and methodologies, and proved its feasibility and advantages in practical operation.

Based on the study of the professional ability development principle of rural kindergarten teachers, the researchers summarized the professional ability development mode of rural kindergarten teachers. The modification method is used as follows:

Table 21 Development methods of teachers' professional competence development model in rural kindergartens

Principle of development	Development method
Experience learning at 70%	1. job shadowing 2. mentoring 3. assignment
Learn from others by 20%	1. coaching 2. networking
Study course 10%	1. training

From Table 21, the researcher can conclude from the study of different scholars' modified ways of developing professional competence that there are three forms of principles used in developing the professional competence of rural kindergarten teachers: 1) experiential learning (70%) whose methods of development include job shadowing, mentoring, assignment; 2) Learning from others (20%), whose methods of development include coaching and networking; 3) Learning from courses (10%), whose methods of development include training.

2. 2 Methods of developing professional competence for rural kindergarten teachers

Looking at Leadership Development Approaches Each of the above approaches has similar development goals and methods. People development can be done in a number of ways. It depends on the issues that need to be developed and the context in which each department works. In this study, the researcher has chosen the human resource development method. Suitability and the context of the research area will be considered when developing the method. Determining how to improve the professional competence of rural kindergarten teachers includes 1) job shadowing; 2) mentoring; 3) assignment; 4) coaching; 5) networking; 6) training.

The following concepts and principles are used.

2.2.1 Job Shadowing

Aporn Phuvitayaphan (2016) says that a shadow role model is someone who is accepted or becomes a role model in work behaviors that require following or observing a role model.

Patchara Wanichawasin (2017) states that 'job shadowing' is a method of focused learning. Learning by following, observing, asking questions, understanding the characteristics of the job, and working with a real leader and through the leader's good example.

Mader F H, Mader D R D, Alexander E C (2017) noted that the use of job shadowing has a long history. It is primarily considered as a way to expose young people to the workplace through programs sponsored by schools or social organizations, and as a program developed by employers to facilitate internal promotions or as a recruitment tool for potential employees. Job shadowing not only exposes students to the real world, but also provides real-time data from professionals that can be used as a basis for classroom discussions.

Danijela M (2021) states that job shadowing is an opportunity to learn about or explore careers (or jobs) that interest students. However, this does not mean that job shadowing is only about individual career planning. Rather, job shadowing allows students to see how they can apply the knowledge and skills they learn at the college to real life situations. They learn through observation and listening, as well as through daily reflection with their hosts. Students reflect on the experiences they have

gained in shadow work and build on this to conceptualize their knowledge (abstract conceptualization).

In summary, "job shadowing" is a method of vocational training that allows learners to learn about the specific job content, responsibilities, skills required, and work environment of a particular occupation or position by shadowing and observing employees as they perform daily tasks.

2.2.2 Mentoring

Yilmaz E, Ecer A, Akay HU, Chien S, Payli RU (2003) proposed that Mentoring is a form of interpersonal relationship with experience and knowledge of experience and limited knowledge. Almost all mentoring relationships involve the acquisition of knowledge, but it should also be emphasized that the relationship is reciprocal, albeit unbalanced in nature. The mentor will also provide advice and Mentoring on how to proceed with what is being learned. Mentoring is more appropriately carried out by someone who is experienced in the particular field.

Simkins T, Coldwell M, Caillau I, Finlayson H, Morgan A. (2006) suggests that Mentoring is a process that helps and supports people to manage their own learning in order to maximize their potential, develop their skills to prove their performance and become what they want to be in this mentoring having a good communication with the boss; and vice versa, the boss can monitor and Mentoring his subordinates mentoring as a partnership between the mentor (giving guidance) and the mentee (receiving guidance).

In summary, the mentoring relationship serves as an effective form of interpersonal relationship that helps mentees maximize their potential and improve their skills and performance through interaction and communication between mentor and mentee.

2.2.3 Assignment

Chauvet F, Proth J M, Soumare A. (1999) stated that the objective of the well known generalized assignment problem (GAP for short) is to assign tasks to employees in such a way that the workload of the employees does not exceed their capabilities while minimizing the total cost. Their goal is to minimize the time required to complete all tasks, i.e., the duration. We consider two scenarios: 1) Each employee can perform at most one task (single job case). We propose an algorithm based on

dichotomy (Algorithm 1). Each iteration solves a linear programming problem. The algorithm leads to an optimal solution.2) Each employee is allowed to perform multiple operations (multi-job case). To solve this problem, we propose a heuristic and branch-and-bound method that utilizes the advantages of the first two algorithms to obtain an upper bound on the optimal solution.

Patchara Wanichawasin (2007) state that the issue of assignment involves the allocation of one type of task to each staff member in the workplace at each stage of the program scope. Typically, task assignment takes place after each worker has been assigned a program. However, it is also possible that the assignment of tasks to workers determines their schedules; in this case, a series of additional constraints must be observed in order to develop a feasible work schedule. The simplest example of a assignment problem can be found when the number of tasks to be assigned is the same as the number of available workers and the tasks assigned to a period t are independent of the assignment.

Patchara Vanitchawasin (2017) explains that assignment is an approach that focuses on learning through challenging tasks. Learning is stimulated from the real-life experience of the assignment.

In summary, assignment usually refers to the case-by-case organization of personnel and equipment into specific work tasks based on actual needs. It may also refer to the assignment of specific tasks, which may be short-term, long-term, full-time or part-time. Such assignments may be based on a variety of factors, including an individual's skills, experience, availability and the nature and requirements of the task.

2.2.4 Coaching

Coaching originated in the United States in the early 1970's. It is an emerging and effective management technique developed from daily life and conversation, sports psychology and pedagogy, etc. It enables the coachee to gain insights into the self, to realize the individual's potential, to effectively motivate the team and to bring into play the power of the whole, and thus to enhance the productivity of the enterprise. Through a series of directional and strategic processes, Hakkei is able to gain insights into the mentality of the people being Hakkei, explore their potentials inwardly and discover their possibilities outwardly, so that the people being Hakkei can effectively achieve their goals.

Simkins T, Coldwell M (2006) suggest that coaching is about helping and supporting people to manage their own learning, maximize their potential, develop their skills, and demonstrate their performance, and with this coaching becomes a process of communicating well with supervisors as they wish; conversely, supervisors can act as both mentors (giving coaching) and mentees (receiving coaching). coaching (receiving guidance) to supervise and guide the partnership between subordinates.

John Bennett and Mary Wayne Bush (2009) state that coaching consists of a dialog that focuses on discovery and action to help the coachee's individual, team, or group achieve a desired outcome or goal. The focus of coaching is on the individual or team being coached and the coach acts as a facilitator or mentor in the collaborative process. The purpose of coaching is to help individuals or teams to learn and develop on their own.

Julie Starr (2012) states that coaching is a conversation or series of conversations initiated by one person that facilitates the learning and progress of another. The key to coaching is not the timing, context or content, but the impact and results it produces. The aim of using listening, questioning and reflective conversation techniques is to have a positive impact on the coachee, allowing the coachee to reflect on the conversation and benefit from the reflection.

Alipour M, Salehi M, Shahnavaz A (2014) suggested that coaching has some of the following attributes. 1) Use of deductive techniques. 2) Coaches that are not necessarily experts on the subject. Having a little knowledge usually helps, but sometimes it can be disruptive. 3) The beneficiaries of the process are individual employees and company employees. 4) Coaching sessions can be measured by time. 5) Coaching can be done without preparation. 6) Sometimes it is not official, but it can be. 7) Appreciation of coaching is a must. Mutual respect and understanding between coach and trainer will be very helpful. Executive training usually takes place once a month and continues for several years. Often coaches are brought in where there is a change in the structure of the company, where teams or individuals are underperforming, or where new skills are needed.

In summary, coaching technique, as an emerging management method, helps individuals gain insight into themselves, explore their potentials, and enhance the overall strength of the team through a series of directional and strategic processes. Its

core lies in promoting the comprehensive development of individual's knowledge, skills and mental competence through interaction and feedback.

2.2.5 Networking

Loucks-Horsley, Susan (1987) notes that sponsoring teacher workshops alone falls far short of their potential. There are many alternatives to traditional in-service training, many of which can benefit individuals and schools. Networks are professional groups organized around a common theme or purpose and are characterized by the exchange of information. An atmosphere of openness and sharing helps members to see each other as problem-solvers and to be willing to seek help from them.

Aporn Phuvitayaphan (2016) joined external networks as a group member to listen to information. "Network learning" is an approach that focuses on learning through various social interactions. Getting to know people and maintaining a good relationship with them.

In summary, networking means developing rural kindergarten teachers' professional competence from socializing, joining groups, meeting many different people, listening to information, and applying it to their work. Build a network of learning relationships.

2.2.6 Training

Schulman (1986) emphasized the central role of teacher training in improving the quality of education and promoting educational reform. According to him, teacher training is not only about imparting professional knowledge and skills to teachers, but more importantly, it is about cultivating teachers' sense of innovation and spirit of inquiry. At the same time, he also emphasized that teacher training should be a continuous process, and that the purpose of training is to help teachers adapt to the ever-developing and changing educational environment, so that they can continue to learn, reflect, practise and grow, and to improve the standard and quality of their teaching and learning, and thus provide better quality education services.

Theodore W. Schultz (1990) articulated a human capital theory that emphasized the central role of education and training in human capital formation. He argued that through education and training, people can acquire knowledge and skills that lead to increased productivity and innovation.

Patchara Wanichawasin (2017) explains that training is a practical work-focused approach to gaining specialized knowledge and increasing experience by using real locations as training venues. However, it is important that the person providing the training is experienced.

Sutham Thamtasananon (2020) explains that training which is a method of developing leadership through real work. Gaining expertise in the workplace and increasing work experience. Using the actual workplace as a training site This method is applicable to new employees, or those who have been appointed or transferred to a new position, and the trainer will be the one who will closely advise. This method of training will only work if you get a good trainer. There should be a good working knowledge and enough time to teach the advantages of on-the-job training, i.e. getting practical guidance and transferring the knowledge back to the actual job. Both the results of the work can be seen immediately, but a point to note is that if the conveyor is not good or there is no time to give, you may not learn anything. Also, mistakes and damages can affect the organization when it comes to training to perform the job.

Office of Personnel Development (2021) Training is a type of personnel development with a face-to-face delivery where supervisors or trainers will be able to instruct and teach. Detailed knowledge and techniques are imparted directly to personnel. Therefore, the supervisor or trainer has a close relationship with personnel. There is a sense of intimacy and trust. Attention to personnel development through on-the-job training also contributes to a good working atmosphere. The supervisor or trainer feels that he or she understands that there may be differences in age, education, and experience, and tries to create a sense of eagerness on the part of the trainee to work. Creating a good working atmosphere and improving the personnel's ability to do their jobs makes on-the-job training a success.

In summary, training is the one that transfers knowledge from experienced people so that they can increase their experience in the real world.

2.3 Factors affecting the development of professional competence of rural kindergarten teachers

Wu Lihong (2005) pointed out that the core factor affecting the professional competence of kindergarten teachers is their own internal achievement motivation. Kindergarten teachers with high internal motivation tend to strive for high goals, and

their professional growth process is relatively fast. On the contrary, kindergarten teachers with low internal motivation tend to act on low goals, and their growth process is relatively slow.

Chen Jinju (2007) pointed out that the more favorable the kindergarten environment is, the more favorable it is for teachers' professional development. Based on this understanding, a model of factors influencing the professional competence of kindergarten teachers was established through survey and data analysis, based on the degree of influence in descending order: organizational climate, rules and regulations, teacher culture, director's leadership style and kindergarten support system.

Zhang Jiao (2008) pointed out that parents as well as administrators demand communication competence from new teachers more on the level of teacher ethics, believing that if beginning teachers lack communication skills, it will directly lead to their lack of self-confidence and passivity in communication, and it will also affect the establishment of good interpersonal relationships with young children, parents, and coworkers, and will not be conducive to the performance of their work. Secondly, both administrators and new teachers regard organizing the day's activities as a basic competence for teaching and learning to take place.

Peng Bing, Xie Miaomiao (2009) pointed out that attributed kindergarten teachers' personality traits, personal development needs and aspirations, and their own study habits as important influences.

Xue Guirong, Li Yufen, and Meng Xiuyun (2010) pointed out that the influencing factors were attributed to several aspects of their professional growth initiative, learning, thinking, self-reflection, as well as self-knowledge and accurate orientation. It is believed that kindergarten teachers should have the courage to face up to their own shortcomings, look at the difficulties directly, and be improved in practice; they should continue to overcome difficulties in teaching, enhance their educational and teaching competence, study, practice, reflect and explore continuously to achieve autonomous professional growth, exercise strict self-restraint and supervision, and find their self-positioning.

Liu Yuhong (2010) pointed out that the salary level of rural kindergarten teachers, the teaching environment, the starting point of professional level, and internal motivation affect the improvement of professional competence.

Yang Dingliang and Zhou Qiuhua (2011) studied the strategies to improve the professional competence of rural private kindergarten teachers, and the study pointed out that the main factors affecting the development of professional competence for rural private early childhood teachers are: insufficient governmental support for rural private kindergartens, which makes it difficult to bring in high- quality personnel, the unprofessionalism of teacher training institutions, which directly affects the quality of early childhood teachers' teams, the professionalism of directors, which restricts the development of the professional competence of private kindergarten teachers' professional competence for development, and teachers' own attitudes toward professional improvement, which are the main factors of teachers' professional competence for development.

Lin Yuanyuan, Zhang Kepeng (2012) started from the in-service training of kindergarten teachers in poverty-stricken areas, and concluded that the content and form of training that kindergarten teachers participate in affects the competence improvement to a certain extent.

Fu Jingwen (2014) concluded through interviews and questionnaires that leaders, organizational culture, incentive and appraisal systems, continuing education and support from the kindergarten side are the main factors affecting the growth of kindergarten teachers' professional competence.

Huang Cuihua, Zhang Lili (2014) studied the current situation of rural kindergarten teachers' professional competence for professional development and countermeasures in the border areas of Guangxi, and the study pointed out 1) the problems of kindergarten teachers' educational research competence, 2) the problems of kindergarten teachers' educational technology competence, and 3) the problems of kindergarten teachers' teaching reflection competence. The study analyzes the factors influencing the professional competence of rural kindergarten teachers as 1) governmental factors, the government's lack of attention to and awareness of preschool education, and the government's actual support is generally low; 2) social factors, the lagging social recognition of kindergarten teachers, and the social public's low attention to and participation in preschool education; and 3) kindergarten- side factors, the kindergarten manager's management philosophy is more backward, the management mechanism is not perfect, lack of expert guidance, learning and research atmosphere is

not strong; 4) Teachers' own factors, rural early childhood teachers generally have low academic qualifications, a weak sense of professional independent development, rural early childhood teachers have backward educational concepts, poor cultural literacy and professional basic knowledge, poor reflection skills in teaching practice, and a lack of continuity and integration of reflection.

Yang Li (2017) studied the current situation of professional competence development of rural early childhood teachers in Guizhou Province, and the study pointed out that there is an obvious shortage of professional competence development of rural kindergarten teachers, and the reasons for the insufficient professional competence development of rural early childhood teachers are: 1) the current situation of staffing rural kindergartens in our province has a big gap between the national and provincial standards; 2) the low status of the teachers and the low treatment, which affects the teachers' self-development; and 3) the teachers' professional competence development problems are prominent.

Wang Xiaoli (2017) pointed out that the influencing factors of kindergarten teachers' professional competence improvement are twofold: professional autonomy as well as professional ideals. Among them, professional autonomy refers to teachers' ideals and beliefs about the nature, purpose, value and life of education, etc., which are formed on the basis of their feelings and understanding of educational work. Kindergarten teachers' self-development needs and ideals have a significant impact on their professional growth, are important internal factors for their professional improvement, and directly affect the initiative of kindergarten teachers' autonomous growth. Professional ideals mean that kindergarten teachers are able to decide the direction of development on their own, and this factor directly affects their development motivation.

Zhang Ximeng (2017) promotes teachers' own professional competence for development from the kindergarten perspective. First, to improve the director's attention to the professional development of teachers, and second, to ensure the stability of the teacher team. Kindergartens should establish a set of personnel management system to protect the basic rights and interests of teachers, which includes guaranteeing the basic salary of teachers, improving the social security such as pension insurance,

promoting titles, evaluating excellence, and providing teachers with opportunities for on-the-job training. Second, from the level of other researchers' viewpoints.

Zhang Lili (2019) studied the current situation of kindergarten teachers' professional competence development, and the study pointed out that the influencing factors of professional competence for kindergarten teachers are: 1) on the government's side, the lack of a strict teacher management system, the lack of a perfect teacher training system, and the lack of a sizable level of remuneration; 2) on the side of the kindergarten teachers' training schools (colleges and universities), the aspect of training programs, the implementation of the curriculum, and the evaluation of students; and 3) Kindergarten aspect, management mode aspect, kindergarten garden culture aspect, is the aspect of teaching and research activities in the garden; 4) Teachers' own aspect, ideological concept, learning competence, further training mode, burnout.

Gao Xiaomin, Zhang Jie, and Liu Gang (2020) found that individual factors such as teaching age, the nature of kindergarten, academic qualifications, whether it is a pre-school education major and whether it has a teacher's qualification certificate are the key factors influencing the development of professional competence for rural kindergarten teachers.

Zhu Ling and Huang Zixing (2021) studied the current situation of professional competence for rural kindergarten teachers, and the results of the study showed that the reasons affecting the professional competence for kindergarten teachers include four main points: First, although the government has increased the funding for rural kindergartens, it is still not enough. Second, there is a lack of institutional guarantee. Third, there is a lack of a comprehensive training system for in-service kindergarten teachers. Fourth, there is a lack of a clear career development plan for kindergarten teachers.

Fan Lina, Xie Yin (2021) studied the influencing factors of rural early childhood teachers' professional development, which pointed out that: 1) internal factors, single knowledge structure, lagging behind in knowledge updating, untimely updating of educational concepts, weak sense of self-development, imperfect career planning, and burnout are more common; 2) external factors, imperfect infrastructures, low level of teachers' salary and treatment, imperfect management and evaluation

mechanisms. teachers' low motivation for career development, imperfect education and training system, and low quality of continuing education.

Zhao Xiaozhu and Zhang Liqun (2024) studied the endogenous development of professional competence for rural early childhood teachers, and the study pointed out that the influencing factors of endogenous development of professional competence for rural early childhood teachers are: 1) external factors, weaker support, insufficient training system, lagging behind in the construction of the environment, and lower threshold of entry; and 2) internal factors, lower level of professional competence, lack of awareness of development, and weak competence for development.

In summary, there have been studies on the influencing factors of rural kindergarten teachers' professional competence improvement in two main areas. The first is the teachers' internal self-factors, namely, the teachers' achievement motivation, character traits, professional ideals as well as their own competence reflection in several aspects. The second is the external objective factors. From the kindergarten side, the kindergarten working environment, such as rules and regulations, the kindergarten director's awareness of kindergarten teachers' professional competence for the development of their professional competence, and kindergarten teachers' professional training are taken as influencing factors. From the level of other researchers, they mainly included several aspects of kindergarten environment, teachers' humanistic care, and teachers' competence in proper communication with parents.

2. 4 Needs assessment of rural kindergarten teachers professional competence

Zhu Ling (2021) pointed out that rural kindergarten teachers in Chaoshan are relatively strong in communication and cooperation competence, daily life organization and conservation competence, and incentive and evaluation competence, while reflection and development competence, educational activity design and implementation competence, and game activity support and guidance competence are weak and need to be urgently improved. From the results of the interviews, the professional competence of the interviewed rural kindergarten teachers is at a medium level.

Li Ya (2019) pointed out that the development of environment creation and utilization competence in rural kindergarten teachers in Chuan Dong was unbalanced,

with the competence in guiding the creation of the spiritual teaching environment being relatively good, while the competence in creating and utilizing the physical teaching environment was obviously at a disadvantage, and was in urgent need of improvement. Daily life organization and conservation competence is more good. Game activity support and guidance competence is really weaker and needs to be improved urgently. Educational activity design and implementation competence is generally excellent. Incentive and evaluation competence is more outstanding. Communication and cooperation competence is good for teachers to communicate and interact with children, but communication and cooperation with colleagues and parents is more lacking and needs to be strengthened. Reflection and development competence is very weak and needs to be strengthened urgently.

Gao Xiaomin (2020) pointed out that the overall development of professional competence for rural kindergarten teachers in Shanxi Province is at a medium level. The competence of rural kindergarten teachers in daily life organization and conservation competence, and educational activity design and implementation competence is relatively high, while the competence in reflection and development, and game activity support and guidance is relatively low.

Bao Ruoyu (2020) pointed out that the professional competence of rural kindergarten teachers is in the middle to upper level, and the three better aspects of the seven dimensions of professional competence are environment creation and utilization, daily life organization and conservation, and communication and cooperation competence. The rest, in order, are game activity support and guidance, educational activity design and implementation, incentive and evaluation, and finally, reflection and development competence.

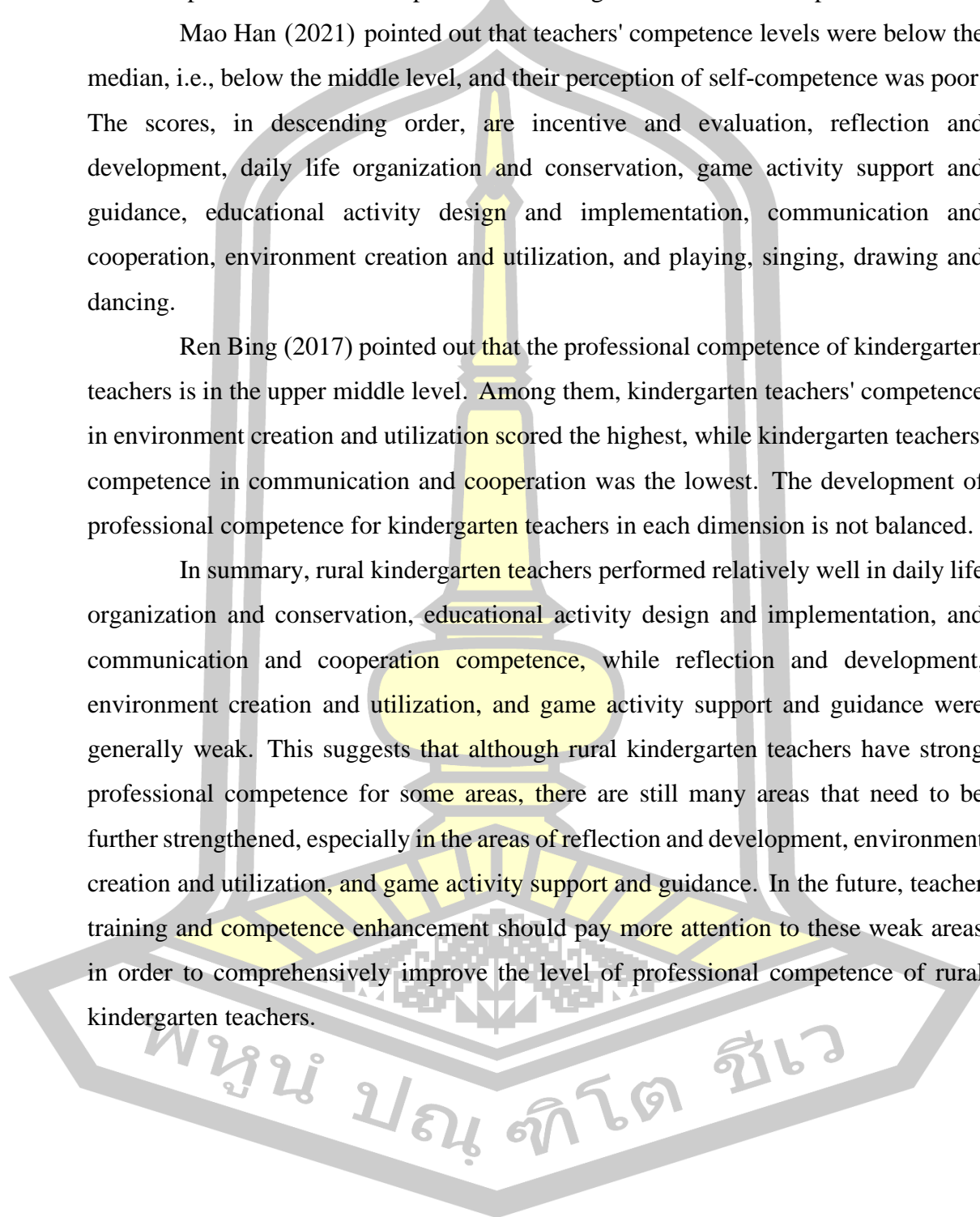
Guo Wenfang (2020) pointed out that the overall level of professional competence of kindergarten teachers in Suzhou City Park was high. According to the mean value of the seven professional competences, the three competences of kindergarten teachers in the park, namely, environment creation and utilization, daily life organization and conservation, and incentive and evaluation, are strong, while the scores of educational activity design and implementation, game activity support and guidance, and reflection and development competence are low, with the weakest one

being the reflection and development competence, which shows that there is more room for the improvement of the competence of kindergarten teachers in the park in this area.

Mao Han (2021) pointed out that teachers' competence levels were below the median, i.e., below the middle level, and their perception of self-competence was poor. The scores, in descending order, are incentive and evaluation, reflection and development, daily life organization and conservation, game activity support and guidance, educational activity design and implementation, communication and cooperation, environment creation and utilization, and playing, singing, drawing and dancing.

Ren Bing (2017) pointed out that the professional competence of kindergarten teachers is in the upper middle level. Among them, kindergarten teachers' competence in environment creation and utilization scored the highest, while kindergarten teachers' competence in communication and cooperation was the lowest. The development of professional competence for kindergarten teachers in each dimension is not balanced.

In summary, rural kindergarten teachers performed relatively well in daily life organization and conservation, educational activity design and implementation, and communication and cooperation competence, while reflection and development, environment creation and utilization, and game activity support and guidance were generally weak. This suggests that although rural kindergarten teachers have strong professional competence for some areas, there are still many areas that need to be further strengthened, especially in the areas of reflection and development, environment creation and utilization, and game activity support and guidance. In the future, teacher training and competence enhancement should pay more attention to these weak areas in order to comprehensively improve the level of professional competence of rural kindergarten teachers.



3. Development model of professional competence for rural kindergarten teachers

3.1 Meaning of rural kindergarten teachers professional competence model

Willer (1976) defined form as the concept of creating a set of phenomena based on the principle of implicit systems. This aims to clarify the definition of relations and related propositions which format is accurate will be further developed into a theory.

Procter (1978) in Longman Dictionary of Contemporary English gives the meaning of the word, which is summarized in three main features: model, meaning model. A miniature of the real thing, this meaning corresponds to the Chinese word for model, such as a model of a submarine, etc. model is an object or person used as a model in some operation, such as a teacher, a model, or a stencil in an artistic painting.

Mescon, Khedouri (1985) defines a model as a simulation of phenomenal reality in order to simplify phenomena that have elemental relations as phenomenal processes.

Hutson, Postlethwaite (1990) states that the term schema refers to the form and method of a system, a process of inquiry into a field. After identifying and influencing the variables of a particular outcome, or proposing definitions, explanations, and predictive hypotheses related to a particular problem, when the intrinsic links between the variables or hypotheses are systematically articulated, the intrinsic links between the variables or hypotheses need to be merged into a hypothetical model.

Chinese scholar Cha Youliang (2001) made a more comprehensive qualitative description of pattern from the level of scientific methodology, and he believed that: "Pattern is an important method of scientific operation and scientific thinking. It is to reproduce some essential characteristics of the prototype object under certain conditions of abstraction, simplification, and assumption for the purpose of solving a specific problem. It is a scientific method that serves as an intermediary so as to better recognize and transform the prototype and construct a new type of object. From practice, by generalization, induction, synthesis, can put forward a variety of models,

model once confirmed, that is, it is possible to form a theory; can also be from theory, by analogy, deduction, analysis, put forward a variety of models, thereby promoting the development of practice. Patterns are similar simulations of objective physical objects (physical models), abstract depictions of the real world (mathematical models), and image displays of ideas and concepts (graphic and semantic models)." Obviously, in his description, the pattern not only has the meaning explained in the dictionary, but also a scientific operation and scientific thinking method, is a kind of problem-solving thinking method is in the intermediary method between practice and theory. Pattern is neither equivalent to theory nor practice, but it is an intermediary and bridge between theory and practice, between theory and practice, and closely related to theory and practice.

Zhang Zhenyu (2006) points out that a pattern is an intuitive and concise description of the internal mechanism and external connection of a matter or entity, a symbolic and logical conception of a relatively simple situation. As a structured and parsimonious expression, a model involves objectives, strategies, methods and evaluation and their organic integration. The developmental teaching quality assurance model is a systematic generalization of the elemental structure and temporal and spatial sequence of developmental teaching quality assurance.

Zhang Liang (2010) Modern Chinese Dictionary explains pattern as a standard form of something or a standard style that makes it possible to follow. Patterns, also known as paradigms, generally refer to styles that can be used as models or templates. Patterns are very common in daily life such as survival patterns, behavioral patterns, structural patterns, evolutionary patterns, educational patterns and templates, models, models, models, and so on. Pattern as a term has different meanings in different disciplines.

Zhao Bing (2022) states that Alexander's classic definition is that each pattern describes a problem that keeps coming up in our environment then describes the core of the solution to that problem. In this way you can use those existing solutions countless times without repeating the same search and cognitive work.

In summary, a model is a model or a simple or miniature of a model. Phenomena are studied and developed to express or explain them. It is something created or developed in order to understand the phenomenon more easily. A structure

or element of thought expressed in terms of philosophical principles, theories, principles, concepts, and related beliefs.

3.2 Components of rural kindergarten teachers professional competence model

Brown and Moberg (1980) synthesized the model from the System Approach and the Contingency Approach, indicating that the elements of the model include 1) Environment; 2) Technology; 3) Structure; 4) Management Process; and 5) Decision Making. (The elements of the model include 1) Environment; 2) Technology; 3) Structure; 4) Management Process; and 5) Decision Making.

Warren & Dennis (1980) stated that the elements of the model include 1) Model Principles; 2) Model Goals; 3) Model Inputs; 4) Model Process; 5) Model Outputs; and 6) Success Factors.

Wang Wenjing (2002) Regardless of which teaching model has a certain structure and procedure, it is generally believed that the structure of a teaching model includes the following elements: 1) guiding ideology or theoretical basis; 2) objectives; 3) operational procedures; 4) conditions for realization; and 5) teaching strategies and assessment.

Uthai Bunprasert (2008) stated that the format should contain the following elements: 1) the necessity and significance of the style; 2) principles; 3) the purpose of the model; 4) implementation/management mechanisms; 5) handling procedures; 6) implementation methods and tools for assessment; 7) conditions for the success of the model; and 8) recommendations for the implementation of the model

Keesukphan, B. et al. (2008) proposed the concept that the elements of the format consist of 1) principles; 2) goals; 3) objectives; 4) main characteristics of the model; 5) guidelines for the implementation of the model; 6) success factors for the use of the model; and 7) important results that will be produced by using the format

Zhan Xibin (2009) pointed out that the teacher training model refers to in order to achieve certain training purposes, under the guidance of certain training theory, the structure formed between the trainer, the trainee, the training content, the training mode elements and its operating mechanism: its basic components are 1) the main body of the training; 2) the training concept; 3) the training object; 4) the objectives of the training; 5) the content of the training; 6) the training means (methods, approaches); 7)

the training management); 7) training management (process monitoring, assessment and evaluation) and so on.

Zhang Liang (2010) states that a pattern is a rule consisting of three parts this rule describes the relationship between a particular environment, problem and solution. A model consists of three elements: 1) what environmental conditions the model applies to; 2) what problems the model can solve; and 3) what the solution to the problem is.

Runcharoen,T. (2010) proposed six elements of a model: 1) the rationale of the model; 2) the objectives of the model; 3) the systems and mechanisms of the model; 4) the operational methods; 5) guidelines for evaluating the model; and 6) the conditions of the model.

In summary, different scholars have conducted in-depth studies on models from different perspectives and proposed their own model elements. Despite the differences in specific terms and expressions, these models basically include the following key elements: 1) principles and rationale: the underlying theory and guiding ideology of the model; 2) goals and objectives: the specific goals that the model hopes to achieve; 3) operation and management mechanism: the specific implementation steps and management process of the model; 4) evaluation and feedback: the evaluation method and feedback mechanism of the model's effects; 5) success conditions: the model's The key success factors of the implementation. The comprehensive analysis of these elements can provide theoretical support and practical guidance for the development of a model to improve the professional competence of rural kindergarten teachers.

3. 3 Rural kindergarten teachers professional competence model development

Hao Linxiao and Fen Yandong (2004) pointed out that the structure of teachers' professional competence should be composed of two dimensions: horizontally, it includes educational competence and pedagogical competence; vertically, it includes pre- professional competence, professional awareness and generative competence, and professional adjustment competence. Based on the reconstruction of teachers' professional competence, there are three pairs of models for the growth of teachers' professional competence: anticritical and creative, empirical and rational deductive, and humanistic and scientific models.

Srisa-at,B. (2004) states that research using models can be divided into 2 steps: the first step is to create or develop the model. The second step is precision testing. The (validity) of the model is: 1) Creating the model or developing the model, the researcher will create or develop (there are already developers in the same topic) to determine the accuracy of the model or other topics as well as the results of related studies or research. This will help to determine the various elements or variables in the model, including the relationship between these elements or variables or the sequence of each element. In modeling, the development of the model must be based on the principle of rationality as an important foundation, and a great deal of research will greatly benefit the development of the model. A researcher may think of models being created first and then improved based on information. Through the study of theories, concepts, models, or related research results. Or by studying individual sub- elements or variables. Important sub- elements or variables that make up the structure of the model can be selected. 2) Testing the fidelity of the model It is necessary to test the fidelity of the model after the first stage of developing the model. This is because the developed model is only a model based on assumptions, although it is developed on the basis of the theory of other people's modeling concepts and the results of past research. It requires data collection or experimentation in real situations. Use it in a real situation to test its appropriateness. Is this a valid format? As expected (at this stage, the term "model performance testing" is sometimes used), collecting data in real scenarios or trying out models developed in real scenarios will help to understand the impact or importance of sub- elements or variables on the model and the impact or importance of groups of elements or variables in the model. The researcher can improve the new model by making cuts. The elements or variables found to be influential or less important to its form will produce the appropriate form.

Asavaphum,S. (2006) presented ideas and guidelines for developing the model as follows:1. Modeling research means analyzing and studying the principles and data. Creating the basics of the model this can be done through opinion polls or field studies; 2. Model Demonstration designing and demonstrating a new model to get a better model than the current one. It is not necessary to try out the model at this stage. It is only necessary to arrange opportunities for demonstration for consideration by those involved, for example in the form of questionnaires or seminars to introduce experts for

consideration and evaluation of the use of the model for practitioners to assess its feasibility as well as to provide comments or suggestions; 3. Model development refers to the three parts of the study that the researcher needs to carry out: modeling study. Designing new models Trying out new models in real-world situations. How many rounds are used depends on the research project. And reporting the results of the trials In summary the model used for maximum benefit must include important features are have structural relationships. The results can be predicted the predictions can be extended more widely and can bring new ideas for developing the model the researcher must study the concepts. Theories for creating models analyze and synthesize stored data to determine the relationships of model elements clearly define the structure and propositions of the model draw conclusions that explain the expected phenomena of the study test and improve the model before it is implemented and evaluate the model after it is implemented.

In summary, model development is the research and development to design and present new models to get better models than the existing ones. It comes from the method of analyzing documents and conducting research based on the actual situation and then presenting it as a system. In this study, the process of improving the model of professional competence for rural kindergarten teachers was used: 1) Study the components, 2) Study existence conditions desired conditions, 3) Creating a model, 4) Evaluation suitability and feasibility of the mode.

4. Context of rural kindergarten teachers in Guangxi

4.1 Development of Preschool Education in Guangxi

Hai Ying (2019) studied the development of preschool education in Guangxi. The study found that the regional development of preschool education in Guangxi is unevenly invested, and the differences between urban and rural areas are extremely significant, the educational level of the preschool teacher team is rapidly improving, and the increment of highly educated teachers is obvious; however, the level of the title is extremely low, the shortage of backbone teachers is serious, and the professional quality of the teachers is in urgent need of improvement. The study suggests emphasizing the shortage of various types of educational resources for preschool

education, guaranteeing the construction of a full-time preschool teacher team, and meeting the people's growing demand for quality preschool education; strengthening the government's overall planning and investment in preschool education, establishing a population forecasting mechanism, and coordinating the allocation of resources for urban and rural preschool education.

Huang Qiongyi and Li Jing (2022) explore the development of preschool education in the border areas of Guangxi. The study points out that the distribution of quality resources for preschool education in border areas is uneven; kindergarten teachers in border areas are difficult to retain and have a low degree of professional development; parental participation is low, and the problem of intergenerational rearing of preschool children in border areas is prominent. The study suggests rationalizing the allocation of quality resources and constructing a fair and high-quality public service system for preschool education in the border areas; focusing on the weak links restricting the development of preschool education in the border areas: curricula and teachers; and constructing a family guidance system for scientific parenting that meets diversified needs in the border areas.

Zhang Fujie (2023) studied the development of preschool education in townships in border ethnic areas of Guangxi. The study points out that education funding is insufficient, and the development of preschool education is weak; the basic treatment of teachers is poorly guaranteed, and the overall level of teachers is low; there are few universal education resources, and the quality of running a school needs to be urgently improved. The study suggests rationalizing the education management system, coordinating the overall development of preschool education in townships in border ethnic areas; strengthening the monitoring of population dynamics, and constructing a demand-oriented preschool education resource supply model; guaranteeing the investment of preschool education funds, and upgrading the level of kindergarten operation in townships in border ethnic areas.

The Department of Education of the Guangxi Zhuang Autonomous Region (2023) released the Main Results of Guangxi Education Statistics in 2022, reporting that there are 13,699 kindergartens in the region, a decrease of 355 kindergartens, or 2.5 percent, from the previous year. Among them, there are 10,618 inclusive kindergartens, 227 more than the previous year, an increase of 2.18 percent, accounting

for 77.51 percent of the kindergartens in the region. Kindergartens have a total of 229,200 teaching staff, an increase of 3,952 over the previous year, an increase of 1.8%. There are 2,170,000 preschool children in the region, a decrease of 105,100 or 4.6% from the previous year. Among them, universal kindergartens have 1,990,400 children in kindergartens, 58,200 fewer than the previous year, a decrease of 2.84%, accounting for 91.73% of all children in kindergartens in the region, an increase of 1.68 percentage points over the previous year.

National Bureau of Statistics (2024) according to the National Economic and Social Development Statistics Bulletin of the People's Republic of China for 2023, China's urban population to date is 920.71 million, accounting for 65.21% of the country's total. The rural population is still 491.04 million, accounting for 34.79% of the country's total population. The above figures show that although the rural population is gradually decreasing, its proportion is still huge, so rural education is still the most important. As an important part of China's basic education, rural kindergarten education, combined with the current situation of China's educational development, greatly promotes the comprehensive development of rural kindergarten education, attaches great importance to the preschool education of rural children, and to a certain extent, can also provide strong support for the construction of China's future socialism.

In summary, pre-school education in Guangxi as a whole shows a positive trend of an increase in the number of inclusive kindergartens and an increase in the number of teaching staff, but at the same time faces the challenge of a decrease in the number of children in kindergartens. Issues such as urban-rural disparities, uneven distribution of resources in border areas, and insufficient professional development for teachers need to be addressed.

4.2 Professional Development of Rural Kindergarten Teachers in Guangxi

Huang Yuting (2019) studied the current problems and countermeasures of early childhood teacher structure in rural Guangxi. The study pointed out that the problems existing in the structure of rural early childhood teachers in Guangxi include: the imbalance of the gender ratio of early childhood teachers; the age of early childhood teachers is "aging", and the age of teaching is "youthful"; the educational level of early childhood teachers is not high, and there is a lack of professionals; the title of early

childhood teachers, The structure of early childhood teachers is not reasonable; early childhood teachers are not licensed; and the staffing of teachers and children is not reasonable. The study suggests that male preschool trainees should be trained systematically; teachers should be better paid to attract new staff; preschool teachers should be better qualified; teachers should be more specialized; the government should plan to increase the number of public kindergarten places in rural areas; and the ratio of teachers to children should be rationalized.

Xie Yue and Li Ling (2022) studied the post-service education path of rural kindergarten teachers in Guangxi ethnic areas. The study pointed out that the importance of post-service education for rural kindergarten teachers in ethnic areas of Guangxi include: thick planting professional concepts and teacher morality, cultivating love for children; consolidating professional knowledge, laying the cornerstone of knowledge of children; improving professional competence, cultivating a good opportunity to protect children. The results of the study, centralized training, typical virtue, cultivate professional philosophy and teacher morality; online and offline lectures and practice to see the combination of thinking, enrich professional knowledge; on-site diagnosis and guidance, improve professional competence.

Lai Aiqun, Wu Xiaojing, and Shi Yudan (2023) studied the optimization of the construction of Guangxi's rural preschool teacher team in the context of rural revitalization. The study pointed out that the structure of the teaching force was not reasonable enough; teachers' salary and treatment had to be improved; teachers' sense of professional identity had to be enhanced; and teachers' professional development was limited. The study suggests implementing the "U-G-K" collaborative education model to improve the structure of Guangxi's rural preschool teachers; improving the treatment of Guangxi's rural preschool teachers; constructing an incentive mechanism for Guangxi's rural preschool teachers; and building a learning system for Guangxi's rural preschool teachers.

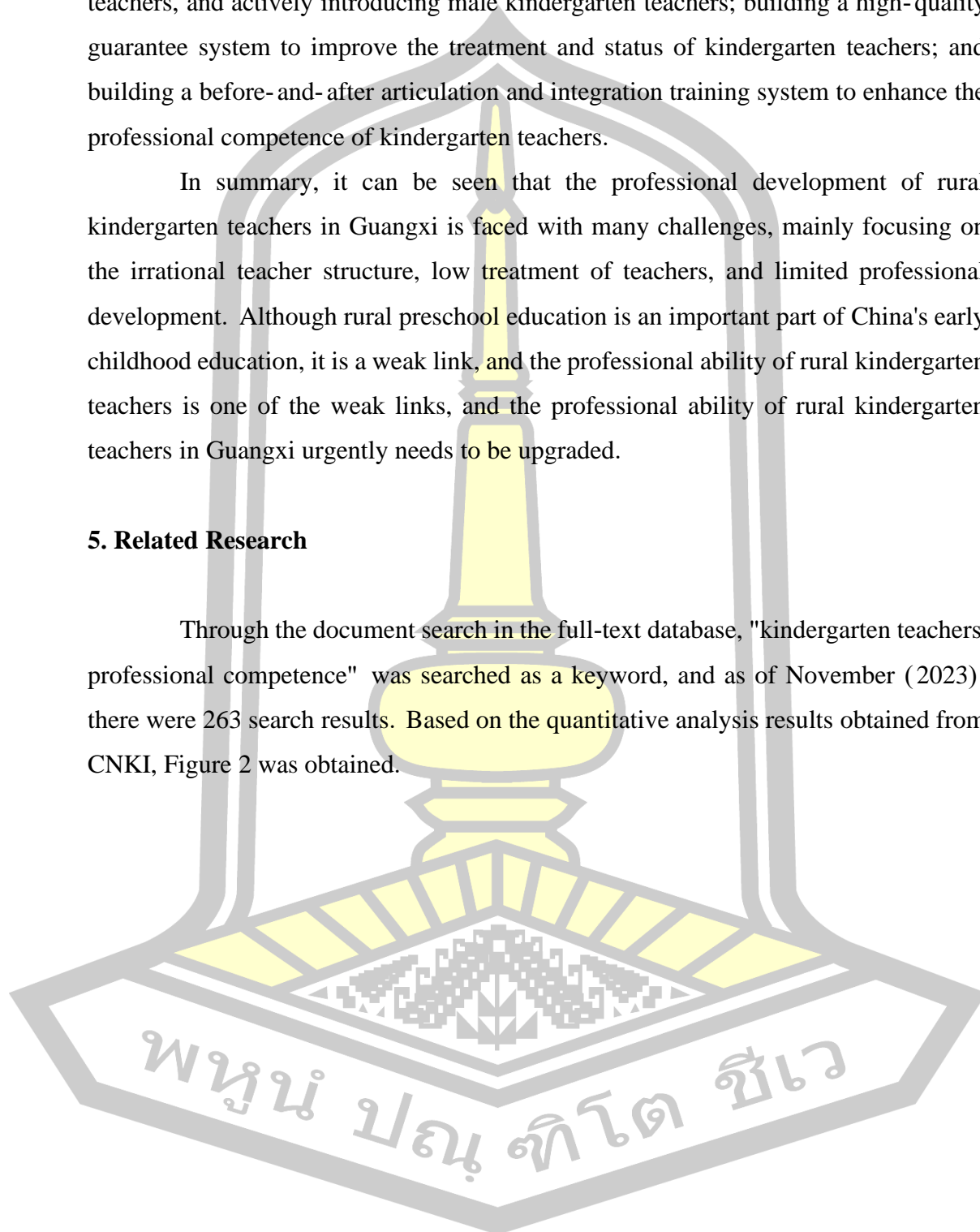
Liang Zhenming (2023) studied the countermeasures for the construction of kindergarten teachers in Guangxi township centers in the context of rural revitalization. The study points out that there is a large teacher shortage and the teacher structure is unreasonable; teachers' treatment and social status are low, and the work pressure is high; teachers' professional level is low, and there is a lack of training opportunities.

The study suggests building a multi-channel mechanism for hiring and replenishing teachers, and actively introducing male kindergarten teachers; building a high-quality guarantee system to improve the treatment and status of kindergarten teachers; and building a before-and-after articulation and integration training system to enhance the professional competence of kindergarten teachers.

In summary, it can be seen that the professional development of rural kindergarten teachers in Guangxi is faced with many challenges, mainly focusing on the irrational teacher structure, low treatment of teachers, and limited professional development. Although rural preschool education is an important part of China's early childhood education, it is a weak link, and the professional ability of rural kindergarten teachers is one of the weak links, and the professional ability of rural kindergarten teachers in Guangxi urgently needs to be upgraded.

5. Related Research

Through the document search in the full-text database, "kindergarten teachers' professional competence" was searched as a keyword, and as of November (2023), there were 263 search results. Based on the quantitative analysis results obtained from CNKI, Figure 2 was obtained.



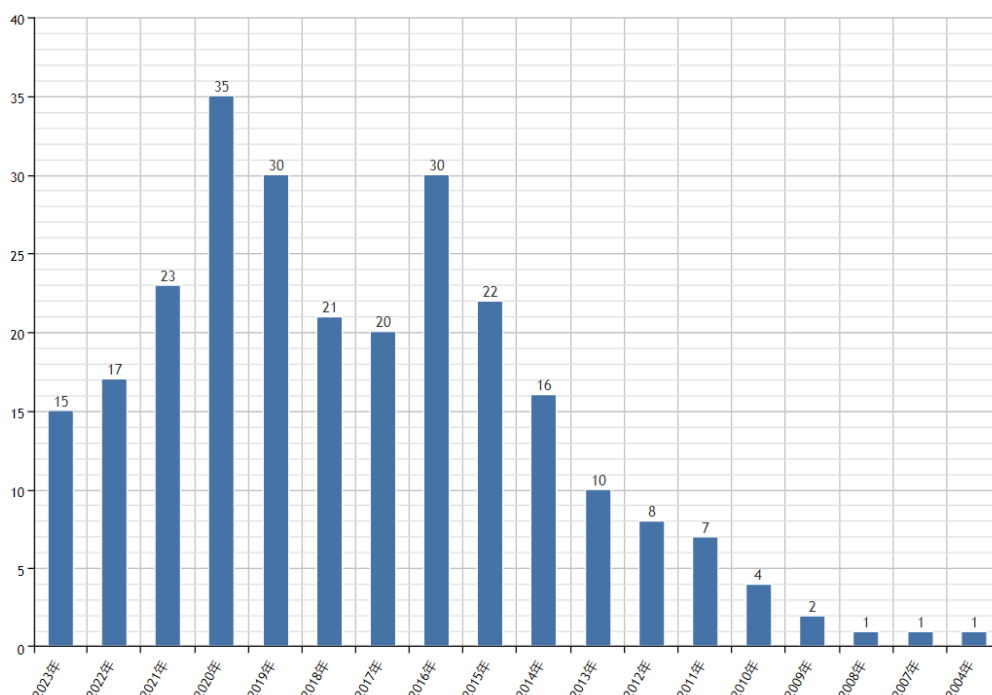


Figure 2 Trends in the publication of kindergarten teachers' professional competence

Combined with the trend statistics in Figure 2, the research on "kindergarten teachers' professional competence" has reached a peak of 35 articles in 2020. With the rapid development of preschool education, the requirements of kindergarten teachers' professional competence for kindergarten teachers are rising, and the professional competence of kindergarten teachers has gradually become the focus of researchers' attention. Checking the existing studies found that the issue of kindergarten teachers' professional competence for development has attracted much attention from scholars at home and abroad. Research methods are mostly questionnaire method, interview method in the research object, kindergarten teachers' professional competence of domestic and international research, mainly focus on the concept of professional competence of kindergarten teachers, components, influencing factors, enhancement strategies and evaluation criteria. There have been studies that provide some reference and inspiration for the design of this study.

5.1 Research on the Connotation of Kindergarten Teachers Professional Competence

The concept of kindergarten teachers' professional competence is very abstract. Scholars define the connotation of kindergarten teachers' professional competence through different approaches. There are mainly the following viewpoints:

Viewpoint 1: Kindergarten teachers' professional competence belongs to a comprehensive competence. Lian Yueh (2009) proposed that kindergarten teachers' professional competence is the sum of competences formed and expressed by kindergarten teachers in educational and teaching activities, which indirectly or directly affect the quality of educational activities and determine the implementation and completion of educational activities, and it is a specialized competence necessary for engaging in early childhood education activities. Liu Zhanlan (2012) suggests that kindergarten teachers' professional competence for kindergarten teachers has uniqueness and comprehensiveness, and should emphasize the important value of kindergarten's combination of preservation and teaching, play as the basic activity, and the environment and life for young children's development in an all-encompassing and multifaceted way.

Viewpoint 2: Kindergarten teacher professional competence is an educational skill. Bao Ruoyu (2019) proposed that kindergarten teachers' professional competence for kindergarten teachers to engage in teaching and learning work in order to successfully complete the teaching task, the use of a variety of educational resources to promote the overall development of young children embodied in the educational skills. Li Xiaoli (2020) proposed that the professional competence of kindergarten teachers refers to the professional quality of kindergarten teachers to be able to complete the teaching tasks of kindergartens and provide help to young children in all aspects of growth, including not only the mastery of theoretical knowledge of education, teaching practical ability and other professional competence, but also professional attitudes toward young children, work, parents of young children, and the park, as well as a certain amount of teaching emergencies according to the timely and efficient There is also a certain degree of competence to change the teaching arrangement in a timely and effective manner according to the unexpected teaching situation.

In summary, most scholars believe that the professional competence of kindergarten teachers is an important embodiment of the professional quality of teachers, which is rich in connotations, is an important factor affecting and determining the quality of kindergarten education, and is also an important criterion for measuring the professional level of kindergarten teachers.

5. 2 Research on the component of professional competence of kindergarten teachers

According to the search for a large amount of information summarized domestic researchers on the composition of professional competence of early childhood teachers, mainly from the theoretical research and practice research two aspects.

Viewpoint 1: From the aspect of its theoretical research, there are different opinions on the components of professional competence of early childhood teachers in China. Ye Li (2008), in her master's thesis, argued that the professional competence for early childhood teachers includes: teaching competence, competence in organizing the day-to-day life of young children, competence in interacting with young children, competence in cooperation, and competence for self-development. Following Ye Li's example, Yang Da (2017), through questionnaires and data analysis, argued that the professional competence for early childhood teachers has the following components: teaching, evaluating young children, self-development, communicating with parents colleague cooperation and collaboration, evaluating teaching, developing teaching resources, reflecting on teaching, communicating with young children, and maintaining the routine events, etc., and that the above 10 dimensions are more in line with each other compared to the Practical.

Viewpoint 2: In terms of their practice research, early childhood teachers in the frontline of education have different opinions on the professional competence they need to possess. Li Xiaoming (2010) believes that in addition to basic teaching competence, early childhood teachers should also have the ability to protect children's safety, develop and guide children in whole- brain activities, and innovation competence. Liu Bijian (2014) believes that the professional skills of early childhood teachers are the behaviors that teachers show in kindergarten preservation and teaching activities. Therefore, the professional skills of early childhood teachers are divided into conditional skills and ontological skills.

In summary, no matter from the theoretical research or from the practical research, it can be understood that the requirements for the professional competence of early childhood teachers in the new era are more rigorous, and at the same time comprehensive and diverse.

5.3 Research on the factors influencing the professional competence of kindergarten teachers

Summarizing the related literature studies, it can be found that the factors affecting the professional competence of kindergarten teachers are mainly divided into two kinds: kindergarten teachers' own internal factors and external objective factors.

Viewpoint 1: The aspect of teachers' own internal factors. Wu Li-hong (2005) believes that the core factor affecting the professional competence of kindergarten teachers is the kindergarten teachers' own internal achievement motivation. Teachers with high internal motivation to achieve tend to work hard to set high goals, and then their professional growth process is relatively fast. On the contrary, early childhood teachers with low internal achievement motivation tend to make actions for low goals, then their growth process is relatively slow. Wang (2017), on the other hand, argued that the influences on the professional competence of early childhood teachers are twofold: professional autonomy as well as professional ideals. Among them, professional autonomy refers to teachers' ideals and beliefs about the nature, purpose, value and life of education, etc., which are formed on the basis of their feelings and understanding of educational work. Early childhood teachers' self-development needs and ideals have a significant impact on their professional growth, are important internal factors for their professional improvement, and directly affect the initiative of early childhood teachers' autonomous growth. Professional ideals mean that early childhood teachers are able to decide the direction of development on their own, and this factor directly affects their developmental motivation.

Viewpoint 2: External objective factors. It can be summarized through reading the literature that the external objective influences on the professional competence of early childhood teachers can be elaborated from two aspects. One is the kindergarten level; the other is the viewpoints of other researchers. The first is the kindergarten level. Chen Jinju (2007) believes that the more superior the kindergarten environment is, the more favorable it is for teachers' professional development. Based

on this understanding, a model of factors influencing the professional competence of kindergarten teachers was established through surveys and data analysis, based on the degree of influence in descending order: organizational climate, rules and regulations, teacher culture, director's leadership style and kindergarten support system. Zhang Ximeng (2017) promotes teachers' own professional competence for development from the kindergarten perspective. The first is to increase the importance of the director's attention to the professional development of teachers, and the second is to ensure the stability of the teaching force. Kindergartens should establish a set of personnel management system to protect the basic rights and interests of teachers, which includes guaranteeing the basic salary of teachers, improving the social security such as pension insurance, promoting titles, evaluating excellence, and providing teachers with opportunities for on-the-job training.

In summary, there have been studies on the factors influencing the improvement of early childhood teachers' professional competence in two main ways. The first is the teachers' internal self- factors, that is, the teachers' achievement motivation, character traits, professional ideals as well as their own competence reflection in several aspects. The second is the external objective factors. From the kindergarten side, the kindergarten working environment, such as rules and regulations, the kindergarten director's awareness of professional competence for early childhood teachers, and the professional training for early childhood teachers have been taken as influencing factors. From the level of other researchers, they mainly included several aspects of kindergarten environment, teachers' humanistic care, and teachers' competence in proper communication with parents.

5.4 Research on Strategies to Enhance Early Childhood Teachers' Professional Competence

Summarizing related literature studies, it can be found that the strategies to enhance the professional competence of kindergarten teachers are mainly centered on several levels: the government level, the kindergarten level, and the kindergarten teachers' own level.

Perspective 1: Northern Alberta Development Council (2010) implemented the Mentorship program to provide targeted guidance to new teachers on professional knowledge and competence, to help them recognize and understand the diverse needs

of rural education, and to help them develop a sense of professional identity and belonging. The program also provides teachers in remote rural areas with a specialized training program. Targeted online courses and correspondence courses are also offered to teachers in remote rural areas to promote the overall improvement of rural teachers' knowledge, teaching competence and professional quality. Liu Junhao (2018) studied a systematic professional development system in terms of the system introduced by the government, on the one hand, and the internal system support system on the other hand: specifically, it includes exploring a graded certification system for teacher qualifications; establishing a systematic and clear system of kindergarten teachers' professional access standards; promoting standardized management and supportive safeguards for the kindergarten teachers' appointment system; enhancing the practicability of the professional standards for kindergarten teachers to adapt to the different stages of the The professional development of kindergarten teachers is differentiated; the accreditation and quality evaluation system of teacher education institutions is improved, and the construction and management of high- quality programs are promoted; the effectiveness of the kindergarten teacher training system is improved, and the evaluation and supervision of the system are promoted. External institutional guarantee system: mainly involves focusing on gradually breaking down the discriminatory institutional identity; ensuring the professional identity of kindergarten teachers' development based on scientific and reasonable establishment management; enhancing the standardization and normalization of title evaluation; and actively and effectively dealing with the potential impact and actual obstacles of the informal system. Zhu Ling and Huang Zixing (2021) pointed out that the government-level countermeasures to enhance the professional competence for rural kindergarten teachers include: increasing financial support, strengthening institutional safeguards, improving the training system for kindergarten teachers, and formulating professional competence for professional development planning. Liu Meiqin (2020) analyzed from the government's point of view that to enhance the professional competence for kindergarten teachers should increase the financial support for the professional development of kindergarten teachers, implement the academic upgrading program, provide kindergarten teachers with hierarchical content of professional development,

and focus on supporting the professional development of teachers during the period of adaptation, and teachers of privately-run kindergartens.

Viewpoint 2: Strategies to enhance the professional competence of kindergarten teachers kindergarten level. Huang Cuihua (2014) believes that there are four strategies to enhance the professional competence for kindergarten teachers in the border areas of Guangxi, firstly, the government side should increase the investment in education funding, give kindergarten teachers career security, increase support, and strengthen the on-the-job training of kindergarten teachers; secondly, the social side should strengthen the publicity of pre-school education, increase the social identity and professional prestige of kindergarten teachers, make it clear that pre-school education is of public welfare, and improve the sense of professional cooperation within the early childhood teachers; third, kindergartens should strengthen the construction of the garden, improve the professionalization of early childhood teachers, improve the system of continuing professional education, strengthen the quality of the teaching force, and improve the entry requirements of rural early childhood teachers; fourth, teachers should strengthen the sense of professional competence for the professional development of early childhood teachers, study the classics, update the concepts of early childhood teachers, actively participate in the training and independent practice, and improve the professional development of early childhood teachers. practice, and improve the professional competence for the professional development of early childhood teachers. According to Hariyuan (2016), the strategies for cultivating the professional competence for early childhood teachers include: pre-service education of early childhood teachers to open the curriculum construction based on the standards of professional competence for kindergarten teachers; and firming up the teachers' educational beliefs through the construction of the culture of the garden. Early childhood teachers themselves need to enhance the autonomy of professional development. Kindergartens provide professional development support. Xu Donghong (2014) believes that the ways to improve the professional competence of kindergarten teachers include: improving the training system for kindergarten teachers and promoting the professional growth of teaching methods; establishing a teaching and research platform for resource sharing; carrying out professional training; and introducing the concept of humanistic view of work.

Viewpoint 3: Strategies to improve the professional competence of kindergarten teachers kindergarten teachers' own level. Zuo Junnan (2014) Continuous reflection and learning in cooperation with peers can effectively improve teachers' professional competence, especially the cooperation and exchange between non-professional preschool teachers and preschool teachers can effectively improve the professional competence of non-professional teachers. Such exchanges can take place in the form of dialogues or through on-site observation and interaction. The interaction of teacher groups can effectively improve the level of professional competence of kindergarten teachers. Kindergartens should arrange a fixed time each week for teachers to use for exchange and discussion, negotiating and solving the confusions each teacher encounters in his or her educational practice, as well as viewing teaching files and discussing various educational challenges. Teachers influence each other through dialogues, exchanging personal thoughts as well as observing each other's teaching skills techniques, thus improving each teacher's competence and updating their professional knowledge. Chen Zhihua and Zeng Si (2023) believe that kindergarten teachers' professional competence improvement strategies include: kindergarten teachers strengthen their own learning, so that they can "know what is in their hearts" and "move with a sense of reasoning"; strengthen the support and guidance of the weak links, and promote the comprehensive and coordinated development of teachers' professional competence; prioritize the development of a group of exemplary general-education schools; and prioritize the development of a group of exemplary general-education schools. Priority should be given to the development of a number of exemplary and inclusive private gardens, so that the "first to excel" can drive the "second to excel"; adhere to the principle of "bringing in" and "going out" to optimize professional competence training, and "going out" to optimize professional competence training. Zhao Xiaozhu and Zhang Liqun (2024) believe that the strategies for endogenous development of rural kindergarten teachers' professional competence include: establishing a support system to support the development of teachers' professional competence; building a growth platform to create an atmosphere for the development of professional competence; and enhancing self-awareness to build inertia for the development of professional competence.

In summary, according to the researchers' study on the strategies to enhance the professional competence of kindergarten teachers, it is found that the ways to enhance the professional competence of kindergarten teachers are also mainly from the government, kindergartens and kindergarten teachers themselves in several dimensions. Strategies to enhance the professional competence for rural kindergarten teachers include individualized training, community involvement, technology application, incentives, and collaborative development models. These strategies provide practical solutions to the specific challenges faced by rural teachers, such as insufficient resources and a sense of isolation. By utilizing these strategies in an integrated manner, the professional competence of rural teachers can be effectively enhanced and the quality of teaching and learning can be improved, thus having a positive impact on rural education.

5.5 Research on evaluation indexes of kindergarten teachers' professional competence

Summarizing the relevant literature studies, it can be found that the research on kindergarten teachers' professional competence evaluation indexes is relatively small, and the existing relevant literature has constructed kindergarten teachers' professional competence evaluation indexes from different analytical methods.

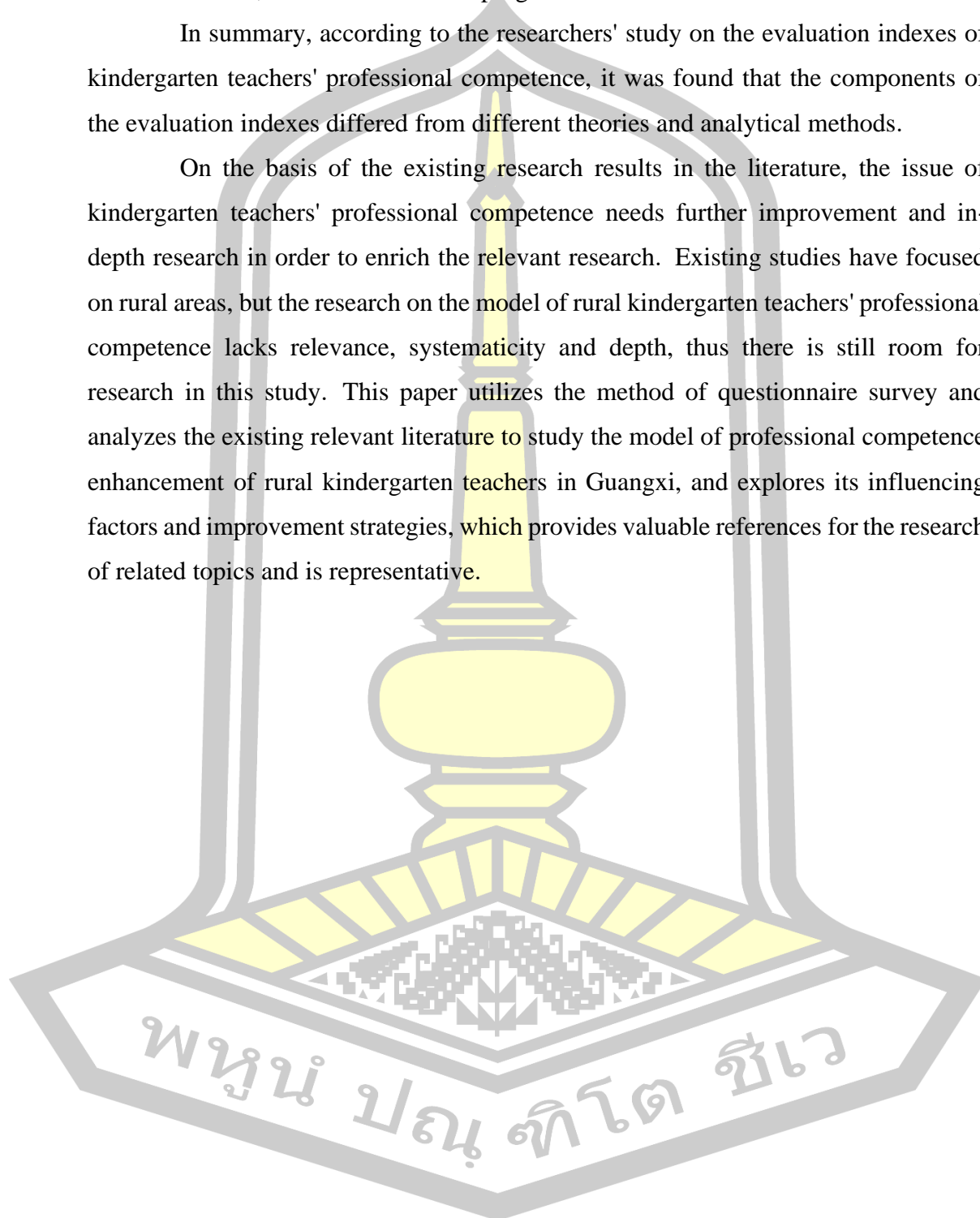
Viewpoint 1: Zhang Wen (2018) studied the evaluation indexes of kindergarten teachers' professional competence by using the literature method, interview method, expert consultation method, and questionnaire survey method, and the results of the study: the preliminary construction of the evaluation indexes, the screening and revising of the evaluation indexes, and the validation and improvement of the evaluation indexes, and finally constructed the evaluation indexes of kindergarten teachers' professional competence based on the Professional Standard in Shanxi Province, which included 7 first-level indicators, 22 second-level indicators and 85 third-level indicators.

Viewpoint 2: Lu Chang'e (2017) used literature analysis method, expert survey method, and hierarchical analysis method to study the evaluation indicators of kindergarten teachers' professional competence, and the results of the study: the evaluation indicators of kindergarten teachers' professional competence are divided into

the target level, criterion level, and program level, of which there are 3 indicators in the criterion level B, and 12 indicators in program level C.

In summary, according to the researchers' study on the evaluation indexes of kindergarten teachers' professional competence, it was found that the components of the evaluation indexes differed from different theories and analytical methods.

On the basis of the existing research results in the literature, the issue of kindergarten teachers' professional competence needs further improvement and in-depth research in order to enrich the relevant research. Existing studies have focused on rural areas, but the research on the model of rural kindergarten teachers' professional competence lacks relevance, systematicity and depth, thus there is still room for research in this study. This paper utilizes the method of questionnaire survey and analyzes the existing relevant literature to study the model of professional competence enhancement of rural kindergarten teachers in Guangxi, and explores its influencing factors and improvement strategies, which provides valuable references for the research of related topics and is representative.



CHAPTER III

RESEARCH METHODOLOGY

This study outlined the study design and procedures for "Developing a model to improve the professional competence of rural kindergarten teachers in Guangxi". The present study process is divided into three stages. Each stage is very detailed, including the procedural steps and the expected results, as shown in Fig.

According to these three types of research questions, the researchers investigated the research answers in three stages. They were:

Phase 1: To investigate on the components and indicators of the professional competence of rural kindergarten teachers.

Stage 1: Investigate the components and indicators of the professional competence of rural kindergarten teachers.

Stage 2: Evaluation the suitability of the professional competence components and indicators of rural kindergarten teachers.

Phase 2: Explore the existence condition, desired condition, and the priority needs of the professional competence of rural kindergarten teachers in Guangxi.

Stage 1: Design a questionnaire and interview outline for exploring the existence conditions, desired conditions and prioritized needs of professional competence of kindergarten teachers in rural Guangxi.

Stage 2: Explore the existence conditions, expected conditions and priority needs of the professional competence of kindergarten teachers in rural Guangxi through questionnaires and interviews.

Phase 3: Developing a model to improve the professional competence of rural kindergarten teachers in Guangxi.

Stage 1: In-depth interviews with model development.

Stage 2: Develop a model to improve the professional competence of rural kindergarten teachers in Guangxi.

Stage 3: To evaluate a model for improving the professional competence of rural kindergarten teachers in Guangxi.

Each phase was presented in details consisting of steps of procedures and expected outcomes as shown in figure 3.

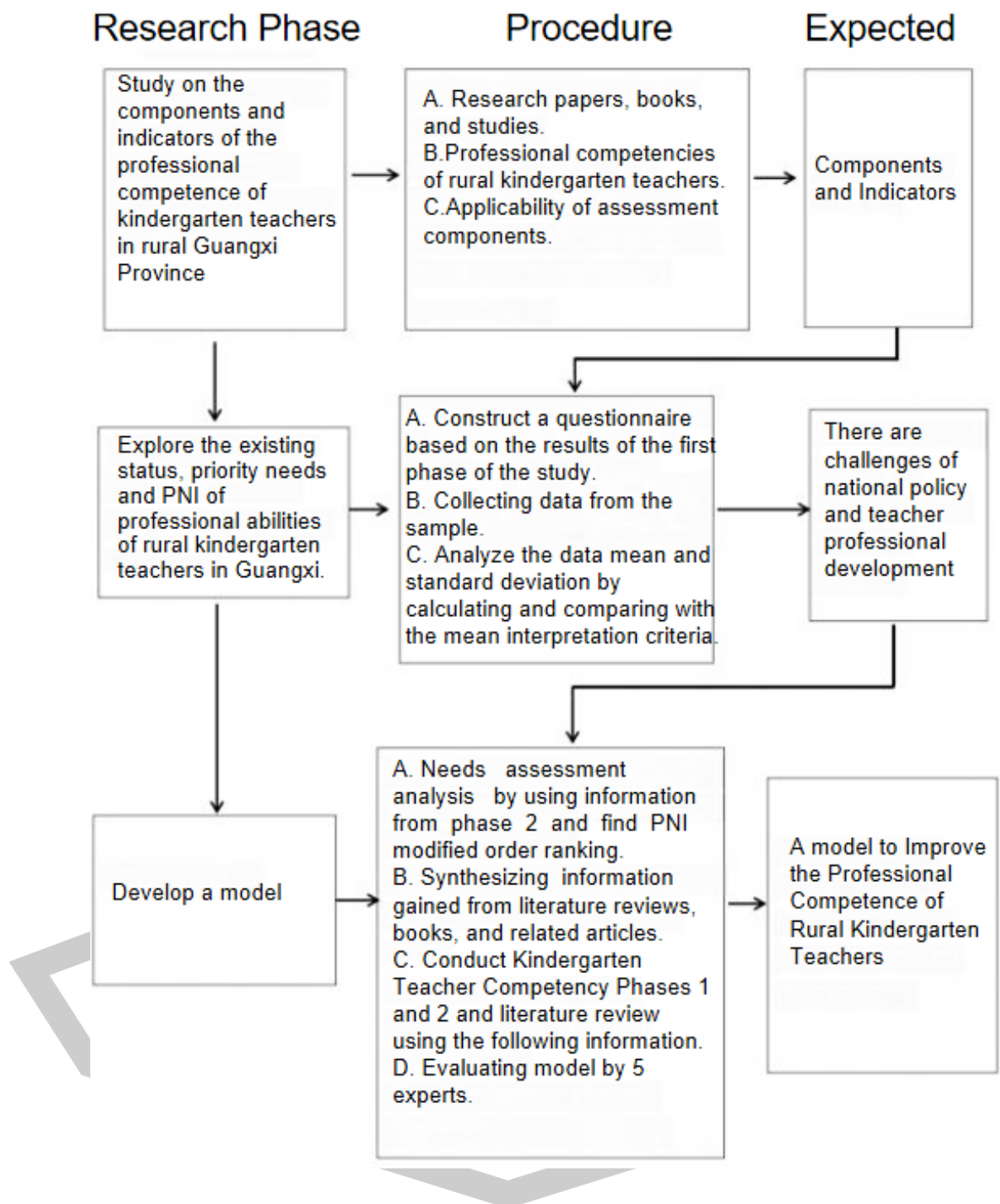


Figure 3 Carry out the research process of improving the professional competence of rural kindergarten teachers in Guangxi

The details of each phase are as follows:

Phase 1: To investigate on the components and indicators of the professional competence of rural kindergarten teachers.

Stage 1: Investigate the components of the professional competence of rural kindergarten teachers.

The researchers organize and integrate the literature and textbooks, analyze and synthesize the professional competence of rural kindergarten teachers in Guangxi from the principles, concepts, theories and related studies, find out the factors affecting the professional competence of rural kindergarten teachers in Guangxi, and summarize, analyze and synthesize the components and indicators. Its research methods are as follows:

1. Data sources

Including books, textbooks, literature and studies related to the variables under study which can be retrieved from libraries, the Internet and online databases.

2. Research Instrument

Record forms (record cards) prepared for printed documents or using Microsoft Word.

3. Data Collection

The researcher collects and categorizes these according to the variables under study.

4. Data manipulation and analysis

Summarize, analyze and synthesize using content analysis techniques and use the analyzed data to categorize items into data analysis.

Stage 2: Evaluation of the suitability of the components and indicators of the professional competence of rural kindergarten teachers.

1. Expert. Criteria for selecting qualified experts areas follows:

1.1 Educational: master degree or above, and graduate students in the above fields

1.2 Experience: talents with professional knowledge and experience in educational management, educational research, educational psychology

1.3 job position: Educational research\educational psychology educational technology leader.

Experts include:

- (1) Assoc. prof..Dr.Pacharawit. Chansirisira
- (2) Assoc. prof.Dr.Thatchai Chittranun
- (3) Prof.Dr.Wen Ping
- (4) Prof. Li Xiangling
- (5) Prof. Yang Yan

2. Research Instruments

The construction of the research instrumentation researchers continue to create and look for the quality of the research instrumentation as follows.

2.1 The research instrument is characterized by the assessment of the suitability of parts and indicators, which is divided into two parts.

The first part: checklist questionnaire to ask about the status of the experts.

The second part: assessment of the suitability of components and indicators of the professional competence of kindergarten teachers in rural areas of Guangxi

Level 5 refers to suitability highest level

Level 4 refers to very suitability

Level 3 refers to suitability medium level

Level 2 refers to suitability low level

Level 1 refers to suitability lowest level

2.2 Finding out the quality research tools

2. 2. 1 Research details of components, indicators of professional competence of rural kindergarten teachers.

2.2.2 Defining components, indicators of professional competence of rural kindergarten teachers.

2. 2. 3 Create forms of assessment of professional competence of rural kindergarten teachers.

2. 2. 4 Check with the consultant for accuracy and make improvements based on suggestions.

2.2.5 Prepare a complete appropriateness assessment form.

3. Data Collection

3.1 The researcher recorded the official documents of the College of Education. Mahasarakham University requested assistance from the experts for data collection.

3.2 Contacting and coordinating with experts in order to assess the suitability of components and indicators of professional competence of rural kindergarten teachers.

3.3 Data collection was conducted and the researcher obtained all the questionnaires within 2 weeks.

4. Data manipulation and analysis

4.1 Organizing the data, the researcher conducted the following

4.1.1 Validation of the assessment form

4.1.2 Code, score and record data integrity.

4.2 Data analysis

The data analysis table for assessing the suitability of methods to improve the professional competence of rural kindergarten teachers using the analysis of means and standard deviation using the criteria for the interpretation of means (Srisa-ard, B. 2010)

4.51 – 5.00 refers to suitability highest level

3.51 – 4.50 refers to very suitability

2.51 – 3.50 refers to suitability medium level

1.51 – 2.50 refers to suitability low level

1.00 – 1.50 refers to suitability lowest level

Phase 2: Explore the existence condition, desired condition, and the priority needs of the professional competence of rural kindergarten teachers in Guangxi.

Stage 1: Design a questionnaire and interview outline for exploring the existence conditions, desired conditions and prioritized needs of professional competence of kindergarten teachers in rural Guangxi.

At this stage, the investigators constructed a questionnaire and interview outline based on the elements and indicators identified in the first stage to explore the

conditions of existence, desired conditions and prioritized needs of professional competence of rural kindergarten teachers in Guangxi. The following research methods were used to conduct the survey and research methodology

1. Expert. Criteria for selecting qualified experts areas follows:

1.1 Educational: master degree or above, and graduate students in the above fields

1.2 Experience: talents with professional knowledge and experience in educational management, educational research, educational psychology

1.3 job position: Educational research\educational psychology educational technology leader.

Experts include:

(1) Dr. Wen Ping, Professor of Guangxi Preschool Normal College, President;

(2) Professor Yang Yan, Preschool Teacher Training Center of Guangxi Zhuang Autonomous Region;

(3) Professor Li Xiangling from Nanning Normal University;

(4) Associate Professor Li Yuyan, Education Department of Guangxi Zhuang Autonomous Region;

(5) Professor Lei Xiangzhu of Guangxi University for Nationalities.

2. Research Instruments

Consistency Rating Scale Expert Indicators (IOC)

3. Data collection

3.1 The researcher recorded the official documents of the College of Education. Mahasarakham University requested assistance from experts to collect data.

3.2 Contacting and coordinating with the experts, sending the research tools including the official consistency rating form, questionnaires and interview outlines, verifying the validity of the questionnaires and interview outlines.

3.3 The researcher conducted data collection through 1 week.

4. Data manipulation and analysis

4.1 Organizing the data, the researcher conducts the following

4.1.1 Validation of the consistency rating scale expert indicators (IOC)

4.1.2 Code, score and record data integrity.

4.2 Data analysis

To validate and examine validity, content validity was established through the Project Objective Concordance Index (IOC) to improve the relevance of the questionnaire items to the term definitions defined in Chapter I. The accuracy of the questionnaire content validity was valid when the IOC standard value is greater than or equal to 0.7. The questionnaire was then revised according to the expert advice and recommendations and returned to the consultant for adjustment before trial. The IOC has made the following considerations:

- + 1 Is a question that the experts all agree to answer
- 0 Represents that the elements and indicator content are not appropriate
- 1 Refers to what the expert does not agree with

The researcher pre-tested the questionnaire to find discriminant and reliocompetence values.

Index of Conformity (IOC)=0.80-1.00. Item classification competence was found by finding the simple correlation coefficient between the item score and the total score from Pearson's simple correlation coefficient. 0.690 or more, by observing the item- to- item total correlation, the researcher takes the question with a discrimination value and uses Cronbach's alpha coefficient method to find the confidence value of the entire version, with the standard being 0.921 and above.

Stage 2: Explore the existence conditions, expected conditions and priority needs of the professional competence of kindergarten teachers in rural Guangxi through questionnaires and interviews.

1. Population and Sample

To obtain a sample for this study, the researcher used a stratified random sampling technique to obtain samples of certified Guangxi rural kindergarten teachers, Guangxi Education Bureau leaders, and Guangxi rural kindergarten principals. The population size is 399, and it is under the responsibility of the Guangxi Education Department, including 346 Guangxi rural kindergarten teachers, 1 Guangxi Education Bureau leader and 52 Guangxi rural kindergarten principals. The samples were obtained using the formula of Yamane (1973).

Formula

$$n = \frac{N}{1 + Ne^2}$$

The meanings are

n = sample size

N = population

e = confidence level (95%)

Then the result of sample size is shown in the table 22.

Table 22 Population and Sample

No.	Kind of Population	Total Population	Total Sample
1	Rural kindergarten teacher	68300	346
2	Education bureau leadership	71	1
3	Kindergarten principal	10200	52
Total		78571	399

2. Research Instrument

Part 1 (Questionnaire): Background Check. This article investigates gender, age, education, professional title, qualifications, experience, professional background, field of study and salary income..

Part 2 (Questionnaire): Using the five-scale questionnaire and the priority question form as research tools, the learning status and priority needs of rural kindergarten teachers in Guangxi were investigated.

5 means that this level is very high

4 means the level is high

3 means the level is average

2 means lower level

1 means the level is very low

Part 3 (Questionnaire): Cause investigation and improvement needs. This article investigates the main factors that restrict the development of kindergarten

teachers' professional abilities, the most deficient professional abilities of rural kindergarten teachers in Guangxi, the reasons that hinder the thinking and scientific research of rural kindergarten teachers in Guangxi, and the most important projects to improve the professional abilities of rural kindergarten teachers in Guangxi. The kindergarten has organized research on " Kindergarten Teacher Standards" , the kindergarten's support for improving the professional abilities of rural kindergarten teachers in Guangxi, and the most desired training methods for the professional abilities of rural kindergarten teachers in Guangxi.

Part 4 (Interviews): The researchers interviewed rural kindergarten directors, rural kindergarten teachers and preschool education administrative supervisors. The interviewees covered the main stakeholders of rural kindergartens in Guangxi, and were selected with certain typicality and representativeness. During the implementation of the specific interviews, different subjects combined their personal work to state their views and opinions on the relevant issues. In terms of the methodology of the specific research, it was mainly carried out in the form of face-to-face interviews, and the interviews were conducted in a semi-structured form.

3. Data collection

3.1 Invitation letter and approval letter

In order to make the data collection process more effective, smooth and favorable, a letter of invitation was requested from the Faculty of Education of Mahasarakham University and sent to Guangxi Early Childhood Teacher Training Higher Colleges, requesting cooperation in answering the questionnaire and asking for assistance in the collection of data from the designated sample group. The researcher obtained a letter of approval from Guangxi Early Childhood Normal Higher Specialized School.

3.2 Questionnaire Distribution and Collection

The researcher reached out to rural kindergartens and education bureaus in Guangxi to distribute the questionnaires and collected them over a four-week period. The investigators conducted the questionnaire survey on 399 people. Then 100% was extracted from the sample. The researchers verified the validity of the method by scoring the average interpretation and entered the data into the computer

program to obtain data output for analysis. The researcher completed the questionnaire collection in 2 weeks.

3.3 Interviews

The researchers went into rural kindergartens in Guangxi to interview rural kindergarten directors, rural kindergarten teachers and preschool education administrative supervisors. The researchers completed the interviews in 2 weeks.

4. Data Manipulation and Analysis

Data for this study were analyzed using software programs. This study is divided into four parts to analyze the learning status and priority needs of teachers' professional abilities in rural kindergartens in Guangxi.

Part I (Questionnaire): The background investigation uses descriptive statistics to analyze the demographic data of the respondents, including frequency (f), percentage (%) (including gender, age, qualifications, professional titles, education, experience and research fields).

Part II (Questionnaire): The learning status and priority needs of rural kindergarten teachers in Guangxi were analyzed using the mean and standard deviation (S.D). In order to explain the average scores of respondents on the learning status and priority needs of rural kindergarten teachers in Guangxi, the researcher based the explanation on the average scores proposed by Sri Saad ,B.(2010). The average scores are explained as follows:

4.51 - 5.00 means existence/desired condition very high level

3.51 - 4.50 mean existence/desirable condition high level

2.51 - 3.50 means existence/desired condition moderate

1.51 - 2.50 means existence/desired condition low level

1.00 - 1.50 mean existence/desirable condition very low level

Part III (Questionnaire) : Cause investigation and improvement requirements are analyzed using frequency (f) and percentage (%).

Part IV (Interview): Analysis by using descriptive statistics.

Phase 3: Developing a model to improve the professional competence of rural kindergarten teachers in Guangxi.

Stage 1: In-depth interviews for model development

1. Expert. Criteria for selecting qualified experts areas follows:

1.1 Educational: master degree or above, and graduate students in the above fields

1.2 Experience: talents with professional knowledge and experience in educational management, educational research, educational psychology

1.3 job position: Educational research\educational psychology educational technology leader.

Experts include:

(1) Prof. Zhou Hong, Guangxi Vocational Teachers College;

(2) Prof. Liu Bijian, Guangxi Early Childhood Normal Higher and Specialized School;

(3) Prof. Li Yanrong, Guangxi Early Childhood Normal Higher and Specialized School;

(4) Prof. Liao Danping, Qingxiu District Education Bureau, Nanning City, China;

(5) Prof. Lei Xiangzhu, Guangxi University for Nationalities.

2. Research Instrument

In-depth expert interviews, focusing on soliciting the opinions of five experts have been comprehensively developed a draft model for improving the professional competence of rural kindergarten teachers in Guangxi.

3. Data collection

3.1 The researcher recorded the official documents of the College of Education. Mahasarakham University to the experts to request assistance in data collection.

3.2 The experts were contacted and coordinated to request the date and time of in-depth interviews.

3.3 Interviews were conducted at the specified date and time and the researcher conducted data collection through 2 weeks.

4. Data manipulation and analysis

The in-depth expert interviews were analyzed using descriptive statistics.

Stage 2: Develop a model to improve the professional competence of rural kindergarten teachers in Guangxi

In drafting to developing a model for improving the professional competence of kindergarten teachers in rural Guangxi. The researcher's progress is as follows:

1. the researcher's findings from the first phase of the study, i.e. the components, indicators and guidelines for improving the professional competence of rural kindergarten teachers in Guangxi based on the research concepts. The draft model for developing a model for improving the professional competence of kindergarten teachers in rural Guangxi includes five components: 1) principles, 2) objectives, 3) content and methods, 4) evaluation, and 5) successful conditions.

2. The researcher developing a draft model for improve the professional competence of rural kindergarten teachers in Guangxi. The proposal will be given to the consultant for consideration and based on the consultant's suggestions and corrections.

3. the researcher will present the model to the experts.

Stage 3: To evaluate the model of improving the professional competence of rural kindergarten teachers in Guangxi

1. Expert.Criteria for selecting qualified experts areas follows:

1.1 Educational:master degree or above, and graduate students in the above fields

1.2 Experience:talents with professional knowledge and experience in educational management, educational research, educational psychology

1. 3 job position: Educational research\educational psychology educational technology leader.

Experts include:

(1) Prof. Wen Ping, President of Guangxi Early Childhood Normal Higher Specialized School;

(2) Prof. Yang Yan, Early Childhood Teacher Training Center of Guangxi Zhuang Autonomous Region;

(3) Prof. Li Xiangling, Nanning Normal University;

(4) Prof. Li Yuyan, Associate Professor, Department of Education, Guangxi Zhuang Autonomous Region;

(5) Prof. She Yabin, Guangxi Early Childhood Teacher Training College.

2. Research Instrument

The assessment form was designed and used to ask five experts to collect primary data. The focus of the assessment form was to assess the suitability and possibility of the model to improve the professional competence of kindergarten teachers in rural Guangxi.

3. Data collection

3.1 A letter was prepared asking the Faculty of Education to collaborate with the experts.

3.2 Data were distributed via hard copy, sent directly to the experts, and emailed to the experts.

3.3 The researcher would receive the data via e-mail or collect the complete paper by meeting directly with the expert. The researcher was then provided with a draft within a week.

4. Data Manipulation and Analysis

The researcher manipulated the mean scores of data responses and results by validating the analyzed data and interpreting the data. Use the average interpretation criterion (Boonchom Sri-saard, 2010).

4.51 - 5.00 refers to suit competence and possibility is very high

3.51 - 4.50 refers to suit competence and possibility is high

2.51 - 3.50 refers to suit competence and possibility is medium

1.51 - 2.50 refers to suit competence and possibility is low

1.00 - 1.50 refers to suit competence and possibility is very low

CHAPTER IV

DATA ANALYSIS RESULT

Research on Developing a Model to Improve the Professional Competence of Rural Kindergarten Teachers in Guangxi. The researcher analyzed the data in the following order:

1. Symbols used to data analysis results
2. Steps for data analysis results
3. Result of data analysis

Symbols used to data analysis results

Presentation of data analysis results and interpretation of data analysis results. The researcher defined symbols representing various meanings as follows:

\bar{X}	replace	Mean
S.D	replace	Standard Deviation
$PNI_{modified}$	replace	Priority Need Index modified
N	replace	Population
I	replace	Importance or Desired State
D	replace	Degree of success or Existence State

Steps for data analysis results

Results of the analysis are divided into 3 phases:

Phase 1: Analyzing the components and indicators of professional competence of rural kindergarten teachers.

Phase 2: Analyzing existence conditions, expected conditions and $PNI_{modified}$ of professional competence in rural kindergarten teachers in Guangxi.

Phase 3: Developing a model to improve the professional competence of rural kindergarten teachers in Guangxi.

Result of data analysis

Phase 1: Analyzing the components and indicators of professional competence of rural kindergarten teachers in Guangxi, divided into 2 steps:

Stage 1: The research results found that the professional competence of rural kindergarten teachers in Guangxi has the following components: 1) environment creation and utilization competence 2) daily life organization and conservation competence 3) game activity support and guidance competence 4) educational activity design and implementation competence 5) incentives and evaluations competence 6) communication and cooperation competence 7) reflection and development competence.

Stage 2: The results of evaluating the suitability of the components of the professional competence of rural kindergarten teachers in Guangxi were found to be very high, as shown in Table 3:.

Table 23 Mean and level of Suitability of Components of professional competence of rural kindergarten teachers in Guangxi

Items	Components of the professional competence of rural kindergarten teachers in Guangxi	\bar{x}	S.D	Interpret
1	Environment creation and utilization competence	4.80	0.40	Highest Suitable
2	Daily life organization and conservation competence	4.80	0.40	Highest Suitable
3	Game activity support and guidance competence	4.80	0.40	Highest Suitable
4	Educational activity design and implementation competence	4.60	0.49	Highest Suitable
5	Incentive and evaluation competence	4.40	0.49	Highest Suitable
6	Communication and cooperation competence	4.40	0.49	Highest Suitable
7	Reflection and development competence	4.60	0.49	Highest Suitable
Total		4.63	0.45	Highest Suitable

From the table 23 it was found that professional competence of rural kindergarten teachers in Guangxi were level overall at the highest ($\bar{x}=4.63$) When considering each aspect, it was found that the suitability levels were ranked from highest to lowest as follows 1) environment creation and utilization competence highest ($\bar{x}=4.80$) 2) daily life organization and conservation competence highest ($\bar{x}=4.80$) 3) game activity support and guidance competence highest ($\bar{x}=4.80$) 4) Communication and cooperation competence lowest ($\bar{x}=4.40$).

Phase 2: Analyzing existence conditions, expected conditions and PNImodified of professional competence in rural kindergarten teachers in Guangxi.

Stage 1: Designing questionnaires and interview outlines for exploring the conditions of existence, desired conditions, and prioritized needs of professional competence of rural kindergarten teachers in Guangxi, the results of the study found that the Index of Objective Coherence (IOC) was 0.83 greater than 0.7, and that the questionnaire was valid in terms of content accuracy.

Stage 2: The conditions of existence, desired conditions and priority needs of professional competence of rural kindergarten teachers in Guangxi were explored through questionnaires and interviews, and the analysis was divided into four parts.

Part 1: The results for respondent demographics are shown in Table 24:

Table 24 shows the frequencies and percentages of respondent demographics

project	(n = 399)	
	frequency	percentage
Director of education bureau	1	0.3
Kindergarten teacher	346	86.7
Kindergarten principal	52	13
Gender		
Female	388	97.3
Man	11	2.7

Table 24 (continued)

project	(n = 399)	
	frequency	percentage
Age group		
<25 years old	72	18
Between 25 – 35 years old	198	49.6
From 36-45 years old	87	21.9
Between 41-45 years old	26	6.6
> 45 Years old	16	3.9
Professional title		
Middle School Senior	0	0
Junior Education Senior	0	0
Primary teaching level 1	36	9
Primary Education secondary	128	32
No title	235	59
Preschool education working years		
Within 2 years	78	19.5
For 2-3 years	67	16.8
From 4-9 years	170	42.6
10-14 years	59	14.8
More than 15 years	25	6.3
Degree		
High school, technical secondary school	30	7.4
Junior college	221	55.5
Undergraduate course	148	37.1
Graduate students, and above	0	0

Table 24 (continued)

project	(n = 399)	
	frequency	percentage
Major		
Preschool education		
Normal education but not preschool education	326	81.7
Non-normal class and other majors	28	7
	45	11.3
Teacher qualification certificate		
Kindergarten Teacher Qualification Certificate		
Middle School Teacher qualification Certificate	269	67.4
Secondary vocational teacher qualification	11	2.8
No teacher qualification certificate	6	1.5
	113	28.3
Average monthly salary		
Below 1,500 yuan	8	2
1500-2500 yuan	135	33.8
2500-3000 yuan	117	29.3
3,000-3,500 yuan	62	15.5
3500-4000 yuan	47	11.8
More than 4,000 yuan	30	7.5

Table 24 shows the demographic information of the respondents. Among them, there are 346 teachers (86.7%) teachers, 388 female (97.3%), 25-35 (49.6%), 170 (42.6%) for 4-9 years, 235 (59%), 221 (55.5%), 326 (81.7%) with preschool education background, 269 (67.4%) with kindergarten teacher certificates, and 135 (33.8%) with monthly income of 1,500-2,500 yuan.

Part 2: The results of existence conditions, expected conditions **and** PNImodified of professional competence in rural kindergarten teachers in Guangxi are shown in Table 25:

Table 25 The existence condition, desire condition and PNImodified of professional competence in rural kindergarten teachers in Guangxi. Classified by components of professional competence.

Components	Existence(n=399)			Desired(n=399)			PNI	Rank
	\bar{x}	SD	Interpret	\bar{x}	SD	Interpret		
1. Environment creation and utilization competence	3.47	0.87	medium	4.52	0.50	very high	0.305	2
2. Daily life organization and conservation competence	3.59	0.81	high	4.55	0.50	very high	0.269	7
3. Game activity support and guidance competence	3.46	0.83	medium	4.52	0.50	very high	0.304	3
4. Educational activity design and implementation competence	3.49	0.85	medium	4.53	0.50	very high	0.296	6
5. Incentive and evaluation competence	3.47	0.82	medium	4.52	0.50	very high	0.304	4
6. Communicate and cooperate competence	3.48	0.82	medium	4.53	0.50	very high	0.301	5
7. Reflection and development competence	3.44	0.84	medium	4.51	0.50	very high	0.313	1
Total	3.49	0.83	medium	4.52	0.50	very high	0.299	/

From the table 25 it was found that the existence condition of professional competence of rural kindergarten teachers in Guangxi were level overall at the medium ($\bar{x}=3.49$). Considering each aspect, it was found that the existence condition levels were ranked from highest to lowest as follows: 1) daily life organization and conservation competence 2) educational activity design and implementation competence 3) communicate and cooperate competence 4) environment creation and utilization competence 5) incentive and evaluation competence 6) game activity support and guidance competence 7) reflection and development competence.

The desired condition of competence is the overall level in high ($\bar{x}= 4.52$). Looking at all aspects, we found that the desired level of the condition is ranked from high to low as follows: 1) daily life organization and conservation competence; 2) educational activity design and implementation competence; 3) communicate and cooperate competence; 4) environment creation and utilization competence; 5) Incentive and evaluation competence; 6) game activity support and guidance competence; and 7) reflection and development competence.

The priority Needs Index modified (PNI_{modified}), the order of priority need index modified the First, reflection and development competence. The second, environment creation and utilization competence. The third, game activity support and guidance competence. The fourth, incentive and evaluation competence. The Fifth, communicate and cooperate competence. The sixth, educational activity design and implementation competence. The seventh, daily life organization and conservation competence.

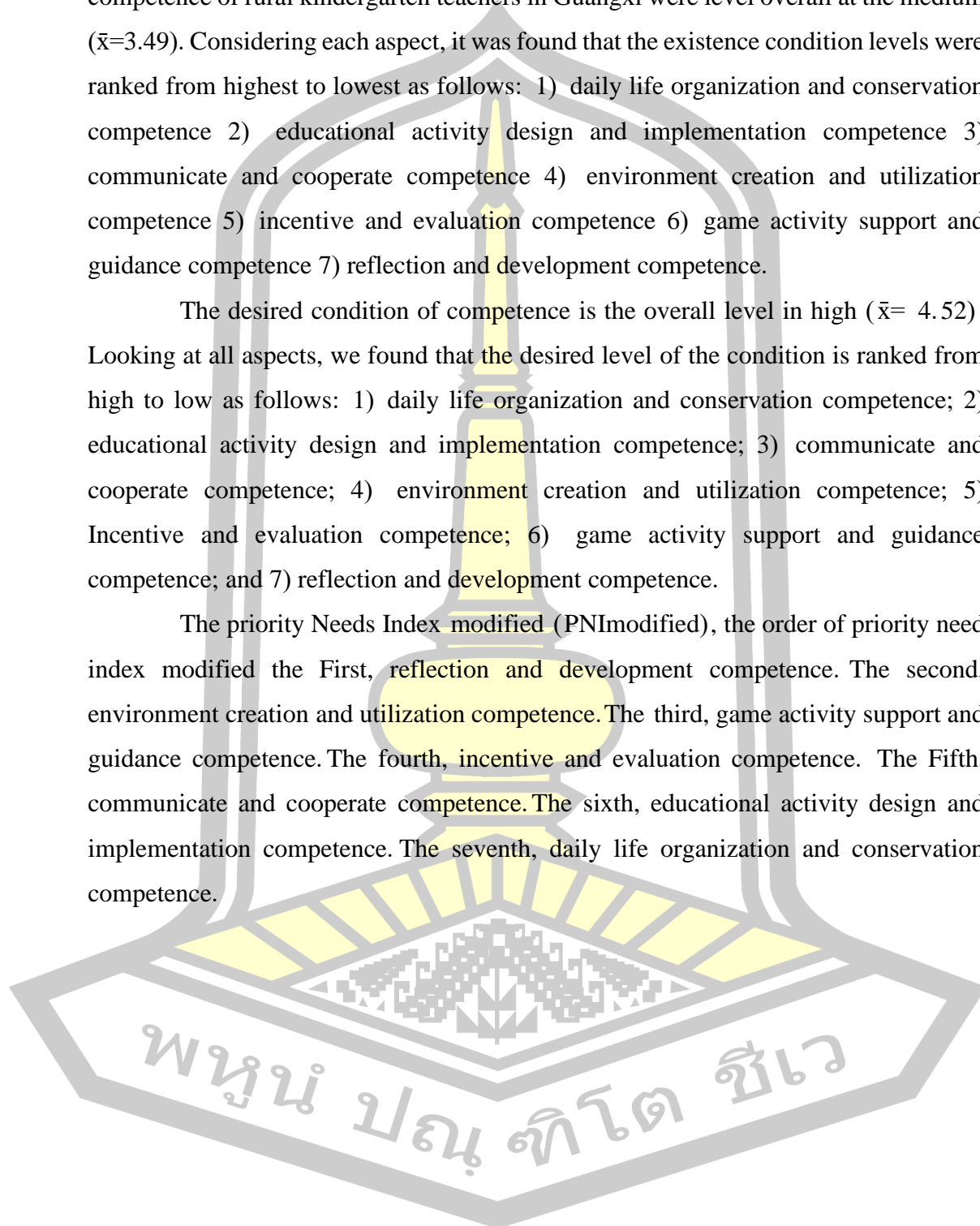


Table 26 The existence condition, desire condition and PNImodified of Components of professional competence of rural kindergarten teachers in Guangxi. Classified by items of component of environment creation and utilization competence

Item	Question	Existence		Desired		PNI	Rank
		\bar{x}	SD	\bar{x}	SD		
1	You have the ability to fully tap into the existing environmental resources to support young children's activities.	3.37	0.89	4.49	0.51	0.333	2
2	You attach great importance to the combination of education and artistry in the walls.	3.40	0.84	4.51	0.50	0.327	4
3	You have the ability to use community resources to expand young children's living and learning space.	3.35	0.92	4.49	0.50	0.338	1
4	You can make your own teaching AIDS and toys.	3.40	0.90	4.51	0.50	0.328	3
5	You can provide the direction for young children's activities through the environmental layout.	3.41	0.87	4.50	0.50	0.322	5
6	You have a clear activity corner in the class activity room.	3.47	0.86	4.49	0.50	0.295	8
7	You have often create a class environment together with your children.	3.44	0.86	4.52	0.50	0.316	6
8	You have to create a game environment according to the children's interest points.	3.49	0.86	4.53	0.50	0.299	7
9	You have your class room always clean, safe and tidy.	3.70	0.83	4.59	0.49	0.240	10
10	You are satisfied with the atmosphere of your class.	3.64	0.85	4.56	0.50	0.253	9
Total		3.47	0.87	4.52	0.50	0.305	/

From the table 26 it was found that the existence condition of environment creation and utilization competence of were level overall at the medium ($\bar{x}=3.47$). Considering each item, it was found that the existence condition levels were ranked most you have your class room always clean, safe and tidy ($\bar{x}=3.70$), second most you are satisfied with the atmosphere of your class ($\bar{x}=3.64$), and least you have the ability to use community resources to expand young children's living and learning space ($\bar{x}=3.35$).

The desired condition of environment creation and utilization competence of were level overall at the very high ($\bar{x}=4.52$). Considering each item, it was found that the desired condition levels were ranked most you have your class room always clean, safe and tidy ($\bar{x}=4.59$), second most you are satisfied with the atmosphere of your class ($\bar{x}=4.56$), and least you have the ability to fully tap into the existing environmental resources to support young children's activities ($\bar{x}=4.49$), and you have the ability to use community resources to expand young children's living and learning space($\bar{x}=4.49$),and you have a clear activity corner in the class activity room($\bar{x}=4.49$).

The priority need index modified (PNImodified), the order of priority need index modified the first, you have the ability to use community resources to expand young children's living and learning space (PNImodified=.338), the second, you have the ability to fully tap into the existing environmental resources to support young children's activities (PNImodified=.333), and the least, you have your class room always clean, safe and tidy (PNImodified=.240)

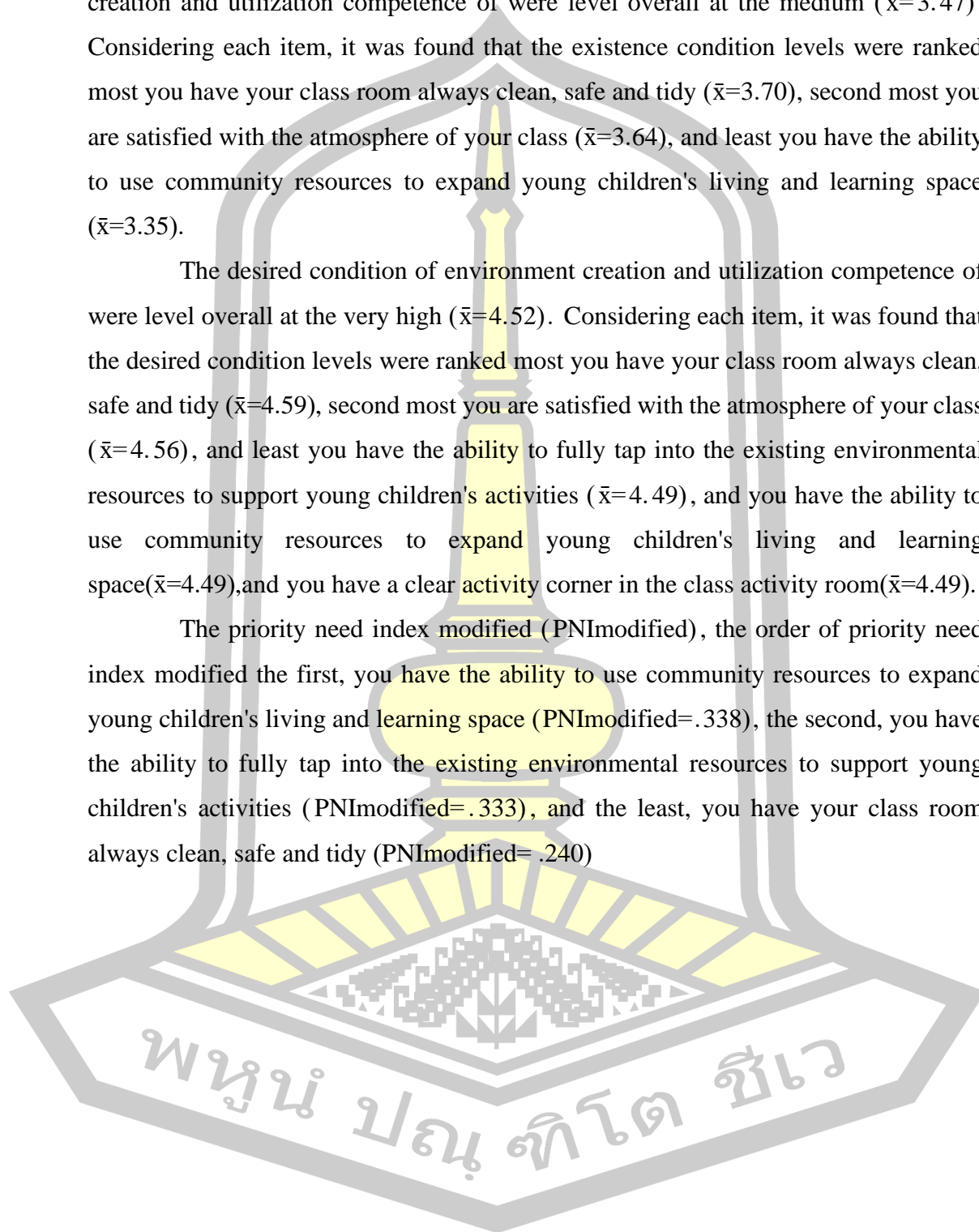


Table 27 The existence condition, desire condition and PNImodified of Components of professional competence of rural kindergarten teachers in Guangxi. Classified by items of component of daily life organization and conservation competence

Item	Question	Existence		Desired		PNI	Rank
		\bar{x}	SD	\bar{x}	SD		
1	You have used educational science research methods to study the problems in the education process.	3.39	0.87	4.50	0.50	0.328	1
2	You have reasonable arrangements and organization of the day of the life of the childcare activities.	3.54	0.85	4.55	0.50	0.287	5
3	You can make full use of all kinds of educational opportunities to educate your young children randomly.	3.48	0.86	4.52	0.50	0.299	3
4	You have targeted continuous observation of individual children and make good observation records.	3.39	0.86	4.50	0.50	0.327	2
5	You have paid great attention to penetrating the flexibility of education into your daily life.	3.52	0.81	4.52	0.50	0.285	6
6	You have a good understanding of children's daily nutritional intake, toilet, water, outdoor activities and other needs.	3.60	0.88	4.56	0.50	0.267	8
7	You are very familiar with the work tasks and requirements of childcare workers.	3.51	0.86	4.55	0.50	0.294	4
8	You pay great attention to the safety of young children.	3.72	0.83	4.61	0.49	0.237	9
9	You have the ability to give priority to rescuing young children in case of accidents or dangerous situations.	4.19	0.48	4.61	0.49	0.101	10

Table 27 (continued)

Item	Question	Existence		Desired		PNI	Rank
		\bar{x}	SD	\bar{x}	SD		
10	You have the ability to deal with early childhood nosebleed, foreign bodies into the nostrils, falls and other accidents.	3.60	0.85	4.56	0.50	0.267	7
Total		3.59	0.81	4.55	0.50	0.269	/

From the table 27 it was found that the existence condition of daily life organization and conservation competence of were level overall at the high ($\bar{x}=3.59$). Considering each item, it was found that the existence condition levels were ranked most you have the ability to give priority to rescuing young children in case of accidents or dangerous situations ($\bar{x}=4.19$), second most you pay great attention to the safety of young children ($\bar{x}=3.72$), and least you have used educational science research methods to study the problems in the education process ($\bar{x}=3.39$), and you have targeted continuous observation of individual children and make good observation records ($\bar{x}=3.39$).

The desired condition of daily life organization and conservation competence of were level overall at the very high ($\bar{x}=4.55$). Considering each item, it was found that the desired condition levels were ranked most you pay great attention to the safety of young children ($\bar{x}=4.61$), and you have the ability to give priority to rescuing young children in case of accidents or dangerous situations ($\bar{x}=4.61$), and least you have used educational science research methods to study the problems in the education process ($\bar{x}=4.50$), and you have targeted continuous observation of individual children and make good observation records ($\bar{x}=4.50$).

The priority need index modified (PNI_{modified}), the order of priority need index modified the first, you have used educational science research methods to study the problems in the education process (PNI_{modified}= .328), the second, you have targeted continuous observation of individual children and make good observation records (PNI_{modified}= .327), and the least, you have the ability to give priority to

rescuing young children in case of accidents or dangerous situations (PNI_{modified}= .101).

Table 28 The existence condition, desire condition and PNI_{modified} of Components of professional competence of rural kindergarten teachers in Guangxi. Classified by items of component of game activity support and guidance competence

Item	Question	Existence		Desired		PNI	Rank
		\bar{x}	SD	\bar{x}	SD		
1	The materials you have in each game area have a clear purpose and can support children to play activities.	3.45	0.84	4.51	0.50	0.308	5
2	You can support young children in all kinds of game activities.	3.50	0.83	4.52	0.50	0.292	8
3	You have plenty of time to play.	3.52	0.82	4.53	0.50	0.286	10
4	You will observe and record it when the children are playing.	3.43	0.84	4.50	0.50	0.315	2
5	You have chosen the right time to intervene in the children's games for guidance.	3.45	0.85	4.51	0.50	0.305	6
6	You have the ability to guide your children to experience happiness and satisfaction in the game.	3.51	0.80	4.53	0.50	0.288	9

Table 28 (continued)

Item	Question	Existence		Desired		PNI	Rank
		\bar{x}	SD	\bar{x}	SD		
7	You have the ability to provide young children with a wide variety of interesting game materials.	3.42	0.85	4.52	0.50	0.320	1
8	You often have the opportunity to give children to play independently, that is, children choose game content, choose game partners, choose game materials.	3.48	0.80	4.53	0.50	0.301	7
9	You have support children creative use of a variety of play materials.	3.44	0.82	4.51	0.50	0.312	4
10	You can make good use of games to develop children's abilities (language, society, cognition, etc.)	3.43	0.82	4.50	0.50	0.313	3
Total		3.46	0.83	4.52	0.50	0.304	/

From the table 28 it was found that the existence condition of game activity support and guidance competence of were level overall at the medium ($\bar{x}=3.46$). Considering each item, it was found that the existence condition levels were ranked most you have plenty of time to play ($\bar{x}=3.52$), second most you have the ability to guide your children to experience happiness and satisfaction in the game ($\bar{x}=3.51$), and least you have the ability to provide young children with a wide variety of interesting game materials ($\bar{x}=3.42$).

The desired condition of game activity support and guidance competence of were level overall at the very high ($\bar{x}=4.52$). Considering each item, it was found that the desired condition levels were ranked most you have plenty of time to play ($\bar{x}=4.53$), and you have the ability to guide your children to experience happiness and satisfaction in the game ($\bar{x}=4.53$), and you often have the opportunity to give children to play independently, that is, children choose game content, choose game partners, choose game materials ($\bar{x}=4.53$), and least you will observe and record it when the children are playing ($\bar{x}=4.50$), and you can make good use of games to develop children's abilities (language, society, cognition, etc.)($\bar{x}=4.50$).

The priority need index modified (PNI_{modified}), the order of priority need index modified the first, you have the ability to provide young children with a wide variety of interesting game materials (PNI_{modified}= .320), the second, you will observe and record it when the children are playing (PNI_{modified}= .315), and the least, you have plenty of time to play (PNI_{modified}= .286).

Table 29 The existence condition, desire condition and PNI_{modified} of Components of professional competence of rural kindergarten teachers in Guangxi. Classified by items of component of educational activity design and implementation competence

Item	Question	Existence		Desired		PNI	Rank
		\bar{x}	SD	\bar{x}	SD		
1	You have the ability to design the activities, and the teaching content of each link is very specific.	3.47	0.85	4.52	0.50	0.302	4
2	You have considered the specific teaching methods for each teaching activity.	3.50	0.84	4.53	0.50	0.295	6
3	You pay great attention to the age characteristics of children when designing activity plans.	3.52	0.84	4.54	0.50	0.287	8

Table 29 (continued)

Item	Question	Existence		Desired		PNI	Rank
		\bar{x}	SD	\bar{x}	SD		
4	You can grasp the key and difficult points of educational activities.	3.49	0.84	4.52	0.50	0.296	5
5	You will be able to quickly detect children's responses to activities during the teaching process and make timely adjustments.	3.53	0.82	4.53	0.50	0.284	10
6	Your designed teaching activities are often equipped with rich and intuitive teaching AIDS.	3.45	0.86	4.52	0.50	0.310	1
7	You are very familiar with the five areas of kindergarten education.	3.47	0.85	4.52	0.50	0.305	2
8	You have the ability to always attract young children's interests in your educational activities.	3.46	0.88	4.52	0.50	0.305	3
9	You have the ability to let the children answer the questions actively in the activities.	3.52	0.87	4.53	0.50	0.287	9
10	You have more opportunities to explore themselves in activities.	3.51	0.88	4.54	0.50	0.294	7
Total		3.49	0.85	4.53	0.50	0.296	/

From the table 29 it was found that the existence condition of educational activity design and implementation competence of were level overall at the medium (\bar{x} =3.49). Considering each item, it was found that the existence condition levels were ranked most you will be able to quickly detect children's responses to activities during

the teaching process and make timely adjustments ($\bar{x}=3.53$), second most You pay great attention to the age characteristics of children when designing activity plans ($\bar{x}=3.52$), and you have the ability to let the children answer the questions actively in the activities ($\bar{x}=3.52$), and least your designed teaching activities are often equipped with rich and intuitive teaching AIDS ($\bar{x}=3.45$).

The desired condition of educational activity design and implementation competence of were level overall at the very high ($\bar{x}=4.53$). Considering each item, it was found that the desired condition levels were ranked most you pay great attention to the age characteristics of children when designing activity plans ($\bar{x}=4.54$), and you have more opportunities to explore themselves in activities ($\bar{x}=4.54$), and least you have the ability to design the activities, and the teaching content of each link is very specific ($\bar{x}=4.52$), and you can grasp the key and difficult points of educational activities ($\bar{x}=4.52$), and your designed teaching activities are often equipped with rich and intuitive teaching AIDS ($\bar{x}=4.52$), and you are very familiar with the five areas of kindergarten education ($\bar{x}=4.52$), and you have the ability to always attract young children's interests in your educational activities ($\bar{x}=4.52$).

The priority need index modified (PNImodified), the order of priority need index modified the first, your designed teaching activities are often equipped with rich and intuitive teaching AIDS (PNImodified=.310), the second, you are very familiar with the five areas of kindergarten education (PNImodified=.305), and the least, you will be able to quickly detect children's responses to activities during the teaching process and make timely adjustments (PNImodified=.284).

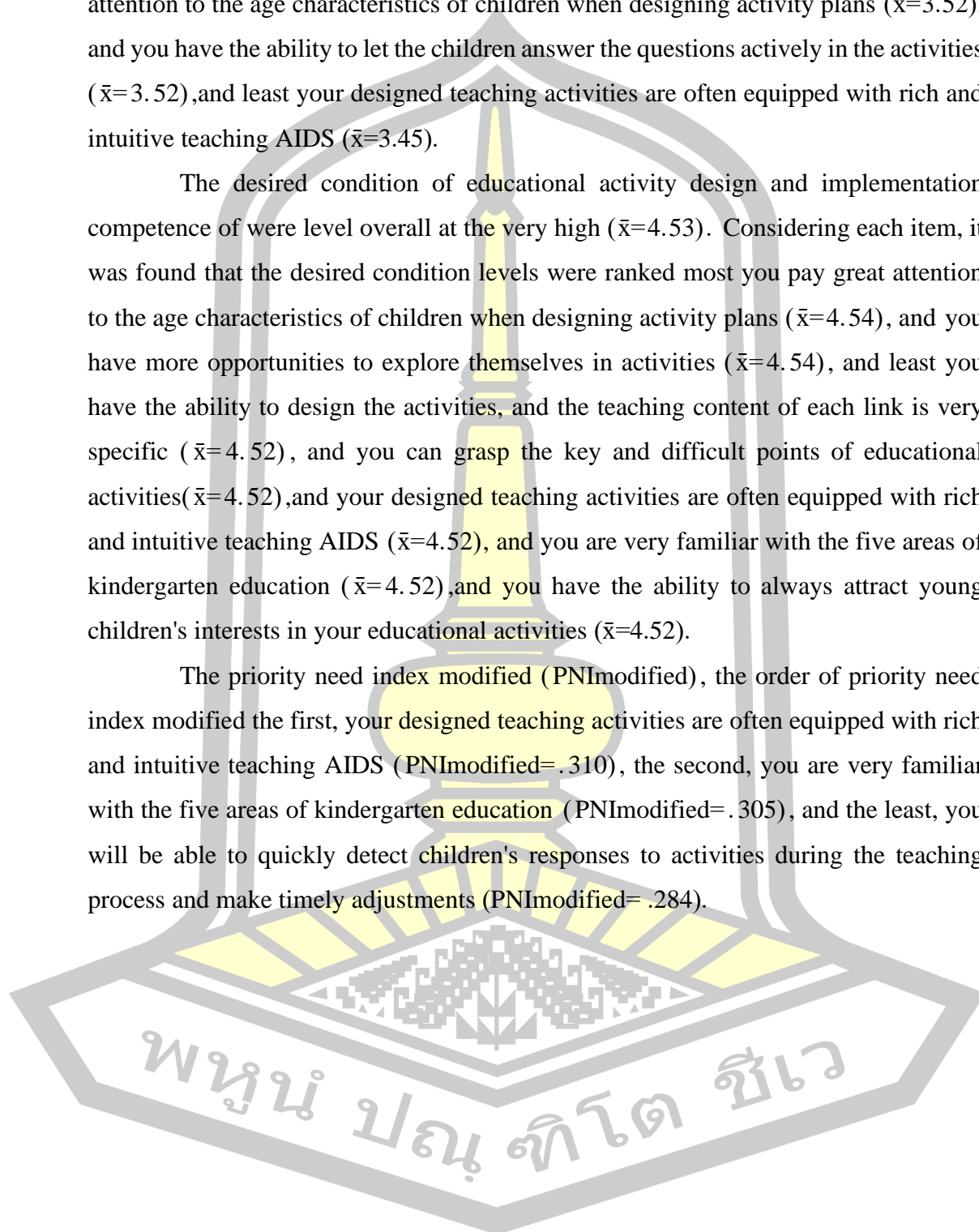


Table 30 The existence condition, desire condition and PNImodified of Components of professional competence of rural kindergarten teachers in Guangxi. Classified by items of component of incentive and evaluation competence

Item	Question	Existence		Desired		PNI	Rank
		\bar{x}	SD	\bar{x}	SD		
1	You have set up a class child development file, which contains the specific evaluation content of the children.	3.38	0.85	4.50	0.50	0.330	1
2	You have compiled the results to improve childcare.	3.38	0.84	4.49	0.50	0.329	2
3	You often make a timely and positive evaluation of the children in the activities.	3.49	0.81	4.52	0.50	0.293	7
4	You have regularly evaluated the whole class and timely adjust your educational strategies.	3.43	0.82	4.50	0.50	0.314	3
5	You have the ability to tell every child.	3.50	0.81	4.52	0.50	0.292	8
6	Your evaluation of young children is based on a careful observation of young children.	3.47	0.80	4.52	0.50	0.303	6
7	You have the ability to say the specific behavior that children do well when praising them.	3.57	0.82	4.55	0.50	0.272	10
8	You have information from other teachers, parents and other aspects to objectively evaluate the children.	3.45	0.80	4.51	0.50	0.307	5
9	You have a good use of observation, talk, work analysis and other ways to evaluate young children.	3.44	0.80	4.52	0.50	0.313	4
10	You have found children's progress, timely praise them.	3.55	0.81	4.56	0.50	0.283	9
Total		3.47	0.82	4.52	0.50	0.304	/

From the table 30 it was found that the existence condition of incentive and evaluation competence of were level overall at the medium ($\bar{x}=3.47$). Considering each item, it was found that the existence condition levels were ranked most you have the ability to say the specific behavior that children do well when praising them ($\bar{x}=3.57$), second most you have found children's progress, timely praise them ($\bar{x}=3.55$), and least you have set up a class child development file, which contains the specific evaluation content of the children ($\bar{x}=3.38$), and you have compiled the results to improve childcare ($\bar{x}=3.38$).

The desired condition of incentive and evaluation competence of were level overall at the very high ($\bar{x}=4.52$). Considering each item, it was found that the desired condition levels were ranked most you have found children's progress, timely praise them ($\bar{x}=4.56$), second most you have the ability to say the specific behavior that children do well when praising them ($\bar{x}=4.55$), and least you have compiled the results to improve childcare ($\bar{x}=4.49$).

The priority need index modified (PNImodified), the order of priority need index modified the first, you have set up a class child development file, which contains the specific evaluation content of the children (PNImodified=.330), the second, you have compiled the results to improve childcare (PNImodified=.329), and the least, your evaluation of young children is based on a careful observation of young children (PNImodified=.272).

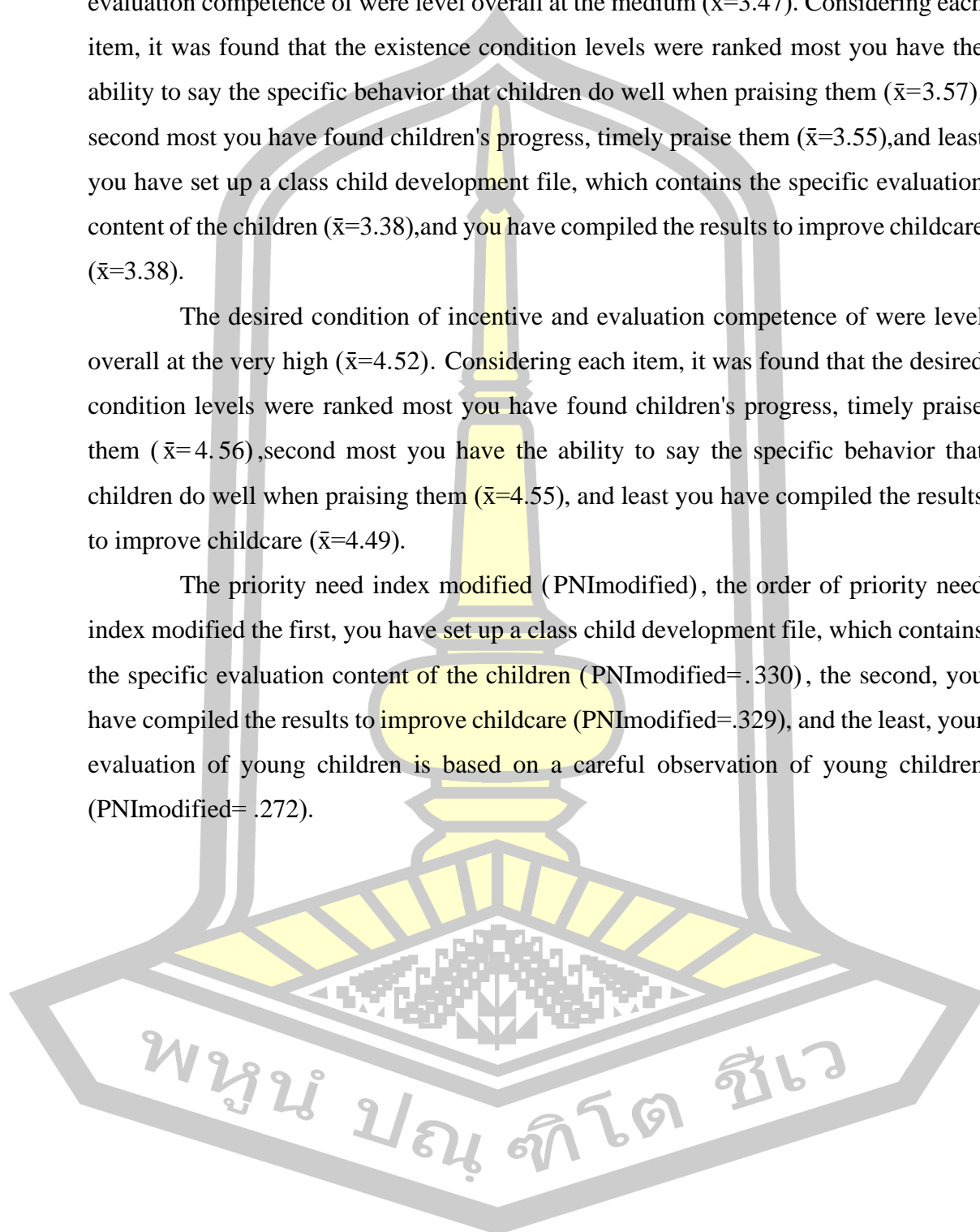


Table 31 The existence condition, desire condition and PNImodified of Components of professional competence of rural kindergarten teachers in Guangxi. Classified by items of component of communication and cooperation competence

Item	Question	Existence		Desired		PNI	Rank
		\bar{x}	SD	\bar{x}	SD		
1	You often organize various kindergarten activities together with your parents.	3.37	0.88	4.51	0.50	0.340	1
2	You often call or send WeChat messages to learn about your children at home.	3.39	0.85	4.50	0.50	0.327	3
3	You have the ability to build up the class routine and the maintenance.	3.39	0.86	4.51	0.50	0.332	2
4	You and the nurse can cooperate with the tacit understanding to do the class routine childcare work.	3.59	0.83	4.56	0.50	0.268	10
5	You often take the initiative to understand the young children's ideas.	3.55	0.78	4.54	0.50	0.279	8
6	You should pay great attention to use the language that is consistent with the characteristics of their age to communicate with their children.	3.50	0.82	4.54	0.50	0.297	6
7	You have a partnership to help children embrace each other.	3.55	0.80	4.54	0.50	0.280	7
8	You are very patient to listen to the child.	3.59	0.82	4.56	0.50	0.270	9
9	You are easy to agree with parents on parenting.	3.43	0.82	4.51	0.50	0.315	4
10	You have frequent discussions with other teachers	3.48	0.80	4.52	0.50	0.300	5
Total		3.48	0.83	4.53	0.50	0.301	/

From the table 31 it was found that the existence condition of communication and cooperation competence of were level overall at the medium ($\bar{x}=3.48$). Considering each item, it was found that the existence condition levels were ranked most you and the nurse can cooperate with the tacit understanding to do the class routine childcare work ($\bar{x}=3.59$), and you are very patient to listen to the child ($\bar{x}=3.59$), and least you often organize various kindergarten activities together with your parents ($\bar{x}=3.37$).

The desired condition of communication and cooperation competence of were level overall at the very high ($\bar{x}=4.53$). Considering each item, it was found that the desired condition levels were ranked most you and the nurse can cooperate with the tacit understanding to do the class routine childcare work ($\bar{x}=4.56$), and you are very patient to listen to the child ($\bar{x}=4.56$), and least you often call or send WeChat messages to learn about your children at home ($\bar{x}=4.50$).

The priority need index modified (PNI_{modified}), the order of priority need index modified the first, you often organize various kindergarten activities together with your parents (PNI_{modified}= .340), the second, you have the ability to build up the class routine and the maintenance (PNI_{modified}= .332), and the least, you and the nurse can cooperate with the tacit understanding to do the class routine childcare work (PNI_{modified}= .268).

Table 32 The existence condition, desire condition and PNI_{modified} of Components of professional competence of rural kindergarten teachers in Guangxi. Classified by items of component of reflection and development competence

Item	Question	Existence		Desired		PNI	Rank
		\bar{x}	SD	\bar{x}	SD		
1	You need to strengthen the ability to improve the level of kindergarten childcare work through reflection.	3.46	0.82	4.54	0.50	0.311	8

Table 32 (continued)

Item	Question	Existence		Desired		PNI	Rank
		\bar{x}	SD	\bar{x}	SD		
2	You have often used the form of organization is group learning, concentrated learning.	3.40	0.83	4.52	0.50	0.330	2
3	You often participate in teaching and research activities.	3.43	0.83	4.52	0.50	0.318	6
4	After the activity, you often come up with your own activity plan to think about.	3.41	0.85	4.51	0.50	0.321	4
5	You have found problems in the teaching process, collect relevant information, use appropriate methods to study the problems, and form scientific research reports.	3.38	0.87	4.51	0.50	0.335	1
6	You are constantly reflecting on it and finding out the problems in your childcare work.	3.44	0.82	4.53	0.50	0.318	7
7	You have a willingness to address these problems through educational science research.	3.41	0.85	4.51	0.50	0.321	3
8	You are willing to further improve your professional level.	3.54	0.84	4.55	0.50	0.285	10
9	You have a professional development plan for yourself.	3.42	0.85	4.51	0.50	0.320	5
10	You have an active participation, all levels, professional training.	3.51	0.85	4.46	0.50	0.269	9
Total		3.44	0.84	4.51	0.50	0.313	/

From the table 32 it was found that the existence condition of reflection and development competence of were level overall at the medium ($\bar{x}=3.44$). Considering each item, it was found that the existence condition levels were ranked most you are willing to further improve your professional level ($\bar{x}=3.54$), second most you have an active participation, all levels, professional training ($\bar{x}=3.51$), and least you have found problems in the teaching process, collect relevant information, use appropriate methods to study the problems, and form scientific research reports ($\bar{x}=3.38$).

The desired condition of reflection and development competence of were level overall at the very high ($\bar{x}=4.51$). Considering each item, it was found that the desired condition levels were ranked most you are willing to further improve your professional level ($\bar{x}=4.55$), second most you need to strengthen the ability to improve the level of kindergarten childcare work through reflection ($\bar{x}=4.54$), and least after the activity, you often come up with your own activity plan to think about ($\bar{x}=4.51$), and you have found problems in the teaching process, collect relevant information, use appropriate methods to study the problems, and form scientific research reports ($\bar{x}=4.51$), and you have a willingness to address these problems through educational science research ($\bar{x}=4.51$), and you have a professional development plan for yourself ($\bar{x}=4.51$).

The priority need index modified (PNI_{modified}), the order of priority need index modified the first, you have found problems in the teaching process, collect relevant information, use appropriate methods to study the problems, and form scientific research reports (PNI_{modified}= .335), the second, you have often used the form of organization is group learning, concentrated learning (PNI_{modified}= .330), and the least, you are willing to further improve your professional level (PNI_{modified}= .285).

Through the questionnaire survey, the researchers put forward an effective plan to improve the professional competence of teachers in rural kindergartens in Guangxi to all the samples, and found the gap between the existence and the desire state of improving the professional competence of teachers in rural kindergartens in Guangxi.

T Part 3: Results of cause survey and increased demand frequency (f) and percentage (%) are detailed in Table 33.

Table 33 Results of cause survey and increased demand frequency and percentage

project	(n= 399)	
	frequency	percentage
The most lacking competence in terms of professional competence		
A. competence to create and use the environment		
B. Daily life organization and conservation competence	226	56.64
C. competence to support and guide game activities	64	16.02
D. competence to plan and implement educational activities	226	56.64
E. Encourage and evaluate children's abilities	196	49.22
F. competence to communicate and cooperate	109	27.34
G. Reflection and development competence	90	22.66
	167	41.80
The way to improve the professional competence		
A. Class evaluation	215	53.91
B. Master and apprentice	145	36.33
C. distance learning	76	19.14
D. Expert on-site guidance	229	57.42
E. Self-study	90	22.66
F. Continuing education and training	182	45.7
G. Participated in the research project	200	50
H. Teaching reflection	153	38.28
I. Observe the demonstration park	184	46.09
J. Garden-based training	122	30.47

Table 33 (continued)

project	(n= 399)	
	frequency	percentage
The main factors restricting the development of kindergarten teachers' professional competence		
A. Busy with work, heavy with task, and no time to study And	263	66.02
B. the lack of expert guidance	218	54.69
C. Lack of policy support from the management department	151	37.89
D. Restrictions of the teacher evaluation system		
E. What I learned before is basically enough, and there is no motivation to continue learning	98	24.61
	69	17.19
F. There are few opportunities for training and further training	242	60.55
G. Has attended the training, but it is of no use	69	17.19
H. other	45	11.33
The most desired way of training		
A. System face-to-face teaching	164	41.02
B. Teaching and research activities on campus	220	55.08
C. seminar	165	41.41
D. Special lectures in style	217	54.3
E. teach by correspondence	48	12.11
F. web-based instruction	132	33.2
G. case analysis	215	53.91
H. Refer to the observations	226	56.64
I. other	42	10.55

It can be found from Table 33 that the two professional abilities that rural kindergarten teachers in Guangxi most need to improve are the competence of creating and utilizing the environment (56.65%) and the game activity support and guidance competence (56.65%). There are three main factors restricting the development of kindergarten teachers' vocational competence. They are busy work, heavy work, no time to study (66.02%), few opportunities to receive training and further training (60.55%), and lack of expert guidance (54.69%). The most desirable methods to improve professional competence are: on-site guidance from experts (57.42%), classroom evaluation (53.91%), participation in this research project (50%), observation demonstration park (46.09%), continuing education and training (45.7%). The most ideal training methods are: reference observation results (56.64%), campus teaching activities (55.08%), featured lectures (54.3%), case analysis (53.91%).

The results show that the 70 20 10 learning model is well suited to develop a model to improve the professional competence of teachers in rural kindergartens in Guangxi, so the researchers developed a model. In this case, the investigators also provided an in-depth interview outline to obtain a suitable protocol.

Part 4: Interview results of improving the professional competence of rural kindergarten teachers in Guangxi

The professional competence of rural kindergarten teachers is defined as: the professional competence that rural kindergarten teachers should have in education and teaching activities, which is also their teaching competence. It includes the following seven aspects of competence: the competence to create and use the environment, the competence to organize daily life and conservation, the competence to support and guide game activities, the competence to design and implementation of educational activities, incentive and evaluation competence, communication and cooperation competence, reflection and development competence. The following is a compilation and summary of the interview content:

Kindergarten principal A said: Although the Ministry of Education issued the Professional Standards for Kindergarten Teachers in 2012, there are still obvious differences in urban and rural kindergarten teachers in Guangxi in their educational background, teaching experience, educational technology application, professional

development and social recognition. Rural kindergarten teachers are generally low in terms of academic qualifications and professional titles, and have few opportunities to participate in professional development training, limited educational resources lead to relatively lack of practical competence, limited application and resource utilization of educational technology, relatively traditional teaching methods, and low professional development and social recognition. Rural kindergarten teachers face more challenges and need more policy support, educational resources input and opportunities for professional development.

Kindergarten director B pointed out: rural kindergarten face the plight of the lack of material and education conditions, by improving the environment of rural kindergarten teachers' creation and utilization competence, can better and more effective use of rural local education resources and facilities, design and utilization of local resources development of diversified teaching resources and environment, create the ideal environment for local children learning and growth, at the same time through the environment creation of kindergarten education concept and tenet, form a good home-school interaction, mutual focus on the growth and development of rural children.

Kindergarten principal C said: pay attention to improving the daily life organization and childcare competence of rural kindergarten teachers, not only in line with the realistic needs of the development of rural kindergarten education, but also an important strategy to improve the overall quality of rural kindergarten education. With the development trend of the modernization of rural kindergartens, rural kindergarten teachers need to constantly improve their daily life organization and childcare competence, in order to cope with the challenges of educational system reform and the renewal of educational concepts. This will not only help to improve the personal professional growth of rural kindergarten teachers, but also can directly affect the continuous improvement of the educational experience of rural children and families.

Kindergarten director D said: kindergarten one day activities are games, the game is an important way of children's learning and growth, improve the rural kindergarten teachers game activities support and guide competence, can enhance rural kindergarten teachers in the game activities of accomplishment and professional identity, and professional activities support and guide competence can guarantee rural

kindergarten teachers design and organization of children's age characteristics and interest of games, through high quality games development children language, social, cognitive and emotional competence, can better meet the needs of children in the field of various development, promote its all-round development. It can effectively improve the quality of education, but also improve the parents' recognition and trust of the quality of the kindergarten.

Kindergarten director E said: rural children's family and social background, its development level and learning characteristics, in the rural kindergarten education resources limited, improve the rural design and implementation of kindergarten teachers' education activities, not only can effectively respond to the local education actual demand, but also can promote the healthy development of the garden and the quality of education. The strengthening of this competence is not only conducive to the professional growth of individual teachers, but also can provide solid support and guarantee for the whole kindergarten and local preschool education.

Kindergarten director F said: rural kindergarten generally face insufficient teachers, lack of resources, inadequate treatment, kindergarten should pay attention to rural kindergarten teachers, through effective incentive system can enhance rural kindergarten teachers' job satisfaction and professional identity, can build a positive, professional teacher team, lay a solid foundation for the long-term development of kindergarten. At the same time, attention should be paid to improving the incentive and evaluation competence of rural kindergarten teachers, which can not only cope with the current educational challenges, but also promote the sustainable development of kindergartens.

Kindergarten principal G said: rural kindergartens are usually small in scale, and rural kindergarten teachers need to work closely together to operate effectively. Improving communication and cooperation skills can promote team cooperation in the park and ensure the smooth progress of educational activities and daily management. Good communication and cooperation skills among rural kindergarten teachers can help them to jointly formulate teaching plans and share resources and experiences, so as to improve the teaching quality and service level. The effective communication and cooperation between rural kindergarten teachers and parents can better convey the educational concept and values of the kindergarten, and enhance the parents' trust in

the kindergarten. Emphasis on improving the communication and cooperation competence of rural kindergarten teachers can not only meet the actual needs of the kindergarten management, but also improve the overall education quality of the kindergarten, the close degree of home cooperation, and the long-term development and sustain competence of the kindergarten.

Kindergarten principal H said: rural kindergartens are facing diversified educational needs, rural kindergarten teachers need to have the competence to reflect and develop, to timely adjust teaching strategies and methods, timely update their educational concepts and methods, to deal with the learning differences of different children, to meet the new educational requirements and standards. Paying attention to improving the reflection and development competence of rural kindergarten teachers is not only an important measure to cope with the real education needs, but also an inevitable choice to promote the improvement of education quality and teachers' career development. By cultivating teachers' reflection habits and development consciousness, the education effect can be effectively improved and the development of the whole garden can be promoted to a higher level.

Many respondents said that the professional competence of rural kindergarten teachers has become one of the key indicators to improve the competitiveness of rural kindergartens. Principals of major rural kindergartens pay more and more attention to cultivating and improving the professional competence of rural kindergarten teachers. The main methods include carrying out teaching and research activities in the park, mentoring pair, case analysis, inviting experts into the park to guide, inviting experts to give special lectures, organizing teacher training, carrying out open classes, demonstration classes, skills competitions, listening and evaluation, etc.

Phase 3 : Developing a model to improve the professional competence of rural kindergarten teachers in Guangxi.

Stage 1: Analysis and presentation of the in-depth interview results

According to the results of the existence condition, desired condition, and the priority needs of the professional competence of rural kindergarten teachers in Guangxi. To create an interview 5 experts, developing a model to improve the

professional competence of rural kindergarten teachers in Guangxi. The results of the data analysis from the interview 5 experts, as follows:

1.Components of model

From the study, documents, textbooks, the components of developing a model to improve the professional competence of rural kindergarten teachers in Guangxi, it consists of 5 components: 1) Principle 2) objective 3) contents and methods 4) evaluation 5) success conditions, which are consistent with Opinions of experts, the following statement.

"....The model's 5 components cover the development of improve the professional competence of rural kindergarten teachers in Guangxi....."

(Interviewee 1, April 11, 2024: Interview)

"....The 5 components of the model can be considered as a set of developments that follow the concept of teacher development, which in terms of content is complete and can be applied in practice....."

(Interviewee 2, April 17, 2024: Interview)

"....The 5 components of the model have comprehensive components and content. As for the evaluation, the evaluation guidelines should be set to be consistent with the program objectives. The evaluation concept may be set to be clear....."

(Interviewee 3, April 22, 2024: Interview)

"....The 5 components are appropriate. The purpose of the model should be consistent with development of improve the professional competence of rural kindergarten teachers in Guangxi, to become professional teachers, which will bring benefits to the organizations in which teachers work....."

(Interviewee 4, April 23, 2024: Interview)

"....The 5 component of the content is very appropriate. If rural kindergarten teachers receive comprehensive development, it will be beneficial to rural kindergarten teachers themselves and to in rural kindergartens in Guangxi....."

(Interviewee 5, April 25, 2024: Interview)

2. Principles of developing a model to improve the professional competence of rural kindergarten teachers in Guangxi

From interviews with experts on key issues improve the professional competence of rural kindergarten teachers in Guangxi, Adjusting using the 70:20:10

Learning Model. Experts have consistent opinions on using the 70:20:10 Learning Model in developing the competence of teachers, the following.

"....Agree with the principle of teacher development using the concept of development from work, self-development is a process of learning whether from education or training, which is the application of knowledge, information, news, skills, attitudes, and new ideas to apply, improve, and change for the benefit of work, living in the present and in the future....."

(Interviewee 1, April 11, 2024: Interview)

"....Agree with the principle of teacher development using the concept of the principle of teacher development grounded in the concept of personnel development according to the 70:20:10 model is both insightful and practical....."

(Interviewee 2, April 17, 2024: Interview)

"....The 5 components of the model have comprehensive components and content. As for the evaluation, the evaluation guidelines should be set to be consistent with the program objectives. The evaluation concept may be set to be clear....."

(Interviewee 3, April 22, 2024: Interview)

"....Agree with the principle of teacher development using the concept of the 70:20:10 model provides a comprehensive and balanced approach to teacher development....."

(Interviewee 4, April 23, 2024: Interview)

"....Agree with the principle of teacher development using the concept of the principle of teacher development is indeed essential, and the 70:20:10 framework offers a versatile approach....."

(Interviewee 5, April 25, 2024: Interview)

3. Methods to improve the professional competence model of rural kindergarten teachers in Guangxi

From interviews with experts on key issues The methods of development consisting of Principles and methods of competence of teacher development by the Learning Model 70:20:10 and methods of developing social competence, consisting of 1) job shadowing 2) mentoring 3) assignment 4) coaching 5) networking and 6) training

"....Agree with the development approach to improve the professional competence of rural kindergarten teachers in Guangxi using this concept because: professional development through job shadowing, mentoring, assignment, coaching, networking, and training offers a comprehensive approach to career growth. By leveraging these methods, individuals can enhance their capabilities, stay competitive in their fields, and achieve their career aspirations....."

(Interviewee 1, April 11, 2024: Interview)

"....Agree with the development approach to improve the professional competence of rural kindergarten teachers in Guangxi using this concept because: Professional development is a multifaceted journey that encompasses various strategies and activities designed to enhance one's skills, knowledge, and competencies in the workplace....."

(Interviewee 2, April 17, 2024: Interview)

"....Agree with the development approach to improve the professional competence of rural kindergarten teachers in Guangxi using this concept because: Training, and networking are more formal methods of professional development that involve structured learning environments....."

(Interviewee 3, April 22, 2024: Interview)

"....Agree with the development approach to improve the professional competence of rural kindergarten teachers in Guangxi using this concept because: job shadowing, mentoring, assignment, coaching, networking, and training, and development from work are all integral to fostering a well-rounded and capable workforce....."

(Interviewee 4, April 23, 2024: Interview)

"....Agree with the development approach to improve the professional competence of rural kindergarten teachers in Guangxi using this concept because: In conclusion, each of these professional development methods be it on the job shadowing, mentoring, assignment, coaching, networking, and training plays a crucial role in enhancing an individual's career....."

(Interviewee 5, April 25, 2024: Interview)

3. Evaluation to improve the professional competence model of rural kindergarten teachers in Guangxi

"... A detailed evaluation before model development is critical. Through questionnaire survey, interview and teaching observation, the current situation and change trend of the professional competence of rural kindergarten teachers in Guangxi are fully understood. The evaluation should focus on the teachers' professional knowledge, teaching skills, class management skills and parents' communication skills. This stage of evaluation can help us to identify existing problems and direction of improvement, and provide scientific basis for model development....."

(Interviewee 1, April 11, 2024: Interview)

"... During development, the assessment should cover the design, implementation and feedback of the model. Assessment group activities should be held regularly to assess the progress and quality of model development through task assignment and worksheets. The participants' satisfaction assessment can be collected through questionnaires and interviews to timely identify problems and improve them. Ensure that every link of the model can be effectively implemented and feedback to....."

(Interviewee 2, April 17, 2024: Interview)

"... After the development is completed, the model is comprehensively evaluated through a systematic evaluation table. Focus on the effect of the evaluation model in practical application, including the improvement of teachers' professional competence, the improvement of teaching quality and the improvement of parents' satisfaction. Through regular evaluation and feedback, to ensure that the model can be continuously improved and optimized to provide long-term support for the professional development of rural kindergarten teachers in Guangxi....."

(Interviewee 3, April 22, 2024: Interview)

5. Improve the successful conditions of the professional competence model of rural kindergarten teachers in Guangxi

"... We must start from the top-level design to provide a solid policy guarantee for the professional development of rural kindergarten teachers. The government should issue special policies for rural kindergarten teachers, clarify the goals, paths and measures of teachers' professional development, provide policy

support and financial guarantee, and ensure that teachers can grow up in an orderly manner under the guidance of the policies....."

(Interviewee 1, April 11, 2024: Interview)

"... Scientific evaluation and incentive mechanism is an important guarantee for teachers' professional development. We should establish a sound teacher evaluation system, conduct a scientific evaluation of teachers' professional competence and teaching effect, and link the evaluation results with the promotion and reward of teachers. At the same time, it provides diversified career development channels for teachers, such as promotion, training opportunities, etc., to stimulate teachers' career development motivation and help their professional growth....."

(Interviewee 4, April 23, 2024: Interview)

"... The growth of teachers needs the joint support of many forces. The government, universities and rural kindergartens should work together to jointly promote teachers' professional development. The government should provide support in policy and capital, colleges and universities can provide professional theoretical guidance and training resources, and rural kindergartens are the practice base for teachers to grow up. Through multi-party coordination and resource integration, build a bridge for teachers' growth, so that rural kindergarten teachers can achieve professional growth....." with the support of all parties

(Interviewee 5, April 25, 2024: Interview)

Stage 2: Display the mode of improving the professional competence of teachers in rural kindergartens in Guangxi

Part 1: Introducing a model for developing the professional competence of rural kindergarten teachers in Guangxi.

Developing a model for improving the professional competence for rural kindergarten teachers in Guangxi aims to comprehensively implement educational assistance, promote the development of preschool education in rural Guangxi, create a group of rural kindergarten teachers in rural areas of Guangxi who are strong in professionalism, well-educated, retained, and able to lead, and help them to update their educational concepts, set up a correct outlook on children, teach there, improve their competence for observing and interpreting children, and improve their ability to support

the development of children's Educational practice level, play the role of demonstration and leading, and drive the improvement of the overall level of rural kindergarten teachers in Guangxi. The substance of this model includes principles, objectives, contents and methods, evaluation, and conditions for success. These components are as follows:

1. Principle of the model

In the context of the new era, rural kindergarten teachers are "required" to grow, but is it really "possible" to grow? Guangxi rural preschool education foundation is very weak, the development of teachers, economic, government support and other difficulties. And there are a large number of non-professional kindergarten teachers in rural areas, resulting in the overall development level is poor, restricting the overall teacher level of rural kindergarten teachers in Guangxi to improve. How to break through the difficulties, build a bridge between the due development and actual development of rural kindergarten teachers, so that rural young children can effectively enjoy fair and quality preschool education. Under the guidance of the new policies in the new era, in order to improve the professional development of rural kindergarten teachers in Guangxi, we compare the "Professional Standards for Kindergarten Teachers", "diagnose" the difficulties, and "seek solutions" to the "possible" growth path of rural kindergarten teachers, from the top to the bottom. In order to improve the professional development of rural kindergarten teachers in Guangxi, we have made reference to the Professional Standards for Kindergarten Teachers, "diagnosed" the difficulties, "sought to solve" the path of growth of rural kindergarten teachers, and, starting from the top-level design support, specialized in the research, development and implementation of the mode of improving the professional competence of rural kindergarten teachers in Guangxi, so as to break the difficulties of rural kindergarten teachers' "wanting" to grow, and to assist the rural kindergarten teachers' "possible" growth. The model of improving the professional competence of rural kindergarten teachers in Guangxi has been specially studied, developed and implemented. Under the strategy of rural revitalization, the government, colleges and universities and rural kindergartens join hands to promote the professional growth of rural kindergarten teachers in Guangxi, so as to promote the revitalization and development of rural preschool education in Guangxi.

2. Objectives

2.1 To improve the knowledge and understanding of the professional competence model of rural kindergarten teachers in Guangxi.

2.2 To improve the professional competence for rural kindergarten teachers in Guangxi, which mainly includes seven aspects: 1) environment creation and utilization competence 2) daily life organization and conservation competence 3) game activity support and guidance competence 4) educational activity design and implementation competence 5) incentive and evaluation competence 6) communication and cooperation competence, 7) reflection and development competence

2.3 To improve the professional competence of rural kindergarten teachers in Guangxi by practicing learning, learning from others, and centralized training, to help rural kindergarten teaching reform, and to improve the quality of rural kindergarten schooling.

3. Contents and Methods

3.1 Content

Module 1: Environment creation and utilization competence

Environment creation and utilization competence refers to the rural kindergarten teachers' competence in establishing good teacher-child relationships, establishing classroom order and rules, creating educational environments that help promote children's growth, learning and play, and rationally utilizing resources.

Module 2: Daily life organization and conservation competence

Daily life organization and conservation competence refers to the ability of rural kindergarten teachers to scientifically and reasonably organize the kindergarten's one-day life, to give good care to the children, and to fully realize the combination of care and education.

Module 3 Game activity support and guidance competence

Game activity support and guidance competence means that rural kindergarten teachers have the developmental competence to support play activities, to use and design the play activity space and material preparation in a rational way, and to guide children to obtain all aspects of play activities.

Module 4 Educational activity design and implementation competence

Educational activity design and implementation competence refers to the ability of rural kindergarten teachers to design scientific educational activities, to be able to teach according to the needs of individuals, to use appropriate educational organization and to guide children to learn actively.

Module 5 Incentive and evaluation competence

Incentive and evaluation competence means that rural kindergarten teachers have the ability to pay attention to children's daily performance, effectively utilize a variety of methods to evaluate children, and effectively utilize the evaluation results to guide activities.

Module 6 Communication and cooperation competence

Communication and cooperation competence refers to rural kindergarten teachers' competence in communicating with children, listening well, cooperating with colleagues, communicating with parents, and assisting kindergartens in establishing cooperative relationships with the community.

Module 7 Reflection and development competence

Reflection and development competence means that rural kindergarten teachers have the competence for collecting and analyzing relevant information for reflection, exploring problems in educational work for learning and research, and making professional competence for professional development planning.

3.2 Development of methods / activities

3.2.1 70% practical learning

The following methods were used to strengthen the professional competence of rural kindergarten teachers: 154 hours were spent using the following methods.

The job shadowing that 84 hours were needed.

- 1) Job shadowing of kindergarten environment creation and utilization activities (Module 1)
- 2) Job shadowing of kindergarten daily life organization and conservation activities (Module 2)

3) Job shadowing of kindergarten game activity support and guidance activities (Module 3)

4) Job shadowing of kindergarten educational activity design and implementation activities (Module 4)

5) Job shadowing of kindergarten incentive and evaluation activities (Module 5)

6) Job shadowing of kindergarten communication and cooperation activities (Module 6)

7) Job shadowing of kindergarten reflection and development activities (Module 7)

38 hours of mentoring.

1) Mentoring of kindergarten environment creation and utilization activities (Module 1)

2) Mentoring of kindergarten daily life organization and conservation activities (Module 2)

3) Mentoring of kindergarten game activity support and guidance activities (Module 3)

4) Mentoring of kindergarten educational activity design and implementation activities (Module 4)

5) Mentoring of kindergarten incentive and evaluation activities (Module 5)

6) Mentoring of kindergarten communication and cooperation activities (Module 6)

7) Mentoring of kindergarten reflection and development activities (Module 7)

Assignment 52 hours.

1) Assignment of kindergarten environment creation and utilization activities (Module 1)

2) Assignment of kindergarten daily life organization and conservation activities (Module 2)

3) Assignment of kindergarten game activity support and guidance activities (Module 3)

4) Assignment of kindergarten educational activity design and implementation activities (Module 4)

5) Assignment of kindergarten incentive and evaluation activities (Module 5)

6) Assignment of kindergarten communication and cooperation activities (Module 6)

7) Assignment of kindergarten reflection and development activities (Module 7)

3.2.2 20% Learned by Others

36 hours were spent using the following methods, coaching took 18 hours and networking 18 hours.

Coaching 18 hours.

1) Coaching on kindergarten environment creation and utilization activities (Module 1)

2) Coaching on kindergarten daily life organization and conservation activities (Module 2)

3) Coaching on kindergarten game activity support and guidance activities (Module 3)

4) Coaching on kindergarten educational activity design and implementation activities (Module 4)

5) Coaching on kindergarten incentive and evaluation activities (Module 5)

6) Coaching on kindergarten communication and cooperation activities (Module 6)

7) Coaching on kindergarten reflection and development activities (Module 7)

18 hours of networking.

1) Kindergarten environment creation and utilization activities networking (Module 1)

2) Kindergarten daily life organization and conservation activities networking (Module 2)

3) Kindergarten game activity support and guidance activities networking (Module 3)

4) Kindergarten educational activity design and implementation activities networking (Module 4)

5) Kindergarten incentive and evaluation activities networking (Module 5)

6) Kindergarten communication and cooperation activities networking (Module 6)

7) Kindergarten reflection and development activities networking (Module 7)

3.2.3 10% Learning through the course

44 hours were spent using the following methods.

44 hours of training.

1) Training in kindergarten environment creation and utilization activities course (Module 1)

2) Training in kindergarten daily life organization and conservation activities course (Module 2)

3) Training in kindergarten game activity support and guidance activities course (Module 3)

4) Training in kindergarten educational activity design and implementation activities course (Module 4)

5) Training in kindergarten incentive and evaluation activities course (Module 5)

6) Training in kindergarten communication and cooperation activities course (Module 6)

7) Training in kindergarten reflection and development activities course (Module 7)

4. Assessment

4.1 Evaluation before development. Assessing changes in professional competence by assessing the professional competence of rural kindergarten teachers in Guangxi before.

4.2 Assessment during development. Assessed by assessing group activities, assessing worksheets, assessing assigned tasks, and assessing satisfaction with the development of the model. Using the assessment of satisfaction with the model for improving the professional competence of kindergarten teachers in rural Guangxi.

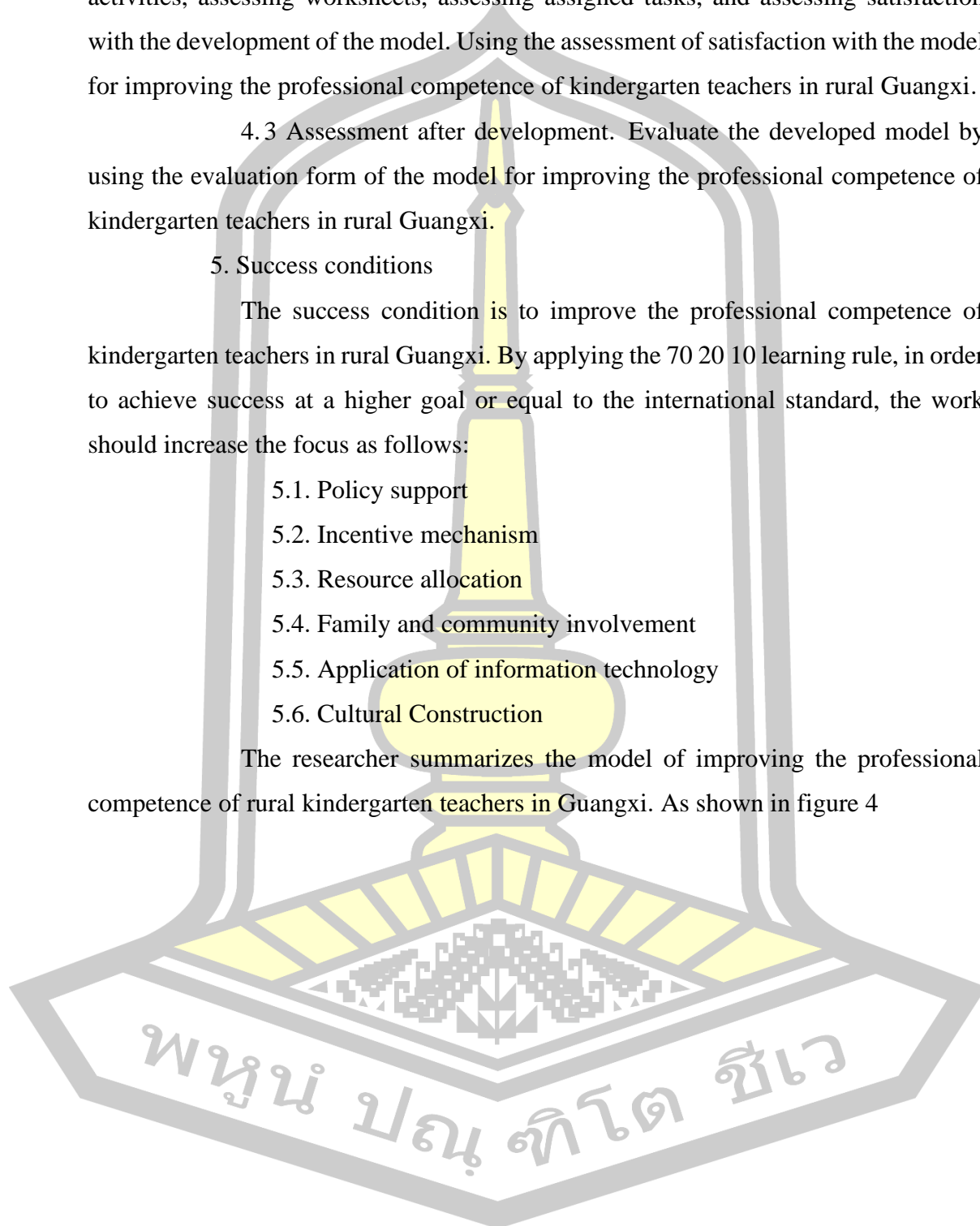
4.3 Assessment after development. Evaluate the developed model by using the evaluation form of the model for improving the professional competence of kindergarten teachers in rural Guangxi.

5. Success conditions

The success condition is to improve the professional competence of kindergarten teachers in rural Guangxi. By applying the 70 20 10 learning rule, in order to achieve success at a higher goal or equal to the international standard, the work should increase the focus as follows:

- 5.1. Policy support
- 5.2. Incentive mechanism
- 5.3. Resource allocation
- 5.4. Family and community involvement
- 5.5. Application of information technology
- 5.6. Cultural Construction

The researcher summarizes the model of improving the professional competence of rural kindergarten teachers in Guangxi. As shown in figure 4



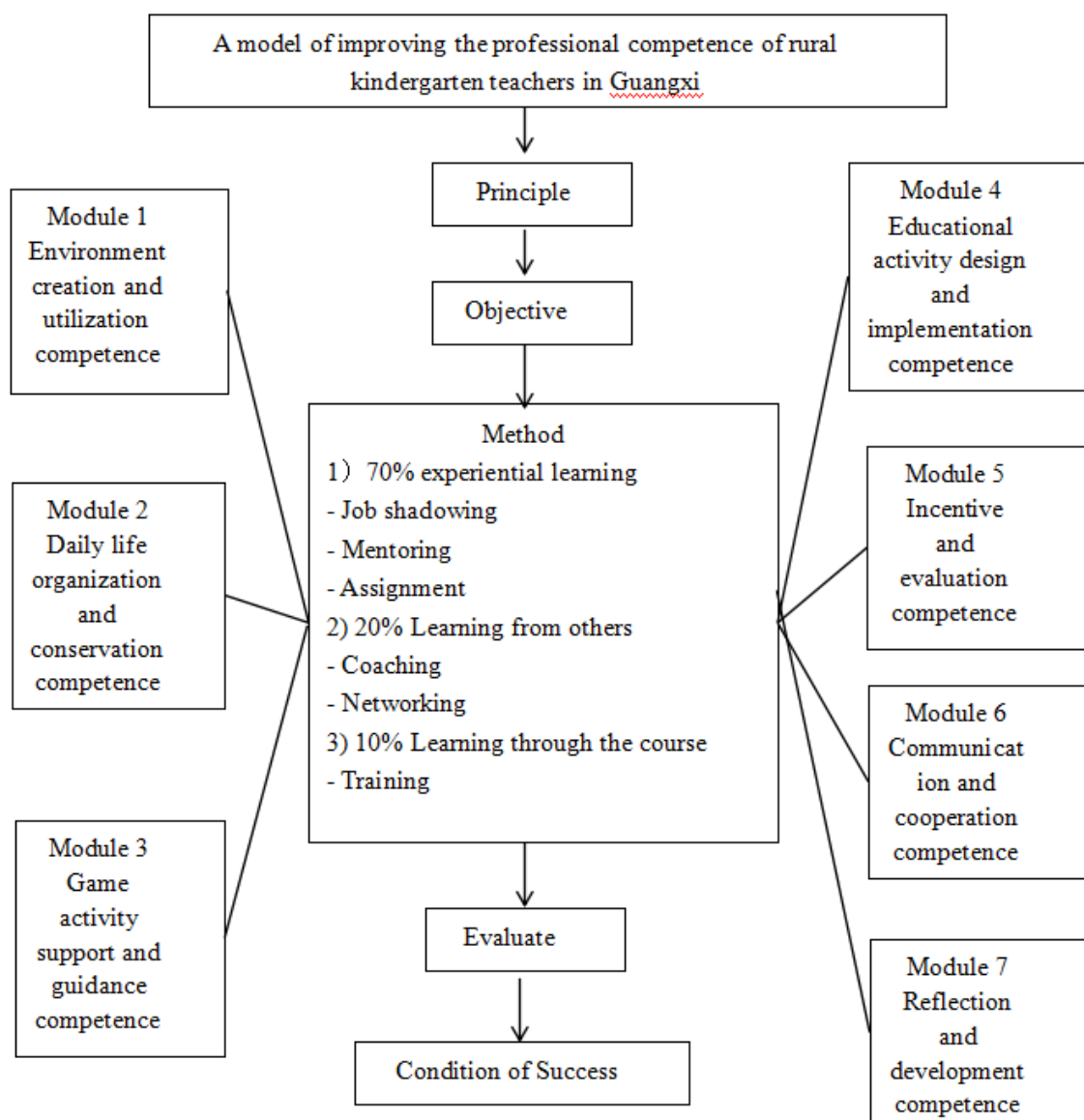


Figure 4 A model for improving the professional competence of kindergarten teachers in rural Guangxi

Part 2: Details of a model to improve the professional competence of rural kindergarten teachers in Guangxi, and the model components are as follows:

1. Principles of the model

Improving the professional competence of rural kindergarten teachers is a "need" for China's rural revitalization strategy. President Xi Jinping (2017) proposed the rural revitalization strategy in his work report at the 19th National Congress of the

Communist Party of China (CPC), elevating rural construction to an important national strategy in the new era. Rural prosperity is national prosperity, and rural decline is national decline. The implementation of the rural revitalization strategy has important practical significance and far-reaching historical significance. The Central Committee of the Communist Party of China and the State Council (2018), in its opinions on the implementation of the rural revitalization strategy, explicitly proposed "giving priority to the development of rural education", "developing rural pre-school education", "coordinating urban and rural teachers, tilting towards the rural areas, and building a strong rural teaching force". The Ministry of Education and five other ministries (2018) mentioned in the Action Plan for Revitalizing Teacher Education (2018-2022) that "a large number of teachers specializing in preschool education with a degree or higher who care for young children and are good at childcare will be trained for kindergartens, and the specifications and levels of teacher training will meet the needs of guaranteeing national education and the cultivation of innovative talents." Improve the supply of teacher resources and promote the equitable development of education. Strengthening the training of teachers in central and western regions and rural schools, with a focus on providing teachers for the precise alleviation of poverty in education in remote, impoverished and ethnic areas. The state has clearly defined the value orientation of revitalizing education in rural areas from the height of top-level design; rural preschool education is an important part of rural education, and the professional development of rural kindergarten teachers is the key to the development of rural preschool education.

Improving the professional competence of rural kindergarten teachers is a "requirement" for practicing the Professional Standards for Kindergarten Teachers. Qualified teachers are the basic guarantee for the normal development of education and the successful realization of educational goals. The professional competence of kindergarten teachers is the core content of their professional growth and training. China's Ministry of Education (2012) points out in the Professional Standards for Kindergarten Teachers (for Trial Implementation) that among the three-dimensional space, 14 domains and 62 basic requirements of the professional standards, professional competence accounts for 7 domains (50%) and 27 basic requirements, or 44% of the content of the professional standards, which reflects the core status of kindergarten teachers' professional competence. Xu Wei, Ma Lizhi (2020) believe that rural

kindergarten teachers' professional development is a process in which workers in rural early childhood education institutions continuously combine planned professional thinking and professional practice to improve their professionalism. In the process of rural kindergarten teachers' professional development, their professional ideas and professional competence for improvement are particularly important and urgent parts of the planning documents to lead the professional development of rural kindergarten teachers are "professional standards".

The development of professional competence for rural kindergarten teachers in China is not optimistic. Many professionals in the field of preschool education recognize that the relatively backward conditions in rural areas, the implementation of the national "three-child" policy, the shortage of rural kindergarten teachers, and the large number of non-professional kindergarten teachers in rural areas have led to a poor level of overall development, which has limited the overall level of rural kindergarten teachers. Li Ya (2019) pointed out that although rural early childhood education is an important part of China's early childhood education, it is a weak link, and the professional competence of its kindergarten teachers is weak. Guo Li (2021) pointed out that only some of the rural kindergarten teachers have a professional background in preschool education, while the rest of the teachers have been transferred from elementary school, from other professions, and there are also many "locals" who do not have the relevant academic qualifications. Li Yang and Chen Xi (2018) point out that although governments at all levels have appropriately supplemented the number of full-time kindergarten teachers in rural areas by means of entry exams and integrated urban-rural kindergartens, the rapid increase in the number of young children enrolled in kindergartens has resulted in the training and replenishment of teachers far outstripping the need for practical development.

The professional competence of rural kindergarten teachers in Guangxi is urgent. Guangxi rural kindergartens have many problems and deficiencies in the process of development, especially the lack of teachers' professionalism directly affects the healthy growth of rural children. According to the information obtained from Guangxi Department of Education, the number of full-time kindergarten teachers in Guangxi is 113,900, of which the number of full-time rural kindergarten teachers is 68,300, and the level of professional competence for rural kindergarten teachers is

closely related to the high-quality development of preschool education in Guangxi. Guangxi rural areas by the development of history, natural conditions and other objective reasons for the limitation, there are a large number of left-behind children, children with disabilities and other vulnerable groups, through as soon as possible to receive fair, high-quality preschool education can better play the role of education compensation. The improvement of professional competence of rural kindergarten teachers in Guangxi is urgent.

Therefore, for the above reasons, the researchers are interested in developing a model to improve the professional competence of rural kindergarten teachers in Guangxi. The model is divided into five parts: principles, objectives, methods, evaluation, and conditions for success, relying on the 70 20 10 learning law and utilizing methods such as work display, mentoring, homework, teaching, network creation, and training. The researchers use the results of the study to develop a model for improving the professional competence for rural kindergarten teachers in Guangxi, hoping to establish a sound support and service system for promoting the growth and development of rural kindergarten teachers, and under the strategy of rural revitalization, the government, colleges and universities, and rural kindergartens join hands in order to promote the professional growth of rural early childhood teachers, and to cultivate qualified teachers suitable for retention, teaching, and development of rural kindergartens in Guangxi, in order to promote the rural Early childhood education cause revitalization and development.

2. Objectives

According to the requirements of the Notice of the Ministry of Education and the Ministry of Finance on the Implementation of the National Training Program for Primary and Secondary School Kindergarten Teachers (2021-2025) and other documents, and to deepen the implementation of the Guiding Principles of Kindergarten Education (Trial), the Guidelines for Learning and Development of Children Aged 3-6, and the Guidelines for the Assessment of Kindergarten Childcare and Education and other guiding spirits, this model intends to target rural kindergarten teachers in Guangxi. Cultivating objects, this model takes early childhood play activities as an entry point to improve the professional competence of rural kindergarten teachers in Guangxi while clearly understanding the spirit of the Guidelines and other

documents. It will cultivate a group of teachers who drive the professional development of their own kindergarten teachers and lead the garden-based training for rural Guangxi.

2.1 To improve the knowledge and understanding of the professional competence model of rural kindergarten teachers in Guangxi.

2.2 To improve the professional competence for rural kindergarten teachers in Guangxi, which mainly includes seven aspects: 1) environment creation and utilization competence 2) daily life organization and conservation competence 3) game activity support and guidance competence 4) educational activity design and implementation competence 5) incentive and evaluation competence 6) communication and cooperation competence, 7) reflection and development competence

2.3 To improve the professional competence of rural kindergarten teachers in Guangxi by practicing learning, learning from others, and centralized training, to help rural kindergarten teaching reform, and to improve the quality of rural kindergarten schooling.

3. Content and Methods

3.1 Content

Module 1: Environment creation and utilization competence

Environment creation and utilization competence refers to the rural kindergarten teachers' competence in establishing good teacher-child relationships, establishing classroom order and rules, creating educational environments that help promote children's growth, learning and play, and rationally utilizing resources.

For the professional competence of kindergarten teachers, the importance of environment creation and utilization competence is mainly reflected in the following aspects:

(1) Establishing a good teacher-child relationship, helping children establish good peer relationships, and making children feel warm and happy.

(2) Establishing classroom order and rules, creating a good classroom atmosphere, and making children feel safe and comfortable.

(3) Create an educational environment that helps to promote children's growth, learning and play.

(4) Reasonable use of resources, providing and making suitable play and learning materials for children, and triggering and supporting children's active activities.

In summary, environment creation and utilization competence is not only an important part of the professional competence of rural kindergarten teachers, but also a necessary competence for rural kindergarten teachers in the modern educational environment.

Module 2: Daily life organization and conservation competence

Daily life organization and conservation competence refers to the ability of rural kindergarten teachers to scientifically and reasonably organize the kindergarten's one-day life, to give good care to the children, and to fully realize the combination of care and education.

The importance of daily life organization and conservation competence is mainly reflected in the following aspects:

- (1) Reasonably arranging and organizing all aspects of the day's life and infiltrating education flexibly into the day's life.
- (2) Taking care of children's daily life in a scientific way, guiding and assisting the caregivers to do regular care and hygiene work in the classroom.
- (3) Make full use of various educational opportunities to educate children randomly.
- (4) Protect children effectively, deal with common accidents of children in a timely manner, and prioritize the rescue of children in dangerous situations.

In summary, as a basic part of the professional competence for rural kindergarten teachers, daily life organization and conservation competence has an important impact on the professional competence for rural kindergarten teachers and the quality of teaching.

Module 3 Game activity support and guidance competence

Game activity support and guidance competence means that rural kindergarten teachers have the developmental competence to support play activities, to

use and design the play activity space and material preparation in a rational way, and to guide children to obtain all aspects of play activities.

The importance of game activity support and guidance competence is mainly reflected in the following aspects:

(1) Provide play conditions that meet children's interests and needs, age characteristics, and developmental goals.

(2) Make full use of and reasonably design the space for play activities and provide rich and appropriate play materials to support, trigger and promote children's play.

(3) Encourage children to independently choose their own play contents, partners and materials, and support children to take the initiative and creativity to carry out their play and fully experience the joy and satisfaction of play.

(4) Guiding children to acquire physical, cognitive, linguistic and social development in play activities.

In summary, as a basic component of the professional competence for rural kindergarten teachers, game activity support and guidance competence has an important impact on the professional development and teaching quality of rural kindergarten teachers.

Module 4 Educational activity design and implementation competence

Educational activity design and implementation competence refers to the ability of rural kindergarten teachers to design scientific educational activities, to be able to teach according to the needs of individuals, to use appropriate educational organization and to guide children to learn actively.

The importance of educational activity design and implementation competence is mainly reflected in the following aspects:

(1) Developing stage-by-stage educational activity plans and specific activity programs.

(2) Observing children in educational activities, adjusting activities according to children's performance and needs, and giving appropriate guidance.

(3) Reflecting interest, comprehensiveness and life in the design and implementation of educational activities, and flexibly using various organizational forms and appropriate educational methods.

(4) Provide more opportunities for operation and exploration, communication and cooperation, expression and performance, and support and promote children's active learning.

In summary, educational activity design and implementation competence, as a basic component of the professional competence for rural kindergarten teachers, has an important impact on the professional competence for rural kindergarten teachers and the quality of teaching.

Module 5 Incentive and evaluation competence

Incentive and evaluation competence means that rural kindergarten teachers have the ability to pay attention to children's daily performance, effectively utilize a variety of methods to evaluate children, and effectively utilize the evaluation results to guide activities.

The importance of incentive and evaluation competence is mainly reflected in the following aspects:

(1) Paying attention to children's daily performance, discovering and appreciating each child's progress in a timely manner, and emphasizing the stimulation and protection of children's motivation and self-confidence.

(2) Effectively use observation, conversation, home and family contact, work analysis and other methods to objectively and comprehensively understand and evaluate children.

(3) Effectively use the evaluation results to guide the next step of educational activities.

In summary, incentive and evaluation competence, as a basic component of professional competence for rural kindergarten teachers, has an important impact on the professional competence for rural kindergarten teachers and the quality of teaching.

Module 6 Communication and cooperation competence

Communication and cooperation competence refers to rural kindergarten teachers' competence in communicating with children, listening well,

cooperating with colleagues, communicating with parents, and assisting kindergartens in establishing cooperative relationships with the community.

The importance of communication and cooperation competence is mainly reflected in the following aspects:

(1) Using age- appropriate language for child care and education.

(2) Listening well, being kind and communicating effectively with young children.

(3) Cooperating and communicating with colleagues, sharing experiences and resources, and developing together.

(4) Communicate and cooperate effectively with parents to promote the development of young children.

(5) Assist the kindergarten to establish a good relationship of cooperation and mutual assistance with the community.

In summary, communication and cooperation competence, as an important part of the professional competence for rural kindergarten teachers, is of great significance in improving the professional quality and professional development of rural kindergarten teachers.

Module 7 Reflection and development competence

Reflection and development competence means that rural kindergarten teachers have the competence for collecting and analyzing relevant information for reflection, exploring problems in educational work for learning and research, and making professional competence for professional development planning.

The importance of reflection and development competence is mainly reflected in the following aspects:

(1) Taking the initiative to collect and analyze relevant information for continuous reflection to improve the work of preservation and education.

(2) Explore and conduct research in response to the real needs and problems in the work of teaching and learning.

(3) Formulate professional development plans, actively participate in professional training, and continuously improve their professional quality.

In summary, through the provision of continuous learning and development opportunities, teachers are encouraged to continuously improve their professional competence for the purpose of adapting to the fast-developing educational environment and making greater contributions to the innovation and development of education.

3.2 Development of methods / activities

The model is used to improve the professional competence of rural kindergarten teachers in Guangxi through the 70 20 10 learning rule. From the research and synthesis of scholars and educators' documents, the concept of 70: 20: 10 learning is Lawson (2008) , Puvithayapan (2016) , Pacharavanichavasin (2017) , and Suthamthathanam (2020) includes 3 important laws of learning: 70% learning by doing, 20% learning by learning from others, and 10% training through centralized courses.

3.2.1 70% learning through practice (70% learning mode)

Practical learning is the main way to improve the professional competence of rural kindergarten teachers. 70% learn through practice, which is a form of learning, accumulating experience through practical operation and daily work. It is a very good training way to test knowledge and competence at work, learn, summarize, summarize and think, and extract experience and lessons, which can make kindergarten teachers quickly realize that effective perception will also lead to effective learning. This is because kindergarten teachers accept them more by observing their actual operations, which leads to increased awareness or accumulated experience, leading to learning, imitation, and action based on past behavior, and therefore change. This leads to the creation and birth of new abilities for kindergarten teachers, which more effectively influencing the work assigned to them. Teacher development tools used in this learning approach will focus on those that are not classroom training.

The following methods were used to strengthen the professional competence of rural kindergarten teachers: 308 hours were spent using the following

methods. Job shadowing takes 160 hours ,56 hours of mentoring, Assignment 92 hours. Specific arrangements are as shown in Table 34:

Table 34 Specific schedule of 70% learning through practice

Module	Method	Activity
Module1 Environment creation and utilization competence	Practical learning: 56 hours	
	Job shadowing (30 hours)	<ol style="list-style-type: none"> 1. Kindergarten teaching indoor environment creation and utilization activities 2. Outdoor environment creation and utilization activities of the kindergarten 3. Creation and utilization of daily living environment in the kindergarten 4. Create an environment for festivals and theme activities 5. Environmental education and environmental protection activities
	Mentoring (10 hours)	<ol style="list-style-type: none"> 1. Kindergarten environment creation and utilization of special curriculum learning activities 2. Kindergarten environment creation and utilization of curriculum learning and sharing activities 3. Kindergarten environment creation and utilization of knowledge sharing salon 4. Kindergarten environment creation and the use of teaching reflection activities 5. Kindergarten environment creation and use of excellent case analysis activities

Table 34 (continued)

Module	Method	Activity
Module 2 Daily life organization and conservation competence	Assignment (16 hours)	1. Environmental observation and analysis 2. Theme environment creation scheme design 3. Practical operation of environment creation 4. Teaching design of environmental utilization 5. Display and sharing of environment creation achievements
	Practical learning: 28 hours	
	Job shadowing (15 hours)	1. Morning reception and morning activities 2. Organization and management of classroom activities 3. Outdoor activities and safety management 4. Catering and lunch break arrangements 5. Cultivation of personal hygiene and self-care competence 6. Afternoon activities and featured courses 7. Communicate with your parents before leaving the kindergarten
	Mentoring (5 hours)	1. Daily life organization and conservation special course learning activities 2. Daily life organization and conservation course learning and sharing activities 3. Daily life organization and conservation knowledge sharing salon 4. Daily life organization and childcare teaching reflection activities 5. Excellent case analysis activities of daily life organization and conservation
	Assignment (8 hours)	1. Design of the daily activity table in the kindergarten 2. Theme plan of kindergarten activities 3. Kindergarten safety management strategy

Table 34 (continued)

Module	Method	Activity
Module 3 Game activity support and guidance competence	Practical learning: 56 hours	
	Job shadowing (30 hours)	<ol style="list-style-type: none"> 1. Role-playing games 2. Constructive games 3. Social games 4. Exploratory games 5. Sensory games 6. Autonomous games
	Mentoring (10 hours)	<ol style="list-style-type: none"> 1. Game activities to support and guide the special course learning activities 2. Game activities to support and guide the course learning and sharing activities 3. Support and guide the knowledge sharing salon for game activities 4. Game activities to support and guide the teaching and reflection activities 5. Game activities to support and guide excellent case analysis activities
	Assignment (16 hours)	<ol style="list-style-type: none"> 1. Case analysis of kindergarten game activity design 2. Observation, record and analysis of kindergarten game activities 3. Design and implementation of game activities
Module 4 Educational activity design and implementation competence	Practical learning: 42 hours	
	Job shadowing (20 hours)	<ol style="list-style-type: none"> 1. Design and implementation of kindergarten collective teaching activities 2. Outdoor activities and natural exploration in kindergartens 3. Special courses and creative activities in the kindergarten 4. Design and implementation of kindergarten regional activities

Table 34 (continued)

Module	Method	Activity
	Mentoring (8 hours)	1. Educational activities to design and implement special course learning activities 2. Educational activity design and implementation of course learning and sharing activities 3. Design and implementation of educational activities 4. Educational activity design and implementation of teaching reflection activities 5. Educational activity design and implementation of excellent case analysis activities
	Assignment (14 hours)	1. Design the plan of kindergarten education activities 2. Implementation and observation report of kindergarten education activities 3. Evaluation and optimization of kindergarten education resources
Module 5 Incentive and evaluation competence	Practical learning: 42 hours	
	Job shadowing (20 hours)	1. Activity design to motivate children to learn 2. Praise and encourage strategies 3. Real-time assessment and feedback skills
	Mentoring (8 hours)	1. Encourage and evaluate the special course learning activities 2. Incentive and evaluation of course learning and sharing activities 3. Inspire and evaluate the knowledge sharing salon 4. Stimulate and evaluate the teaching reflection activities 5. Stimulate and evaluate excellent case analysis activities

Table 34 (continued)

Module	Method	Activity
Module 6 Communication and cooperation competence	Assignment (14 hours)	1. Incentive strategy design 2. Discussion on the evaluation methods 3. Video analysis of educational activities
	Practical learning: 28 hours	
	Job shadowing (15 hours)	1. Team meetings and discussions 2. Collaboration of the teaching team 3. Organization and implementation of class activities 4. Parent meetings and home cooperation 5. Emergency situations and response capacity
	Mentoring (5 hours)	1. Communication and cooperation of the special course learning activities 2. Communication and cooperation course learning and sharing activities 3. Communication and cooperation knowledge sharing salon 4. Communication and cooperative teaching reflection activities 5. Excellent case analysis activities of communication and cooperation
	Assignment (8 hours)	1. Role-playing and simulating scenarios 2. Feedback and improvement plan 3. Teacher and team-building activities
Module 7 Reflection and development competence	Practical learning: 56 hours	
	Job shadowing (30 hours)	1. Reflection on the design and implementation of educational activities 2. Class management and classroom organization 3. Reflection on personalized care and educational support 4. Reflection and professional development

Table 34 (continued)

Module	Method	Activity
	Mentoring (10 hours)	1. Reflection and development of thematic course learning activities 2. Reflection and development of course learning and sharing activities 3. Reflection and development of knowledge sharing salon 4. Reflection and develop teaching reflection activities 5. Reflect on and develop excellent case analysis activities
	Assignment (16 hours)	1. Teaching case analysis and reflection 2. Personal teaching video recording and evaluation 3. Reflect on logs

3.2.2 20% by learning from others (20% learning mode)

20% comes from "learning from others," which is a form of learning from excellent kindergarten teachers. It is a process of learning from a dialogue. The exchange of information between each other requires the establishment of a foundation of a good relationship between two or more talking partners. And exchange views sometimes when it is convenient for both sides. 20% of the experience is gained by referring to others' good practices, learning from excellent kindergarten teachers, listening and sharing, learning from experience, standing on the shoulders of giants, and growing up in the process of communication. Teacher development tools used in this learning approach will focus on those that are not focused on training.

88 hours were spent using the following methods, coaching took 44 hours and networking 44 hours. Specific arrangements are as shown in Table 35:

Table 35 20% Method-specific schedule by learning from others

Module	Method	Activity
Module1 Environment creation and utilization competence	Learn from others: 16 hours	
	Coaching (8 hours)	1. Follow-up of kindergarten environment creation and utilization activities 2. Teachers to train people with professional knowledge in the field of environment creation
	Networking (8 hours)	1. Learning network activities in the creation and utilization of kindergarten environments 2. Participate in meetings, discussions and exchanges 3. Ideas and practices on kindergarten environment creation and utilization by kindergarten teachers.
Module 2 Daily life organization and conservation competence	Learn from others: 8 hours	
	Coaching (4 hours)	1. Follow-up of daily life organization and conservation activities 2. Teachers with professional knowledge in the field of daily life organization and childcare
	Networking (4 hours)	1. Learning network activities in the daily life organization and conservation of the kindergarten 2. Attend meetings, discuss and communicate 3. About kindergarten, teachers' daily life organization and childcare ideas and practices.
Module 3 Game activity support and guidance competence	Learn from others: 16 hours	
	Coaching (8 hours)	1. Game activities to support and guide the follow-up of activities 2. Game activities to support and guide the operation of teachers training people with professional knowledge in the field of game activity support and guidance

Table 35 (continued)

Module	Method	Activity
	Networking (8 hours)	Learning network activities in the support and guidance of kindergarten game activities Attend meetings, discuss and communicate About kindergarten, teachers' game activities to support and guide the ideas and practices.
Module 4 Educational activity design and implementati on competence	Learn from others: 12 hours	
	Coaching (6 hours)	1.Educational activity design and implementation activities 2.Teachers with professional knowledge in the field of design and implementation of educational activities
	Networking (6 hours)	1.Learning network activities in the design and implementation of kindergarten education activities 2.Attend meetings, discuss and communicate 3.The idea and practice of the design and implementation of teachers' educational activities about kindergarten.
Module 5 Incentive and evaluation competence	Learn from others: 12 hours	
	Coaching (6 hours)	1.Incentive and evaluation, activity follow-up 2.Teachers with professional knowledge in the field of motivation and evaluation
	Networking (6 hours)	1.Learn the network activities in the kindergarten incentive and evaluation 2.Attend meetings, discuss and communicate 3.The idea and practice of teachers' motivation and evaluation about kindergarten.

Table 35 (continued)

Module	Method	Activity
Module 6 Communication and cooperation competence	Learn from others: 8 hours	
	Coaching (4 hours)	1.Communication and cooperation, activities follow-up 2.Communication and cooperation operation Teacher training for people with expertise in the areas of communication and cooperation
	Networking (4 hours)	1.Learn network activities in the communication and cooperation in the kindergarten 2.Attend meetings, discuss and communicate 3.Thoughts and practice of teachers' communication and cooperation about kindergarten.
Module 7 Reflection and development competence	Learn from others: 16 hours	
	Coaching (8 hours)	1.Reflection and development, activities follow up 2.Reflection and development Operational teacher training for people with expertise in the field of reflection and development
	Networking (8 hours)	1.Learning network activities in the reflection and development of kindergarten 2.Attend meetings, discuss and communicate 3.About kindergarten, teachers' reflection and development of ideas and practices.

3.2.3 10% through centralized training (10% in learning mode)

10% comes from " formal training, a form of learning focusing on formal focused training, through courses or courses already prepared. This is another important and essential form of development that organizations cannot abolish this form of learning. Create comprehensive learning for learners and produce true learning

outcomes. It is irreplaceable for the first two. Participating in formal training for the long-term interests of myself and the kindergarten is the last 10% of self-improvement.

It took 44 hours by using the following method. Specific arrangements are as shown in Table 36:

Table 36 10% through a centralized training method specific schedule

Module	Method	Activity
Module1: Environment creation and utilization competence	Centralized training: 8 hours	
	Training (8 hours)	1. Basic theory of environment creation 2. Practical skills of environment creation 3. Development and utilization of local educational resources 4. Integrate the kindergarten environment and the kindergarten curriculum 5. Evaluation and improvement of kindergarten environment creation 6. Kindergarten environment creation and information technology
Module 2 Daily life organization and conservation competence	Centralized training: 4 hours	
	Training (4 hours)	1. Daily management and organization of the kindergarten 2. Kindergarten safety and health management 3. Safety management of outdoor activities in the kindergarten
Module 3 Game activity support and guidance competence	Centralized training: 8 hours	
	Training (8 hours)	1. The importance and basic theory of kindergarten games 2. Design and planning of kindergarten game activities 3. Skills and methods of kindergarten game guidance 4. Educational objectives and evaluation in the kindergarten game 5. Game support and adjustment under special situations

Table 36 (continued)

Module	Method	Activity
Module 4 Educational activity design and implementation competence	Centralized training: 6 hours	
	Training (6 hours)	<ol style="list-style-type: none"> 1. Design principles and planning of kindergarten education activities 2. Selection and application of kindergarten educational resources and materials 3. Implementation and classroom management of kindergarten education activities 4. Design and integration of cross-field educational activities in kindergartens
Module 5 Incentive and evaluation competence	Centralized training: 6 hours	
	Training (6 hours)	<ol style="list-style-type: none"> 1. Incentive theory and strategies 2. Educational goal setting and follow-up evaluation 3. Positive feedback and constructive evaluation 4. Emotional management and motivation skills 5. Career development and self-assessment
Module 6 Communication and cooperation competence	Centralized training: 4 hours	
	Training (4 hours)	<ol style="list-style-type: none"> 1. Communication skills and emotional support between teachers and children 2. Home communication and cooperation 3. Team and collaboration skills 4. Interdisciplinary teamwork and professional development
Module 7 Reflection and development competence	Centralized training: 8 hours	
	Training (8 hours)	<ol style="list-style-type: none"> 1. Kindergarten teachers' educational concept and sense of professional mission 2. Self-cognition and self-assessment 3. Individualized care and development 4. Professional development planning and follow-up

4. Evaluation

A scientific and comprehensive assessment system is established to regularly evaluate teachers' professional competence and teaching effectiveness. Combine self- assessment, other assessment and expert assessment to gain a comprehensive understanding of teachers' competence and development. To establish a feedback mechanism for teachers to understand the difficulties and needs of teachers in training and work in a timely manner. Based on the feedback, timely adjustments are made to training programs and support measures to ensure that teachers' practical problems are solved. Evaluation mechanism: Establish a scientific evaluation system to regularly assess the effectiveness of teachers' professional competence improvement.

Feedback mechanism: Collect feedback through multiple channels, such as teachers' self-assessment, students' feedback and parents' opinions, to improve the content and form of training.

4. 1 Assessment before development. Evaluate the change of professional competence by assessing the professional competence of rural kindergarten teachers in Guangxi before.

4.2 Assessment during development. By assessing group activities, evaluating worksheets, assessing assigned tasks, and assessing satisfaction with model development. Using the assessment of satisfaction with the model for improving the professional competence of kindergarten teachers in rural Guangxi.

4.3 Assessment after development. Evaluate the developed model by using the evaluation form of the model for improving the professional competence of kindergarten teachers in rural Guangxi.

5. Success conditions

The success condition is to improve the professional competence of kindergarten teachers in rural Guangxi. By applying the 70 20 10 learning rule, in order to achieve success at a higher goal or equal to the international standard, the work should increase the focus as follows:

5.1 Policy support

National and local governments pass legislation to clarify the importance of rural preschool education and ensure long-term investment and policy support. Education administrations formulate long-term development plans with clear

goals and implementation steps to ensure policy sustainability. Special financial funds are set up to help with the construction of rural kindergartens and teacher training.

5.2 Incentive Mechanisms

Establish a scientific promotion mechanism for rural kindergarten teachers, with clear career development paths. Provide opportunities for continuing education and further training to encourage teachers to continuously improve their competence. Set up a commendation system to reward teachers with outstanding performance in education and teaching. This includes material rewards, honorary titles, and opportunities for further training to stimulate teachers' motivation.

5.3 Resource allocation

Strengthen rural kindergarten infrastructure construction, equip rural kindergartens with modern educational and pedagogical equipment and materials, and raise the salaries of rural kindergarten teachers. Establish a platform for sharing educational resources between urban and rural areas, so as to realize the common construction and sharing of high-quality educational resources.

5.4 Participation of families and communities

Carry out home and family co-education activities in a variety of forms, organize regular parent training and hold parent meetings. Mobilize community volunteers to participate in kindergarten activities and use community resources to carry out activities.

5.5 Application of information technology

Build a specialized educational resource platform to provide quality teaching resources and courses. Promote the application of multimedia technology in teaching and improve teaching effect. Establish a digital management system to improve the management efficiency and level of kindergartens. Utilize big data analysis to keep abreast of the operation of kindergartens and the teaching effect of teachers.

5.6 Cultural construction

Create a good atmosphere of respecting teachers and valuing education, and enhance teachers' sense of professional honor. Encourage cooperation and exchanges among teachers to improve the teaching level together.

Stage 3: To evaluate the results of the practice model

Evaluation improves the suitability and feasibility of the professional competence model in Guangxi rural kindergarten teachers by 5 experts, as shown in Table 37.

Table 37 Mean and standard deviations of improving the appropriateness level of the professional competence model for rural kindergarten teachers in Guangxi

	Suitability			Feasibility		
	\bar{x}	SD.	Interpret	\bar{x}	SD.	Interpret
1. Principles	4.73	.33	Very high	4.73	.33	Very high
2. Objectives	4.70	.36	Very high	4.69	.36	Very high
3. Contents and Method	4.71	.35	Very high	4.69	.36	Very high
4. Evaluation	4.69	.36	Very high	4.70	.36	Very high
5. Conditions for success	4.70	.36	Very high	4.69	.36	Very high
Total	4.71	.35	Very high	4.7	.35	Very high

It is pointed out from Table 37 that the professional competence model of rural kindergarten teachers in Guangxi is 1) principle 2) objective 3) Method 4) evaluation 5) The success conditions are appropriate at the very high level.



CHAPTER V

CONCLUSION

Research on develop a model to improve the professional capabilities of rural kindergartens in Guangxi, the researcher summarized the results of data analysis, discussed the results, and made suggestions, as follows:

1. Research objectives
2. Research results
3. Discussion
4. Suggestions and Recommendations

Research Objectives

1. To investigate components and indicators of the professional competence of rural kindergarten teachers.
2. To explore the existence condition, desired condition, and the priority needs of the professional competence of rural kindergarten teachers in Guangxi.
3. Developing a model to improve the professional competence of rural kindergarten teachers in Guangxi.

Research Results

The full results of this study are reported according to the order of study questions:

Phase 1: To investigate components and indicators of the professional competence of rural kindergarten teachers.

There are 7 components and 23 indicators of the professional competence of rural kindergarten teachers. The results of the suitability evaluation by the five qualified experts were generally at the highest level. The order of the average components from highest to lowest was environment creation and utilization competence, daily life organization and care competence, game activity support and guidance competence, educational activity design and implementation competence,

reflection and development competence, incentive and evaluation competence, and communication and cooperation competence.

Phase 2: To explore the existence condition, desired condition, and the priority needs of the professional competence of rural kindergarten teachers in Guangxi.

The results summarize the existence conditions of professional competence of rural kindergarten teachers in Guangxi. Overall, it is presented at a moderate level. Have the ideal conditions to improve the professional competence of rural kindergarten teachers in Guangxi. Overall, it is at a very high level. Priority demand index of the professional competence of rural kindergarten teachers in Guangxi. From most to the lowest: 1) reflection and development competence; 2) environment creation and utilization competence; 3) game activity support and guidance competence. The adjusted demand index value was 0.313, 0.305, and 0.304.

Phase 3: Developing a model to improve the professional competence of rural kindergarten teachers in Guangxi.

The results found that the model includes 1) principles, 2) objectives, and 3) contents and methods, including 70% practical learning, 20% learning from others, and 10% learning through courses. Methods of professional competence for kindergarten teachers in rural Guangxi Province, including job shadowing, mentoring, assignment, coaching, networking, training 4) evaluation, and 5) success conditions. The results of evaluating the suitability and feasibility of the model were very high.

Discussion

The overall of this research result was discussed based on the research question as follows:

Phase 1: To investigate components and indicators of the professional competence of rural kindergarten teachers.

According to the result of the research on the components and indicators of the professional competence of rural kindergarten teachers in Guangxi, it was found that by studying the literature problems validated by five experts. It was found that the components and indicators of the professional competence of rural kindergarten teachers in Guangxi consisted of 7 elements by studying the literature problem verified

by 5 experts: 1) environment creation and utilization competence, with 2 indicators: creation of the spiritual environment, and creation of the physical environment; 2) daily life organization and conservation competence, with 4 indicators: Ensuring the safety of young children, rational arrangement and organization of one-day life, random education, and combination of protection and education; 3) game activity support and guidance competence, with 3 indicators: support for play activities, play environments and materials, and guidance for play activities; 4) educational activity design and implementation competence, with 4 indicators: design of educational activities, teaching according to the needs of the individual, implementation of educational activities, and guiding young children to active learning; 5) incentive and evaluation competence, with 3 indicators: motivation and appreciation, evaluation, and use of evaluation results; 6) communication and cooperation competence, with 4 indicators: communication with young children, communication and cooperation with colleagues, communication and cooperation with parents, and communication and cooperation with the community; and 7) reflection and development competence, with 3 indicators: reflection, learning and research, and professional competence for professional development planning. Consistent with the concept of Feng Dahong (2019). Based on the study of the current situation of rural kindergarten teachers' professional development and promotion measures, the professional competence for rural kindergarten teachers is divided into 1) environment creation and utilization competence; 2) daily life organization and conservation competence; 3) game activity support and guidance competence; 4) educational activity design and implementation competence; 5) incentive and evaluation competence; 6) communication and cooperation competence; and 7) reflection and development competence. Consistent with the concept of Feng Dahong (2019). According to the study of the current situation of rural kindergarten teachers' professional development and promotion measures, the professional competence for rural kindergarten teachers is divided into 1) environment creation and utilization competence; 2) daily life organization and conservation competence; 3) game activity support and guidance competence; 4) educational activity design and implementation competence; 5) incentive and evaluation competence; 6) communication and cooperation competence; and 7) reflection and development competence. Consistent with the concepts of Zhu Ling and Huang Zixing (2021).

According to the study of the current situation of the development of professional competence for rural kindergarten teachers and the countermeasures for its enhancement, the professional competence of rural kindergarten teachers was classified into seven major competences, namely, 1) environment creation and utilization competence; 2) daily life organization and conservation competence; 3) game activity support and guidance competence; 4) educational activity design and implementation competence; 5) incentive and evaluation competence; 6) communication and cooperation competence; and 7) reflection and development competence.

Phase 2 : To explore the existence condition, desired condition, and the priority needs of the professional competence of rural kindergarten teachers in Guangxi.

2.1 Existence conditions of professional competence of kindergarten teachers in rural Guangxi

The results of the study found that the existential conditions of professional competence of rural kindergarten teachers in Guangxi were generally of medium level. Considering all aspects, it was found that the level of existential conditions was relatively the highest for daily life organization and conservation competence, relatively the second highest for educational activity design and implementation competence, and relatively the lowest for reflection and development competence. Consistent with the the findings of Gao Xiaomin (2020). According to the results of the study that examined the current situation of the development of professional competence for rural kindergarten teachers and the countermeasures to improve it, the overall development of professional competence for rural kindergarten teachers in Shanxi Province is at a medium level. Rural kindergarten teachers had the relatively highest daily life organization and conservation competence, the second highest educational activity design and implementation competence, and the lowest reflection and development competence. From each dimension, it was found that the professional competence for rural kindergarten teachers was unevenly developed and showed some differences. In improving the overall professional competence for rural kindergarten teachers, there is a need to focus on and strengthen those competences for which the scores are relatively low, especially reflection and development competence,

and game activity support and guidance competence. The enhancement of these competences will help to comprehensively improve the educational quality of rural kindergartens in Guangxi and promote the further development of preschool education in rural Guangxi.

2.2 Desired conditions of professional competence of kindergarten teachers in rural Guangxi

The desired condition of competence is the overall level in very high. Looking at all aspects, we find that the level of desired conditions is ranked as follows in order from high to low: 1) daily life organization and conservation competence; 2) educational activity design and implementation competence; 3) communication and cooperation competence; 4) environment creation and utilization competence; 5) incentive and evaluation competence; 6) game activity support and guidance competence; and 7) reflection and development competence. Differences in the expectations of each aspect reflect the high value and expectations of educators and relevant stakeholders for the professional competence of rural kindergarten teachers. The ranking of the desired conditions reflects the order of importance of different competences in an ideal state, which is an important guide for formulating teacher training and development strategies. Future training and development programs for rural kindergarten teachers should be based on these expectations, and the training content should be designed in a targeted manner, especially in the areas of care and nursing, educational activity design, communication and cooperation, and environment creation, to strengthen the training efforts and help teachers realize the overall improvement of their professional competence for the future.

2.3 Priority needs of professional ability of kindergarten teachers in rural Guangxi

Priority needs index revision (improvement), the order of priority needs index modification first, reflection and development competence; second, environment creation and utilization competence; third, game activity support and guidance competence. Taken together, the priority needs of rural kindergarten teachers in Guangxi are more prominent in the four areas of reflection and development competence, the creation and utilization of environment competence, and play activity support and guidance competence. Consistent with the findings of Liya (2019). The

findings of the study point out that the development of environment creation and utilization competence in rural kindergarten teachers in Chuan Dong was unbalanced, with the competence in guiding the creation of the spiritual teaching environment being relatively good, while the competence in creating and utilizing the physical teaching environment was obviously at a disadvantage, and was in urgent need of improvement. Daily life organization and conservation competence is more good. Game activity support and guidance competence is really weaker and needs to be improved urgently. Educational activity design and implementation competence is generally excellent. Incentive and evaluation competence is more outstanding. Communication and cooperation competence is good for teachers to communicate and interact with children, but communication and cooperation with colleagues and parents is more lacking and needs to be strengthened. Reflection and development competence is very weak and needs to be strengthened urgently. The analysis of the Priority Needs Index provides educational administrators and policy makers with a clear direction for developing more targeted teacher training and development strategies to help teachers improve these key competences, thereby improving the overall quality of education in rural kindergartens.

3. Developing a model to improve the professional competence of rural kindergartens in Guangxi. The results found that the model includes 1) principles, 2) objectives, and 3) methods, including 70% practical learning, 20% learning from others, and 10% learning through courses. Approaches to technology leadership development, including job shadowing, mentoring, assignment, coaching, networking, training 4) evaluation, and 5) success conditions. Because (refer to the principles, concepts and theories of scholars), according to the research basis as follows:

3.1 Principle: The principle of the model is the context or principle of the model designed by the researcher.

3.2 Objective; the objective of the model is based on developing skills learning (Noe, 2010).

3.3 Methodology: the methodology of the model includes work display, mentoring, teaching, networking, and training. (Suthamthathanam, 2020)

3.4 Evaluation: the evaluation of the model includes pre-assessment test, open-ended assessment and quick feedback on, the content of the model, assessment of the trainer during the mentoring process, post-assessment test, evaluation of the

program by completing a questionnaire, evaluation and reflection on peer participants (Noe, 2010).

3.5 Success condition: the success condition of the model is to improve the professional competence of rural kindergarten teachers in Guangxi. By applying the 70 20 10 learning rule, in order to succeed at a higher goal or equal to international standards, the work should be increased in focus.

Suggestions and Recommendations

1. Suggestions for using the results of the study

In order to interest the professional competence of kindergarten teachers in rural Guangxi, the researcher recommends the results of this study as follows:

1. 1 The Government should strengthen the infrastructure of rural kindergartens and equip them with modern educational and pedagogical equipment and materials.

1.2 Education administrative departments should earnestly strengthen the organization and leadership of the work of kindergarten teachers in rural areas of Guangxi, and create conditions for the professional development of rural kindergarten teachers.

1.3 Rural kindergartens should establish a scientific promotion mechanism for teachers, clarify career development paths, provide opportunities for continuing education and further training, and encourage teachers to continuously improve their competence.

1. 4 Rural kindergarten teachers themselves should strengthen the awareness of professional competence for development, update the concept of early childhood teacher education, actively participate in training and independent practice, and improve their professional competence for development.

1.5 Build a specialized educational resource platform to provide quality teaching resources and courses.

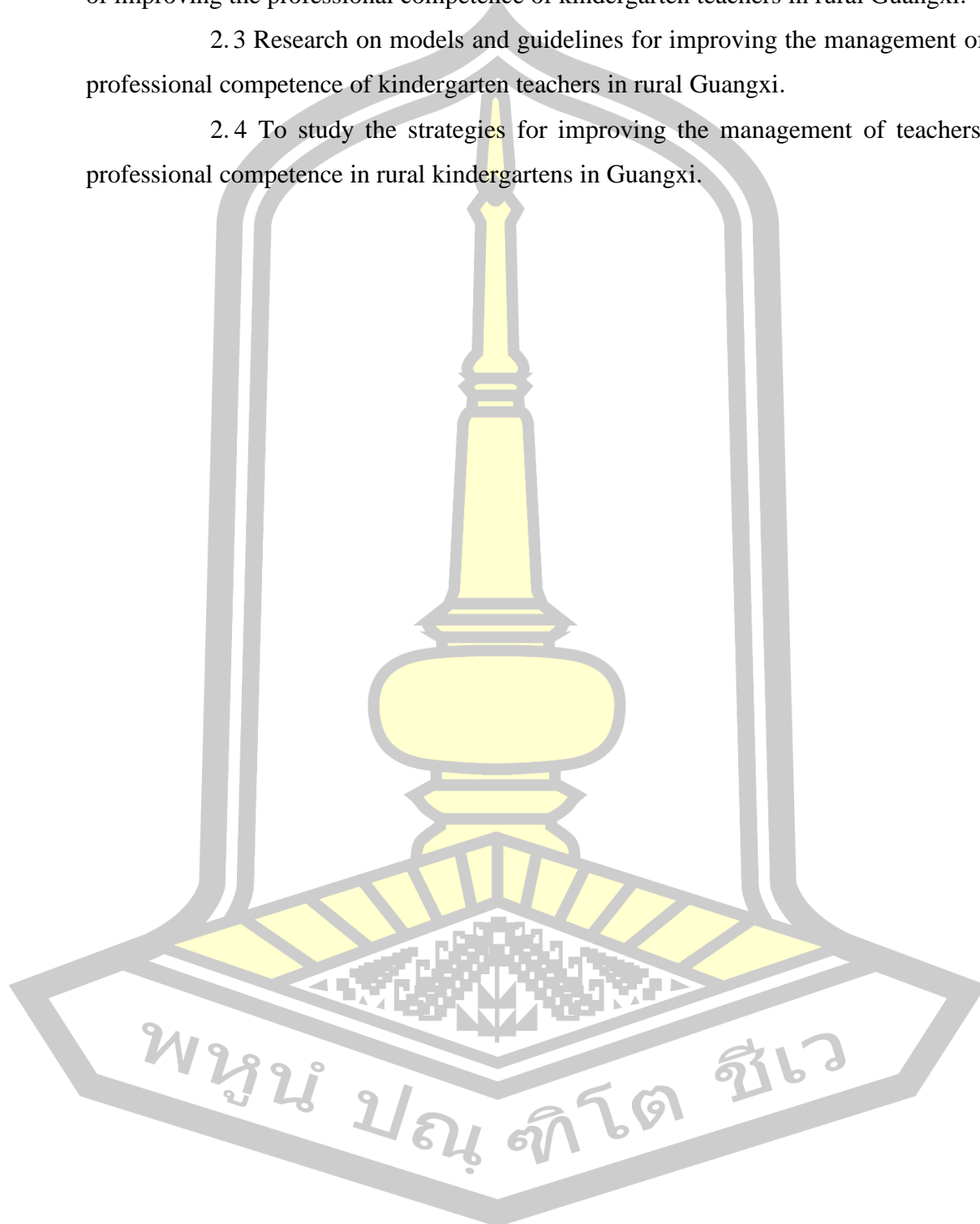
2. Suggestions for future research:

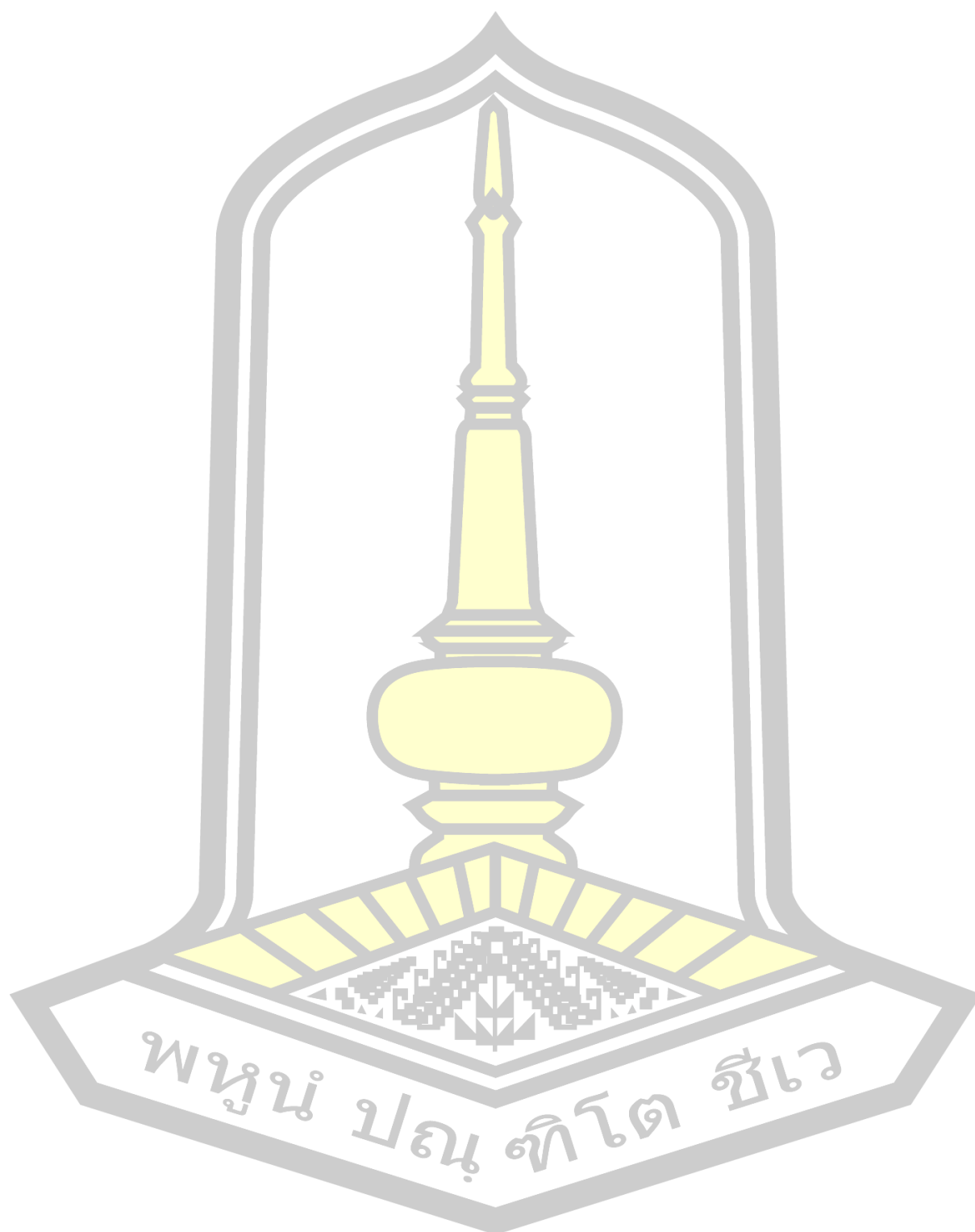
2. 1 Research and develop a management model for improving the professional competence of rural kindergarten teachers in Guangxi.

2.2 Research on the influencing factors of the success of the management of improving the professional competence of kindergarten teachers in rural Guangxi.

2.3 Research on models and guidelines for improving the management of professional competence of kindergarten teachers in rural Guangxi.

2.4 To study the strategies for improving the management of teachers' professional competence in rural kindergartens in Guangxi.



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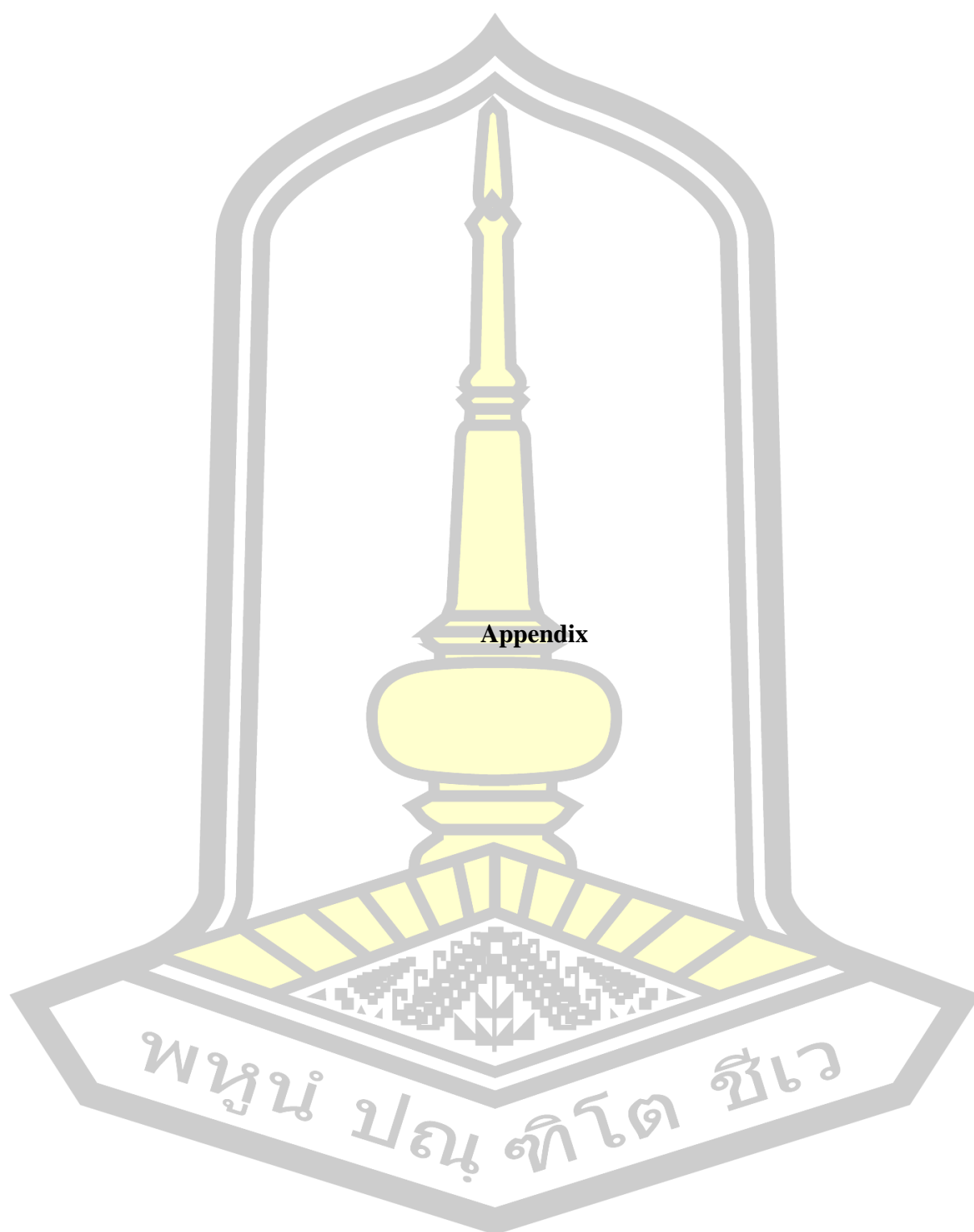
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Appendix I

List of experts

List of component check experts

Five experts were selected to evaluate and test the effectiveness of the professional competence challenge elements of rural kindergarten teachers in Guangxi. Professional knowledge and experience in educational management, educational research or educational psychology and educational technology leadership; at least a master's degree and postgraduate experience in the above fields. The names and qualifications of the experts are as follows:

- (1) Assoc.prof.Dr.Pacharawit Chansirisira
- (2) Assoc.prof.Dr.Thatchai Chittranun
- (3) Prof.Dr.Wen Ping
- (4) Prof. Li Xiangling
- (5) Prof. Yang Yan

List of experts in the evaluation of research tools

Based on the components and indicators of rural kindergarten teachers in Guangxi, the questionnaire was designed. The first draft of the questionnaire was submitted to the consultant for correction, with accurate questionnaire and sent to 5 experts:

- (1) Dr. Wen Ping, Professor of Guangxi Preschool Normal College, President;
- (2) Professor Yang Yan, Preschool Teacher Training Center of Guangxi Zhuang Autonomous Region;
- (3) Professor Li Xiangling from Nanning Normal University;
- (4) Associate Professor Li Yuyan, Education Department of Guangxi Zhuang Autonomous Region;
- (5) Professor Lei Xiangzhu of Guangxi University for Nationalities.

List of experts to assess the applicompetence and feasibility of the model

The main informants were five experienced experts who were invited to evaluate the possibility and applicompetence of the model, proposing some suggestions to develop a model to improve the professional competence of rural kindergarten teachers in Guangxi. (1) Education and training, educational management, educational research, educational psychology and other professional knowledge.; 2) PhD degree or above; 3) teaching leadership in the above fields; 4) experience in guiding graduate students. Name and qualification certificate of the experts:

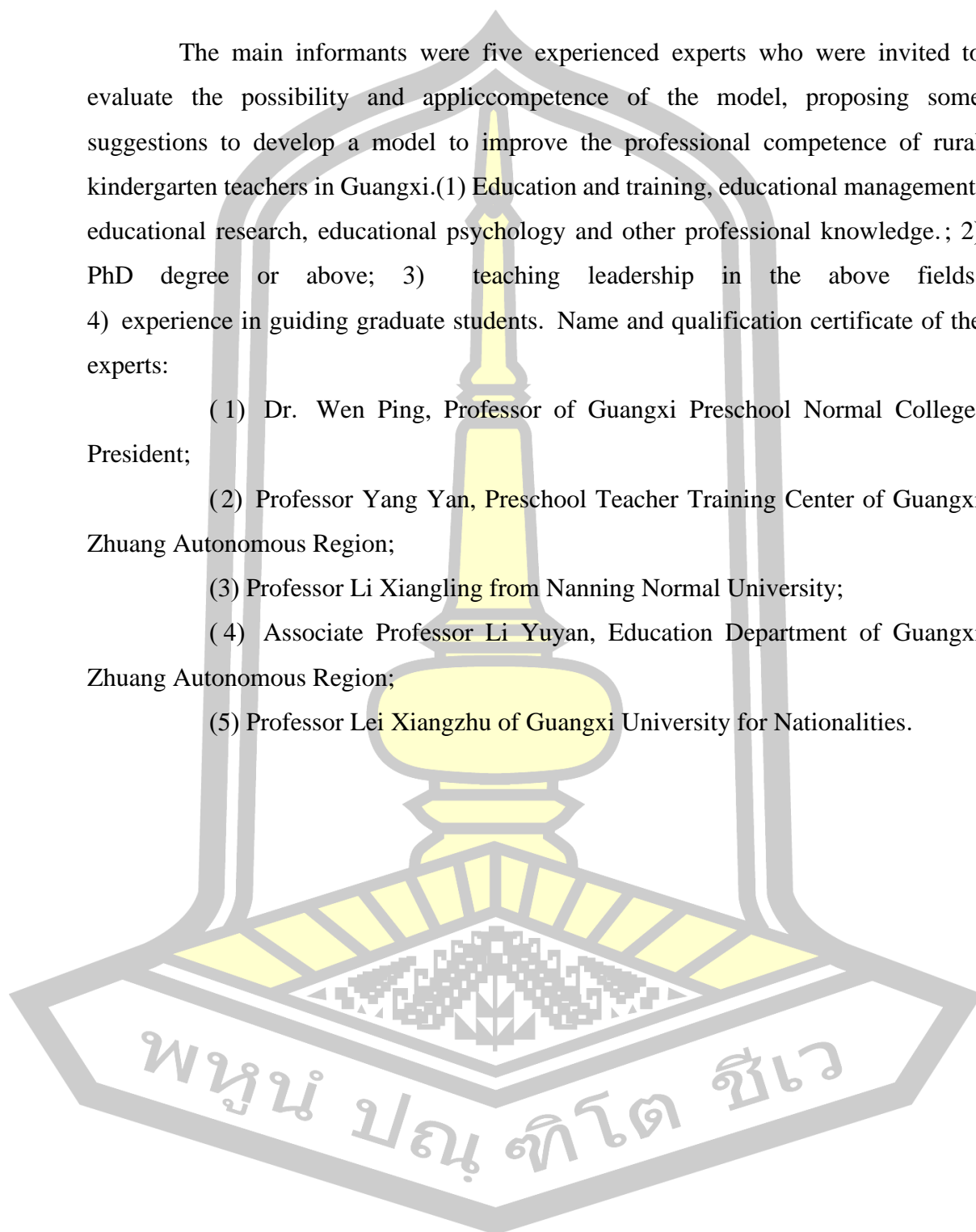
(1) Dr. Wen Ping, Professor of Guangxi Preschool Normal College, President;

(2) Professor Yang Yan, Preschool Teacher Training Center of Guangxi Zhuang Autonomous Region;

(3) Professor Li Xiangling from Nanning Normal University;

(4) Associate Professor Li Yuyan, Education Department of Guangxi Zhuang Autonomous Region;

(5) Professor Lei Xiangzhu of Guangxi University for Nationalities.



Appendix II

Research tools



MAHASARAKHAM UNIVERSITY ETHICS COMMITTEE FOR RESEARCH INVOLVING HUMAN SUBJECTS

Certificate of Approval

Approval number: 005-612/2024

Title : Developing a Model to Improve the Professional Competence of Rural Kindergarten Teachers in Guangxi.

Principal Investigator : Xiang Ao

Responsible Department : Faculty of Education

Research site : Nanning City, Guangxi Province, China

Review Method : Expedited Review

Date of Manufacture : 3 January 2024

expire : 2 January 2025

This research application has been reviewed and approved by the Ethics Committee for Research Involving Human Subjects, Mahasarakham University, Thailand. Approval is dependent on local ethical approval having been received. Any subsequent changes to the consent form must be re-submitted to the Committee.

Ratree S.

(Asst. Prof. Ratree Sawangjit)

Chairman

Approval is granted subject to the following conditions: (see back of this Certificate)

Questionnaire

Research on Developing a model to improve the professional competence of rural kindergarten teachers in Guangxi

Statement

Questionnaire aims to study the existence condition and desired condition of Developing a model to improve the professional competence of rural kindergarten teachers in Guangxi.

1. The questionnaire consists of 3 parts as follows:

Part 1: General information of the respondents.

Part 2: Existence condition and desired condition of Developing a model to improve the professional competence of rural kindergarten teachers in Guangxi.

Part 3: Professional competence enhancement needs.

2. Respondents please answer all questions in the questionnaire.

3. Survey results will be used for research purposes only. without any impact on the respondents.

4. Thank you to all respondents. who cooperated in answering the questionnaire.

Mr. Xiang Ao

Doctoral degree students Doctor of Education Program(Ed.D.)
Major: Educational Administration and Development.

Faculty of Education Mahasarakham University

Part 1: General information of the respondents

Explanation: This questionnaire is a questionnaire about personal characteristics. Please mark ✓ in ☐ that matches your status.

1. Gender

- ☐ Male
☐ Female

2. Age

- ☐ <25 years old
☐ Between 25 – 35 years old
☐ From 36-45 years old
☐ Between 41-45 years old
☐ > 45 Years old

3. Professional title

- ☐ Middle School Senior
☐ Junior Education Senior
☐ Primary teaching level 1
☐ Primary Education secondary
☐ No title

4. Preschool education working years

- ☐ Within 2 years
☐ For 2-3 years
☐ From 4-9 years
☐ 10-14 years
☐ More than 15 years

5. Degree

- ☐ High school, technical secondary school
☐ Junior college
☐ Undergraduate course
☐ Graduate students, and above

6. Major

- ☐ Preschool education
- ☐ Normal education but not preschool education
- ☐ Non-normal class and other majors

7. Teacher qualification certificate

- ☐ Kindergarten Teacher Qualification Certificate
- ☐ Middle School Teacher qualification Certificate
- ☐ Secondary vocational teacher qualification
- ☐ No teacher qualification certificate

8. Average monthly salary

- ☐ Below 1,500 yuan
- ☐ 1500-2500 yuan
- ☐ 2500-3000 yuan
- ☐ 3,000-3,500 yuan
- ☐ 3500-4000 yuan
- ☐ More than 4,000 yuan

Part 2: Existence condition and desired condition of Developing a model to improve the professional competence of rural kindergarten teachers in Guangxi

Instructions: please check a mark. ✓ enter in the existence condition and desired condition fields. You have taken actions that existence condition and desired condition according to the following criteria:

5 means existence condition and desired condition at the highest level

4 means existence condition and desired condition at the high level

3 means existence condition and desired condition at the medium level

2 means existence condition and desired condition at the low level

1 means existence condition and desired condition at the lowest level

Part 3: Professional competence enhancement needs

Explanation: This questionnaire is a questionnaire about individual professional development. Please mark ✓ in ☐ that matches your status. please make indefinite choices according to your own situation.

1. The most lacking competence in terms of professional competence

- ☐ Environment creation and utilization competence
- ☐ Daily life organization and conservation competence
- ☐ Game activity support and guidance competence
- ☐ Educational activity design and implementation competence
- ☐ Incentive and evaluation competence
- ☐ Communication and cooperation competence
- ☐ Reflection and development competence

2. The way to improve the professional competence

- ☐ Class evaluation
- ☐ Master and apprentice teach
- ☐ Distance learning
- ☐ Expert on-site guidance by
- ☐ Self-study
- ☐ Continuing education and training
- ☐ Participate in the research project
- ☐ Teaching reflection
- ☐ Observe the demonstration park
- ☐ Garden this training

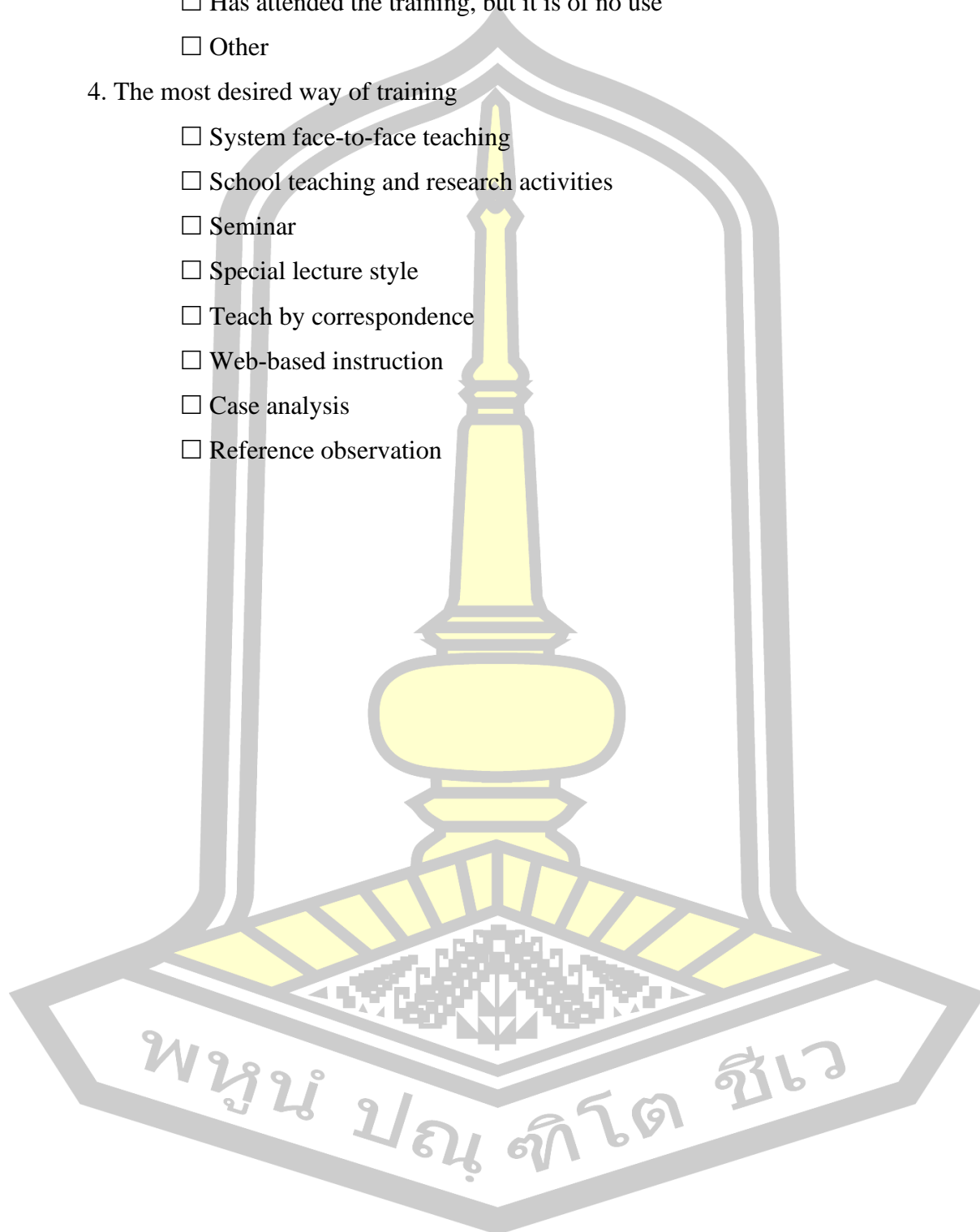
3. The main factors restricting the development of kindergarten teachers' professional competence

- ☐ Busy with work, heavy with task, no time to study
- ☐ Lack of expert guidance for the
- ☐ Lack of policy support from the management department
- ☐ The restriction of teacher evaluation system
- ☐ What I learned before is basically enough, and there is no motivation to continue learning
- ☐ There are few opportunities for training and further training

- ☐ In training, but nothing for
- ☐ Has attended the training, but it is of no use
- ☐ Other

4. The most desired way of training

- ☐ System face-to-face teaching
- ☐ School teaching and research activities
- ☐ Seminar
- ☐ Special lecture style
- ☐ Teach by correspondence
- ☐ Web-based instruction
- ☐ Case analysis
- ☐ Reference observation



Interview Outline on the Professional Competence of Rural Kindergarten Teachers in Guangxi (Kindergarten Teachers)

Dear teacher:

Hello! Thank you very much for taking time from your busy schedule for an interview. This anonymous survey aims to understand the basic situation of the Professional Competence of teachers in rural kindergartens in Guangxi. Please fill in the information truthfully according to your actual situation. This survey data are used for academic research only and do not involve your personal or school assessments. We will keep it strictly confidential, and we sincerely hope to get your support and help! Thank you for your cooperation!

FQ1. What do you think is the difference between rural kindergarten teachers and urban kindergarten teachers?

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FQ2. What is your educational philosophy? What are the outstanding problems existing in the practice process of your educational concept?

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FQ3. What do you think are the main problems in the professional development of teachers in rural kindergartens?

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FQ4. What comments do children, parents, colleagues and leaders have on your early childhood education work? What do you think of it?

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FQ5. Do you keep a diary of your day's work or reflect on a short teaching event?

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FQ6. Can your kindergarten provide sufficient support for your teaching? How do you make full use of this yourself Supporting conditions (such as the mining of teaching materials and surrounding resources)?

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FQ7. Do you have any plans for your career?

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FQ8. What factors do you think will affect the improvement of your Professional Competence?

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FQ9. Do you think attending some training is good for your professional growth?
What suggestions and comments do you have on teacher training?

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FQ10. What suggestions do you have for improving your Professional Competence?

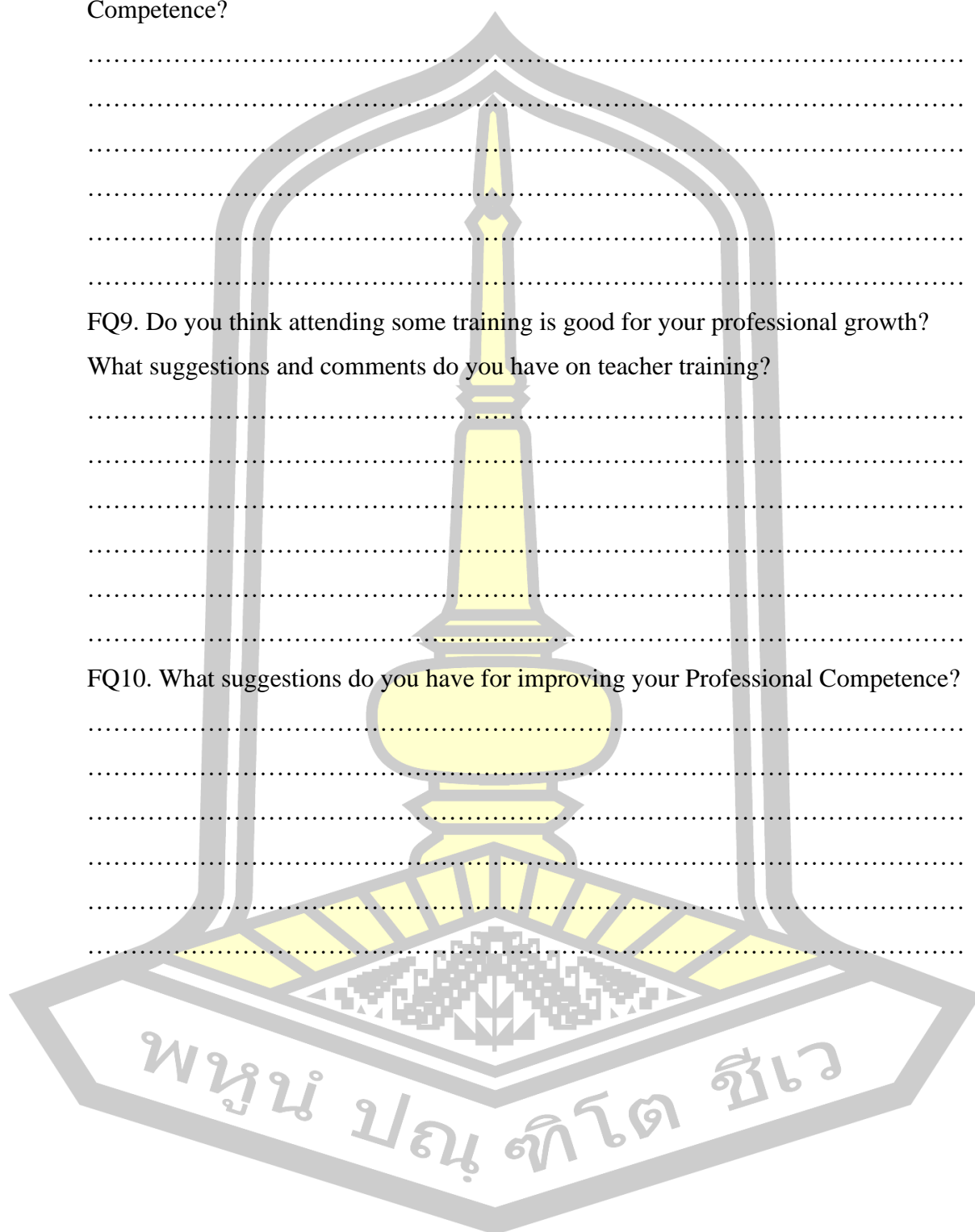
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Interview Outline of the Professional Competence of Rural Kindergarten Teachers in Guangxi (Kindergarten Principal)

Dear principal:

Hello! Thank you very much for taking time from your busy schedule for an interview. This survey aims to understand the basic situation of the professional competence of rural kindergarten teachers in Guangxi. Please fill in the information truthfully according to your actual situation. This survey data are used for academic research only and do not involve your personal or school assessments. We will keep it strictly confidential, and we sincerely hope to get your support and help! Thank you for your cooperation!

Part I: Basic Information

1. Interviewee.....
2. Interview time.....
3. Interview location.....
4. Interviewer.....

Part II: Interview Content

FQ1. What is the overall status of the teachers' professional quality in your kindergarten?

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FQ2. What is your educational philosophy of governing the garden?

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FQ3. Does your garden carry out home-school cooperation activities?

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FQ4. Does your kindergarten have strict requirements for the corresponding professional and preschool teacher qualifications?

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FQ5. What kind of help and support do you provide to the professional development of kindergarten teachers?

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FQ6. What methods and measures do you take to improve the Professional Competence of the kindergarten teachers?

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FQ7. What is the biggest difficulty in promoting the professional development of teachers in rural kindergarten teachers?

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FQ8. Does your kindergarten have a special person responsible for the planning and organization of teachers' continuing education?

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FQ9. What support and help should the government and education bureau provide to improve the Professional Competence of rural kindergarten teachers?

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FQ10. Please give your valuable suggestions on the development of local early childhood education.

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Interview Outline of the Current Situation of Professional Competence of Rural Kindergarten Teachers in Guangxi (Director of Education Bureau)

Dear Director-General,

Hello! Thank you very much for taking time from your busy schedule for an interview. This survey aims to understand the basic situation of the professional competence of rural kindergarten teachers in Guangxi. Please fill in the information truthfully according to your actual situation. This survey data are used for academic research only and do not involve your personal or school assessments. We will keep it strictly confidential, and we sincerely hope to get your support and help! Thank you for your cooperation!

Part I: Basic Information

1. Interviewee.....
2. Interview time.....
3. Interview location.....
4. Interviewer.....

Part II: Interview Content

FQ1. What is the career growth path and promotion opportunity of rural kindergarten teachers in your area?

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FQ2. What are the difficulties and challenges in rural kindergarten teachers in your area in teaching and curriculum implementation?

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FQ3. Do you think the existing teaching materials and curriculum resources can meet the teaching needs of rural kindergarten teachers?

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FQ4. How do you evaluate the current development trend of rural early childhood education?

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FQ5. What is the professional growth status and training needs of rural kindergarten teachers in your area?

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FQ6. How is the effect of professional training for rural kindergarten teachers in your area?

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FQ7. Do you think it is necessary to strengthen the construction of a platform for the exchange and experience sharing among rural kindergarten teachers? How to build?

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FQ8. What is the working environment of the rural kindergarten in your area? What else needs to be improved?

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FQ9. What do you think the government can improve in supporting the professional development of teachers in rural kindergarten areas? What are the specific measures?

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FQ10. Have you ever participated in projects or activities related to rural kindergarten teachers? What is the evaluation of these projects? What are the successful experiences and shortcomings?

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Interview form

Developing a model to improve the professional competence of rural kindergarten teachers in Guangxi

Statement

1. Interview form to interview for opinions about the developing a model to improve the professional competence of rural kindergarten teachers in Guangxi

2. The information obtained from the interview will be used as information to developing a model to improve the professional competence of rural kindergarten teachers in Guangxi

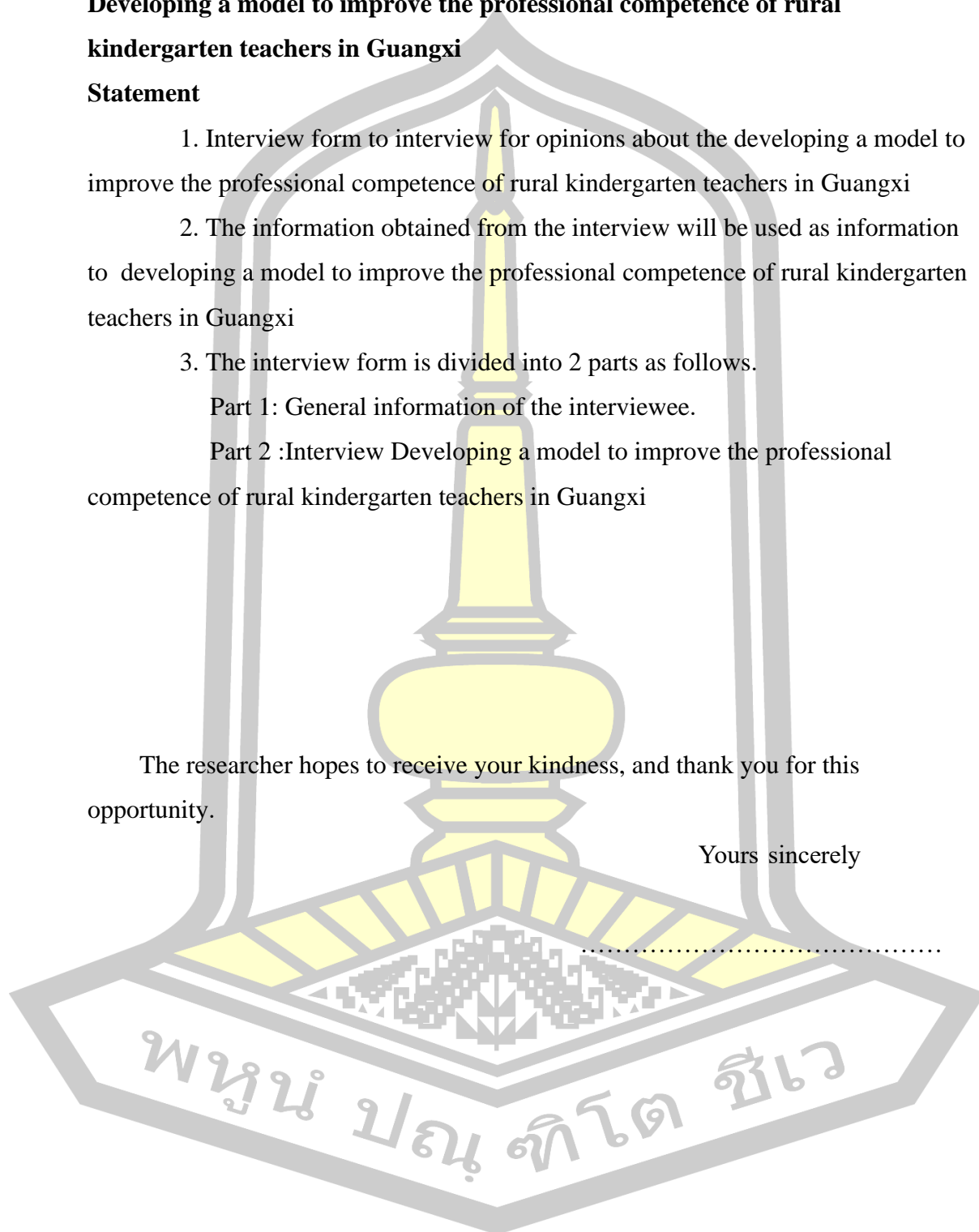
3. The interview form is divided into 2 parts as follows.

Part 1: General information of the interviewee.

Part 2 :Interview Developing a model to improve the professional competence of rural kindergarten teachers in Guangxi

The researcher hopes to receive your kindness, and thank you for this opportunity.

Yours sincerely



Part 1 : General information of the interviewee

1. Interviewee
2. Position
3. Date/month/year of the interview

Part 2 : Developing a model to improve the professional competence of rural kindergarten teachers in Guangxi

From study of related documents and research Principles of development competence of teachers. The researcher uses learning model principles consisting of 70: learning by experience, 20: Learning by others, and 10: learning by courses, and methods development of competence of teachers consisting of 1) job shadowing 2) mentoring 3) assignment 4) coaching 5) networking 6) training

How many opinions and suggestions do the experts have about the principles and methods of development?

1. Environment creation and utilization competence

1.1 Principles of development professional competence consisting of 70: learning by experience, 20: Learning by others, and 10: learning by courses

1.2 Methods of development professional competence consisting of 1) job shadowing 2) mentoring 3) assignment 4) coaching 5) networking 6) training

1.3 Suggestion.....

2. Daily life organization and conservation competence

2.1 Principles of development professional competence consisting of 70: learning by experience, 20: Learning by others, and 10: learning by courses

2.2 Methods of development professional competence consisting of 1) job shadowing 2) mentoring 3) assignment 4) coaching 5) networking 6) training

2.3 Suggestion.....

3. Game activity support and guidance competence

3.1 Principles of development professional competence consisting of 70: learning by experience, 20: Learning by others, and 10: learning by courses

3.2 Methods of development professional competence consisting of 1) job shadowing 2) mentoring 3) assignment 4) coaching 5) networking 6) training

3.3 Suggestion.....

4. Educational activity design and implementation competence

4.1 Principles of development professional competence consisting of 70: learning by experience, 20: Learning by others, and 10: learning by courses

4.2 Methods of development professional competence consisting of 1) job shadowing 2) mentoring 3) assignment 4) coaching 5) networking 6) training

4.3 Suggestion.....

5. Incentive and evaluation competence

5.1 Principles of development professional competence consisting of 70: learning by experience, 20: Learning by others, and 10: learning by courses

5.2 Methods of development professional competence consisting of 1) job shadowing 2) mentoring 3) assignment 4) coaching 5) networking 6) training

5.3 Suggestion.....

6. Communication and cooperation competence

6.1 Principles of development professional competence consisting of 70: learning by experience, 20: Learning by others, and 10: learning by courses

6.2 Methods of development professional competence consisting of 1) job shadowing 2) mentoring 3) assignment 4) coaching 5) networking 6) training

6.3 Suggestion.....

7. Reflection and development competence

7.1 Principles of development professional competence consisting of 70: learning by experience, 20: Learning by others, and 10: learning by courses

7.2 Methods of development professional competence consisting of 1) job shadowing 2) mentoring 3) assignment 4) coaching 5) networking 6) training

7.3 Suggestion.....

Expert Evaluation Form

Developing a model to improve the professional competence of rural kindergarten teachers in Guangxi

This evaluation form is divided into 2 parts, expert basic information and expert opinion 5-level scale:

Part 1: Expert Basic Information

Name.....

Job title.....

Workplace.....

Part 2: Expert Opinion 5-level Scale

Please read the following questions about improving the professional competence model of rural kindergarten teachers in Guangxi, choose the most appropriate one, and use the following symbols ✓

Score	Meaning
5	A model to improve the professional capabilities of rural kindergarten teachers in Guangxi is appropriate/possible.. At the highest level.
4	A model to improve the professional capabilities of rural kindergarten teachers in Guangxi is appropriate/possible.. At a high level.
3	A model to improve the professional capabilities of rural kindergarten teachers in Guangxi is appropriate/possible. Be moderate.
2	A model to improve the professional capabilities of rural kindergarten teachers in Guangxi is appropriate/possible. Be moderate.
1	A model to improve the professional capabilities of rural kindergarten teachers in Guangxi is appropriate/possible. At the least level.

[illegible]

[illegible]

[illegible]

Principles

1. 70 Learning Model is a learning model arising from work experience through seeing or touching the real thing in the real work area. or operations that are actually in the field Makes students quickly gain awareness Effective perception therefore leads to effective learning as well. Because learners will bring events or stories that they have learned to remember and show that behavior. It is like a guideline or bridge (Experience is the bridge) between practice (Practice) and concepts, principles or theories (Concept/Theory) that a person already has or has been added to. It causes awareness or accumulated experience, thus leading to learning, imitating, and acting according to the behavior that has been done from the beginning, therefore changing according to the new experience received. Leading to the creation and birth of a new behavior or a new competency of the person that affects the assigned work. To be more efficient, Competency means behavior that requires competency. capability or potential, or some textbooks can use the word Characteristics or necessary dimensions that individuals should have in their work (Job Dimensions). The personnel development tools used with this learning approach will focus on tools that are not classroom training as follows.

70 Learning Mode personnel development tools

Development tools	Details of development tools
Job Shadowing/ Observation	Following a template that is a person who is accepted or is a role model in the matter that needs to be followed or observed in the behavior of the template.
Executive Job Shadowing	Template tracking focuses on senior management to observe the functionality and expressive behavior of the template, where the selected template must be accepted in the tracked matter.

Development tools	Details of development tools
Job Aids/Manuals	Learning from the code of conduct or work requirements that have been established to serve as a framework or direction for operations to be at the same standard.
Knowledge Sharing Sessions	A gathering of personnel within the organization to exchange knowledge, principles, and concepts that are relevant and can be useful in work.
Outsource/Supplier Sharing	Exchange of opinions, information and experiences received with partner companies that are partners or do business
Lesson Learn Sharing	Exchanging experiences from work Whether an error occurred or impressive experiences can be exchanged with the team to use as guidelines or lessons learned for the next work.
Secondment	Requesting to temporarily borrow personnel from one agency where they work regularly to work with another agency
Job Rotation	Learning additional work by switching jobs from one department to another
Special Projects	Taking on a special project that is not a job or a regular project specified in the Job Description
Cross Functional Assignment	Assignment to work with other departments in a cross functional manner Not a person from the same agency
Stretch Assignment	challenging assignments It is work that has never been done before, different from previous work that has been done before.
Work with Consultants or Internal Experts	working with consultants who work within the organization, including having the opportunity to work with experts who are individuals within the organization

Development tools	Details of development tools
Community Activities and Volunteering	Assigning or volunteering to participate in organized group or club activities. The members participating in the activity will be responsible for carrying out activities with the goal of improving and developing the work.
Interaction with Senior Management	Liaising with executives with expertise and seniority with report presentation/presentation or attending a meeting with the management team
Site Visits	Field trips to learn about practices The organization's work process is Best Practice in the matter that needs to be viewed.
Customer Visits	Visiting customers to study customer behavior Including information on customer expectations towards the use of products and services.
Action Research	Implementation of research by determining the subject to be researched by considering the problems in the work that arise.collecting information and applying the research results obtained to solve problems that arise on the daily work site.
Apply Best Practice	Implementing guidelines, procedures, or best practice principles until they are accepted. to apply in practice
On the Job Learning	Learning from real practice in the field, encountering real situations and real customers.

2. 20 Learning Model is a learning model that occurs from others (Learn by Others), whether it be your direct supervisor. indirect supervisor Colleagues within the department Colleagues from different departments, subordinates, customers, and partners are learning that occurs from conversation. Consultation interchange of information This requires restoring the foundation of having a good relationship between two or more interlocutors by making an appointment to talk. and

exchange views with each other at times convenient for both sides. Human resource development tools (Development Tools) that are used will focus on human resource development tools that are not classroom training tools or Non Classroom Training as follows.

20 Learning Model personnel development tools

Development tools	Details of development tools
Coaching from Manager/Others	Instructional instruction to spark learning by a direct supervisor or other person who is accepted by the person being taught and is ready to learn along with the instructor.
Peer Coaching	Teaching by colleagues in the same department or different departments assigned as a teacher inspires the learners to have good ideas and perspectives in their work.
Group Coaching	Guided instruction with more than 3 people who are being taught, with an emphasis on teaching to inspire the trainees to have a way of operating for the common goals of the group.
Informal Coaching	Unstructured coaching that can happen at any time Most emphasize teaching in the Life Coach style, where the instructor serves to inspire those being taught to have perspectives and ideas for living their daily lives.
Mentoring	A conversation between the mentor and the person the mentor is supervising. Focus on the mind emotion and adjustment when working with others in the organization
Teaching	telling the learner to recognize and listen Emphasis is placed on steps, methods, formats and work systems that can be put into practice by those being taught.
Counseling	Giving advice when problems arise from working in the organization The consultant will analyze the cause of the problem. and find alternative methods and approaches to solving problems.

Development tools	Details of development tools
Mirror	Bringing what a person said or did during that time to talk about how good or bad the words and behaviors that were expressed.
Informal Feedback and Work Debriefs	Providing information about work by collecting past work results over a certain period of time to summarize whether there are good works that need to be maintained and there are areas that need to be improved.
Seeking Advice, Asking Opinions	request for advice or asking knowledgeable people about matters that they do not yet have knowledge about and lack of experience To apply the advice and opinions received to work and personal life.
360 Degree Feedback	Providing information received from people around you, whether it be your direct supervisor indirect supervisor subordinates self, colleague
Assessments Outcomes and Feedback	Evaluating the results of the work and providing feedback from the evaluation results received. The goal is to allow people to listen to feedback to improve and develop their own work.
Assessment Center	Clarification of the results of individual assessments that are conclusive by using a variety of methods. Whether it is an evaluation from a case study role play Taking tests, giving presentations
Learning and Development Center	Participating in the test from the Learning and Development Center by taking a knowledge test or a personality test and listening to the test results from the center to bring information to improve and develop ourselves

Development tools	Details of development tools
Learning through Team/Networks	Joining a group to become a member or network with an emphasis on groups within the organization. To provide information on principles and concepts in a particular area of interest to the group.
External Networks/Contacts	Joining groups with external networks to listen to information and requesting information for use in work
Professional Association Involvement or Active Membership	Being a member of an academic group to listen to information Useful news for work and bring the information Acquired to improve and develop work to be more efficient.
Facilitated Group Discussion by Action Learning	Being assigned to act as a director and organizing group members from people within the organization or different organizations to talk, ask questions, and exchange opinions from their experiences. By emphasizing together to find a solution from the problem.
Peer - Assisted Learning and Work Buddy	Discussing with partners assigned by superiors to help each other in work And have friends who are always there to give advice and advice on work that you do or problems that arise.

3. 10 Learning Model is a learning model that focuses on classroom training (Classroom Training) combined with learning that focuses on tools that are not classroom training (Non Classroom Training), whether it is Learning through eLearning media and various documents It is studied through programs or courses that have already been prepared. This is another important form of development and it is necessary that the organization cannot cancel this form of learning in order to create

integrated learning and result in learning for the learner. really know People development tools that are commonly used are as follows:

10 Learning Model Personnel Development Tools

Development tools	Details of development tools
In-House Training	Learners from the same organization learn together in training courses organized by the organization. It is a training organized both internally and/or externally.
Public Training	Students from different organizations are interested in the same course. Organized by external training institutes
Seminar	Participating in group meetings where members have the same interest or expertise in the same subject to listen, get to know, and exchange views.
Workshop	Participating in group meetings where members have the same interest or expertise in the same subject, participate in practice or jointly act on a specified matter. The conclusions obtained from the seminar will be continued or not.
E-Learning	Learning via electronic media such as the internet, satellite signals, etc., including learning via On-Line according to the conditions set by the organization/institution that provides the learning media.
Certification Program	Participate in a program in a long-term course with a certificate certifying that learners are knowledgeable with an international standardized knowledge test that the institution organizes a specified learning program.
Formal Education	Continuing education at a university or college It is learning that takes time to study according to the organized program. Students can choose the program and subjects that they are interested in and have enough time to learn according to the specified program.
Reading	Reading on topics of interest to increase one's own perspective, ideas, and knowledge on the subject of interest.

Method and Activity

Module	Method	Activity
Module1: Environment creation and utilization competence	Practical learning: 56 hours	
	Job shadowing (30 hours)	<ol style="list-style-type: none"> 1. Kindergarten teaching indoor environment creation and utilization activities 2. Outdoor environment creation and utilization activities of the kindergarten 3. Creation and utilization of daily living environment in the kindergarten 4. Create an environment for festivals and theme activities 5. Environmental education and environmental protection activities
	Mentoring (10 hours)	<ol style="list-style-type: none"> 1. Kindergarten environment creation and utilization of special curriculum learning activities 2. Kindergarten environment creation and utilization of curriculum learning and sharing activities 3. Kindergarten environment creation and utilization of knowledge sharing salon 4. Kindergarten environment creation and the use of teaching reflection activities 5. Kindergarten environment creation and use of excellent case analysis activities
	Assignment (16 hours)	<ol style="list-style-type: none"> 1. Environmental observation and analysis 2. Theme environment creation scheme design 3. Practical operation of environment creation 4. Teaching design of environmental utilization 5. Display and sharing of environment creation achievements

Module	Method	Activity
	Learn from others: 16 hours	
	Coaching (8 hours)	1. Follow-up of kindergarten environment creation and utilization activities 2. Teachers to train people with professional knowledge in the field of environment creation
	Networking (8 hours)	1. Learning network activities in the creation and utilization of the kindergarten environment 2. Attend meetings, discuss and communicate 3. About kindergarten, teachers, kindergarten environment creation and use of ideas and practice.
	Centralized training: 8 hours	
	Training (8 hours)	Kindergarten environment creation and utilization of learning activities. There is a sequence of The steps are as follows: 1. Basic theory of environment creation 2. Practical skills of environment creation 3. Development and utilization of local educational resources 4. Integrate the kindergarten environment and the kindergarten curriculum 5. Evaluation and improvement of kindergarten environment creation 6. Kindergarten environment creation and information technology

Module	Method	Activity
Module 2 Daily life organization and conservation competence	Practical learning: 28 hours	
	Job shadowing (15 hours)	1. Morning reception and morning activities 2. Organization and management of classroom activities 3. Outdoor activities and safety management 4. Catering and lunch break arrangements 5. Cultivation of personal hygiene and self-care competence 6. Afternoon activities and featured courses 7. Prepare to communicate with parents before the kindergarten
	Mentoring (5 hours)	1. Daily life organization and conservation special course learning activities 2. Daily life organization and conservation course learning and sharing activities 3. Daily life organization and conservation knowledge sharing salon 4. Daily life organization and childcare teaching reflection activities 5. Excellent case analysis activities of daily life organization and conservation activities
	Assignment (8 hours)	1. Design of the daily activity table in the kindergarten 2. Theme plan of kindergarten activities 3. Kindergarten safety management strategy
	Learn from others: 8 hours	
	Coaching (4 hours)	1. Follow-up of daily life organization and conservation activities 2. Teachers with professional knowledge in the field of daily life organization and childcare

Module	Method	Activity
Module 3 Game activity support and guidance competence	Networking (4 hours)	1.Learning network activities in the daily life organization and conservation of the kindergarten 2.Attend meetings, discuss and communicate 3.About kindergarten, teachers' daily life organization and childcare ideas and practices.
	Centralized training:4 hours	
	Training(4 hours)	1. Daily management and organization of the kindergarten 2. Kindergarten safety and health management 3. Safety management of outdoor activities in the kindergarten
	Practical learning: 56 hours	
	Job shadowing (30 hours)	1. Role-playing games 2. Constructive games 3. Social games 4. Exploratory games 5. Sensory games 6. Autonomous games
	Mentoring (10 hours)	1. Game activities to support and guide the special course learning activities 2. Game activities to support and guide the course learning and sharing activities 3. Support and guide the knowledge sharing salon for game activities 4. Game activities to support and guide the teaching reflection activities 5. Game activities to support and guide excellent case analysis activities

Module	Method	Activity
	Assignment (16 hours)	1. Case analysis of kindergarten game activity design 2. Observation, record and analysis of kindergarten game activities 3. Design and implementation of game activities
	Learn from others: 16 hours	
	Coaching (8 hours)	1. Game activities to support and guide the follow-up of activities 2. Game activities to support and guide the operation of teachers training people with professional knowledge in the field of game activity support and guidance
	Networking (8 hours)	1. Learning network activities in the support and guidance of kindergarten game activities 2. Attend meetings, discuss and communicate 3. About kindergarten, teachers' game activities to support and guide the ideas and practices.
	Centralized training: 8 hours	
	Training (8 hours)	1. The importance and basic theory of kindergarten games 2. Design and planning of kindergarten game activities 3. Skills and methods of kindergarten game guidance 4. Educational objectives and evaluation in the kindergarten game 5. Game support and adjustment under special situations

Module	Method	Activity
Module 4 Educational activity design and implementati on competence	Practical learning: 42 hours	
	Job shadowing (20 hours)	1. Design and implementation of kindergarten collective teaching activities 2. Outdoor activities and natural exploration in kindergartens 3. Special courses and creative activities in the kindergarten 4. Design and implementation of kindergarten regional activities
	Mentoring (8 hours)	1. Educational activities to design and implement special course learning activities 2. Educational activity design and implementation of course learning and sharing activities 3. Educational activity design and implementation of knowledge sharing salon 4. Educational activity design and implementation of teaching reflection activities 5. Educational activity design and implementation of excellent case analysis activities
	Assignment (14 hours)	1. Design the plan of kindergarten education activities 2. Implementation and observation report of kindergarten education activities 3. Evaluation and optimization of kindergarten education resources

Module	Method	Activity
	Learn from others: 16 hours	
	Coaching (8 hours)	1.Educational activity design and implementation activities 2.Teachers with professional knowledge in the field of design and implementation of educational activities
	Networking (8 hours)	1.Learning network activities in the design and implementation of kindergarten education activities 2.Attend meetings, discuss and communicate 3.The idea and practice of the design and implementation of teachers' educational activities about kindergarten.
	Centralized training:6 hours	
	Training (6 hours)	1. Design principles and planning of kindergarten education activities 2. Selection and application of kindergarten educational resources and materials 3. Implementation and classroom management of kindergarten education activities 4. Design and integration of cross-field educational activities in kindergartens
Module 5	Practical learning: 42 hours	
Incentive and evaluation competence	Job shadowing (20 hours)	1. Activity design to motivate children to learn 2. Praise and encourage strategies 3. Real-time assessment and feedback skills

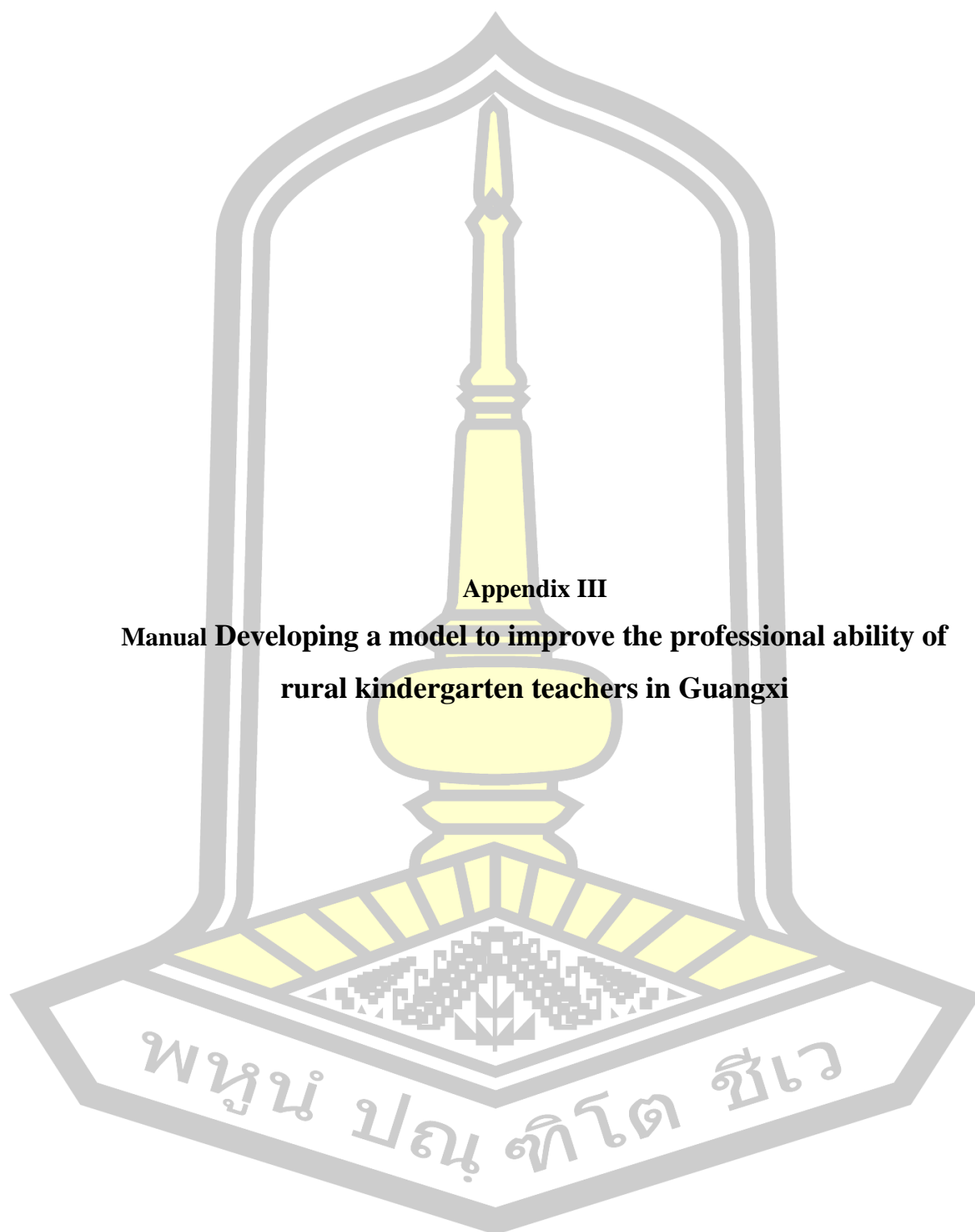
Module	Method	Activity
	Mentoring (8 hours)	1. Encourage and evaluate the special course learning activities 2. Incentive and evaluation of course learning and sharing activities 3. Inspire and evaluate the knowledge sharing salon 4. Stimulate and evaluate the teaching reflection activities 5. Stimulate and evaluate excellent case analysis activities
	Assignment (14 hours)	1. Incentive strategy design 2. Discussion on the evaluation methods 3. Video analysis of educational activities
	Learn from others: 12 hours	
	Coaching (6 hours)	1. Incentive and evaluation, activity follow-up 2. Teachers with professional knowledge in the field of motivation and evaluation
	Networking (6 hours)	1. Learn the network activities in the kindergarten incentive and evaluation 2. Attend meetings, discuss and communicate 3. The idea and practice of teachers' motivation and evaluation about kindergarten.
	Centralized training: 6 hours	
	Training (6 hours)	1. Incentive theory and strategies 2. Educational goal setting and follow-up evaluation 3. Positive feedback and constructive evaluation 4. Emotional management and motivation skills 5. Career development and self-assessment

Module	Method	Activity
Module 6 Communication and cooperation competence	Practical learning: 28 hours	
	Job shadowing (15 hours)	<ol style="list-style-type: none"> 1. Team meetings and discussions 2. Collaboration of the teaching team 3. Organization and implementation of class activities 4. Parent meetings and home cooperation 5. Emergency situations and response capacity
	Mentoring (5 hours)	<ol style="list-style-type: none"> 1. Communication and cooperation of the special course learning activities 2. Communication and cooperation course learning and sharing activities 3. Communication and cooperation knowledge sharing salon 4. Communication and cooperative teaching reflection activities 5. Excellent case analysis activities of communication and cooperation
	Assignment (8 hours)	<ol style="list-style-type: none"> 1. Role playing and simulated scenarios 2. Feedback and improvement plans 3. Teacher and team-building activities
	Learn from others: 8 hours	
	Coaching (4 hours)	<ol style="list-style-type: none"> 1. Communication and cooperation, activities follow-up 2. Communication and cooperation operation <p>Teacher training for people with expertise in the areas of communication and cooperation</p>

Module	Method	Activity
Module 7 Reflection and development competence	Networking (4 hours)	1. Learn network activities in the communication and cooperation in the kindergarten 2. Attend meetings, discuss and communicate 3. Thoughts and practice of teachers' communication and cooperation about kindergarten.
	Centralized training: 4 hours	
	Training (4 hours)	1. Communication skills and emotional support between teachers and children 2. Home communication and cooperation 3. Team and collaboration skills 4. Interdisciplinary teamwork and professional development
	Practical learning: 56 hours	
	Self-reflection Notes (30 hours)	1. Reflection on the design and implementation of educational activities 2. Class management and classroom organization 3. Reflection on personalized care and educational support 4. Reflection and professional development
	Mentoring (10 hours)	1. Reflection and development of thematic course learning activities 2. Reflection and development of course learning and sharing activities 3. Reflection and development of knowledge sharing salon 4. Reflection and develop teaching reflection activities 5. Reflect on and develop excellent case analysis activities

Module	Method	Activity
	Assignment (16 hours)	1. Teaching case analysis and reflection 2. Personal teaching video recording and evaluation 3. Reflect on logs
	Learn from others: 16 hours	
	Coaching (8 hours)	1. Reflection and development, activities follow up 2. Reflection and development Operational teacher training for people with expertise in the field of reflection and development
	Networking (8 hours)	1. Learning network activities in the reflection and development of kindergarten 2. Attend meetings, discuss and communicate 3. About kindergarten, teachers' reflection and development of ideas and practices.
	Centralized training: 8 hours	
	Training (8 hours)	1. Kindergarten teachers' educational concept and sense of professional mission 2. Self-cognition and self-assessment 3. Individualized care and development 4. Professional development planning and follow-up





Appendix III

**Manual Developing a model to improve the professional ability of
rural kindergarten teachers in Guangxi**

This model is part of the study according to the Doctor of Education program.

Developing a model to improve the professional competence of rural kindergarten teachers in Guangxi By Mr.Xiang Ao ,educational development Graduate School,

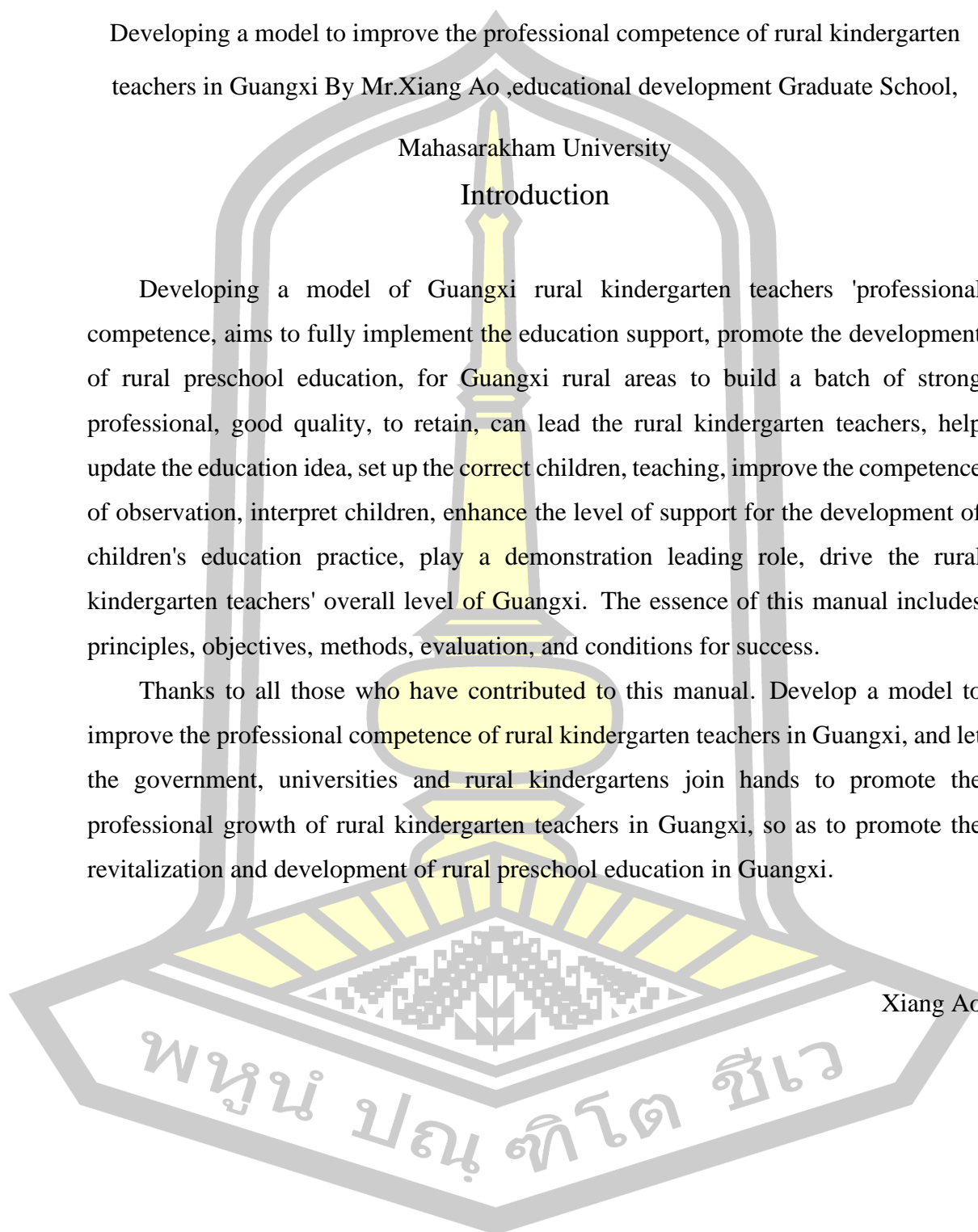
Maharakham University

Introduction

Developing a model of Guangxi rural kindergarten teachers 'professional competence, aims to fully implement the education support, promote the development of rural preschool education, for Guangxi rural areas to build a batch of strong professional, good quality, to retain, can lead the rural kindergarten teachers, help update the education idea, set up the correct children, teaching, improve the competence of observation, interpret children, enhance the level of support for the development of children's education practice, play a demonstration leading role, drive the rural kindergarten teachers' overall level of Guangxi. The essence of this manual includes principles, objectives, methods, evaluation, and conditions for success.

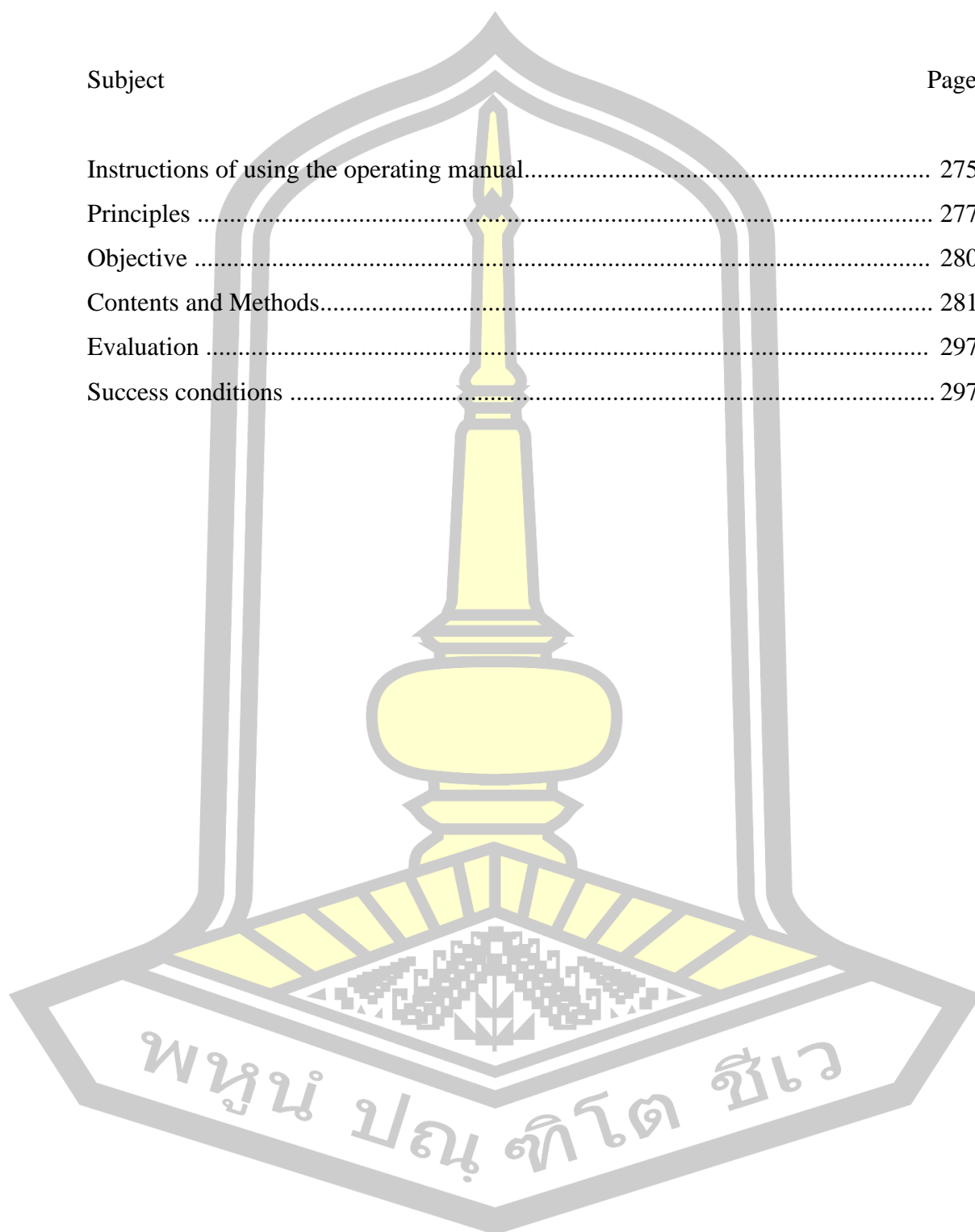
Thanks to all those who have contributed to this manual. Develop a model to improve the professional competence of rural kindergarten teachers in Guangxi, and let the government, universities and rural kindergartens join hands to promote the professional growth of rural kindergarten teachers in Guangxi, so as to promote the revitalization and development of rural preschool education in Guangxi.

Xiang Ao



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Instructions of using the operating manual

Develop a model to improve the professional competence of rural kindergarten teachers in Guangxi

Improve the Guangxi rural kindergarten teachers' professional competence model is a systematic framework and strategy, aims to fully implement the education support, improve the quality of preschool education in rural areas in Guangxi, promote the development of rural preschool education in Guangxi, for the construction of rural areas in Guangxi, a root preschool education, high quality, professional competence of kindergarten teachers. Through the system of base training, return practice, concentrated training and support, focus on their urgent need to solve the kindergarten environment, class environment creation, children observation, game organization, education activity organization, take "listen, see, ask, discussion, and thinking, write", update ideas, broaden horizons, successful experience, reflect on the practice of running school, comb garden concept, accumulate the solution of the problem, make Guangxi rural kindergarten teachers can better support the needs of the development of local children. By developing a model to improve the professional competence of rural kindergarten teachers in Guangxi, help stakeholders such as preschool education administrative institutions, rural kindergarten principals, rural kindergarten teachers and other stakeholders to understand the strategies to improve the professional competence of rural kindergarten teachers in Guangxi. The model has the following details:

The essence of this manual is given by

1. Principle
2. Objective
3. Contents and Methods
4. Evaluation
5. Conditions for success

Principle	Under the rural revitalization strategy, the government, universities and rural kindergartens work hands to promote the professional growth of teachers in rural kindergartens in Guangxi, so as to promote the revitalization and development of rural preschool education in Guangxi.
Objective	<p>1. Improve the knowledge and understanding of the professional competence model of rural kindergarten teachers in Guangxi.</p> <p>2. Take game activities as the starting point to improve the professional competence of rural kindergarten teachers in Guangxi, mainly including seven aspects: creation and utilization of environment, organization and care of daily life, support and guidance of game activities, design and implementation of educational activities, incentive and evaluation, communication and cooperation, and reflection and development.</p> <p>3. Through practical learning, learning from others and centralized training, improve the professional competence of rural kindergarten teachers in Guangxi, help the teaching reform of rural kindergartens, and improve the quality of rural kindergartens.</p>
Contents and Methods	<p>1.70% practical learning</p> <ul style="list-style-type: none"> -Trace / watch the template -Mentoring -assignment <p>2.20%, to learn from others</p> <ul style="list-style-type: none"> -teach school -Network creation <p>3.10% through centralized training</p> <ul style="list-style-type: none"> -Training / workshop
Evaluation	1 and were evaluated before development. The change of professional competence was evaluated before the evaluation of the professional competence of rural kindergarten teachers in

	<p>Guangxi.</p> <p>2. Evaluation during the development period. By evaluating group activities, evaluating worksheets, assessing assigned tasks, and assessing satisfaction with model development. Using the satisfaction assessment of the model of improving the professional competence of teachers in rural kindergartens in Guangxi.</p> <p>3. Evaluation after development. Through the model evaluation table of improving the professional competence of rural kindergarten teachers in Guangxi, the developed model is evaluated.</p>
Conditions of success	<p>1. Policy support.</p> <p>2. Incentive mechanism</p> <p>3. Resource allocation.</p> <p>3. Family and community participation.</p> <p>4. Application of information technology.</p> <p>6. Cultural development.</p>

1. Principles

Improving the professional competence of rural kindergarten teachers is a "need" for China's rural revitalization strategy. President Xi Jinping (2017) proposed the rural revitalization strategy in his work report at the 19th National Congress of the Communist Party of China (CPC), elevating rural construction to an important national strategy in the new era. Rural prosperity is national prosperity, and rural decline is national decline. The implementation of the rural revitalization strategy has important practical significance and far-reaching historical significance. The Central Committee of the Communist Party of China and the State Council (2018), in its opinions on the implementation of the rural revitalization strategy, explicitly proposed "giving priority to the development of rural education", "developing rural pre-school education", "coordinating urban and rural teachers, tilting towards the rural areas, and building a strong rural teaching force". The Ministry of Education and five other ministries (2018) mentioned in the Action Plan for Revitalizing Teacher Education (2018-2022) that "a

large number of teachers specializing in preschool education with a degree or higher who care for young children and are good at childcare will be trained for kindergartens, and the specifications and levels of teacher training will meet the needs of guaranteeing national education and the cultivation of innovative talents." Improve the supply of teacher resources and promote the equitable development of education. Strengthening the training of teachers in central and western regions and rural schools, with a focus on providing teachers for the precise alleviation of poverty in education in remote, impoverished and ethnic areas. The state has clearly defined the value orientation of revitalizing education in rural areas from the height of top-level design; rural preschool education is an important part of rural education, and the professional development of rural kindergarten teachers is the key to the development of rural preschool education.

Improving the professional competence of rural kindergarten teachers is a "requirement" for practicing the Professional Standards for Kindergarten Teachers. Qualified teachers are the basic guarantee for the normal development of education and the successful realization of educational goals. The professional competence of kindergarten teachers is the core content of their professional growth and training. China's Ministry of Education (2012) points out in the Professional Standards for Kindergarten Teachers (for Trial Implementation) that among the three-dimensional space, 14 domains and 62 basic requirements of the professional standards, professional competence accounts for 7 domains (50%) and 27 basic requirements, or 44% of the content of the professional standards, which reflects the core status of kindergarten teachers' professional competence. Xu Wei, Ma Lizhi (2020) believe that rural kindergarten teachers' professional development is a process in which workers in rural early childhood education institutions continuously combine planned professional thinking and professional practice to improve their professionalism. In the process of rural kindergarten teachers' professional development, their professional ideas and professional competence for improvement are particularly important and urgent parts of the planning documents to lead the professional development of rural kindergarten teachers are "professional standards".

The development of professional competence for rural kindergarten teachers in China is not optimistic. Many professionals in the field of preschool education recognize that the relatively backward conditions in rural areas, the implementation of

the national "three-child" policy, the shortage of rural kindergarten teachers, and the large number of non-professional kindergarten teachers in rural areas have led to a poor level of overall development, which has limited the overall level of rural kindergarten teachers. Li Ya (2019) pointed out that although rural early childhood education is an important part of China's early childhood education, it is a weak link, and the professional competence of its kindergarten teachers is weak. Guo Li (2021) pointed out that only some of the rural kindergarten teachers have a professional background in preschool education, while the rest of the teachers have been transferred from elementary school, from other professions, and there are also many "locals" who do not have the relevant academic qualifications. Li Yang and Chen Xi (2018) point out that although governments at all levels have appropriately supplemented the number of full-time kindergarten teachers in rural areas by means of entry exams and integrated urban-rural kindergartens, the rapid increase in the number of young children enrolled in kindergartens has resulted in the training and replenishment of teachers far outstripping the need for practical development.

The professional competence of rural kindergarten teachers in Guangxi is urgent. Guangxi rural kindergartens have many problems and deficiencies in the process of development, especially the lack of teachers' professionalism directly affects the healthy growth of rural children. According to the information obtained from Guangxi Department of Education, the number of full-time kindergarten teachers in Guangxi is 113,900, of which the number of full-time rural kindergarten teachers is 68,300, and the level of professional competence for rural kindergarten teachers is closely related to the high-quality development of preschool education in Guangxi. Guangxi rural areas by the development of history, natural conditions and other objective reasons for the limitation, there are a large number of left-behind children, children with disabilities and other vulnerable groups, through as soon as possible to receive fair, high-quality preschool education can better play the role of education compensation. The improvement of professional competence of rural kindergarten teachers in Guangxi is urgent.

Therefore, for the above reasons, the researchers are interested in developing a model to improve the professional competence of rural kindergarten teachers in Guangxi. The model is divided into five parts: principles, objectives, methods,

evaluation, and conditions for success, relying on the 70 20 10 learning law and utilizing methods such as work display, mentoring, homework, teaching, network creation, and training. The researchers use the results of the study to develop a model for improving the professional competence for rural kindergarten teachers in Guangxi, hoping to establish a sound support and service system for promoting the growth and development of rural kindergarten teachers, and under the strategy of rural revitalization, the government, colleges and universities, and rural kindergartens join hands in order to promote the professional growth of rural early childhood teachers, and to cultivate qualified teachers suitable for retention, teaching, and development of rural kindergartens in Guangxi, in order to promote the rural Early childhood education cause revitalization and development.

2. Objectives

According to the requirements of the Notice of the Ministry of Education and the Ministry of Finance on the Implementation of the National Training Program for Primary and Secondary School Kindergarten Teachers (2021-2025) and other documents, and to deepen the implementation of the Guiding Principles of Kindergarten Education (Trial), the Guidelines for Learning and Development of Children Aged 3-6, and the Guidelines for the Assessment of Kindergarten Childcare and Education and other guiding spirits, this model intends to target rural kindergarten teachers in Guangxi. Cultivating objects, this model takes early childhood play activities as an entry point to improve the professional competence of rural kindergarten teachers in Guangxi while clearly understanding the spirit of the Guidelines and other documents. It will cultivate a group of teachers who drive the professional development of their own kindergarten teachers and lead the garden-based training for rural Guangxi.

2.1 To improve the knowledge and understanding of the professional competence model of rural kindergarten teachers in Guangxi.

2.2 To improve the professional competence for rural kindergarten teachers in Guangxi, which mainly includes seven aspects: 1) environment creation and utilization competence 2) daily life organization and conservation competence 3) game activity support and guidance competence 4) educational activity design and implementation competence 5) incentive and evaluation competence 6) communication and cooperation competence, 7) reflection and development competence

2.3 To improve the professional competence of rural kindergarten teachers in Guangxi by practicing learning, learning from others, and centralized training, to help rural kindergarten teaching reform, and to improve the quality of rural kindergarten schooling.

3. Content and Methods

3.1 Content

Module 1: Environment creation and utilization competence

Environment creation and utilization competence refers to the rural kindergarten teachers' competence in establishing good teacher-child relationships, establishing classroom order and rules, creating educational environments that help promote children's growth, learning and play, and rationally utilizing resources.

For the professional competence of kindergarten teachers, the importance of environment creation and utilization competence is mainly reflected in the following aspects:

- (1) Establishing a good teacher-child relationship, helping children establish good peer relationships, and making children feel warm and happy.
- (2) Establishing classroom order and rules, creating a good classroom atmosphere, and making children feel safe and comfortable.
- (3) Create an educational environment that helps to promote children's growth, learning and play.
- (4) Reasonable use of resources, providing and making suitable play and learning materials for children, and triggering and supporting children's active activities.

In summary, environment creation and utilization competence is not only an important part of the professional competence of rural kindergarten teachers, but also a necessary competence for rural kindergarten teachers in the modern educational environment.

Module 2: Daily life organization and conservation competence

Daily life organization and conservation competence refers to the ability of rural kindergarten teachers to scientifically and reasonably organize the kindergarten's one-day life, to give good care to the children, and to fully realize the combination of care and education.

The importance of daily life organization and conservation competence is mainly reflected in the following aspects:

- (1) Reasonably arranging and organizing all aspects of the day's life and infiltrating education flexibly into the day's life.
- (2) Taking care of children's daily life in a scientific way, guiding and assisting the caregivers to do regular care and hygiene work in the classroom.
- (3) Make full use of various educational opportunities to educate children randomly.
- (4) Protect children effectively, deal with common accidents of children in a timely manner, and prioritize the rescue of children in dangerous situations.

In summary, as a basic part of the professional competence for rural kindergarten teachers, daily life organization and conservation competence has an important impact on the professional competence for rural kindergarten teachers and the quality of teaching.

Module 3 Game activity support and guidance competence

Game activity support and guidance competence means that rural kindergarten teachers have the developmental competence to support play activities, to use and design the play activity space and material preparation in a rational way, and to guide children to obtain all aspects of play activities.

The importance of game activity support and guidance competence is mainly reflected in the following aspects:

- (1) Provide play conditions that meet children's interests and needs, age characteristics, and developmental goals.
- (2) Make full use of and reasonably design the space for play activities and provide rich and appropriate play materials to support, trigger and promote children's play.
- (3) Encourage children to independently choose their own play contents, partners and materials, and support children to take the initiative and creativity to carry out their play and fully experience the joy and satisfaction of play.
- (4) Guiding children to acquire physical, cognitive, linguistic and social development in play activities.

In summary, as a basic component of the professional competence for rural kindergarten teachers, game activity support and guidance competence has an important impact on the professional development and teaching quality of rural kindergarten teachers.

Module 4 Educational activity design and implementation competence

Educational activity design and implementation competence refers to the ability of rural kindergarten teachers to design scientific educational activities, to be able to teach according to the needs of individuals, to use appropriate educational organization and to guide children to learn actively.

The importance of educational activity design and implementation competence is mainly reflected in the following aspects:

- (1) Developing stage-by-stage educational activity plans and specific activity programs.
- (2) Observing children in educational activities, adjusting activities according to children's performance and needs, and giving appropriate guidance.
- (3) Reflecting interest, comprehensiveness and life in the design and implementation of educational activities, and flexibly using various organizational forms and appropriate educational methods.
- (4) Provide more opportunities for operation and exploration, communication and cooperation, expression and performance, and support and promote children's active learning.

In summary, educational activity design and implementation competence, as a basic component of the professional competence for rural kindergarten teachers, has an important impact on the professional competence for rural kindergarten teachers and the quality of teaching.

Module 5 Incentive and evaluation competence

Incentive and evaluation competence means that rural kindergarten teachers have the ability to pay attention to children's daily performance, effectively utilize a variety of methods to evaluate children, and effectively utilize the evaluation results to guide activities.

The importance of incentive and evaluation competence is mainly reflected in the following aspects:

(1) Paying attention to children's daily performance, discovering and appreciating each child's progress in a timely manner, and emphasizing the stimulation and protection of children's motivation and self-confidence.

(2) Effectively use observation, conversation, home and family contact, work analysis and other methods to objectively and comprehensively understand and evaluate children.

(3) Effectively use the evaluation results to guide the next step of educational activities.

In summary, incentive and evaluation competence, as a basic component of professional competence for rural kindergarten teachers, has an important impact on the professional competence for rural kindergarten teachers and the quality of teaching.

Module 6 Communication and cooperation competence

Communication and cooperation competence refers to rural kindergarten teachers' competence in communicating with children, listening well, cooperating with colleagues, communicating with parents, and assisting kindergartens in establishing cooperative relationships with the community.

The importance of communication and cooperation competence is mainly reflected in the following aspects:

- (1) Using age-appropriate language for child care and education.
- (2) Listening well, being kind and communicating effectively with young children.
- (3) Cooperating and communicating with colleagues, sharing experiences and resources, and developing together.
- (4) Communicate and cooperate effectively with parents to promote the development of young children.
- (5) Assist the kindergarten to establish a good relationship of cooperation and mutual assistance with the community.

In summary, communication and cooperation competence, as an important part of the professional competence for rural kindergarten teachers, is of great significance in improving the professional quality and professional development of rural kindergarten teachers.

Module 7 Reflection and development competence

Reflection and development competence means that rural kindergarten teachers have the competence for collecting and analyzing relevant information for reflection, exploring problems in educational work for learning and research, and making professional competence for professional development planning.

The importance of reflection and development competence is mainly reflected in the following aspects:

- (1) Taking the initiative to collect and analyze relevant information for continuous reflection to improve the work of preservation and education.
- (2) Explore and conduct research in response to the real needs and problems in the work of teaching and learning.
- (3) Formulate professional development plans, actively participate in professional training, and continuously improve their professional quality.

In summary, through the provision of continuous learning and development opportunities, teachers are encouraged to continuously improve their professional competence for the purpose of adapting to the fast-developing educational environment and making greater contributions to the innovation and development of education.

3.2 Development of methods / activities

The model is used to improve the professional competence of rural kindergarten teachers in Guangxi through the 70 20 10 learning rule. From the research and synthesis of scholars and educators' documents, the concept of 70: 20: 10 learning is Lawson (2008), Puvithayapan (2016), Pacharavanichavasin (2017), and Suthamthathanam (2020) includes 3 important laws of learning: 70% learning by doing, 20% learning by learning from others, and 10% training through centralized courses.

3.2.1 70% learning through practice (70% learning mode)

Practical learning is the main way to improve the professional competence of rural kindergarten teachers. 70% learn through practice, which is a form of learning, accumulating experience through practical operation and daily work. It is a very good training way to test knowledge and competence at work, learn, summarize, summarize and think, and extract experience and lessons, which can make kindergarten teachers

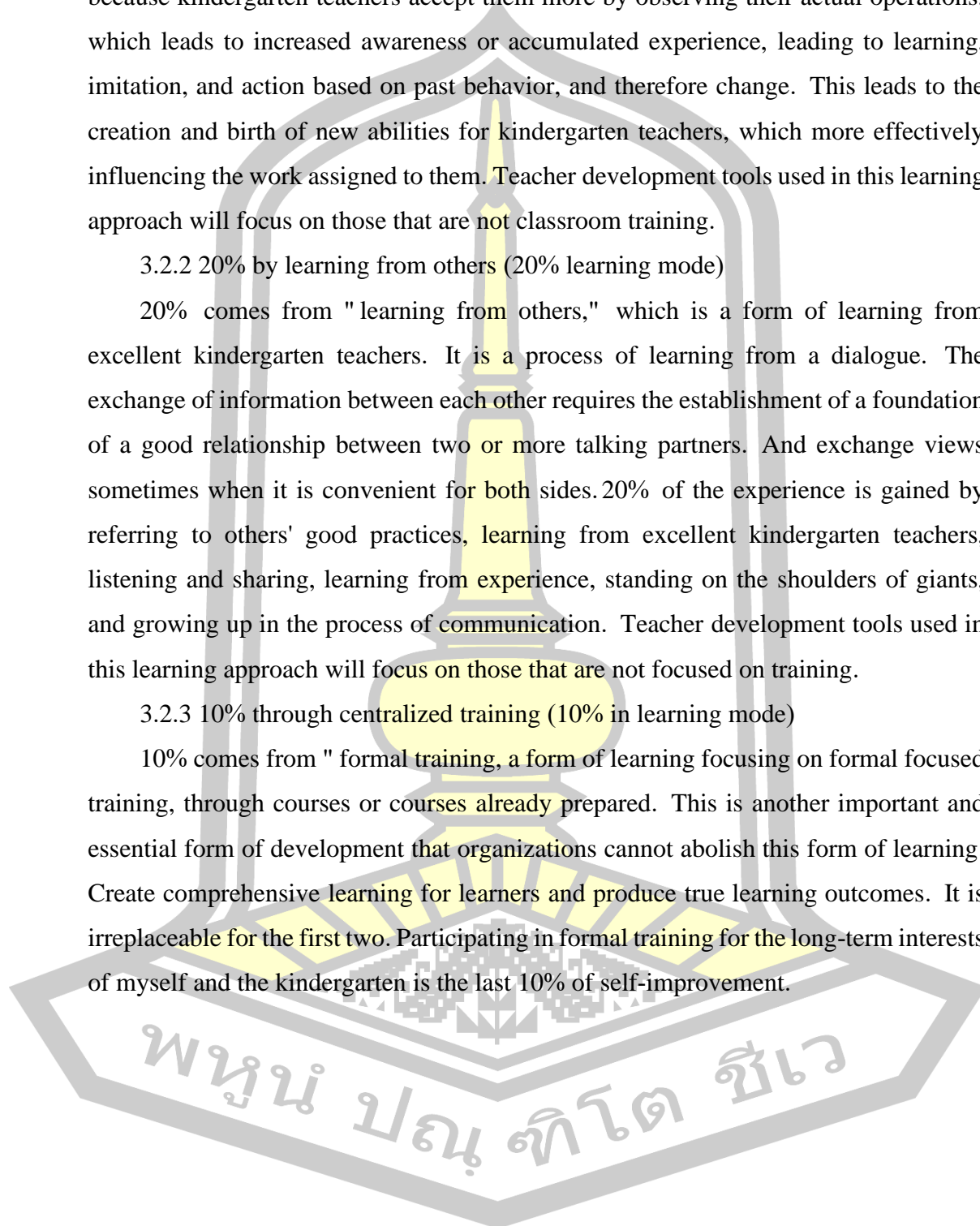
quickly realize that effective perception will also lead to effective learning. This is because kindergarten teachers accept them more by observing their actual operations, which leads to increased awareness or accumulated experience, leading to learning, imitation, and action based on past behavior, and therefore change. This leads to the creation and birth of new abilities for kindergarten teachers, which more effectively influencing the work assigned to them. Teacher development tools used in this learning approach will focus on those that are not classroom training.

3.2.2 20% by learning from others (20% learning mode)

20% comes from "learning from others," which is a form of learning from excellent kindergarten teachers. It is a process of learning from a dialogue. The exchange of information between each other requires the establishment of a foundation of a good relationship between two or more talking partners. And exchange views sometimes when it is convenient for both sides. 20% of the experience is gained by referring to others' good practices, learning from excellent kindergarten teachers, listening and sharing, learning from experience, standing on the shoulders of giants, and growing up in the process of communication. Teacher development tools used in this learning approach will focus on those that are not focused on training.

3.2.3 10% through centralized training (10% in learning mode)

10% comes from "formal training, a form of learning focusing on formal focused training, through courses or courses already prepared. This is another important and essential form of development that organizations cannot abolish this form of learning. Create comprehensive learning for learners and produce true learning outcomes. It is irreplaceable for the first two. Participating in formal training for the long-term interests of myself and the kindergarten is the last 10% of self-improvement.



The methods / activities to improve the professional competence of rural kindergarten teachers in Guangxi are as follows:

Module	Method	Activity
Module1: Environment creation and utilization competence	Practical learning: 56 hours	
	Job shadowing (30 hours)	1. Kindergarten teaching indoor environment creation and utilization activities 2. Outdoor environment creation and utilization activities of the kindergarten 3. Creation and utilization of daily living environment in the kindergarten 4. Create an environment for festivals and theme activities 5. Environmental education and environmental protection activities
	Mentoring (10 hours)	1. Kindergarten environment creation and utilization of special curriculum learning activities 2. Kindergarten environment creation and utilization of curriculum learning and sharing activities 3. Kindergarten environment creation and utilization of knowledge sharing salon 4. Kindergarten environment creation and the use of teaching reflection activities 5. Kindergarten environment creation and use of excellent case analysis activities
	Assignment (16 hours)	1. Environmental observation and analysis 2. Theme environment creation scheme design 3. Practical operation of environment creation 4. Teaching design of environmental utilization 5. Display and sharing of environment creation

		achievements
	Learn from others: 16 hours	
	Coaching (8 hours)	1. Follow-up of kindergarten environment creation and utilization activities 2. Teachers to train people with professional knowledge in the field of environment creation
	Networking (8 hours)	1. Learning network activities in the creation and utilization of the kindergarten environment 2. Attend meetings, discuss and communicate 3. About kindergarten, teachers, kindergarten environment creation and use of ideas and practice.
	Centralized training: 8 hours	
	Training (8 hours)	Kindergarten environment creation and utilization of learning activities. There is a sequence of The steps are as follows: 1. Basic theory of environment creation 2. Practical skills of environment creation 3. Development and utilization of local educational resources 4. Integrate the kindergarten environment and the kindergarten curriculum 5. Evaluation and improvement of kindergarten environment creation 6. Kindergarten environment creation and information technology
Module 2	Practical learning: 28 hours	
Daily life organization and	Job shadowing (15 hours)	1. Morning reception and morning activities 2. Organization and management of classroom activities

conservation competence		3. Outdoor activities and safety management 4. Catering and lunch break arrangements 5. Cultivation of personal hygiene and self-care competence 6. Afternoon activities and featured courses 7. Prepare to communicate with parents before the kindergarten
	Mentoring (5 hours)	1. Daily life organization and conservation special course learning activities 2. Daily life organization and conservation course learning and sharing activities 3. Daily life organization and conservation knowledge sharing salon 4. Daily life organization and childcare teaching reflection activities 5. Excellent case analysis activities of daily life organization and conservation activities
	Assignment (8 hours)	1. Design of the daily activity table in the kindergarten 2. Theme plan of kindergarten activities 3. Kindergarten safety management strategy
	Learn from others: 8 hours	
	Coaching (4 hours)	1. Follow-up of daily life organization and conservation activities 2. Teachers with professional knowledge in the field of daily life organization and childcare
	Networking (4 hours)	1. Learning network activities in the daily life organization and conservation of the kindergarten 2. Attend meetings, discuss and communicate

Module 3 Game activity support and guidance competence		3.About kindergarten, teachers' daily life organization and childcare ideas and practices.
	Centralized training:4 hours	
	Training (4 hours)	<ol style="list-style-type: none"> 1. Daily management and organization of the kindergarten 2. Kindergarten safety and health management 3. Safety management of outdoor activities in the kindergarten
	Practical learning: 56 hours	
	Job shadowing (30 hours)	<ol style="list-style-type: none"> 1. Role-playing games 2. Constructive games 3. Social games 4. Exploratory games 5. Sensory games 6. Autonomous games
	Mentoring (10 hours)	<ol style="list-style-type: none"> 1. Game activities to support and guide the special course learning activities 2. Game activities to support and guide the course learning and sharing activities 3. Support and guide the knowledge sharing salon for game activities 4. Game activities to support and guide the teaching reflection activities 5. Game activities to support and guide excellent case analysis activities
	Assignment (16 hours)	<ol style="list-style-type: none"> 1. Case analysis of kindergarten game activity design 2. Observation, record and analysis of kindergarten game activities 3. Design and implementation of game activities

	Learn from others: 16 hours	
	Coaching (8 hours)	<ol style="list-style-type: none"> 1.Game activities to support and guide the follow-up of activities 2.Game activities to support and guide the operation of teachers training people with professional knowledge in the field of game activity support and guidance
	Networking (8 hours)	<ol style="list-style-type: none"> 1.Learning network activities in the support and guidance of kindergarten game activities 2.Attend meetings, discuss and communicate 3.About kindergarten, teachers' game activities to support and guide the ideas and practices.
	Centralized training:8 hours	
	Training (8 hours)	<ol style="list-style-type: none"> 1. The importance and basic theory of kindergarten games 2. Design and planning of kindergarten game activities 3. Skills and methods of kindergarten game guidance 4. Educational objectives and evaluation in the kindergarten game 5. Game support and adjustment under special situations
Module 4	Practical learning: 42 hours	
Educational activity design and implementation competence	Job shadowing (20 hours)	<ol style="list-style-type: none"> 1. Design and implementation of kindergarten collective teaching activities 2. Outdoor activities and natural exploration in kindergartens 3. Special courses and creative activities in the kindergarten

		4. Design and implementation of kindergarten regional activities
Mentoring (8 hours)		1. Educational activities to design and implement special course learning activities 2. Educational activity design and implementation of course learning and sharing activities 3. Educational activity design and implementation of knowledge sharing salon 4. Educational activity design and implementation of teaching reflection activities 5. Educational activity design and implementation of excellent case analysis activities
Assignment (14 hours)		1. Design the plan of kindergarten education activities 2. Implementation and observation report of kindergarten education activities 3. Evaluation and optimization of kindergarten education resources
Learn from others: 12 hours		
Coaching (6 hours)		1. Educational activity design and implementation activities 2. Teachers with professional knowledge in the field of design and implementation of educational activities
Networking (6 hours)		1. Learning network activities in the design and implementation of kindergarten education activities 2. Attend meetings, discuss and communicate

Module 5 Incentive and evaluation competence		3.The idea and practice of the design and implementation of teachers' educational activities about kindergarten.
	Centralized training:6 hours	
	Training (6 hours)	<ol style="list-style-type: none"> 1. Design principles and planning of kindergarten education activities 2. Selection and application of kindergarten educational resources and materials 3. Implementation and classroom management of kindergarten education activities 4. Design and integration of cross-field educational activities in kindergartens
	Practical learning: 42 hours	
	Job shadowing (20 hours)	<ol style="list-style-type: none"> 1. Activity design to motivate children to learn 2. Praise and encourage strategies 3. Real-time assessment and feedback skills
	Mentoring (8 hours)	<ol style="list-style-type: none"> 1. Encourage and evaluate the special course learning activities 2. Incentive and evaluation of course learning and sharing activities 3. Inspire and evaluate the knowledge sharing salon 4. Stimulate and evaluate the teaching reflection activities 5. Stimulate and evaluate excellent case analysis activities
	Assignment (14 hours)	<ol style="list-style-type: none"> 1. Incentive strategy design 2. Discussion on the evaluation methods 3. Video analysis of educational activities
	Learn from others: 12 hours	
	Coaching	1.Incentive and evaluation, activity follow-up

Module 6 Communication and cooperation competence	(26 hours)	2. Teachers with professional knowledge in the field of motivation and evaluation
	Networking (6 hours)	1. Learn the network activities in the kindergarten incentive and evaluation 2. Attend meetings, discuss and communicate 3. The idea and practice of teachers' motivation and evaluation about kindergarten.
	Centralized training: 6 hours	
	Training (6 hours)	1. Incentive theory and strategies 2. Educational goal setting and follow-up evaluation 3. Positive feedback and constructive evaluation 4. Emotional management and motivation skills 5. Career development and self-assessment
	Practical learning: 28 hours	
	Job shadowing (15 hours)	1. Team meetings and discussions 2. Collaboration of the teaching team 3. Organization and implementation of class activities 4. Parent meetings and home cooperation 5. Emergency situations and response capacity
Module 6 Communication and cooperation competence	Mentoring (5 hours)	1. Communication and cooperation of the special course learning activities 2. Communication and cooperation course learning and sharing activities 3. Communication and cooperation knowledge sharing salon 4. Communication and cooperative teaching reflection activities 5. Excellent case analysis activities of communication and cooperation

	Assignment (8 hours)	<ol style="list-style-type: none"> 1. Role playing and simulated scenarios 2. Feedback and improvement plans 3. Teacher and team-building activities
	Learn from others: 8 hours	
	Coaching (4 hours)	<ol style="list-style-type: none"> 1. Communication and cooperation, activities follow-up 2. Communication and cooperation operation <p>Teacher training for people with expertise in the areas of communication and cooperation</p>
	Networking (4 hours)	<ol style="list-style-type: none"> 1. Learn network activities in the communication and cooperation in the kindergarten 2. Attend meetings, discuss and communicate 3. Thoughts and practice of teachers' communication and cooperation about kindergarten.
	Centralized training: 4 hours	
	Training (4 hours)	<ol style="list-style-type: none"> 1. Communication skills and emotional support between teachers and children 2. Home communication and cooperation 3. Team and collaboration skills 4. Interdisciplinary teamwork and professional development
	Practical learning: 56 hours	
Module 7 Reflection and development competence	Self-reflection Notes (30 hours)	<ol style="list-style-type: none"> 1. Reflection on the design and implementation of educational activities 2. Class management and classroom organization 3. Reflection on personalized care and educational support 4. Reflection and professional development
	Mentoring	<ol style="list-style-type: none"> 1. Reflection and development of thematic

	(10 hours)	<p>course learning activities</p> <p>2. Reflection and development of course learning and sharing activities</p> <p>3. Reflection and development of knowledge sharing salon</p> <p>4. Reflection and develop teaching reflection activities</p> <p>5. Reflect on and develop excellent case analysis activities</p>
	Assignment (16 hours)	<p>1. Teaching case analysis and reflection</p> <p>2. Personal teaching video recording and evaluation</p> <p>3. Reflect on logs</p>
	Learn from others: 16 hours	
	Coaching (8 hours)	<p>1. Reflection and development, activities follow up</p> <p>2. Reflection and development Operational teacher training for people with expertise in the field of reflection and development</p>
	Networking (8 hours)	<p>1. Learning network activities in the reflection and development of kindergarten</p> <p>2. Attend meetings, discuss and communicate</p> <p>3. About kindergarten, teachers' reflection and development of ideas and practices.</p>
	Centralized training: 8 hours	
	Training (8 hours)	<p>1. Kindergarten teachers' educational concept and sense of professional mission</p> <p>2. Self-cognition and self-assessment</p> <p>3. Individualized care and development</p> <p>4. Professional development planning and follow-up</p>

4. Evaluation

A scientific and comprehensive assessment system is established to regularly evaluate teachers' professional competence and teaching effectiveness. Combine self-assessment, other assessment and expert assessment to gain a comprehensive understanding of teachers' competence and development. To establish a feedback mechanism for teachers to understand the difficulties and needs of teachers in training and work in a timely manner. Based on the feedback, timely adjustments are made to training programs and support measures to ensure that teachers' practical problems are solved. Evaluation mechanism: Establish a scientific evaluation system to regularly assess the effectiveness of teachers' professional competence improvement.

Feedback mechanism: Collect feedback through multiple channels, such as teachers' self-assessment, students' feedback and parents' opinions, to improve the content and form of training.

4.1 Assessment before development. Evaluate the change of professional competence by assessing the professional competence of rural kindergarten teachers in Guangxi before.

4.2 Assessment during development. By assessing group activities, evaluating worksheets, assessing assigned tasks, and assessing satisfaction with model development. Using the assessment of satisfaction with the model for improving the professional competence of kindergarten teachers in rural Guangxi.

4.3 Assessment after development. Evaluate the developed model by using the evaluation form of the model for improving the professional competence of kindergarten teachers in rural Guangxi.

5. Success conditions

The success condition is to improve the professional competence of kindergarten teachers in rural Guangxi. By applying the 70 20 10 learning rule, in order to achieve success at a higher goal or equal to the international standard, the work should increase the focus as follows:

5.1. Policy support

National and local governments pass legislation to clarify the importance of rural preschool education and ensure long-term investment and policy support. Education administrations formulate long-term development plans with clear goals

and implementation steps to ensure policy sustainability. Special financial funds are set up to help with the construction of rural kindergartens and teacher training.

5.2. Incentive Mechanisms

Establish a scientific promotion mechanism for rural kindergarten teachers, with clear career development paths. Provide opportunities for continuing education and further training to encourage teachers to continuously improve their competence. Set up a commendation system to reward teachers with outstanding performance in education and teaching. This includes material rewards, honorary titles, and opportunities for further training to stimulate teachers' motivation.

5.3. Resource allocation

Strengthen rural kindergarten infrastructure construction, equip rural kindergartens with modern educational and pedagogical equipment and materials, and raise the salaries of rural kindergarten teachers. Establish a platform for sharing educational resources between urban and rural areas, so as to realize the common construction and sharing of high-quality educational resources.

5.4. Participation of families and communities

Carry out home and family co-education activities in a variety of forms, organize regular parent training and hold parent meetings. Mobilize community volunteers to participate in kindergarten activities and use community resources to carry out activities.

5.5. Application of information technology

Build a specialized educational resource platform to provide quality teaching resources and courses. Promote the application of multimedia technology in teaching and improve teaching effect. Establish a digital management system to improve the management efficiency and level of kindergartens. Utilize big data analysis to keep abreast of the operation of kindergartens and the teaching effect of teachers.

5.6. Cultural construction

Create a good atmosphere of respecting teachers and valuing education, and enhance teachers' sense of professional honor. Encourage cooperation and exchanges among teachers to improve the teaching level together.

Appendix IV

Research Tool Evaluation Form

Expert Index of Concordance Assessment Form (IOC)

Illustration:

1. This evaluation form is designed to test the validity of the research questionnaire on professional abilities of rural kindergarten teachers in Guangxi;

2. Please tick "√" in the corresponding box according to the degree of consistency between the question and the term definition. The numerical values represent the following meanings:

+1 means that the question meets the definition of the term

0 means not sure whether the question meets the definition of the term

-1 means it is determined that the question does not meet the definition of the term

Item	Question	Opinion			Suggestion
		+1	0	-1	
Environment creation and utilization competence					
1	You have the ability to fully tap into the existing environmental resources to support young children's activities.				
2	You attach great importance to the combination of education and artistry in the walls.				
3	You have the ability to use community resources to expand young children's living and learning space.				
4	You can make your own teaching AIDS and toys.				

5	You can provide the direction for young children's activities through the environmental layout.				
6	You have a clear activity corner in the class activity room.				
7	You have often create a class environment together with your children.				
8	You have to create a game environment according to the children's interest points.				
9	You have your class room always clean, safe and tidy.				
10	You are satisfied with the atmosphere of your class.				
Daily life organization and conservation competence					
11	You have used educational science research methods to study the problems in the education process.				
12	You have reasonable arrangements and organization of the day of the life of the childcare activities.				
13	You can make full use of all kinds of educational opportunities to educate your young children randomly.				

14	You have targeted continuous observation of individual children and make good observation records.				
15	You have paid great attention to penetrating the flexibility of education into your daily life.				
16	You have a good understanding of children's daily nutritional intake, toilet, water, outdoor activities and other needs.				
17	You are very familiar with the work tasks and requirements of childcare workers.				
18	You pay great attention to the safety of young children.				
19	You have the ability to give priority to rescuing young children in case of accidents or dangerous situations.				
20	You have the ability to deal with early childhood nosebleed, foreign bodies into the nostrils, falls and other accidents.				
Game activity support and guidance competence					
21	The materials you have in each game area have a clear purpose and can support children to play activities.				

22	You can support young children in all kinds of game activities.				
23	You have plenty of time to play.				
24	You will observe and record it when the children are playing.				
25	You have chosen the right time to intervene in the children's games for guidance.				
26	You have the ability to guide your children to experience happiness and satisfaction in the game.				
27	You have the ability to provide young children with a wide variety of interesting game materials.				
28	You often have the opportunity to give children to play independently, that is, children choose game content, choose game partners, choose game materials.				
29	You have support children creative use of a variety of play materials.				
30	You can make good use of games to develop children's abilities (language, society, cognition, etc.)				

Educational activity design and implementation competence					
31	You have the ability to design the activities, and the teaching content of each link is very specific.				
32	You have considered the specific teaching methods for each teaching activity.				
33	You pay great attention to the age characteristics of children when designing activity plans.				
34	You can grasp the key and difficult points of educational activities.				
35	You will be able to quickly detect children's responses to activities during the teaching process and make timely adjustments.				
36	Your designed teaching activities are often equipped with rich and intuitive teaching AIDS.				
37	You are very familiar with the five areas of kindergarten education.				
38	You have the ability to always attract young children's interests in your educational activities.				

39	You have the ability to let the children answer the questions actively in the activities.				
40	You have more opportunities to explore themselves in activities.				
Incentive and evaluation competence					
41	You have set up a class child development file, which contains the specific evaluation content of the children.				
42	You have compiled the results to improve childcare.				
43	You often make a timely and positive evaluation of the children in the activities.				
44	You have regularly evaluated the whole class and timely adjust your educational strategies.				
45	You have the ability to tell every child.				
46	Your evaluation of young children is based on a careful observation of young children.				
47	You have the ability to say the specific behavior that children do well when praising them.				
48	You have information from other teachers, parents and other				

	aspects to objectively evaluate the children.				
49	You have a good use of observation, talk, work analysis and other ways to evaluate young children.				
50	You have found children's progress, timely praise them.				
Communication and cooperation competence					
51	You often organize various kindergarten activities together with your parents.				
52	You often call or send WeChat messages to learn about your children at home.				
53	You have the ability to build up the class routine and the maintenance.				
54	You and the nurse can cooperate with the tacit understanding to do the class routine childcare work.				
55	You often take the initiative to understand the young children's ideas.				
56	You should pay great attention to use the language that is consistent with the characteristics of their age to communicate with their children.				

57	You have a partnership to help children embrace each other.				
58	You are very patient to listen to the child.				
59	You are easy to agree with parents on parenting.				
60	You have frequent discussions with other teachers				
Reflection and development competence					
61	You need to strengthen the ability to improve the level of kindergarten childcare work through reflection.				
62	You have often used the form of organization is group learning, concentrated learning.				
63	You often participate in teaching and research activities.				
64	After the activity, you often come up with your own activity plan to think about.				
65	You have found problems in the teaching process, collect relevant information, use appropriate methods to study the problems, and form scientific research reports.				

66	You are constantly reflecting on it and finding out the problems in your childcare work.				
67	You have a willingness to address these problems through educational science research.				
68	You are willing to further improve your professional level.				
69	You have a professional development plan for yourself.				
70	You have an active participation, all levels, professional training.				

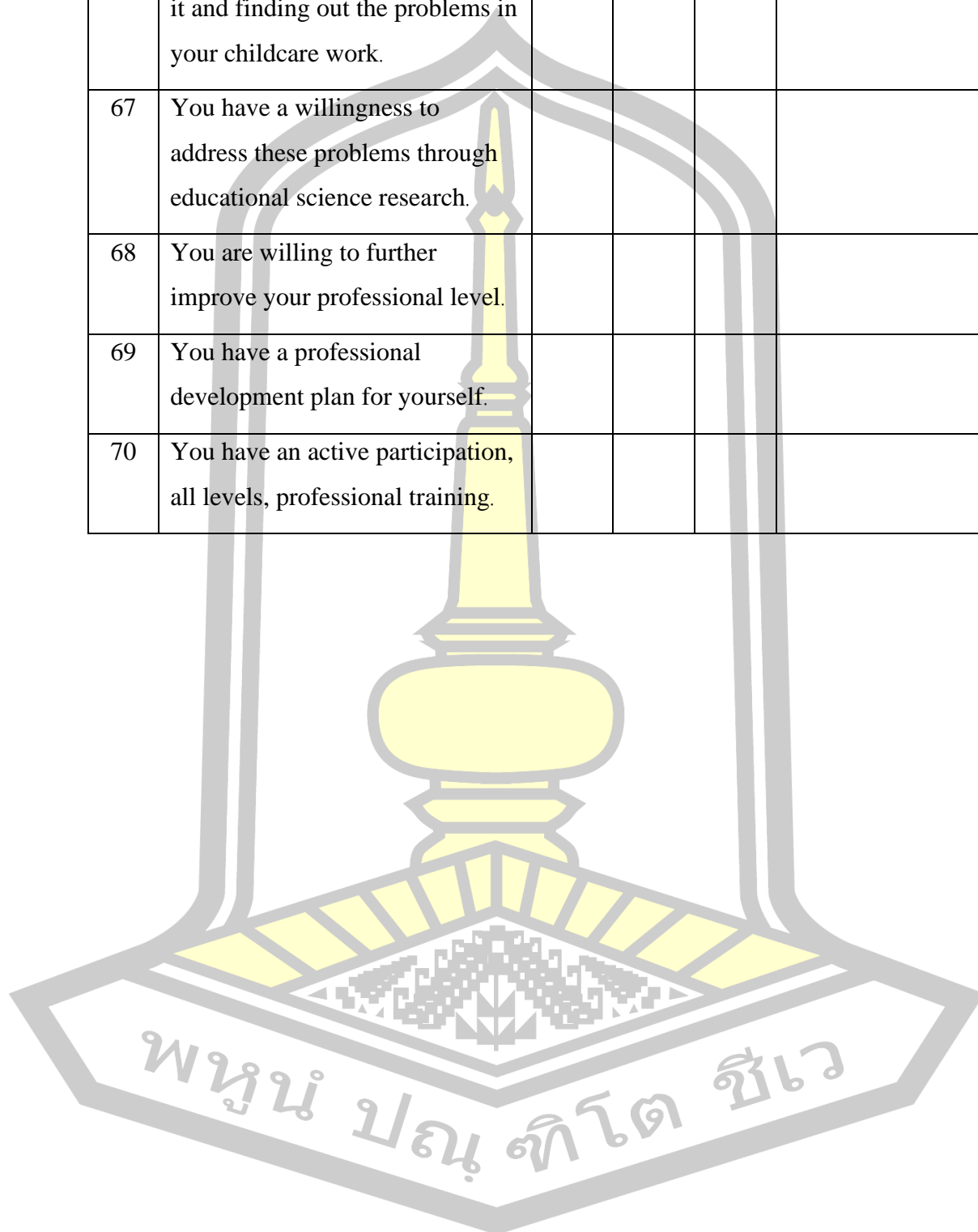


Table 38 Conformity index (IOC), the content of the questionnaire

Article	Expert					Together	IOC	Results of consideration
	1st person	2nd person	3rd person	4th person	5th person			
1	+1	+1	+1	+1	+1	5	1.00	consistent
2	+1	+1	+1	+1	+1	5	1.00	consistent
3	+1	+1	+1	+1	+1	5	1.00	consistent
4	+1	+1	+1	+1	+1	5	1.00	consistent
5	+1	+1	+1	+1	+1	5	1.00	consistent
6	+1	+1	+1	+1	+1	5	1.00	consistent
7	+1	+1	+1	+1	+1	5	1.00	consistent
8	+1	+1	+1	+1	+1	5	1.00	consistent
9	+1	+1	+1	+1	+1	5	1.00	consistent
10	+1	+1	+1	+1	+1	5	1.00	consistent
11	+1	+1	+1	+1	+1	5	1.00	consistent
12	+1	+1	+1	+1	+1	5	1.00	consistent
13	+1	+1	+1	+1	+1	5	1.00	consistent
14	+1	+1	+1	+1	+1	5	1.00	consistent
15	+1	+1	+1	+1	+1	5	1.00	consistent
16	+1	+1	+1	+1	+1	5	1.00	consistent
17	+1	+1	+1	+1	+1	5	1.00	consistent
18	+1	+1	+1	+1	+1	5	1.00	consistent
19	+1	+1	+1	+1	+1	5	1.00	consistent
20	+1	+1	+1	+1	+1	5	1.00	consistent
21	+1	+1	+1	+1	+1	5	1.00	consistent
22	+1	+1	+1	+1	+1	5	1.00	consistent
23	+1	+1	+1	+1	+1	5	1.00	consistent
24	+1	+1	+1	+1	+1	5	1.00	consistent

Table 38 (continued)

Article	Expert					Together	IOC	Results of consideration
	1st person	2nd person	3rd person	4th person	5th person			
25	+1	+1	+1	+1	+1	5	1.00	consistent
26	+1	+1	+1	+1	+1	5	1.00	consistent
27	+1	+1	+1	+1	+1	5	1.00	consistent
28	+1	+1	+1	+1	+1	5	1.00	Consistent
29	+1	+1	+1	+1	+1	5	1.00	consistent
30	+1	+1	+1	+1	+1	5	1.00	consistent
31	+1	+1	+1	+1	+1	5	1.00	consistent
32	+1	+1	+1	+1	+1	5	1.00	consistent
33	+1	+1	+1	+1	+1	5	1.00	consistent
34	+1	+1	+1	+1	+1	5	1.00	consistent
35	+1	+1	+1	+1	+1	5	1.00	consistent
36	+1	+1	+1	+1	+1	5	1.00	consistent
37	+1	+1	+1	+1	+1	5	1.00	consistent
38	+1	+1	+1	+1	+1	5	1.00	consistent
39	+1	+1	+1	+1	+1	5	1.00	consistent
40	+1	+1	+1	+1	+1	5	1.00	consistent
41	+1	+1	+1	+1	+1	5	1.00	consistent
42	+1	+1	+1	+1	+1	5	1.00	consistent
43	+1	+1	+1	+1	+1	5	1.00	consistent
44	+1	+1	+1	+1	+1	5	1.00	consistent
45	+1	+1	+1	+1	+1	5	1.00	consistent
46	+1	+1	+1	+1	+1	5	1.00	consistent
47	+1	+1	+1	+1	+1	5	1.00	consistent
48	+1	+1	+1	+1	+1	5	1.00	consistent

Table 38 (continued)

Article	Expert					Together	IOC	Results of consideration
	1st person	2nd person	3rd person	4th person	5th person			
49	+1	+1	+1	+1	+1	5	1.00	consistent
50	+1	+1	+1	+1	+1	5	1.00	consistent
51	+1	+1	+1	+1	+1	5	1.00	consistent
52	+1	+1	+1	+1	+1	5	1.00	consistent
53	+1	+1	+1	+1	+1	5	1.00	consistent
54	+1	+1	+1	+1	+1	5	1.00	consistent
55	+1	+1	+1	+1	+1	5	1.00	consistent
56	+1	+1	+1	+1	+1	5	1.00	consistent
57	+1	+1	+1	+1	+1	5	1.00	consistent
58	+1	+1	+1	+1	+1	5	1.00	consistent
59	+1	+1	+1	+1	+1	5	1.00	consistent
60	+1	+1	+1	+1	+1	5	1.00	consistent
61	+1	+1	+1	+1	+1	5	1.00	consistent
62	+1	+1	+1	+1	+1	5	1.00	consistent
63	+1	+1	+1	+1	+1	5	1.00	consistent
64	+1	+1	+1	+1	+1	5	1.00	consistent
65	+1	+1	+1	+1	+1	5	1.00	consistent
66	+1	+1	+1	+1	+1	5	1.00	consistent
67	+1	+1	+1	+1	+1	5	1.00	consistent
68	+1	+1	+1	+1	+1	5	1.00	consistent
69	+1	+1	+1	+1	+1	5	1.00	consistent
70	+1	+1	+1	+1	+1	5	1.00	consistent

Table 38 Confidence level of the existence and desired status query

Table 39 Confidence level of the existence query

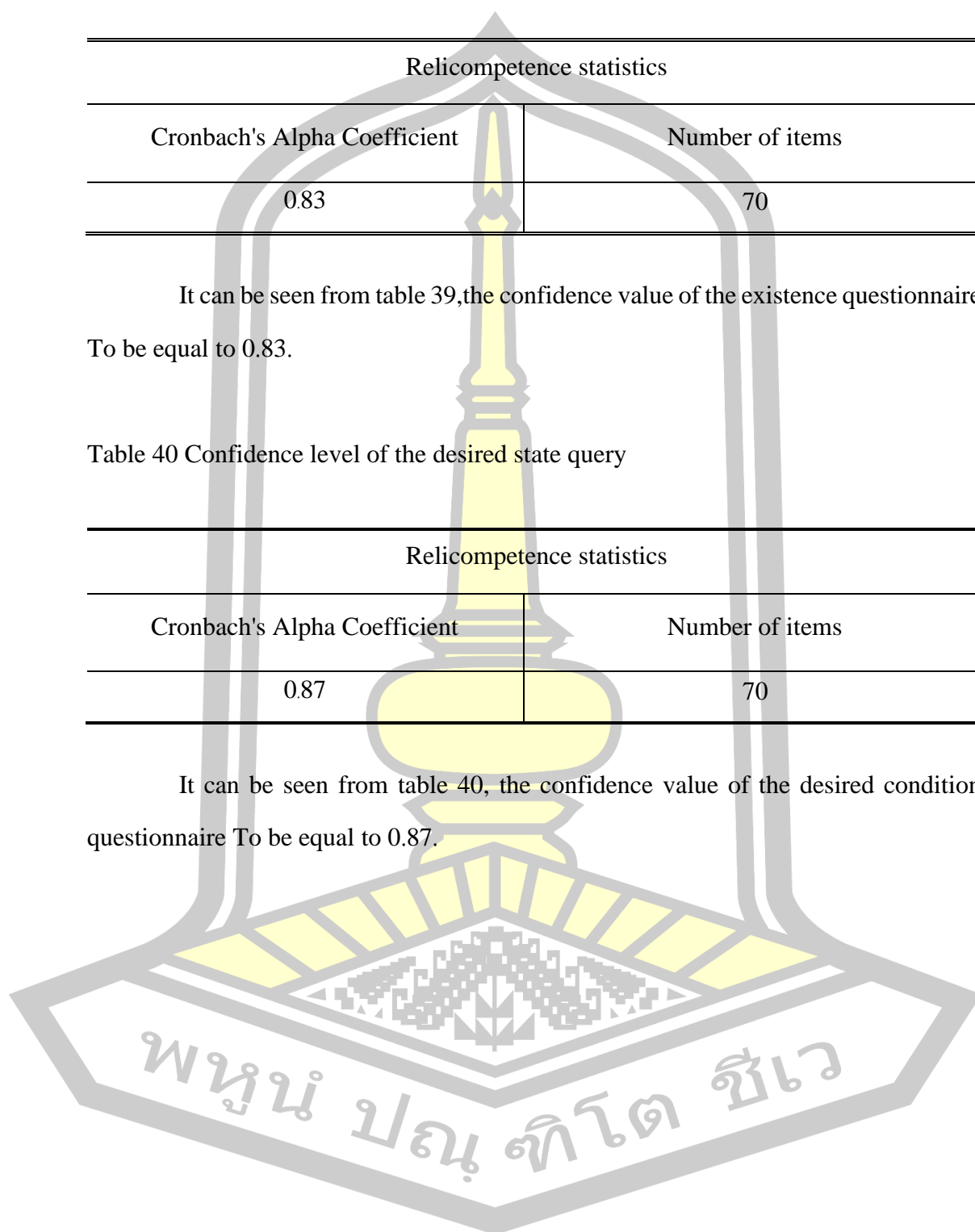
Relicompetence statistics	
Cronbach's Alpha Coefficient	Number of items
0.83	70

It can be seen from table 39, the confidence value of the existence questionnaire To be equal to 0.83.

Table 40 Confidence level of the desired state query

Relicompetence statistics	
Cronbach's Alpha Coefficient	Number of items
0.87	70

It can be seen from table 40, the confidence value of the desired condition questionnaire To be equal to 0.87.



Appendix V

Letter requesting assistance



FACULTY OF EDUCATION
MAHASARAKHAM UNIVERSITY

79/2 Muang, MahaSarakham,
44000, THAILAND
Tel/fax +66 43 713 174
Email: cia.edu@msu.ac.th

Student Permission Letter

This permission letter serves to

Student name: **Mr. Ao Xiang**

Student ID: **64010561031**

Program: **Ed.D. Educational Administration and Development Program**

The mentioned student has been registered as a of the Faculty of Education, Mahasarakham University, Thailand. To fulfill the program requirements, the student is required to make significant progress on their thesis. This letter serves to formally offer the student the opportunity to undertake their thesis research abroad, contingent upon the research being directly aligned with their approved research topics.

The details of the data collection of **Mr. Ao Xiang** are as follows:

Thesis title: Developing a Model to Improve the Professional Competence of Rural Kindergarten Teachers in Guangxi

Location of data collection: China

Period of data collection: March 2024 to April 2024.

The student's thesis project, under the supervision of Assoc.Prof.Suwat Junsuwan requires data collection abroad due to the specific population and sample group that is essential for their research. We acknowledge that the student has made the necessary preparations, including obtaining approval for the thesis title from our institution.

Should you require further clarification or information regarding the student's academic record, please do not hesitate to contact our office at your convenience.

Issued on February 27, 2024

Assoc. Prof. Chowwalit Chookhampaeng
Dean, Faculty of Education,
Mahasarakham University



FACULTY OF EDUCATION
MAHASARAKHAM UNIVERSITY

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44000, THAILAND
Tel/fax +66 43 713 174
Email: cia.edu@msu.ac.th

MHESRI No. 0605.5 (2) / 770

Date: February 27, 2024

Data Collection Permission Request

To: Whom It May Concern
Guangxi College for Preschool Education,
Nanning City, Guangxi Province, China

Subject: Data Collection Permission Request

Our student, **Mr. Ao Xiang, student ID 64010561031** majoring in the **Ed.D. Educational Administration and Development Program** is currently undertaking a research project titled "Developing a Model to Improve the Professional Competence of Rural Kindergarten Teachers in Guangxi" under the guidance of Assoc. Prof. Suwat Junsuwan.

To ensure the success and quality of this project, we are seeking your permission to allow our students to process data collection within your institution.

The details of the data collection are as follows:

Thesis title: Developing a Model to Improve the Professional Competence of Rural Kindergarten Teachers in Guangxi

Period of data collection: March 2024 to April 2024.

Thesis advisor: Assoc.Prof.Suwat Junsuwan

We believe that your institution provides a valuable environment and resources that are essential for the successful execution of this research. The data collection process will be carried out diligently and with the utmost respect for your institution's policies and procedures. We acknowledge that the student has made the necessary preparations, including obtaining the Thesis title approval from our institution.

Should you require any further information or clarification regarding this permission, please feel free to contact us by email.

Yours sincerely,

Assoc. Prof. Chowwalit Chookhampaeng
Dean, Faculty of Education,
Mahasarakham University



FACULTY OF EDUCATION
MAHASARAKHAM UNIVERSITY

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Center for International Affairs

MHESRI No. 0605.5 (2) / CL1070

Date: March 24, 2024

To: Professor Zhou Hong
President of Guangxi Vocational Normal University
Professor Fang Jinyi
Deputy Director of Academic Affairs Office
Guilin University of Electronic Technology
Professor Liang Zhaohua
Dean, Faculty of Teacher Education
Yulin Normal University

Subject: Expert Invitation

Our student, **Mr. Ao Xiang**, student ID **64010561031**, majoring in the Ed. D. Educational Administration and Development Program is currently undertaking a research project titled "**Developing a Model to Improve the Professional Competence of Rural Kindergarten Teachers in Guangxi**" under the guidance of Assoc. Prof. Suwat Junsuwan.

To ensure the successful execution and the highest quality of this research project, we are seeking your valuable expertise and experience. Therefore, I am sending a formal invitation to you to serve as the expert reviewer for the research instrument designed for this thesis project.

Your participation in this academic endeavor is highly valued and appreciated. Should you require any further information or have questions regarding this invitation, please do not hesitate to contact us by email.

Yours sincerely,

(Assoc. Prof. Chowwalit Chookhampaeng)
Dean, Faculty of Education,
Mahasarakham University



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Center for International Affairs

MHESRI No. 0605.5 (2) / CL1069

Date: March 24, 2024

To: Professor Li Yuyan
Basic Education Department,
Guangxi Zhuang Autonomous Region Education Department
Professor Lei Xiangzhu
Guangxi Minzu University
Professor Liao Daping
Early childhood education specialist
Nanning Qingxiu District Education Bureau
Professor Liu Xiaojun
Director of Development Planning Department,
Guangxi College for Preschool Education
Professor She Yabin
Director of Academic Affairs and Research Management Office,
Guangxi college for Preschool Education

Subject: Expert Invitation

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Center for International Affairs

MHESRI No. 0605.5 (2) / CL1068

Date: March 24, 2024

To: Professor Wen Pin
President of Guangxi College for Preschool Education
Professor Liu Yijian
Vice President, Guangxi College for Preschool Education
Professor Li Yanrong
Vice President, Guangxi College for Preschool Education
Professor Yang Yan
Director, Guangxi Zhuang Autonomous Region Preschool Teacher Training Center
Professor Li Xiangling
Faculty of Educational Sciences, Nanning Normal University

Subject: Expert Invitation

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MHESRI No. 0605.5 (2) / CL1067

Date: March 24, 2024

To: **Assoc. Prof. Pacharawit Chansirisira**
Faculty of Education, Mahasarakham University
Asst. Prof. Thatchai Chittranun
Faculty of Education, Mahasarakham University
Dr. Surachet Noirid
Faculty of Education, Mahasarakham University
Assoc. Prof. Tharinthorn Namwan
Faculty of Education, Mahasarakham University
Assoc. Prof. Songsak Phusee-On
Faculty of Education, Mahasarakham University

Subject: Expert Invitation

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Dean, Faculty of Education,
Mahasarakham University

Appendix VI

Expert Interview Photographs



Experts evaluate research tools and listen carefully to and record expert advice



Survey of rural kindergartens in Guangxi



Survey of rural kindergartens in Guangxi



Survey of rural kindergartens in Guangxi

BIOGRAPHY

NAME	Xiang Ao
DATE OF BIRTH	June 27, 1986
PLACE OF BIRTH	Jingshan City, Hubei Province, China
ADDRESS	No.77, Minzu Avenue, Qingxiu District, Nanning, Guangxi
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EDUCATION	<p>2008 Graduated from Wuhan Sports University, majoring in Physical Education, China</p> <p>2015 Graduated from Chongqing University, majoring in software engineering, China</p> <p>2024 Pursuing Doctor Degree of Educational Administration at Mahasarakham University, Thailand</p>

