

APPLICATION TEACHING DIGITAL RESOURCES FOR PRESCHOOL
TEACHERS' PROFESSIONAL ETIQUETTE

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A thesis submitted in partial fulfillment of the requirements for Doctor
of Philosophy Program in Digital Technology Management for Education


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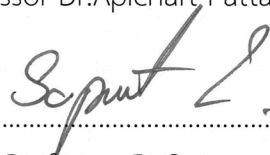
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ABSTRACT

This study deeply analyzes the actual situation of online teaching supporting digital resources in teacher professional etiquette education for students majoring in preschool education, aiming to fill the gap in information-based teaching in this field. In view of the shortage and demand of existing resources, we innovatively introduced the effective online teaching (EOT) model, aiming to optimize and enrich the digital resource system of teacher professional etiquette education for preschool education majors. Through carefully designed implementation strategies, the EOT model not only promotes the digitization and interactivity of teaching resources, but also significantly enhances student participation and learning outcomes. Furthermore, this study comprehensively evaluated the effectiveness of the EOT model in supporting teachers' professional etiquette digital resources for preschool education majors. The results showed that the model can effectively improve teaching quality and enhance learners' professional etiquette literacy. Based on the above research results, we propose a series of suggestions for continuous improvement and look forward to the broad prospects of information and modernization of professional etiquette education for preschool teachers in the future. These findings not only provide valuable practical guidance for teacher professional etiquette education for students majoring in preschool education, but also provide useful references for educational information reform in other fields.

Keywords : Preschool teacher, Professional Etiquette, Applied teaching, Digital resources

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Chapter 1

Introduction

Rationale

In modern society, the importance of professional etiquette literacy for personal career development is increasingly prominent. Preschool education, as a stage for cultivating future educators, has also become particularly important for students' professional etiquette literacy. However, traditional teaching methods face some challenges in cultivating professional etiquette literacy among preschool education students. In recent years, with the rapid development of digital technology, effective online teaching models have played a crucial role in the education field of today's digital era, and have become one of the key innovations in the education field. It is expected to provide new ways to improve the professional etiquette literacy of preschool education students.

With the development and popularization of internet technology, the teaching mode and methods of ordinary universities have also undergone changes that are different from traditional teaching. This change in mode has led to the emergence of effective online teaching modes based on the internet. This semi open teaching model is the foundation of classroom learning. Firstly, we take exploration as the main thread and adopt a mixed online and offline teaching method to guide students to actively participate. Compared with traditional teaching, this teaching model can guide and stimulate students' thinking, and cultivate their enthusiasm for actively participating in learning. Mainly adopting online micro video teaching and online teaching, the teaching mode mainly includes homework, Q&A discussion, offline tutoring, and offline practice. Any questions during the learning process can be resolved through online consultation with teachers or group discussions. This teaching model closely combines online teaching with traditional teaching, improving students' enthusiasm for learning and achieving good teaching results.

This article delves into how to use effective online teaching models, utilizing modern digital technology and educational methods, through online platforms and tools such as cloud classes and vocational education clouds, to impart knowledge and promote students' learning through innovative teaching strategies, integrating preschool teachers' professional etiquette literacy into practical situations, through online courses, interactive discussions, virtual role-playing, and other methods. Students can extract teaching resources suitable for their learning methods and levels from the online teaching network resources provided by teachers according to their own needs, thereby achieving personalized learning. Teachers can play a leading role in guiding, enlightening and monitoring the teaching process. Students fully reflect their initiative, enthusiasm and creativity as learning subjects in the learning process, so that teaching and learning can achieve a win-win situation. This win-win situation is the best embodiment of the advantages of Internet plus traditional education. Therefore, it can effectively stimulate students' enthusiasm for autonomous learning and improve teaching efficiency.

However, despite significant achievements in various fields, the online teaching model still requires in-depth research and exploration on how to effectively apply it to the field of preschool education, especially in enhancing students' independent learning of professional etiquette literacy in preschool education. When developing an effective online teaching mode, it is necessary to consider how to effectively integrate professional etiquette content, design interactive activities, and provide real-time feedback to achieve better teaching and learning outcomes.

Therefore, studying how to construct an effective online teaching mode to improve the professional etiquette literacy of preschool education students will help promote teaching innovation and development in the field of preschool education, and cultivate future educators with more comprehensive literacy.

Gao,Y (2022, p.170) believes that with the popularization of the Internet, online teaching has become an indispensable component of education. The teaching mode combined with network education has progressiveness and advantages, and has been widely used in the current college education and teaching. Rich online

teaching resources can meet the needs of students to access information anytime and anywhere, and their powerful indexing function can also expand relevant knowledge. Therefore, the construction of online teaching resources is a prerequisite for achieving online education, carrying out modern and information-based teaching.

Zeng,L. (2020, p.110) believes that the internet is a platform for information technology and communication, and online teaching resources are the product of this platform. In recent years, people can see anything that happens anywhere in the world through mobile internet. With the continuous accumulation of various information on the internet, a large amount of online information has been utilized by people, gradually becoming a material resource that can serve classroom teaching and promote the development of courses.

As the rationale shown above, the author realizes the importance of studying “Construction a support of network teaching digital resources of preschool teachers professional etiquette”.

Research Questions

1. What are the current situation of online teaching supporting digital resources for vocational etiquette in preschool teachers?
2. How to construct the support of network teaching digital resources of preschool teachings’ professional etiquette?
3. How to evaluate the effectiveness of etiquette teaching resources for Preschool teacher?

Research Objectives

1. To study the current situation of online teaching supporting digital resources for vocational etiquette in preschool teachers.
2. To process the effectiveness online teaching (EOT) model to support digital resources of vocational etiquette for preschool teachers.
3. To evaluate the effectiveness online teaching to support digital resources of vocational etiquette for preschool teachers.

Research Hypothesis

After implementing teaching on the digital resource platform of online teaching for kindergarten teachers, students' initiative in professional learning will be higher than the passivity of traditional classroom learning.

Scope of the Research

Population and the sample group

Population

A total of 90 students from the preschool education majors of the three colleges of Ningbo Preschool Teachers College participated in the etiquette course for preschool teachers. They come from three classes with different levels of education. The first semester of the 2023 academic year.

The Sample Group

A simple random sampling method was used to investigate 90 students from Class 3 who participated in the etiquette course for preschool teachers.

Independent variable

Effectiveness online teaching (EOT) model

Dependent variable

The effectiveness of students' autonomous learning

Contents

The etiquette course for preschool teachers consists of 10 units and 26 hours. The content is as follows:

Unit 1 Introduction to Preschool teacher 'Professional Etiquette (2 hours)

Unit 2 Image Etiquette of Preschool teacher (4 hours)

Unit 3 The Etiquette of Preschool teacher 'Daily Communication (4 hours)

Unit 4 Etiquette of Preschool teacher in children's one-day activities (4 hours)

Unit 5 Oral Etiquette of Preschool teacher (2 hours)

Unit 6 Telephone Communication Etiquette of Preschool teacher (2 hours)

Unit 7 Network communication etiquette of Preschool teacher (2 hours)

Unit 8 Etiquette of Homeland Co education (2 hours)

Unit 9 Etiquette of Preschool teacher 'work activities (2 hours)

Unit 10 Social Communication Etiquette of Preschool teacher (2 hours)

According to the etiquette network resources of Preschool teacher in this study, the researchers chose Unit 1 to 4 for the experiment. The content is shown below:

Unit 1 Introduction to Preschool teacher 'Professional Etiquette (2 hours)

Unit 2 Image Etiquette of Preschool teacher (4 hours)

Unit 3 The Etiquette of Preschool teacher 'Daily Communication (4 hours)

Unit 4 Etiquette of Preschool teacher in children's one-day activities (4 hours)

Time frame

The first semester of the 2023 academic year (March June 2023)

Advantages

1. To know about their learning efficiency, interests, and practical etiquette skills.
2. To improve their teaching skills and enhance new techniques in teaching through the research using EOT model.
3. Universities can obtain better teaching resource effects, improve the quality of etiquette teaching in preschool teachers, and achieve richer innovative results in the construction of teaching network resources.

Definitions of Terms

The factors that affect the effectiveness of Preschool teacher 'etiquette online teaching resources refer to the internal and external factors collected from students through questionnaires and lecturer interviews. Internal factors include student information, while external factors include teacher information and environmental information. In addition, these factors will be obtained through structured interviews with instructors.

Development of effectiveness online teaching (EOT) model refers to a new teaching framework composed of stable teaching activities and procedures.

Experts have confirmed a teaching model consisting of five components from four aspects 1) scenario creation, 2) collaborative interaction, 3) real-time communication, 4) open environment, 5) evaluation 1) practicality standard, 2) feasibility standard, 3) appropriateness standard, and 4) accuracy standard (Zhu Bingzhu, 2021), as follows

Utility Standard are intended to ensure that the developed instructional model will serve the information needs of intended users.

Feasibility Standard are intended to ensure that the developed instructional model will be realistic, prudent, flexible, and frugal.

Propriety Standard are intended to ensure that the developed instructional model will be conducted in conformity to teaching principles and provide positive results

Accuracy Standard are intended to ensure that the developed instructional model shows a measure of closeness to a true value.

Effectiveness online teaching (EOT) model refers to a teaching method that emphasizes interaction as both a means of information learning and the creation of situations. Teachers are creators, not guides. For teachers, giving lectures can impart knowledge, but it is also an activity of operating skills. Students' skills can only be developed through practice. The etiquette teaching of Preschool teacher cultivates new skills by letting students practice as much as possible. The most common instructions are divided into four steps

Step 1 demonstrate, the teacher shows Preschool teacher etiquette in real or simulated situations, and let students contact etiquette skills in real situations.

Step 2 practice. The teacher will repeat the practice through the network resources, and the students will watch the video to master the standards and norms of Preschool teacher 'etiquette.

Step 3 Product. Teachers should relax or give up control, only provide relevant course online resources, and allow students to use online resources for self-learning and mastery.

Step 4 Application. Students apply online teaching resources to practice and effectively apply them.

The effectiveness of students' autonomous learning The so-called "**self-directed learning**" refers to students stimulating, inspiring, and guiding their internal learning needs under the scientific guidance of teachers, so that they have a strong sense of active learning. The effectiveness of self-directed learning refers to the learning effectiveness and efficiency reflected within the effective learning time. It consists of four dimensions: freedom of learning, initiative, timeliness, and innovation. Li Y (2014, p.40).

Freedom refers to the degree to which students' evaluation of learning objectives, methods, progress, and results is determined by themselves.

Mobility refer to whether students' learning is proactive or passive. Timeliness Does the student have self-study time and how much self-study time is there

Innovativeness refer to whether students' learning is proactive or passive

Online teaching resources refer to various resources specifically designed for teaching purposes or that can be used to serve educational purposes.

Junior college students refer to first-year students who participated in the "Professional Etiquette for Preschool Teachers" course at Ningbo Preschool Teachers College in the 2023 academic year.

Ningbo Preschool Teachers College is a public higher normal university organized by the Ningbo Municipal People's Government, with the main task of cultivating full-time vocational students, primary and secondary school teachers (campus leaders), and educational administrative cadres. The school currently has Hangzhou Bay Campus, Huancheng Campus, etc; The school has distinctive majors. Currently, there are 13 majors including preschool education, early education, product art design, music performance, and e-commerce. Among them, the preschool education major group has been included in the construction list of high-level vocational colleges (groups) in Zhejiang Province by the Education Department and Finance Department, and the quality of preschool education teacher training students ranks among the top in the province. The building of international cooperation platform is becoming more and more perfect. The "Central and Eastern Europe Art Education Cooperation and Research Center" has been approved by

Ningbo to jointly build the "the Belt and Road" education international cooperation platform. It has signed talent training cooperation agreements with 13 foreign universities (including Dongming University in South Korea and William Joseph University in the United States) to comprehensively cultivate application-oriented international talents. Adhere to the orientation of teacher oriented and application-oriented school running, based in Zhejiang, serve the Yangtze River Delta, contribute to the "the Belt and Road", build a new round of entrepreneurial blueprint of "one core, two pairs, nine major action plans", and strive to build the school into an excellent normal school with high level and quality, and become the cradle of high-quality preschool teacher training in Zhejiang Province.

Research Framework

The purpose of this study is to 1) To study the current situation of online teaching supporting digital resources for vocational etiquette in preschool teachers. 2) To implement the effectiveness online teaching (EOT) model to support digital resources of vocational etiquette for preschool teachers. 3) To evaluate the effectiveness online teaching to support digital resources of vocational etiquette for preschool teachers. Choose two preschool education classes with different levels, including Xuemen Preschool Education College and Heqin Preschool Education College. The result of this study is to construct digital resources for the professional etiquette of preschool teachers supported by online teaching resources, which has improved students' enthusiasm for autonomous learning compared to before the experiment. The design of the research framework is shown in Figure 1.1 below:

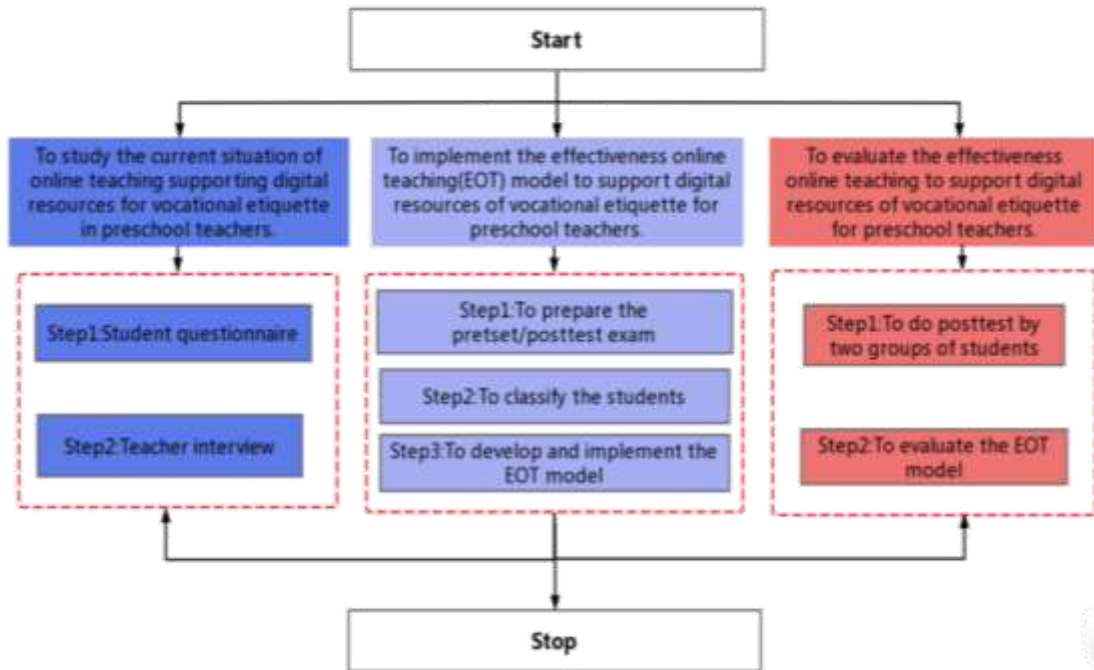


Figure 1.1 Research Framework

Chapter 2

Literature Review

In the study of “construction a support of network teaching digital resources of preschool teachers’ professional etiquette” the researcher studied the documents concerning the following.

1. Network Teaching Resources
2. Curriculum Structure
3. Effective Online Teaching Model
4. Professional Etiquette Digital Resources for Preschool Teachers
5. Related Research

Network Teaching Resources

Ma Wenhua & Liu Youhua (2011, p.166) believes there are two main models for the construction of online teaching resources in universities: one is an open network teaching resource construction model (i.e. fully open, anyone can use it without permission), and the other is a self-organizing network teaching resource construction model (i.e. a network teaching resource construction model with universities as the main body).

Ji Youhong (2016, p.142) believes the planning of online teaching resource platforms should be based on the development needs of students, select key resources from them, and appropriately delete some useless resources. At the same time, organize resources according to different majors, establish a network resource framework, so that knowledge from different majors and disciplines can be summarized, which also has an important guiding role for the future construction of online teaching resources.

Wang Ningbang (2020, p.41) believes various resources specifically designed for teaching purposes or that can be used to serve educational purposes belong to online teaching resources.

Liu Zhiguo (2020, p.105) teachers should establish a sense of service in the construction of online teaching resources, truly understand the urgent needs of students, provide students with higher quality teaching resources, and improve service levels.

Du Chun & Liu Xingbo (2022) believes online teaching resources serve the reform of education and teaching, and also play an important role in promoting innovative teaching models and talent cultivation models in universities.

Background

In recent years, China's education industry has developed rapidly and achieved many gratifying achievements. However, this development has also exposed many problems, including the utilization of online teaching resources. When the term "online teaching resources" first appeared, some advanced experts and scholars in China conducted investigations and studies on online teaching resources. As of now, China's theoretical research on online teaching resources is at the forefront of the world. However, the ability to truly apply online teaching resources to subject teaching practice still needs to be strengthened, especially the ability of preschool teachers' etiquette to utilize online teaching resources still has a significant deficiency. The effectiveness of utilizing online teaching resources still has a long way to go before the requirements of preschool teachers' etiquette classes are met. At the same time, since entering the new century, with the explosive development of modern information technology, especially the Internet, the Internet has rapidly entered millions of households, and its connection with people's lives has become increasingly close, constantly affecting the daily lives of Chinese people. The development of the Internet has also brought rich teaching resources to Preschool teacher 'etiquette courses. Although teachers also browse internet pages every day and access various information resources online, they are not able to consciously, proactively, and effectively develop and utilize course resources on the internet. At the same time, students can also use the internet to learn about the outside world and obtain various information more conveniently. However, there are still many resources in online teaching resources that are not conducive to students' physical

and mental development, which can have a great negative impact on students. So, how to effectively improve the utilization efficiency of online teaching resources is a very meaningful research topic.

Principle

1. Principle of comprehensiveness.

The objectives and content of the course, as well as the development of the course plan, should be centered around all students and take into account the common needs and problems of the majority of students

2. Overall development principles

To pursue the comprehensive development of students' personalities, establish a holistic development view of students, and pay attention to the integrity of students' personalities

3. Principle of student subjectivity

During the use of network teaching resources in the teaching of etiquette courses for Preschool teacher, we should respect the dominant position of students, make rich network resources truly serve the learning of students' etiquette for Preschool teacher, fully mobilize the enthusiasm and operability of students, increase students' independent practice, let students operate, think and do more, truly become the main body of activities, and realize self experience, self inspiration and self education.

4. Principles of Participation

It is a necessary condition for students to learn online resources independently. Each student should actively participate in the whole process of Preschool teacher etiquette online teaching resources under the guidance of teachers.

5. Flexibility principle

Network teaching resources are designed according to different objects to reflect flexibility.

6. Optimal principle

Because network resources are massive and extensive, Preschool teacher 'etiquette' also faces certain challenges when applying network resources. They are required to select better and more targeted network resources according to teaching content and adjust network resources appropriately in combination with teaching design.

7. Principles of Needs and Benefits

Preschool teacher etiquette teachers should follow the principle of demand and efficiency when introducing grid resources into teaching practice. They should consider students' learning needs, correctly handle the relationship between teaching and learning, and improve teaching quality. At the same time, the network resources selected by teachers should be able to promote the comprehensive growth of teaching and learning efficiency, and fully utilize the application value of network resources Etiquette of Preschool Teacher.

Objectives

The main content of 'Teacher Etiquette' is divided into five main module projects. The effectiveness of teaching is evaluated based on the effectiveness of students completing practical training tasks, improving the operability of teaching content, enhancing the pertinence of teaching content, and training students' quality development abilities.

1. At the Knowledge level: Students should master the basic concepts of teacher etiquette, understand the spirit of traditional Chinese culture etiquette, and understand the connotation of modern teacher culture etiquette. Master the basic methods and key points of shaping personal image, and be able to understand the basic etiquette norms in communication with different objects such as students and parents. And have an understanding and mastery of public etiquette content.

2. At the skill level: To have the learning ability to improve etiquette and self cultivation, and to create a self beautification ability of personal appearance, appearance, and posture. The basic methods of personal appearance, appearance, and posture are to adhere to the three color law in terms of proper appearance

(face, natural makeup, hair accessories, etc.), appropriate posture (standing, sitting, walking, squatting, gestures, eyes, smiles, boundaries, etc.), and standardized appearance (dressing and matching) The principle of not being able to act as the third and not being able to regulate the sixth is to comprehensively create a decent teacher image. Cultivate teachers' language skills in education, communication with others, and interpersonal skills in daily life and work.

3. At the level of self-cognition: Through teaching, cultivate normal school students to care for students, love education, be willing to teach, be diligent in thinking, and be good at reflecting on their future teaching positions. Show personal cultivation, demeanor, and charm, and shape an excellent teacher image in modern society.

Curriculum Structure

The etiquette course for preschool teachers consists of 10 units and 26 hours. The content is as follows:

Table 2.1 Chapters and contents used in the present study

Unit	Sub -unit	Method teaching	Times (48 hrs.)
1.Introduction to Preschool teacher 'Professional Etiquette	1.1 Introduction to Etiquette	Cloud class platform discussion	2 hrs.
	1.2 The Implementation Concept of Etiquette	Video communication	
2.Image Etiquette of Preschool teacher	2.1 Etiquette decoration and etiquette	Cloud class platform discussion	4hrs.
	2.2 Dress up etiquette	Cloud class platform discussion	
	2.3 Manners etiquette	Video communication	
	2.4 Body language etiquette	Make videos to share	

Table 2.1 (Continued)

Unit	Sub -unit	Method teaching	Times (48 hrs.)
3.The Etiquette of Preschool teacher 'Daily Communication	3.1 Polite language	Excellent video sharing	4hrs.
	3.2 Salutation etiquette	Cloud class platform review	
	3.3 Handshake etiquette	Video demonstration	
	3.4 Self introduction etiquette	Video demonstration	
4.Etiquette of Preschool teacher in children's one- day activities	4.1 Entrance Etiquette	Video playback	4hrs.
	4.2 Etiquette for educational activities	The teacher demonstrated and modeled	
	4.3 Outdoor activity etiquette	Video playback	
	4.4 Departure etiquette	Video playback	
5.Preschool teacher's oral etiquette	5.1 Communication etiquette	Video playback	2hrs.
	5.2 Evaluation etiquette	Video playback	
6.Preschool teachers telephone communication etiquette	6.1 Etiquette for answering the phone	Video demonstration	2hrs.
	6.2 Etiquette for making phone calls	Video demonstration	
7.The network communication etiquette of preschool teachers	7.1 Wechat communication etiquette	Wechat video demonstration	2hrs.
	7.2 QQ online, email communication etiquette	Wechat video demonstration	

Table 2.1 (Continued)

Unit	Sub -unit	Method teaching	Times (48 hrs.)
8.Home sharing etiquette	8.1 Parent-teacher conference etiquette	Wechat video demonstration	2hrs.
	8.2 Home visiting etiquette	Wechat video demonstration	
9.Preschool teachers work activities etiquette	9.1 Workplace and event etiquette	each other combined with video explanation	2hrs.
	9.2 Etiquette requirements for treating young children	each other combined with video explanation	
10.Social communication etiquette of preschool teachers	10.1 Language, related activities exchanges	each other combined with video explanation	2hrs.
	10.2 Media, foreign communication etiquette	each other combined with video explanation	

Based on the online teaching resources in this study, the researchers selected units 1 to 4 for the experiment.

Effective Online Teaching Model

Definition of Instructional Mode

MA. L (2014, p.164) A teaching mode is a paradigm or plan that constitutes courses and assignments, selects textbooks, and prompts teachers for activities. It is a relatively standardized structural framework and model that combines teaching concepts, teaching objectives, teaching methods, teaching evaluation, and other teaching factors.

Zhang Jinhua & Ye Lei (2010, p.144) believe that the concept of experiential teaching involves keywords such as experience, practice, environment and experience.

Zhao Xiaohui (2008, p.86) believes that experiential teaching is a teaching method in which teachers allow students to experience or re-experience past experiences through carefully designed activities, guide experience to examine their own experiences, accumulate positive experiences, and achieve an intuitive and clear insight into the nature or connotation of objects, so as to improve and build their minds.

Zhang Rong (2006, p.63) believes that experiential teaching is a teaching mode in which one learns the surrounding things through practice and uses personal experience to perceive, understand, comprehend and verify the teaching content.

Jing Jing (2004) believes that anything that starts with activities and learns first and then can be regarded as "experiential teaching".

Yang Huimin & Pei Qijun (2017) Using multimedia teaching, vivid and intuitive multimedia teaching can include vivid and humorous comics and pictures, as well as covering various videos and audio. Proper use of multimedia teaching in professional etiquette classroom teaching not only increases the amount of classroom information, but also doubles students' interest in learning, achieving twice the result with half the effort. When explaining the knowledge point of "etiquette and etiquette", first show the students the incorrect posture and let them "find fault". Using games to allow students to experience learning in joy is both vivid and vivid, achieving the goal of both mastering and applying knowledge. It not only enhances the charm of the classroom, but also stimulates students' interest in acquiring knowledge and enhances improved students' ability to analyze and solve problems.

Tong Yuanzhi (2017, p.130) The digital resources of preschool education curriculum in kindergarten include teacher resources, child resources, and parent resources. Their resources have the characteristics of interaction, sharing, and socializing, which not only provide rich and colorful course resources for preschool teachers, but also provide the most effective assistance for designing and

implementing courses for preschool teachers, support preschool teachers to effectively reflect on teaching activities, and promote timely and effective communication between teachers, colleagues, and parents. It can be said that the digital resources of preschool education courses in kindergartens will play a huge role in the educational and professional development of preschool teachers. In order to build a more efficient curriculum system for preschool education and teaching in kindergartens, it is necessary to strengthen the utilization efficiency of digital resources, pay attention to the effective development of digital teaching resources, continuously carry out scientific research on the application of digital resources, and further improve the efficiency of preschool education and teaching in kindergartens. As long as there is the internet, organized teaching can be conducted, not limited to the classroom, greatly expanding the teaching space; Meanwhile, with the help of mobile internet, rich teaching resources can be provided for high school ideological and political courses, greatly stimulating students' enthusiasm for learning.

In short, online resource teaching is a teaching method that utilizes network information technology to apply to classroom teaching. In this process, it is necessary to fully leverage the leading role of teachers.

Backdrop

Various resources specifically designed for teaching purposes or that can be used to serve educational purposes belong to online teaching resources. In 2008, the Ministry of Education launched the construction of a digital learning resource center for online education. As of now, 221 sub centers have been established in 31 provinces and cities across the country, integrating 41000 academic and non academic education courses and 295000 media resources. Teachers and students can easily and freely access high-quality educational resources to meet the needs of education and teaching. In the process of promoting education information and modernization by the Ministry of Education, many universities in China have organized and carried out the construction and application of online teaching resources. Overall, many universities lack overall planning for the construction and application of online teaching resources, with scattered teaching resources and low

utilization rates, indicating that the construction of online teaching resources is in a state of self construction and self use. At the same time, universities still face problems such as inconsistent construction standards, poor resource circulation, and difficulties in sharing and ensuring their own online teaching resources. These problems constrain the promotion and development of educational information and solving these problems can better promote the rapid development of educational information and adapt to the requirements of the rapid development of the times.

In 2021, the Ministry of Education and six other departments issued the "Guiding Opinions on Promoting the Construction of New Education Infrastructure and Building a High Quality Education Support System" (hereinafter referred to as the "Opinions"), which pointed out that new education infrastructure should be led by new development concepts, led by information, oriented towards the needs of high-quality education development, focusing on information networks, platform systems, digital resources, smart campuses, innovative applications A new infrastructure system built in areas such as trustworthy security. The Opinions pointed out in the general requirements, key directions, safeguard measures and other aspects that education New Infrastructure should be used to strengthen new momentum and create New supply, service new demand, promote the integrated development of online and offline education, promote digital transformation of education, intelligent provincial-level, integrated innovation, and support high-quality development of education as the goal to carry out the construction of new educational infrastructure infrastructure, so as to accelerate and better continuously promote the construction and application of national network teaching resources.

Theory

MISS Chen (2021) The Ministry of Education has selected and announced 5118 of the first batch of national first-class undergraduate courses, including online courses, mixed online and offline courses, and virtual simulation experimental teaching courses, in encouraging universities to develop online education and implement the "Double Ten Thousand Plan" and other online teaching resources construction.

Ma Wenhua & Liu Youhua (2012) There are two main models for the construction of online teaching resources in universities: one is an open network teaching resource construction model (i.e. fully open, anyone can use it without permission), and the other is a self-organizing network teaching resource construction (i.e. network teaching resource construction with universities as the main body)

Effective Online Teaching Model

Backdrop

In the context of the development of information technology, network technology has been integrated into the field of modern education, and has become a cutting-edge technology in the current education field due to its characteristics of resource sharing, virtuality and interactivity. Network technology has greatly expanded the temporal and spatial scope of education, reconstructed the relationship between teaching and learning, mobilized students' interest in learning, and stimulated their initiative in learning. Therefore, how to effectively improve traditional teaching models, build efficient online education teaching models, and leverage the advantages of online education has become an important issue that educators and researchers need to seriously consider and conduct in-depth research. I hope that through the study of effective online teaching models, we can improve our theoretical understanding of online education models and enhance our theoretical guidance on teaching practice.

Theory

Dr. Tony Bates : The key to online education is that teachers need to shift their role from imparting knowledge to guiding learning. An effective online teaching model should emphasize students' autonomous learning and use technological tools to create interactive, collaborative, and personalized learning environments to stimulate students' participation and thinking. As a young teacher, one should establish their own major and choose effective onlineteaching models that are suitable for oneself and students. They should have the courage to boldly try and apply them to teaching practice. Through continuous exploration and accumulation, they should constantly learn and strengthen themselves, so that online teaching in

universities can achieve the ultimate goal of "teaching well and learning effectively", and students can experience the advantages of online teaching(Gao Yan, 2020).In the classroom, teachers transmit knowledge and information to students remotely through demonstrations, explanations, and graphic displays, while students grasp and apply knowledge through intuitive perception, textbook reading comprehension, and classroom practice. In this cyberspace, students and teachers achieve the transmission and reception of knowledge through mutual communication, instant questioning, and instant answers (Ma Ling, 2014).

Chen L (2023) In the rapidly developing information age of the Internet, 4G networks are developed, and 5G technology is constantly advancing, providing favorable conditions for the application of online teaching resources for universities and teachers. According to the survey of many universities in China, the integration and utilization of online teaching resources is currently a topic worthy of further study. Therefore, how to explore effective ways to use online teaching resources in the context of "Internet plus" can significantly improve the teaching effect of the application of online teaching resources in universities.

Song YL (2016) The traditional teaching model is mainly teacher led, and the learning content and teaching methods basically follow the teacher's ideas. Students are in a relatively passive situation in learning. In this teaching mode, it is relatively difficult to achieve good teaching results on a large scale, let alone cultivate a large number of highly skilled talents. The blended teaching mode based on the Internet has advantages that traditional teaching methods cannot have. This model can first fully utilize the high concentration of information on the Internet, share resources and information, and greatly expand the scope of teaching. Secondly, students can independently choose appropriate teaching resources and learning methods based on their own situation, thus enhancing their initiative in learning. Once again, due to the fact that the internet is not limited by time and space, it greatly expands students' learning opportunities. Problems in learning can also be quickly solved through online consultation or group discussions.

Professional Etiquette Digital Resources for Preschool Teachers

Background

Digital technology and Preschool teacher 'etiquette classroom teaching seem to be two completely different fields. On the one hand, digital technology is an emerging technology that uses digital teaching methods to visually demonstrate etiquette practices. On the other hand, Preschool teacher 'etiquette classroom teaching is a traditional teaching method, which focuses on improving students' etiquette literacy level through teacher's explanation, students' cooperation, exercises and other ways. This research focuses on the discussion and research on the problems related to the use of digital teaching, and points out that in the etiquette classroom teaching of Preschool teacher, teachers should integrate digital means, implement the learning based education principle, select appropriate actions to train according to the current professional characteristics of students, and focus on the overall practice process of students, Applying digital teaching methods to help students solve various problems encountered in practice, in order to highlight the value of digital teaching.

Theory

Luo Bingjin (2018) believes that the current problems in the application and promotion of digital teaching resources are mainly reflected in resource construction, service and platform sharing mechanism. It can be seen that we have been pursuing to build a public management platform of resource information that can carry out professional teaching and social services. In Chapter 1 Introduction 3, Zhang Wei (2019), based on his practice on the use of digital platform for accounting major of Xuzhou University of Finance and Economics, drew the conclusion that digital teaching platform plays a very important role in teaching sharing. Yang Xinqiao (2021) believes that how to effectively use digital courses for teaching and cultivate the professional quality of students in this major is an important issue in the current teaching situation. In combination with the direction of accounting teaching reform, Li Hui (2018) linked the practice of digital teaching of accounting major in Xuzhou Vocational and Technical School of Finance and Economics, and proposed the

construction of a dynamic learning system, an expandable resource base, and a resource integration platform integrating teaching, learning, doing and service. The sharing system of five teaching centers constructed by Chen Yan (2014) not only solves the problem of students' learning and teachers' teaching, but also serves enterprises and effectively realizes the sharing of resources between schools and enterprises, which is a powerful force to promote the development of accounting teaching. After exploring many problems of digital curriculum, Zhong Xiaohong (2014) believes that slow updating of resources and low utilization rate are the main problems, and the improvement of resources themselves can provide help for the construction of digital curriculum and teaching application in schools.

Ding Weize (2019), from the perspective of the total amount of digital teaching resources, pointed out that the number and types of digital teaching resources seem to be diverse, but compared with the amount of resources required by teachers, they are still in a state of shortage. Xiong Jianyu (2018), taking the construction of digital resources for Internet finance majors as an example, designed the goals and contents of teaching resource construction under the Internet concept, and also proposed a teaching resource construction method based on the Internet concept, that is, to build a first-class team organically integrating "government, school and enterprise associations" and integrate various supporting forces. This paper further explores the related functions of digital teaching resources construction. Yuan Xiaohong (2008), focusing on the requirements of resource construction tasks and integrating the actual needs of online teaching, proposed four aspects that should be paid attention to in the construction of shared teaching resources. Li Xin (2018) believes that secondary vocational education resources based on resource integration theory should be based on policy, human resources and information resources, and should be fully utilized, which is not only conducive to the scientific arrangement of teaching courses and the integration of resources, but also to the rapid realization of co-construction, sharing and balanced development of secondary vocational education resources. It is of great significance to improve the quality of digital teaching resources from different dimensions.

Wang Qinguo (2020) proposed that digital teaching resources must be used by people in need if they want to be widely disseminated based on the openness of the network platform. He pointed out that the original intention of teaching resources is to provide more useful material resources for teachers to carry out teaching work and help them complete teaching tasks faster. In fact, the integration of digital teaching resources in classroom teaching has increased the number of teachers' use of multimedia equipment, Chapter 1 Introduction 4 and time, and also made the teaching presentation more vivid and intuitive. Digital teaching resources contain a large number of ideas and suggestions of related personnel, which has high reference and reference value. Especially for some young teachers with less experience, many problems encountered in teaching will be solved through digital teaching resources. The vocational education teaching resources construction project has been going on for ten years.

Zhang Guomin & Kong Delan (2017) believe that the project has achieved certain results in promoting the co-construction and sharing of high-quality teaching resources and promoting the coordinated development of education. However, it is found that the project has some problems in the appropriateness of resource content, the completeness of platform functions, and the guarantee of construction mechanism. Lian Jie (2016) pointed out that at the moment of rapid development of vocational education, secondary vocational colleges also produce repeated construction of teaching content and waste of educational resources, which weakens the improvement of talent training quality and hinders the long-term development of vocational education and the progress of social politics and economy. Li Jianhong (2020), from the perspective of the effect of digital teaching resources on teachers and students, proposes that teaching resources should serve the two main bodies of teachers and students, and focus on giving play to the principal role of students and strengthening their attention, so as to improve the efficiency of classroom teaching and promote the quality of teaching. However, in his empirical investigation, he found that the role of digital teaching resources in reducing the difficulty of teaching and breaking through the difficulty of teaching is not obvious. Wang Jing (2019) sorted

out the problems such as the lack of pertinence, systematism and compatibility of teaching resource content, and believed that the classification standard of teaching resources had defects and the function of resources was monotonous.

Along with information technology, digital teaching resources came into being. It is a new education platform to promote teaching and learning. Cheng Junhe (2016) pointed out that the platform should have three typical learning forms: shallow learning, deep learning and mixed learning. The first kind of learning is mainly based on watching videos and interaction, the second kind of learning is mainly based on real scene simulation, and the third kind of learning is mainly based on online and offline cross-learning. Based on this, digital teaching resources can provide online flexible teaching. Jin Ling (2017) proposed that curriculum teaching resources are three-dimensional teaching resources composed of "main teaching resources + practical teaching resources + network teaching resources" as the main source of teaching information. Among them, practical teaching resources provide practical methods for teaching and are the key resources to promote action-oriented teaching. Network teaching resources support independent learning with the carrier of course website.

Vocational education digital teaching resources from the original "resource warehouse" to the "auxiliary learning, auxiliary teaching" function proposed, and then to today's advocate of "learning, auxiliary teaching", its positioning is gradually clear, the meaning is more and more clear, that is, "learn-based, learn-based teaching" teaching concept has gradually been highlighted. Yan Shuihe's Chapter 1 Introduction 5 (2017) divides students into several learning teams and sets up wechat groups according to their usual learning conditions. Each group consists of four students. They carry out extra-curricular online learning and communication activities in small groups to solve the problem of difficult communication in extra-curricular time due to dispersed living. Each team has a leader who is responsible for the formation and coordination of wechat groups; Have a recorder who records the learning process and gives accurate feedback to the teacher. In this process, the teacher will keep track of the learning progress of each group at any time and communicate the

learning situation. In order to form a cooperative learning atmosphere, each team should give the wechat group a positive name such as endeavour and sunshine to gather learning consensus. He also suggested the establishment of credit incentive measures to give credit rewards to teams with active exchanges, and a certain percentage of the usual results. Luo Jian (2020) points out that traditional teaching methods and means are gradually affected and changed by information technology, which breaks through the limitations of time and space and brings us a lot of convenience. However, information technology only provides us with technical support, but the specific teaching and learning content needs to be reflected in teaching resources.

There are few expressions of "digital teaching resource library" or "teaching resource library" in foreign countries, but there is no substantial difference between the foreign open education resource platform and the domestic digital teaching resource library, and all the teaching resource platforms are constructed with the participation of universities, governments and relevant social organizations. Therefore, this study focuses on the relevant research of foreign open education resource platforms. Since the end of 1990s, the construction and research of large-scale digital teaching resource database have been carried out abroad, and universities and enterprises have begun to get involved in the development and construction of digital teaching resource database. The United States, the United Kingdom, Canada and other countries have carried out research on digital teaching resources related projects, and achieved fruitful results. The teaching characteristics of Course 4.0 make it have some specific requirements for information-based teaching. Gu Jie (2021) analyzed the application of digital financial resources in accounting, studied the transformation of financial accounting functions and the obstacles and risks that digital technology will encounter in the application of financial accounting, and then came to the conclusion that digital technology should be better applied in financial accounting. Perfumi (2019) suggests that the online environment also influences information-seeking behavior. On the one hand, he observes the interrelationship between the information environment and social norms, especially when it happens

on social media platforms, where users gather information based on what they read on their personal news feeds. In addition, he observed how users rely on educational information platforms. As early as 1998, the United Kingdom began to build its own education portal, the National Learning Network (NGFL), which has become the largest education portal in Europe. From 2001 to 2005, the UK carried out the construction of DISCIE project, aiming at providing the UK with convenient access to massive learning resources to the maximum extent, and realizing seamless integration with the Introduction 6 sources of Chapter 1 of distance education resources. Zhongqiu Cao (2020) studied the classification of digital teaching resources. He observed the background characteristics of education and formed a new classification method of digital teaching resources. In addition, Australia, Europe and other related digital teaching resource library projects are also being built. From these researches on the construction of digital teaching resource platform, it can be found that foreign researches on digital teaching resources mainly focus on technical standards, normative construction, technical implementation, user experience, etc., which provides a reference basis for the construction of digital teaching resource database in China. However, the actual needs of users should be noted. Especially, the research on teaching and learning based on digital teaching resources (libraries) is still insufficient. Bai Jie (2013) built "three-dimensional" mobile high-quality course resources and application platform in the course practice of "general technology" based on the teaching design and practice of vocational education based on mobile teaching resources. At the same time, based on mobile resources, a mixed teaching mode of "one center, two lines and two points" has been formed, a new teaching mode of "teachers and students" has been formed, and practical problems in teaching have been solved. Weiheng Vaughen (2019) proposed that the integration of information technology and teaching has become inevitable. With the development of information technology and the improvement of information-based teaching environment, the exploration of information-based teaching mode is also advancing with The Times. From the perspective of information-based teaching ability, he believes that information-based teaching mode can more effectively make up for

students' individual differences in learning, and independent learners can voluntarily participate in interactive teaching, so as to cultivate independent learning ability and achieve satisfactory achievements. The German Federal Ministry of Education and Research (BMBF) has adopted the Digital Teaching Resources Construction project, which uses digital means to systematically design and re-engineer teaching processes and learning resources. In order to improve the quality of school-enterprise cooperation, the German Federal Ministry of Education and Science (BMBF) has supported the implementation of a typical pilot project entitled "Vocational Learning in the production process" (BLIP), which is the establishment of a learning platform combining work with work and teaching. In addition, the "Competence Workshop" developed by the University of Bremen in collaboration with other schools is a workprocess-oriented, cross-site hybrid learning platform, which also provides tools for instructional design, implementation and evaluation, helping teachers to independently (re) design teaching content according to different application areas and specific needs.

Related Research

Through reviewing a large amount of data, it has been found that one of the top ten research hotspots in the theoretical field of international online teaching and digital resource construction is the construction of distance education information resources, which focuses on integrating subject and learner resources, adapting to learners' learning needs and interactions. Undoubtedly, learners and learning resources are at the core of the field of online education and teaching. The construction of online teaching information resources is an important issue in the current field of online remote education, and it is also a fundamental application research issue. The American Journal of Distance Education has published approximately 327 articles on information resource construction and 11 articles on the construction of remote information resource platforms for preschool professional etiquette in the past 15 years. A study of articles in the Australian distance education journal 'Distance Education' over the past decade found that only 6 articles were

related to the construction of digital resources for online teaching of preschool etiquette, while 8 articles were related to online education and teaching resources for vocational etiquette. In the fields of international distance education teaching, online education teaching, and digital resource construction, there are few articles on preschool teacher etiquette.

Through research on the relevant information materials of CNKI Digital Library, it was found that there are currently 7364 Chinese related literature on online teaching and digital resource construction, including 5345 master's and doctoral theses, and 3955 related articles published. Most articles focus on the development trends and technology application design of online education and teaching, while neglecting the reasonable integration and analysis of information resources. According to the CNKI data resource database, there are 5 articles on etiquette distance teaching, online education and teaching, and digital resource construction of Preschool teacher in China, which is extremely inconsistent with the current trend of vigorously promoting information and digital teaching in the country, and also adds practical research significance to this study.

Huang Xiaoli, Lian Lijun (2016) the use of online teaching resources can provide a stage for teachers to showcase their skills, experience the basic skills of information-based teaching, showcase the demeanor of university teachers, and also set off a climax in the construction of online teaching resources throughout the school, effectively promoting the professional development and growth of university teachers

Zhang Baikun, Zhang Junxiong (2021) universities should create high-quality online courses that are tailored to students' actual situations and professional requirements. At the same time, some teaching cases can be designed, including animations, images, audio, and text. By combining dynamic and static resources, the teaching content will be more vivid and vivid. Students can intuitively access teaching content and set up a learning directory, which allows them to access and learn independently through online platforms.

Zhu Xiaojun, Qu Chaocheng (2017) the systematic production of online courses in universities involves a wide range of fields and majors, and online resources can provide students with rich learning resources.

He Yan, Hu Zhaolong (2023) In the process of rapid development of modern educational technology, education and teaching are facing transformation and development. Traditional teaching models are constantly changing, and various new teaching models such as blended teaching, flipped classroom, and split classroom are emerging one after another. A large number of online teaching platforms and new media teaching technologies have emerged, and new online teaching models have emerged to achieve online teaching reform in classroom teaching.

Zhang Yanping (2021) the large-scale implementation of online teaching is a temporary measure during the epidemic prevention and control period, a profound learning revolution, a demonstration of information technology construction in universities, and a challenge to teachers' educational technology ability and students' self-learning ability.

Qiu Lihong (2020) cultivate and consolidate students' habits of online learning to enhance their ability to learn independently and adapt to knowledge updates in the online environment. Students are the practitioners of learning, the main objects of online teaching, and also the subject of learning. Developing students' online learning habits helps them fully utilize online teaching platform resources, enrich learning methods, and improve learning efficiency.

Zhu Qing (2021) strengthen communication and learning among peers, build a teacher learning community, establish a working mode of communication, cooperation, co construction, and sharing, actively organize teachers to conduct teaching seminars, exchange online teaching experience, and improve teachers' enthusiasm for exploring new technologies and methods. In response to various issues in online teaching technology and practice, regular teaching and research activities such as demonstration classes, lectures, and evaluations are carried out to further improve teachers' online teaching level through communication and learning among teachers.

Wu Ling, Cao Xia, and Wu Xiaolin (2022) the online teaching mode utilizes the advantages of the Internet to facilitate the development of reasonable and feasible teaching methods, summarize excellent teaching content, and supervise and evaluate teaching quality.

Guo Huijun (2019) the mixed online and offline teaching mode first appeared in the 1990s, which is an organic combination of traditional teaching mode and online teaching mode based on internet technology. This mode combines the personalized and convenient characteristics of online teaching mode, and combines the advantages of online teaching mode and traditional teaching mode. Under the background of the rapid development of science and technology, this mode has been recognized and applied by a large number of teaching institutions and learners.

Wang Qingdi (2020) the author conducted a survey on frontline teachers from some universities in Zhejiang Province, and sent out 600 survey questionnaires. 523 questionnaires were collected and 523 were valid. The data statistics are as follows: 95% have a basic understanding of the connotation of online teaching in universities during the epidemic period, 2% do not understand, and 3% do not. During the epidemic prevention and control period, 95% of schools fully supported online teaching, 3% did not support it, and 2% did not. 95% are willing to try online teaching activities, 0% are hesitant to try, and 5% are others. I am very confident in doing a good job in online teaching for students according to the school's requirements, accounting for 90%, generally 5%, and others 5%. Believing that students can complete various learning activities according to teaching requirements accounted for 88%, not believing accounted for 2%, and others accounted for 10%. Targeted training for teachers is required before conducting online teaching activities, accounting for 99%, not 1%. 100% of the teaching tasks will be arranged strictly according to the requirements of the teaching syllabus. I will strive to learn the relevant theories and skills of online teaching, and strive to do a good job in the school's online teaching work, accounting for 100%.

Wang Qingdi (2020) the author conducted research, onclass A: There are 94 students, 2 of whom have not completed the resource library learning, with a

completion rate of 98%. All test questions have been completed, with a completion rate of 100%. 7 students have not spoken during classroom interaction, with a speaking rate of 93%. All survey questionnaires have been completed, with a completion rate of 100%. 2 students have not participated in brainstorming, with a participation rate of 98%. 1 student has not completed the cloud textbook learning, with a completion rate of 99%. 1 student has not submitted the homework after class, with a completion rate of 99%. Class B: There are 96 students in total, and the resource library learning has been completed with a completion rate of 100%. All test questions have been completed with a completion rate of 100%. There are 8 students who did not speak in the classroom interaction, with a speech rate of 92%. All survey questionnaires have been completed with a completion rate of 100%. All brainstorming participants have participated with a participation rate of 100%. There are 8 students who did not complete the cloud textbook learning, with a completion rate of 92%. There are 12 students who did not submit their homework after class, with a completion rate of 98%. The above A and B classes, based on the data collection of students' self-learning in the "cloud class" backend and the performance of students in the classroom, are still very optimistic. Except for a few students, all other students have successfully completed various tasks in the entire rotating classroom before, during, and after class.

4.2 Test results, Class A: 94 people, divided into 9 teams, with grades of 90, 88, 86, 96, 86, 85, 93, 96, and 89. Class B: 96 people, divided into 9 teams with separate grades. For: 92, 90, 93, 85, 88, 86, 88, 89, 87. In the entrepreneurship roadshow test, each team of Class A and Class B performed positively and performed well on site. Class A mainly did not have a clear positioning for the project's core competitiveness, so each team lost points in this regard; But their respective teams are very clear in terms of market potential and investment value; Class B mainly experienced team loss in terms of market potential and investment value, but expressed relatively clearly in terms of project core competitiveness; Therefore, the test scores of Class A and Class B also meet the above autonomous learning situation.

Fan Xiaoli (2020) based on the strong practicality of etiquette courses and the characteristics of online teaching environment and student learning, a blended teaching mode is chosen for online course teaching. Compared to face-to-face teaching, online teaching has weakened teachers' control over classroom order, and students with weaker self-awareness are more reliant on the attractiveness of teaching content and activity settings for online learning engagement. Throughout the entire teaching process, the main focus is on stimulating and guiding students' learning activities. Through pre class quizzes, personal experience sharing, case observation, group discussions, and demonstration competitions, students' attention is quickly attracted. The online teaching process of teachers is guided by the key and difficult points highlighted in pre class learning, consolidating and deepening the effectiveness of students' autonomous learning. Through the design of teaching activities, students' self-learning is fully utilized. The complementary advantages of various learning forms through teacher guidance and online sharing and mutual assistance. Learning for students at home, The duration provides assurance, and the course teaching is divided into three learning and practical stages: pre class, in class, and post class, fully extending the learning duration of home courses and facilitating flexible arrangements for independent learning. The demonstration and guidance of online course practical training are limited by time and space, and the short and concise micro lesson videos and cases on the course platform provide necessary support for students' personalized learning before and after class.

Chapter 3

Research Methodology

This research used Mixed Method of Research. This research is divided into 3 phases.

Phase 1: for answering the objective 1 the research (to study the current situation of online teaching supporting digital resources for vocational etiquette in preschool teachers.)

Phase: 2 for answering the objective 2 the research (to implement effective online teaching (EOT) model to support digital resources of vocational etiquette for preschool teacher)

Phase: 3 for answering the objective 3 the research (to evaluate the effectiveness online teaching to support digital resources of vocational etiquette for preschool teachers)

The details are as follows.

Phase 1 For answering the objective 1 the research (to study the current situation of online teaching supporting digital resources for vocational etiquette in preschool teachers.)

Population

The reason for choosing this group is that I am taking this course this academic year and will be teaching it digitally

Group 1: A student majoring in early childhood education from Ningbo Preschool Normal University. Among them, there are 30 students in Class 1 of the 22nd level preschool education major, 30 students in Class 2 of the 22nd level preschool education major, and 30 students in Class 3 of the 22nd level preschool education major.

Group 2: Teacher from Ningbo Preschool Normal School, specializing in etiquette teaching for preschool teachers. Among them, there are 2 teachers from

Heqin Preschool Education College, 2 teachers from Xuemen Preschool Education College, and 2 teachers from Xianjiang Art College.

Research instrument

1. The questionnaire for students
2. The interview for the teachers

Designing instrument

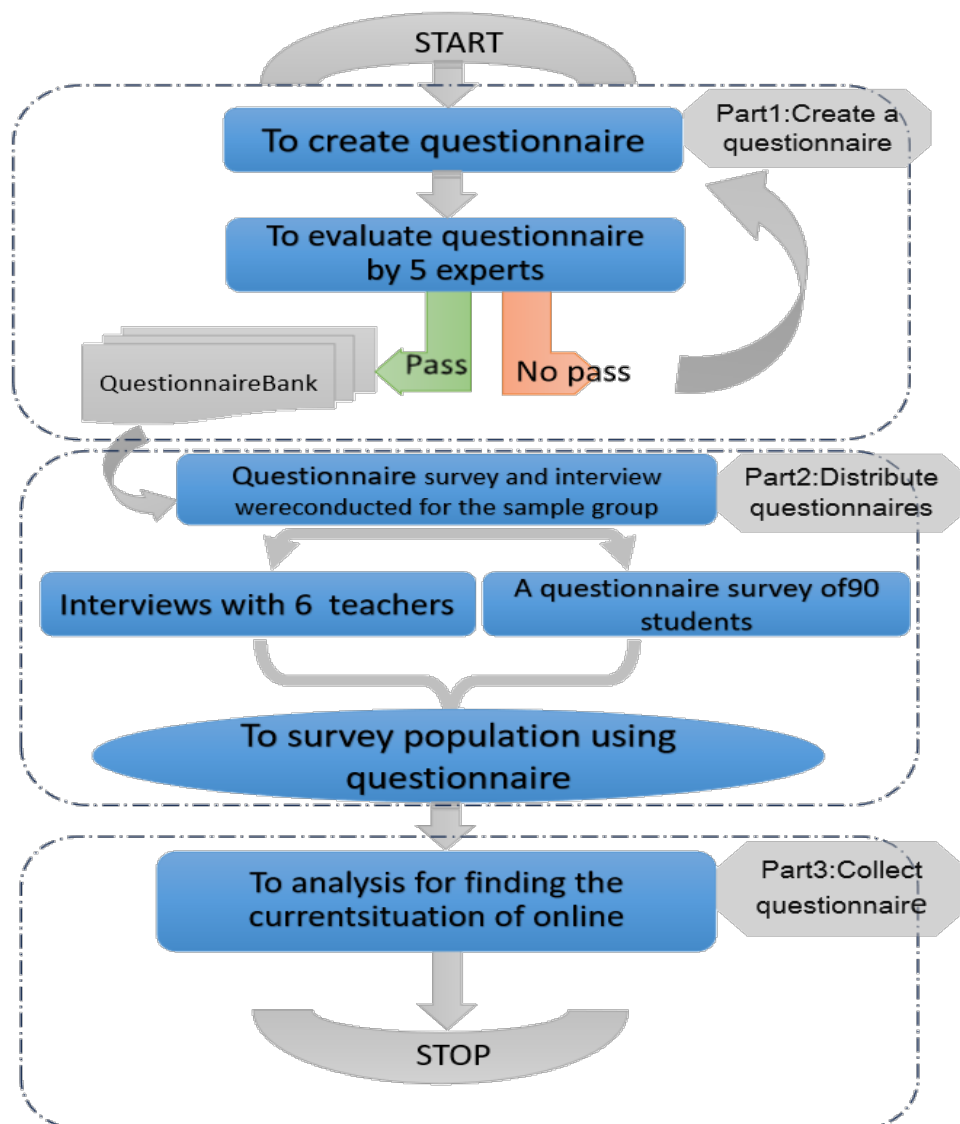


Figure 3.1 The steps of phase 1 process

1. Create a survey questionnaire and interview outline. Five experts evaluated the effectiveness of the questionnaire and interview outline using the Project Objective Consistency Index (IOC).

A questionnaire of the students

The main purpose of this questionnaire is to investigate the understanding of professional etiquette as a preschool teacher and the demand for digital resources in the curriculum among students majoring in preschool education, as well as the problems discovered during the learning process. The questionnaire can basically be divided into the following questions

Question 1 Please rate the professional etiquette level of your preschool teacher. 5 points is very good, 4 points are relatively good, 3 points are average, 2 points are relatively insufficient, and 1 point is basically lacking in relevant content accumulation. Students can only choose one of the five options mentioned above.

Question 2 How often do you usually browse online digital resources? There are five options, one at least once a week, at least once a month, and only when needed, almost never browsed. Students can only choose one of the five options mentioned above.

Question 3 Would you actively browse digital resources on professional etiquette for preschool teachers online. Students only choose 'yes' or 'no'

Question 4 In the process of learning professional etiquette for preschool teachers, have you used online digital resources to help you solve difficult situations? If so, please explain the specific situation.

Question 5 Does the school provide sharing of digital resources on professional etiquette for preschool teachers, or in the form of periodic digital resources? Please specify, if so.

Question 6 How would it be helpful for the school to provide you with digital resources on professional etiquette for preschool teachers.

Interview form of the teachers:

The main purpose of the interview format is to investigate the current digital resources of teaching professional etiquette for preschool teachers in schools, the

positioning and use of digital resources in different colleges, their needs, and difficulties, in order to construct digital resource support for teaching professional etiquette for preschool teachers. The survey questionnaire can be divided into the following types of questions:

Question 1 How do you evaluate the level of digital resource utilization in etiquette courses for preschool teachers in schools?

Question 2 How do you integrate traditional professional etiquette teaching content with digital resources?

Question 3 What challenges have you encountered when using digital resources for teaching?

Question 4 What significant advantages do you think digital resources have in improving the effectiveness of professional etiquette teaching for preschool teachers?

Question 5 What are your prospects or suggestions for the development of digital resources for the application of professional etiquette teaching for preschool teachers in the future?

1. Based on the suggestions of five experts, make adjustments and organize them, and finally create and adjust the questionnaire and interview outline.

2. Send questionnaires and interview outlines to students and teachers in the sample group.

3. Submit the draft questionnaire to the consultant to check its correctness and completeness.

4. Using the Project Objective Consistency Index (IOC), five experts evaluated the effectiveness of the questionnaire on professional etiquette literacy knowledge and practical needs of preschool teachers in two colleges.

5. Collect and analyze questionnaires.

Data Collection

1. Solicit opinions from the school and obtain permission for data collection. Designate students to be responsible for collecting, organizing, verifying completed questionnaires, and analyzing data from valid questionnaires.

2. During the interview process, the teacher's interview content will be recorded on-site. After the interview, the author will fill out the interview form and submit it to the teacher for review and signature. After soliciting the opinions of the teachers, the interview form was retracted to provide support for subsequent data analysis.

Data Analysis

Before analyzing the data, the investigators first check the correctness and completeness of the questionnaire. If conflicts or incompleteness are found in the data, the investigators will directly ask the respondents for more information.

1. Use student questionnaires to analyze the basic situation of preschool education major students' etiquette professional literacy in school, understand their actual needs and assistance for preschool teacher etiquette professional literacy, and provide content basis for improving students' professional literacy.

2. Using interview forms, further understand the goals of cultivating professional etiquette for preschool teachers and the needs of serving society, analyze the possibility of implementing digital resources for professional etiquette for preschool teachers supported by online teaching resources in the next step, and lay a good foundation for improving the professional literacy of preschool teachers.

Expected Output Phase 1

Current situation of online teaching supporting digital resources for vocational etiquette in preschool teachers

Phase 2 For answering the objective 2 the research (to implement effective online teaching (EOT) model to support digital resources of vocational etiquette for preschool teacher)

Research instrument

The aim of this stage is to design and implement an effective online teaching (EOT) model to support the teaching of professional etiquette digital resources for preschool teachers. The research tools include an accuracy, appropriateness, feasibility, and practicality evaluation form for the EOT teaching

model, as well as a mind map generated based on data collected for research objectives.

1. A mind map generated based on the data collected in the research objectives

Data collection and organization: Firstly, extensively collect multidimensional data on digital resources of professional etiquette for preschool teachers, the use of online teaching platforms, and teacher feedback from the first stage (or preliminary research). Subsequently, these data were carefully organized and analyzed to extract key information, such as the types, quantities, and quality evaluations of resources, as well as teachers' usage habits and specific feedback.

Mind map construction and optimization: Based on in-depth insights from data analysis, use professional mind map software (such as XMind, MindMeister, etc.) to carefully construct mind maps. This mind map should comprehensively cover the core elements of EOT mode, including but not limited to setting teaching objectives, planning teaching content, selecting teaching methods, integrating teaching resources, and mechanisms for teaching evaluation. At the same time, special emphasis is placed on the specific application strategies of professional etiquette digital resources for preschool teachers in teaching practice. After the construction is completed, in-depth discussions are held with team members or industry experts to iteratively optimize the mind map, ensuring that it accurately reflects the research objectives and laying a solid framework foundation for the subsequent design of EOT patterns.

2. EOT Model Feasibility Evaluation Form.

Evaluation criteria formulation and indicator design: Based on the four core standards of accuracy, appropriateness, feasibility, and practicality of the EOT teaching model, carefully design a detailed compliance evaluation form. This evaluation form not only includes specific evaluation indicators, but also specifies corresponding scoring criteria to ensure the objectivity and accuracy of the evaluation process. The evaluation indicators specifically cover whether the EOT model accurately fits the teaching objectives of digital resources for professional etiquette of preschool teachers, whether it adapts to the actual needs and teaching scenarios of teachers, feasibility evaluation in terms of technology, resources, and time, as well as effectiveness evaluation in practical teaching applications, such as teacher satisfaction and student learning outcomes.

Application and pattern optimization of evaluation forms: In the initial stage of designing EOT patterns, carefully designed evaluation forms are used to

comprehensively evaluate the preliminary plan, ensuring that it meets established standards in all key dimensions. During the evaluation process, any problems or deficiencies discovered will be adjusted and optimized based on the evaluation results to ensure that the EOT model can achieve significant teaching effects in practical applications and continuously improve the teaching quality of professional etiquette digital resources for preschool teachers.

Designing instrument

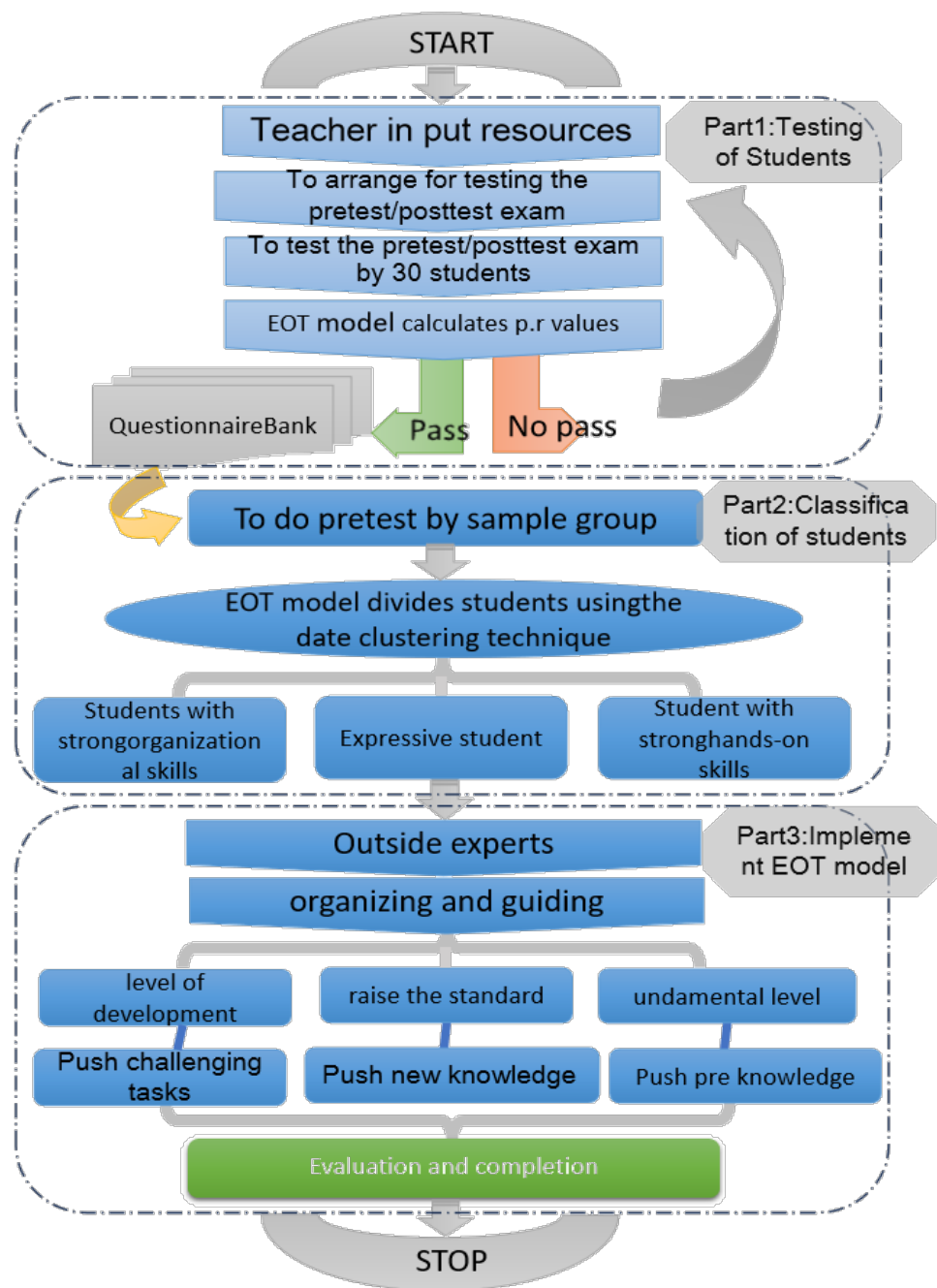


Figure 3.2 The steps of phase 2 process

1. According to research objective 1. Implement the EOT model to enhance the effectiveness of preschool education students' autonomous learning of professional etiquette for preschool teachers.

2. Create test content, and prepare and post test questions by researchers.

I will use content validity and reliability as the two main criteria to evaluate the quality of our survey design. First of all, regarding content validity, I will invite five experts in the relevant field to evaluate our questionnaire. They will conduct an Item-Objective Congruence (IOC) analysis, that is, to evaluate whether each item (question) in the questionnaire is closely related to our research objectives. For an effective questionnaire design, the consistency between each question and the overall research objectives should reach or exceed the standard of 0.60.

3. Test the difficulty and effectiveness of questions by students outside of 30 sample groups. I will also test the reliability of the questionnaire. We will use Cronbach's Alpha coefficient introduced in 1970 to measure this. Cronbach's Alpha coefficient is an important standard to evaluate the question consistency and reliability among questionnaire items. In this study, I set the acceptance standard as 0.80. That is to say, to ensure that the questionnaire can be stable in quality and high in credibility, our questionnaire items need to reach or exceed the Cronbach's Alpha value of 0.80.

4. Prepare by researchers and establish pre and post exam question banks.

5. Pre test the sample group of students and classify different types of students.

6. Effectiveness of Implementing Autonomous Learning of Professional Etiquette for Preschool Teachers Based on Student Classification

7. Carry out campus cooperation, introduce extracurricular experts such as kindergarten principals, and allow experts to arrange classified interviews for different types of students to improve their professional literacy.

8. Conduct professional etiquette demonstrations for preschool teachers and conduct comprehensive practical performances to demonstrate the results of the EOT model.

9. Summarize and sort out the evaluation results.

Data Collection

Ask for permission of data collection

Collect appropriateness of the instructional model in terms of accuracy standard, propriety standard, feasibility standard, and utility standard from the 5 experts using the developed conformity assessment form of effective online teaching (EOT) instructional model.

Data Analysis

This paper analyzes the rationality of the pre-test and post-test question bank, and analyzes the validity of the classification of the sample group of students.

This step is a crucial part of the research process. After data collection, the data needs to be organized and cleaned to ensure its quality. Next, perform data analysis, which includes descriptive statistical analysis (such as frequency, percentages, etc.), and exploration of data relationships, such as correlation or regression analysis. During this step, professional statistical software like SPSS, SAS, or R should be utilized.

Expected Output Phase 2

We obtained the predictive test results of the sample group of students and implemented the EOT model based on the results, which is the best preparation for the next evaluation of the model.

Phase 3 For answering the objective 3 the research (To evaluate the effectiveness online teaching to support digital resources of vocational etiquette for preschool teachers)

Population

From the first semester of the 2023 academic year, 90 students from three colleges participated in the professional etiquette course for preschool education teachers. Among them, 30 students from Heqin Preschool Education College, 30 students from Xuemen Preschool Education College, 30 students from Xianjiang Art College, and 30 students from outside the sample group participated in the second stage of the exam.

Sample group

A simple random sampling method was used to investigate 30 students in the etiquette course of preschool teachers outside the sample group.

Research instruments

1. A thinking model designed according to the mind map
2. Follow-up table of students' learning status
3. Pre-test and post-test program effect evaluation form

Designing instruments

1. A thinking model designed according to the mind map
2. Follow-up table of students' learning status
3. Pre-test and post-test program effect evaluation form

Designing instrument

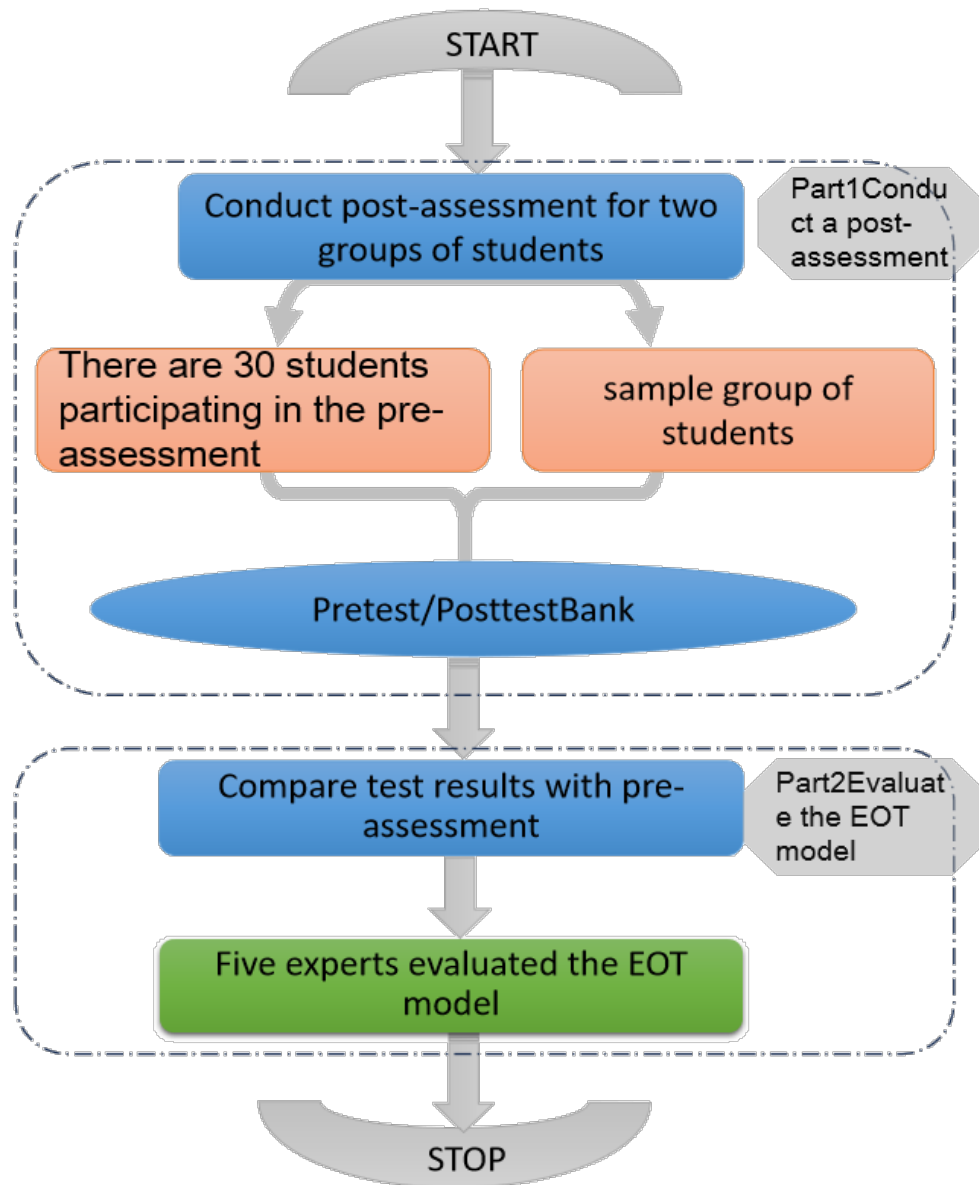


Figure 3.3 The steps of phase 3 process

1. The sample group of students and 30 students who participated in the test conducted a post test using the same set of questions in the first step. It is worth noting that these two groups of students have the same courses but different learning methods. The 30 students who participated in the test did not use EOT mode.

2. Obtain the results after testing and compare them with the results before testing.

3. Three experts will analyze the results to evaluate the effectiveness and feasibility of the EOT model.

4. Summarize and organize the research results.

Data Collection

1. Ask for permission of data collection

2. Collect data from students before and after exams and conduct comparative evaluations.

Data Analysis

1. Pretesting

In order to identify the core data characteristics of students' demand and current situation, practice, and testing of professional etiquette digital resources for preschool education teachers, these data can be compared with post tests to help identify problems and propose new solutions.

2. After the test

Based on the new construction of etiquette digital resources for preschool education teachers proposed in the first and second steps, detecting changes in students' use, practice, and detection of digital resources, summarizing their reasons and characteristics, will help propose specific methods and plans.

Expected Output Phase 3

The conclusion is that effective online etiquette digital resources for preschool teachers are necessary to enhance students' professional abilities.

Chapter 4

Results of Analysis

This study deeply analyzes the actual situation of online teaching supporting digital resources in teacher professional etiquette education for students majoring in preschool education, aiming to fill the gap in information-based teaching in this field. In view of the shortage and demand of existing resources, we innovatively introduced the effective online teaching (EOT) model, aiming to optimize and enrich the digital resource system of teacher professional etiquette education for preschool education majors. The purpose of this study is:

1. Symbol and abbreviations
2. Presentation of Data Analysis
3. Results of data analysis

The details are as follows.

Symbol and Abbreviations

Represent data analysis results based on symbols and semantics. The details are as follows:

\bar{X} means The average experimental and predictive test results of the survey on the current status of etiquette teaching online

SD means Standard deviation of teacher etiquette score or frequency

N means number of students

D means scores of difference between preand post class

Presentation of Data Analysis

Part 1: Conduct interview content and questionnaire analysis on the digital resource needs of etiquette courses for preschool teachers majoring in preschool education at Ningbo Preschool Teachers College.

Part 2: Conduct a pre-test on the sample group of students to distinguish student types. Then have the students in the sample group use the EOT model for learning and practice.

Part 3: Conduct a post test on the students in the sample and control groups to evaluate the effectiveness of the EOT model.

Results of Data Analysis

Part 1: Conduct interview content and questionnaire analysis on the digital resource needs of etiquette courses for preschool teachers majoring in preschool education at Ningbo Preschool Teachers College.

The purpose of this part is to comprehensively and accurately understand the current situation of the digital resource needs of etiquette courses for preschool teachers majoring in preschool education at Ningbo Preschool Teachers College through interviews with experts and the collection of student questionnaires, so as to lay a good foundation and prepare for the construction of the EOT Model.

The interview method adopted in this study interviewed the broadcasting course teaching and management experts of three schools in Ningbo Preschool Teachers College from the aspects of the school's talent training goal, the current situation of the digital resource needs of etiquette courses for preschool teachers majoring in preschool education.

Through the interview, we have an in-depth understanding of the problems and development needs of the digital resource needs of etiquette courses for preschool teachers majoring in preschool education, which provides important data support for us to further explore the education development model.

In this study, the researchers used an interview outline specifically designed for this study and presented the respondents' information in the following table, as shown in Table 4.1

Table 4.1 Basic information of respondents

NO.	University	Degree	Title	Type of work	Experience
1	Heqin Preschool Education College	Master	Associate professor	Teaching and management	23 years
2	Heqin Preschool Education College	Master	Associate professor	Teaching	10 years
3	Xuemen Preschool Education College	Master	Professor	Teaching	22 years
4	Xuemen Preschool Education College	Master	Associate professor	Teaching and management	20 years
5	Xianjiang Art College	Master	Associate professor	Teaching and management	18 years
6	Xianjiang Art College	Master	Associate professor	Teaching and management	30 years

According to Table 4.1, respondents are teachers from three colleges of Ningbo Preschool Teachers College, with 2 teachers from each college. All the interviewed teachers have a master's degree. In terms of professional titles, there is one professor and five associate professors, accounting for 16% and 83% of the total. In terms of job types, there are 4 teachers who hold both teaching and management positions, accounting for 66% of the total, and 2 teachers who hold teaching positions, accounting for 33% of the total. From the perspective of work education experience, 6 teachers have been engaged in teaching etiquette for preschool teachers for more than 10 years.

Analysis results of interview content

Question 1 How do you evaluate the level of digital resource utilization in etiquette courses for preschool teachers in schools?

Interviewee 1 Experts believe that the use of digital resources in this course is very limited. Most of the time, teachers still rely on traditional teaching methods and rarely use modern teaching tools or digital resources.

Interviewee 2 The content is also quite basic, without much interactivity and depth. It is recommended to have more video cases, simulation exercises, or online tests, as the learning effect will definitely be better.

Interviewee 3 Experts believe that greater efforts are needed to introduce and utilize digital resources.

Interviewee 4 Experts believe that there is insufficient emphasis on using digital resources in the classroom.

Interviewee 5 Experts believe that introducing interactive and content rich digital resources may enhance students' learning experience.

Interviewee 6 Experts believe that the use of digital resources is limited, and students' literacy cannot be improved.

Question 2 How do you integrate traditional professional etiquette teaching content with digital resources?

Interviewee 1 By creating interactive videos and VR experiences, students can immerse themselves in professional etiquette scenes.

Interviewee 2 Combining PPT presentation and online testing, combining theoretical knowledge with practical operation.

Interviewee 3 Suggest developing professional etiquette simulation software, allowing students to simulate different scenarios in a virtual environment, engage in role-playing and etiquette practice.

Interviewee 4 Using social media platforms to share etiquette tips and cases allows us to learn and apply professional etiquette in our daily lives.

Interviewee 5 Suggest designing personalized learning paths and intelligent recommendation systems to push relevant digital resources based on students' learning progress and interests.

Interviewee 6 Using big data analysis technology to analyze students' learning behavior and effectiveness, continuously optimizing the content and form of digital resources.

Question 3 What challenges have you encountered when using digital resources for teaching?

Interviewee 1 Technology integration is the main challenge, ensuring seamless integration between digital resources and the school's existing technology systems.

Interviewee 2 Students have varying levels of technical proficiency and require additional time to guide them on how to use digital resources.

Interviewee 3 The cost of updating and maintaining digital resources is high, requiring continuous investment to maintain the timeliness and freshness of the content.

Interviewee 4 Sometimes the amount of information in digital resources is too large to digest and absorb in a short period of time.

Interviewee 5 Balance the relationship between digital resources and face-to-face teaching, ensuring that they complement each other rather than conflicting with each other.

Interviewee 6 Data security and privacy protection are important challenges, and it is necessary to ensure the security of student information in the digital environment.

Question 4 What significant advantages do you think digital resources have in improving the effectiveness of professional etiquette teaching for preschool teachers?

Interviewee 1 Strong interactivity, able to provide immediate feedback on learning outcomes.

Interviewee 2 Rich and diverse resources to meet the needs of different learning styles.

Interviewee 3 Flexible and convenient, breaking the limitations of time and space, learning anytime and anywhere.

Interviewee 4 Simulate real scenes and use VR and other technologies to immerse students in the scene and deepen their understanding.

Interviewee 5 Personalized learning, customizing content based on students' learning progress and interests to improve learning outcomes.

Interviewee 6 Data analysis support, optimizing teaching content and methods through data analysis to achieve precise teaching.

Question 5 What are your prospects or suggestions for the development of digital resources for the application of professional etiquette teaching for preschool teachers in the future?

Interviewee 1 Looking forward to more intelligent and personalized digital resources.

Interviewee 2 Suggest strengthening the interactivity of digital resources.

Interviewee 3 I hope that digital resources can be more systematic and structured, making it easier for teachers to integrate them into their daily teaching.

Interviewee 4 I hope to have more cross platform digital resources in the future, which will facilitate seamless switching and learning on different devices.

Interviewee 5 Suggest combining psychological principles to design more attractive digital resources to enhance students' learning experience.

Interviewee 6 Looking ahead to the future, digital resources should pay more attention to data security and privacy protection to ensure the security of student information.

Table 4.2 To understand the current situation of the application of digital effective online teaching in preschool teachers' etiquette courses.

No.	Factors	Interviewee 1	Interviewee 2	Interviewee 3	Interviewee 4	Interviewee 5	Interviewee 6
1	Students' ability to learn				√	√	√
2	Students' cultural basic competence				√	√	√
3	Teaching content		√	√	√	√	√
4	Teacher's teaching concept	√	√	√	√	√	√
5	Orientation of school	√	√	√	√	√	√

According to Table 4.2, the following conclusions can be drawn: Five respondents believe that the positioning of schools will also affect students' improvement in digital resource learning, accounting for 80%; It is particularly noteworthy that all respondents believe that the existing teaching content and forms help students improve their cultural literacy, and the teaching philosophy of teachers is the most important factor affecting the improvement of professional literacy, accounting for 100%. It can be seen that how to adjust the teaching content and form, change the existing teachers' teaching concepts, has become the future design direction of the EOT model.

Table 4.3 Reliability analysis of student questionnaire survey results in sample group

Name	Correction Total Correlation (CIT)	Item deleted α coefficient	Cronbach α Coefficient
1. Your gender is	0.180	0.698	
2. Your current grade is	0.388	0.687	
3. What is your current focus on learning teacher etiquette?	0.291	0.688	
4. Are you satisfied with the teacher etiquette classes provided by our school?	0.401	0.672	
5. Do you think teachers will guide your preschool teacher's etiquette learning based on your learning progress?	0.380	0.679	
6. What are your expectations for professional etiquette digital resources for preschool teachers?	0.449	0.665	0.796
7. Which of the following best meets your expectations?	0.192	0.687	
8. Are you satisfied with the learning atmosphere of etiquette for preschool teachers in our school?	0.533	0.655	
9. Do you think the coverage of using digital resources in the classroom is sufficient?	0.598	0.621	
10. Do you think the courses offered by the school are rich and diverse?	0.671	0.633	
11. Are you satisfied with the construction of digital resources in the school?	0.386	0.675	

Table 4.3 (Continued)

Name	Correction Total Correlation (CIT)	Item deleted α coefficient	Cronbach α Coefficient
12. How satisfied are you with the teacher's guidance and assistance in digital resources?	0.151	0.700	
13. Which of the following ways do you like the most to improve your etiquette? (Multiple Choice)	-0.166	0.705	
14. What aspects do you most hope the school can provide support and assistance in improving your professional etiquette and communication skills? (Multiple Choice)	-0.007	0.711	

As can be seen from the above table, the reliability coefficient value is 0.701, which is greater than 0.7, indicating that the reliability quality of the research data is good. For " α coefficient of deleted item", the reliability coefficient does not increase significantly after any item is deleted, so the item should not be deleted.

Table 4.4 The results of the analysis of the participants' personal information were classified according to gender, grade and the status of professional learning in the school. They are presented as frequencies and percentages.

Name	Option	Frequency	Percentage	Cumulative Percentage
Your gender is	Man	3	3.33	3.33
	Woman	87	96.67	100.00
Your current grade is	Freshman	15	16.67	16.67
	Sophomore	73	81.11	97.78
	Junior	2	2.22	100.00
What is your current focus on learning teacher etiquette?	Basic Theoretical Knowledge	7	7.78	7.78
	Practical Operation Skills	43	47.78	55.56
	Art Performance Ability	34	37.78	93.33
	Innovation And Research Capabilities	6	6.67	100.00
Are you satisfied with the construction of digital resources in the school?	Very Dissatisfied	5	5.56	5.56
	Dissatisfy	15	16.67	22.23
	Normal Satisfaction	42	46.67	68.9
	Very Satisfied	27	30.00	98.89
How satisfied are you with the teacher's guidance and assistance in digital resources?	Very Dissatisfied	1	1.11	100.00
	Dissatisfy	6	6.67	6.67
	Normal	11	12.22	18.89
	Satisfaction	36	40.00	58.89
	Very Satisfied	30	33.33	92.22
	Very Satisfied	7	7.78	100.00

Table 4.4 (Continued)

Name	Option	Frequency	Percentage	Cumulative Percentage
What are your expectations for professional etiquette digital resources for preschool teachers?	Very Unclear	11	12.22	12.22
	Still Hesitating	33	36.67	48.89
	same as	19	21.11	70.00
	There are Already Options	20	22.22	92.22
	Very Clear and Firm	7	7.78	100.00
Which of the following best meets your expectations?	Engaged in Baby Care work in the Early Education industry	7	7.78	7.78
	Enter the field of education and become a Preschool Teacher	27	30.00	37.78
	Become a freelancer (such as a Self media practitioners, etc.)	3	3.33	41.11
	Admission for undergraduate study	53	58.89	100.00
	Amount to	90	100.0	100.0

From Table 4.4 above, it can be seen that in terms of your gender, the highest proportion of "female" is 96.67%. For male samples, this proportion is 3.33%. 47.78% of the samples chose 'practical skills'. In addition, the proportion of samples with artistic expression ability is 37.78%. Are you satisfied with the digital resources provided by the university? In terms of distribution, the majority of samples are

'normal', with a total of 42.0 samples, accounting for 46.67%. Do you think schools and teachers will guide your digital resource learning based on your personal situation? 40% of the samples choose 'normal'. How clear are you about planning? Overall, the highest proportion of "undecided" is 36.67%. Which of the following best meets your expectations for your future career? In the sample, the proportion of "Admission for undergraduate study" is relatively large, accounting for 58.89%.

Table 4.5 The current situation and demand survey of the improvement of digital resources for early childhood teacher education: mean and standard deviation

Name	Sample Capacity	Least Value	Crest Value	\bar{X}	SD
1. Are you satisfied with the learning atmosphere of etiquette for preschool teachers in our school?	90	1.000	5.000	2.811	0.886
2. Do you think the coverage of using digital resources in the classroom is sufficient?	90	1.000	5.000	2.800	1.051
3. Do you think the courses offered by the school are rich and diverse?	90	1.000	5.000	2.511	0.915
4. Are you satisfied with the construction of digital resources in the school?	90	1.000	5.000	2.856	1.045
5. How satisfied are you with the teacher's guidance and assistance in digital resources?	90	1.000	5.000	2.800	1.051
6. How satisfied are you with the teacher's guidance and assistance in digital resources?	90	1.000	4.000	2.511	1.052
7. What aspects do you most hope the school can provide support and assistance in improving your professional etiquette and communication skills? (Multiple Choice)	90	1.000	4.000	2.156	0.833

As detailed in Table 4.5, an in-depth investigation into the current status of digital resources for professional etiquette among preschool teachers revealed several key findings. The average rating of this survey is close to 2.5, indicating that the majority of students hold a neutral stance towards the questions in the questionnaire, while a small number of students express dissatisfaction with specific questions. It is worth noting that the standard deviation range of the data is between 0.8 and 1.0, especially the standard deviation of the five scale items is about 1.0. This result not only reflects the moderate dispersion and diversity of the data, but also reflects the subtle differences in opinions among raters. However, overall, these data still show rationality and universality.

Further analysis of these data reveals that students' satisfaction and demand for cultural literacy are deeply influenced by various factors, including but not limited to the unique positioning of each school, students' personal cultural literacy foundation, the degree of improvement in digital resource construction, and the direction of teacher education and teaching. Based on the feedback from interviews with teachers, a common viewpoint is particularly prominent: regardless of the diverse background conditions mentioned above, almost all teachers attach great importance to and unanimously agree on the importance of improving students' professional competence. They generally have concerns about the professional competence level of students, which highlights the urgency of conducting in-depth adjustments and optimizations in the etiquette and professional competence training of preschool teachers in the current field of preschool education. The in-depth exploration and strategic suggestions regarding this issue will be elaborated in the following sections.

Part 2: Pre-test the sample group of students to distinguish the types of students. Then let the sample group of students use EOT model for learning and practice.

According to the basic requirements of this test, 90 students were selected as the sample group in Test 1 and divided into three different classes of colleges. At the same time, this test also selected 30 students from each college to enter the control

group, for a total of 90 control students. Before conducting further testing, we first need to demonstrate the differences in intelligence and learning levels between the sample group and the control group to demonstrate the effectiveness of the EOT model. The specific table data is as follows

Table 4.6 Reliability analysis of to prove the consistency of learning levels between the sample group and the control group Cronbach Confidence analysis

Name	Correction Total Correlation (CIT)	Item deleted α coefficient	Cronbach α Coefficient
Your group	0.000	0.911	0.905
Your Secondary college	0.031	0.914	
I can clearly understand the relevant digital resources of professional etiquette for preschool teachers.	0.745	0.900	
I can use professional etiquette digital resources for preschool teachers.	0.645	0.903	
I am able to use the correct digital platform for preschool teacher etiquette.	0.604	0.904	
I can use and search for digital resources on etiquette for preschool teachers on different platforms.	0.450	0.907	
In difficult situations, I am able to maintain a stable psychological state.	0.477	0.907	
I am able to fully understand and utilize digital resource platforms.	0.595	0.905	
I am familiar with, and able to use, all kinds of broadcasting skills.	0.515	0.906	

Table 4.6 (Continued)

Name	Correction Total Correlation (CIT)	Item deleted α coefficient	Cronbach α Coefficient
I am able to adjust the requirements of professional etiquette.	0.399	0.908	
I am proficient in using online resources on etiquette for preschool teachers.	0.391	0.909	
I can play an active role in classroom activities.	0.702	0.901	
I can effectively manage my time to prepare for etiquette activities for preschool teachers.	0.576	0.904	
I can continuously improve my professional etiquette as a preschool teacher through criticism and feedback.	0.561	0.905	
I have a clear understanding of the career prospects and development of preschool teachers.	0.775	0.900	
I am able to effectively handle unexpected situations for young children.	0.533	0.906	
I often use digital resource platforms to improve my teacher etiquette skills.	0.611	0.900	
I can improve myself through practical experience and training.	0.431	0.908	

Table 4.6 (Continued)

Name	Correction Total Correlation (CIT)	Item deleted α coefficient	Cronbach α Coefficient
I am able to independently prepare a presentation of etiquette for preschool teachers.	0.539	0.904	
I can demonstrate the etiquette of preschool teachers in different occasions.	0.593	0.905	
I can clearly understand the needs of the child.	0.449	0.907	
I have full confidence in My preschool teacher's etiquette skills	0.738	0.904	
Normalized Cronbach α coefficient			0.900

To verify the reliability of the problem, we specially invited 50 students from the sample group to participate in the test. The test results show that the reliability coefficient is as high as 0.905, which significantly exceeds the baseline of 0.9, indicating that the research data has extremely high reliability quality. Therefore, these data are very suitable for further in-depth analysis and exploration.

Table 4.7 Independent sample t-test conducted on sample and control groups of students from Heqin Preschool Education College and Xuemen Preschool Education College

Results of the t-test analysis				
	School (mean value \pm SD)		<i>t</i>	<i>p</i>
	Heqin Preschool Education College (n=30)	Xuemen Preschool Education College (n=30)		
Sample group	82.40 \pm 4.01	81.55 \pm 4.77	0.493	0.521
Contrast group	81.32 \pm 4.33	81.67 \pm 5.68	0.564	0.611

* $p < 0.05$ ** $p < 0.01$

Results of t-test analysis (normal format)									
Analysis items	Item	sample capacity	average value	standard deviation	Mean difference	Difference value of 95% CI	<i>t</i>	<i>df</i>	<i>p</i>
Sample group	Heqin Preschool Education College	30	82.40	4.01	0.67	-1.780 ~ 2.857	0.493	58.000	0.521
	Xuemen Preschool Education College	30	81.32	4.33					
	amount to	60	81.86	4.16					
Contrast group	Heqin Preschool Education College	30	81.55	4.77	0.67	-2.007 ~ 3.115	0.564	58.000	0.611
	Xuemen Preschool Education College	30	81.67	5.68					
	amount to	60	81.61	5.26					

* $p < 0.05$ ** $p < 0.01$

Based on the t-test results presented in the table above (specifically independent sample t-test), we aim to explore the differences between the sample group and the control group in two specific items. The analysis results showed that there was no significant difference ($p > 0.05$) between the sample group and the control group for samples from different colleges. This discovery indicates that samples from different colleges exhibit a high degree of consistency in the comparison between the sample group and the control group, meaning there are no identifiable differences between them. Therefore, we can reasonably infer that samples from different colleges did not show significant statistical differences in specific items between the sample group and the control group.

Table 4.8 Independent sample t-test was conducted on student samples and control groups from Heqin Preschool Education College and Xianjiang Art College.

Results of the t-test analysis				
	School (mean value \pm SD)		<i>t</i>	<i>p</i>
	Heqin Preschool Education College (n=30)	Xianjiang Art College (n=30)		
Sample group	82.40 \pm 4.01	80.10 \pm 3.30	-0.852	0.393
Contrast group	81.32 \pm 4.33	81.10 \pm 4.10	-0.686	0.563

* $p < 0.05$ ** $p < 0.01$

Table 4.8 (Continued)

Results of t-test analysis (normal format)

Analysis items	Item	sample capacity	average value	standard error	Mean difference	Difference value of 95% CI	t	df	p
Sample group	Heqin	30	82.40	4.01	-0.99	-3.235 ~ 1.235	-	58.000	0.393
	Preschool Education College						0.852		
	Xianjiang Art College	30	80.10	3.30					
	amount to	60	81.25	3.66					
Contrast group	Heqin	30	81.55	4.77	-0.87	-3.483 ~ 1.875	-	58.000	0.563
	Preschool Education College						0.686		
	Xianjiang Art College	30	81.10	4.10					
	amount to	60	81.33	4.44					

* p < 0.05 ** p < 0.01

From the above table, it can be seen that t-test (also known as independent sample t-test) is used to study the differences between the sample group and the control group in two items. From the above table, it can be seen that the samples from different colleges did not show any significant differences in the sample group ($p > 0.05$), which means that the samples from different colleges showed consistency and no differences in the sample group. It can be concluded that samples from different colleges did not show significant differences between the sample group and the control group.

Table 4.9 Independent sample t-test conducted on sample and control groups of students from Xuemen Preschool Education College and Xianjiang Art College.

Results of the t-test analysis				
	School (mean value \pm SD)		<i>t</i>	<i>p</i>
	Xuemen Preschool Education College (n =30)	Xianjiang Art College (n =30)		
Sample group	81.55 \pm 4.77	80.10 \pm 3.30	1.690	0.235
Contrast group	81.67 \pm 5.68	81.10 \pm 4.10	1.124	0.323

* $p < 0.05$ ** $p < 0.01$

Results of t-test analysis (normal format)									
Analysis items	Item	sample capacity	average value	standard deviation	Mean difference	Difference value of 95% CI	<i>t</i>	<i>df</i>	<i>p</i>
Sample group	Xuemen Preschool Education College	30	81.32	4.33	1.34	-0.914 ~ 4.746	1.690	58.000	0.235
	Xianjiang Art College	30	80.1	3.3					
	amount to	60	80.71	3.82					
Contrast group	Xuemen Preschool Education College	30	81.67	5.68	1.49	-0.147 ~ 3.447	1.124	58.000	0.323
	Xianjiang Art College	30	81.1	4.1					
	amount to	60	81.39	4.89					

* $p < 0.05$ ** $p < 0.01$

It can be clearly seen from the above table that the independent sample t-test was applied to analyze the differences between the sample group and the control group in two items. The results showed that there was no significant difference ($p\text{-value}>0.05$) between the sample group and the control group in the comparison of samples from different colleges. This finding indicates that both the sample group and the control group showed high consistency in samples from different colleges, and no differences were found.

It can be concluded that samples from different colleges did not show significant differences in the comparison between the sample group and the control group.

In summary, we conducted a detailed comparison between the sample group and the control group in three colleges, and the results showed that the P-values of each group were greater than 0.05, which firmly indicates that there is no significant difference in intelligence level and learning ability between the two groups of students. However, in the process of in-depth analysis, we also captured subtle differences in exam scores between different colleges. Specifically, Xianjiang Art College performed the most outstandingly in the test, while Xuemen Preschool Education College ranked third. This discovery highlights the multiple impacts of college positioning, students' basic qualities, and teachers' teaching strategies on students' academic performance. Given that the positioning of the college and the quality of enrollment are difficult to adjust in the short term, how to implement precise and effective teaching strategies based on the specific level and ability of current students has become a key issue that urgently needs to be explored and practiced. The following analysis will focus on this theme, exploring and demonstrating its importance and implementation path in depth.

Table 4.10 Comparison group reliability analysis of the previous test volume
Cronbach Confidence analysis

Name	Correction Total Correlation (CIT)	Item deleted α coefficient	Cronbach α Coefficient
How much do you know about the etiquette of preschool teachers during your studies in preschool education?	0.491	0.869	0.869
Can you demonstrate the etiquette skills of preschool teachers?	0.632	0.863	
Do you actively practice etiquette skills as a preschool teacher?	0.336	0.831	
Can you learn etiquette for preschool teachers through different learning methods?	0.775	0.839	
How much do you think digital resources can help improve the etiquette of your preschool teacher?	0.321	0.875	
Can you accurately use the standardized etiquette movements of preschool teachers?	0.439	0.895	
Can you demonstrate the etiquette of preschool teachers in accordance with current kindergarten requirements?	0.306	0.884	
Can you reflect the professionalism of etiquette for preschool teachers?	0.620	0.837	

Table 4.10 (Continued)

Name	Correction Total Correlation (CIT)	Item deleted α coefficient	Cronbach α Coefficient
Can you accurately express the etiquette of preschool teachers in different settings?	0.748	0.876	
What do you think is the importance of etiquette for preschool teachers in kindergarten?	0.436	0.883	
Have you considered the suitability of the audience when demonstrating the etiquette of preschool teachers?	0.474	0.853	
Can you apply relevant knowledge in the etiquette presentation of preschool teachers?	0.739	0.891	
Can you provide a professional explanation based on the etiquette of preschool teachers?	0.370	0.836	
How much do you think digital resources can contribute to improving the etiquette of preschool teachers?	0.702	0.840	
Can you combine digital resources with teacher etiquette for analysis?	0.615	0.832	
Can you correctly distinguish and express various occasion requirements in the process of etiquette learning for preschool teachers?	0.348	0.857	

Table 4.10 (Continued)

Name	Correction Total Correlation (CIT)	Item deleted α coefficient	Cronbach α Coefficient
Can you accurately understand and respond to the etiquette requirements of preschool teachers during the interview process?	0.350	0.864	
Can you combine the situation of the kindergarten when demonstrating etiquette?	0.358	0.855	
What do you think is the role of digital resources in improving the depth and breadth of etiquette for preschool teachers?	0.311	0.885	
Can you adjust the etiquette learning process for preschool teachers according to different occasions?	0.541	0.847	

As can be seen from the above table, the reliability coefficient value is 0.869, which is greater than 0.8, indicating that the reliability quality of the research data is high.

Table 4.11 Reliability analysis of the sample group to the previous test volume
Cronbach Confidence analysis

Name	Correction Total Correlation (CIT)	Item deleted α coefficient	Cronbach α Coefficient
How much do you know about the etiquette of preschool teachers during your studies in preschool education?	0.485	0.980	0.917
Can you demonstrate the etiquette skills of preschool teachers?	0.534	0.909	
Do you actively practice etiquette skills as a preschool teacher?	0.522	0.907	
Can you learn etiquette for preschool teachers through different learning methods?	0.573	0.971	
How much do you think digital resources can help improve the etiquette of your preschool teacher?	0.408	0.996	
Can you accurately use the standardized etiquette movements of preschool teachers?	0.365	0.981	
Can you demonstrate the etiquette of preschool teachers in accordance with current kindergarten requirements?	0.517	0.985	
Can you reflect the professionalism of etiquette for preschool teachers?	0.700	0.970	

Table 4.11 (Continued)

Name	Correction Total Correlation (CIT)	Item deleted α coefficient	Cronbach α Coefficient
Can you accurately express the etiquette of preschool teachers in different settings?	0.527	0.991	
What do you think is the importance of etiquette for preschool teachers in kindergarten?	0.690	0.953	
Have you considered the suitability of the audience when demonstrating the etiquette of preschool teachers?	0.380	0.976	
Can you apply relevant knowledge in the etiquette presentation of preschool teachers?	0.484	0.954	
Can you provide a professional explanation based on the etiquette of preschool teachers?	0.588	0.965	
How much do you think digital resources can contribute to improving the etiquette of preschool teachers?	0.597	0.938	
Can you combine digital resources with teacher etiquette for analysis?	0.480	0.967	
Can you correctly distinguish and express various occasion requirements in the process of etiquette learning for preschool teachers?	0.386	0.974	

Table 4.11 (Continued)

Name	Correction Total Correlation (CIT)	Item deleted α coefficient	Cronbach α Coefficient
Can you accurately understand and respond to the etiquette requirements of preschool teachers during the interview process?	0.516	0.994	
Can you combine the situation of the kindergarten when demonstrating etiquette?	0.660	0.993	
What do you think is the role of digital resources in improving the depth and breadth of etiquette for preschool teachers?	0.354	0.962	
Can you adjust the etiquette learning process for preschool teachers according to different occasions?	0.492	0.916	

As can be seen from the above table, the students in the sample group conducted the survey test, and the test reliability coefficient value was 0.917, which was greater than 0.9, indicating that the reliability quality of the research data was high. Can be used for further research.

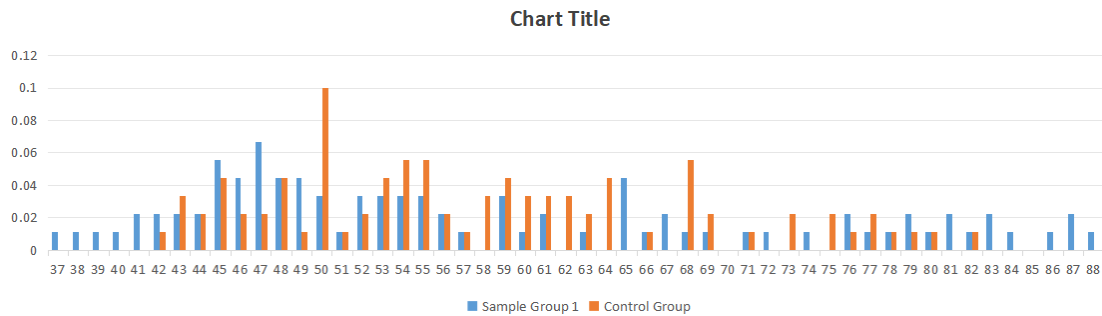


Figure 4.1 Sample group and comparison group pre-test results distribution diagram

When comparing the score distribution between the sample group and the control group, we found that the highest proportion of scores in the sample group was 47 points, reaching 6.67%, indicating the universality of this score range in the sample group. Subsequently, 65 points ranked second with a proportion of 4.44%, indicating that a portion of the sample group students also achieved high scores. In the control group, the situation was different, with 50 being the highest score, reaching 10%, reflecting that the students in the control group were mainly concentrated in this score range. In addition, 68 points also accounted for a relatively high proportion in the control group, at 5.56%, but compared to 50 points, its proportion was slightly lower.

According to the passing scores of 100 out of 100 and 60, the sample group and control group in the prediction results do not meet the standards in terms of etiquette ability and performance of preschool teachers. Most scores are between 40-50.

Table 4.12 Mean and standard deviation of the pre-test scores of the sample group and the control group

Basic indicators						
name	Sample capacity	least value	crest value	\bar{X}	SD	median
Sample group scores	90	37.000	89.000	58.794	13.302	55.500
Compare group scores	90	42.000	82.000	57.152	11.694	57.500

As can be seen from the above table, there are no outliers in the data, and the average value can be directly described and analyzed. The maximum value of the sample group is 89, the minimum value is 37, the average value is 58.794, and the standard deviation is 13.302. The maximum value and minimum value of the comparison group were 42 points, the mean value was 57.152, and the standard deviation was 11.694.

Now that the pre-test scores of the sample group and the comparison group have been obtained, the paired sample T-test can be conducted on the scores of the two groups to detect whether there are significant differences between them.

Table 4.13 Analysis results of paired T-test in sample group and comparison group

Results were analyzed by the paired t-test					
name	Paired pairs (mean value \pm standard deviation)		Difference (pairing 1-pair 2)	<i>t</i>	<i>p</i>
	Paired 1	Pair 2			
Sample group scores were paired against group scores	58.79 \pm 13.30	57.15 \pm 11.69	0.34	0.269	0.781

As can be seen from the above results, in the pre-test results, the average score of the sample group was 58.79, and the average score of the comparison group was 57.15. The paired t test was used to study the differences of experimental data. As can be seen from the above table, there were no differences in the data of 1 paired pairs ($p>0.05$). It can be proved that under the background that there is basically no significant difference in the overall learning level between the comparison group and the sample group, the test results of the pre-test also do not show significant differences.

Table 4.14 Content validity analysis of classification test for sample group of students

Frequency analysis results				
name	option	frequency	percentage (%)	Cumulative percentage of (%)
What teacher etiquette behaviors are you good at?	Teacher image shaping	29	32.22	32.22
	Teacher's oral English	21	23.33	55.56
	Classroom etiquette	30	33.33	88.89
	Class Day Activity Etiquette	10	11.11	100.00
What kind of teacher etiquette do you think you are better at?	Class Day Activity Etiquette	9	10.00	10.00
	Oral Etiquette	33	36.67	46.67
	Classroom etiquette	39	43.33	90.00
	Other Etiquette	9	10.00	100.00

Table 4.14 (Continued)

Frequency analysis results				
name	option	frequency	percentage (%)	Cumulative percentage of (%)
What do preschool teachers pay more attention to in their daily etiquette?	Display standardized actions	20	22.22	22.22
	affinity	25	27.78	50.00
	objectivity	31	34.44	84.44
	love and care for children	14	15.56	100.00
Which teacher etiquette style do you think is more suitable for you?	Authority, major	12	13.33	13.33
	Affinity, funny	17	18.89	32.22
	Calm, analyze	36	40.00	72.22
	Enthusiasm, interaction	25	27.78	100.00
What type of content do you prefer to handle?	An approachable teacher	11	12.22	12.22
	A preschool teacher with childlike innocence	27	30.00	42.22
	A caring preschool teacher	30	33.33	75.56
	Responsible preschool teachers	22	24.44	100.00
How do you behave under stressful situations?	Stay calm, stay professional	16	17.78	17.78
	Resolve tension with humor	27	30.00	47.78
	Treat rationally	31	34.44	82.22

Table 4.14 (Continued)

Frequency analysis results				
name	option	frequency	percentage (%)	Cumulative percentage of (%)
	Relax the atmosphere with enthusiasm and interaction	16	17.78	100.00
Which work environment do you prefer?	Serious quiet	11	12.22	12.22
	It's fun	21	23.33	35.56
	Orderly and rational	32	35.56	71.11
	Full of energy and interactive	26	28.89	100.00
What do you think of everyone's evaluation of your presentation?	Pay attention to and adjust the standardization of actions	14	15.56	15.56
	I am very interested in the audience's immediate reactions	13	14.44	30.00
	Analyze audience feedback	38	42.22	72.22
	Enhance communication	25	27.78	100.00
How do you prepare for etiquette as a preschool teacher?	background checks and prepare sufficient information	13	14.44	14.44
	Actively communicate	15	16.67	31.11

Table 4.14 (Continued)

Frequency analysis results				
name	option	frequency	percentage (%)	Cumulative percentage of (%)
	Analyze children's coping problems	41	45.56	76.67
	Actively communicate with children	21	23.33	100.00
Which type of child do you prefer?	Through active communication and interaction	18	20.00	20.00
	games and activities	27	30.00	50.00
	learning and communication	22	24.44	74.44
	problem-solving	23	25.56	100.00
amount to		90	100.0	100.0

What are the etiquette behaviors of teachers that you are good at? More than 30% of the samples chose 'classroom etiquette'. In addition, the proportion of teacher image shaping is 32.22%. What kind of teacher etiquette do you think you are better at? More than 40% of the samples chose 'neutral and objective'. In addition, the sample proportion of active communication is 36.67%. What do kindergarten teachers pay more attention to in their daily etiquette? It can be seen that there are relatively more "objective positions" in the sample, accounting for 34.44%. Which teacher etiquette style do you think is more suitable for you? More than 40% of the samples chose 'calm analysis'. What type of content do you prefer to use? More than 30% of the sample chose 'caring teachers'. In the sample, 34.44% of people chose 'rational analysis'. What kind of work environment do you like? The

highest proportion of "orderly rationality" is 35.56%. What do you think of everyone's evaluation of your presentation? In terms of distribution, the majority of samples were analyzed based on audience feedback to correct the program, with a total of 38.0 samples, accounting for 42.22%. How should you prepare to learn etiquette? More than 40% of the samples chose 'analyzing children's coping problems'. According to the final statistical results in the table above, out of the 90 sample groups, three classes were arranged for teaching.

Next, the researcher will use EOT model to teach and study the students in the sample group for three months. The specific steps of EOT model are arranged as follows:

Step 1 Clarify the teaching objectives of the EOT model

In the process of constructing and implementing EOT (Effective Online Teaching) models, clarifying their teaching objectives is a crucial step. The EOT model is not only an innovation in teaching technology, but also a deepening and expansion of traditional educational concepts. It aims to enhance the comprehensive quality and professional ability of preschool education majors by integrating advanced information technology, especially in the key field of teacher professional etiquette. The following is a specific explanation of the teaching objectives of the EOT model, aiming to comprehensively and deeply demonstrate its core values and vision.

1. Deepen the understanding of professional etiquette knowledge

The primary teaching objective of the EOT model is to deepen students' understanding of teachers' professional etiquette knowledge. As an important component of teachers' professional ethics, professional etiquette not only concerns personal image and demeanor, but also directly affects the quality and effectiveness of educational and teaching activities. Through the EOT model, we will leverage rich digital resources such as carefully crafted video tutorials, illustrated online teaching materials, etc., to demonstrate various aspects of professional etiquette to students

in an intuitive and vivid way, including appearance, behavior, communication, etc., helping students establish a comprehensive and profound knowledge system.

2. Enhance the level of professional etiquette skills

On the basis of knowledge understanding, the EOT model further aims to enhance students' professional etiquette skills. We are well aware that mastering theoretical knowledge alone is far from enough, and what is more important is being able to flexibly apply it in practice. Therefore, the EOT model has designed various interactive simulation and practical operation activities, such as role-playing in virtual classrooms and etiquette drills in real scenarios, allowing students to continuously practice and adapt in simulated situations, gradually mastering and improving their etiquette performance abilities in different situations.

3. Strengthen practical application capabilities

The ultimate goal of the EOT model is to enhance students' practical application ability in professional etiquette. We firmly believe that the ultimate goal of education is to cultivate talents who can solve practical problems. Therefore, in the EOT model, we pay special attention to combining theoretical knowledge with practical applications. Through organizing various teaching activities such as case analysis, group discussions, and project collaborations, we guide students to apply their learned etiquette knowledge to actual teaching scenarios and solve various problems and challenges that may arise. At the same time, we also encourage students to actively participate in social practice and volunteer service activities, internalize etiquette literacy in their hearts and externalize it in their actions, and become preschool teachers with good professional ethics.

4. Cultivate self-learning and innovation abilities

In addition to the specific teaching objectives mentioned above, the EOT model also aims to cultivate students' self-learning and innovation abilities. In the context of the information age, self-directed learning ability has become one of the important indicators for measuring a person's comprehensive quality. Through the EOT model, we will provide students with abundant learning resources and opportunities for self-directed learning, encouraging them to engage in personalized

learning based on their interests and needs. At the same time, we will also guide students to pay attention to the latest developments and trends in the field of education, cultivate their innovative consciousness and ability, and lay a solid foundation for their future careers.

In summary, the teaching objective of the EOT model is a multidimensional and multi-level system engineering. It aims to comprehensively enhance the comprehensive quality and professional abilities of students majoring in preschool education by deepening their understanding of professional etiquette knowledge, improving their professional etiquette skills, strengthening their practical application abilities, and cultivating their self-learning and innovation abilities. We believe that under the guidance of this clear and specific teaching objective, the EOT model will shine brightly in the field of preschool education.

Step 2 Reform of teaching method

The reform of teaching methods is a key link in promoting the improvement of education quality, especially in the current context of information-based education. How to effectively utilize digital resources and innovate teaching models has become an urgent problem that we need to solve. In response to the demand gap and resource shortcomings of preschool education students in teacher professional etiquette education, we actively explore and practice teaching method reforms based on the EOT (Effective Online Teaching) model, aiming to stimulate students' learning interest and enthusiasm through rich and diverse teaching methods, and comprehensively improve their professional etiquette literacy.

1. Careful design and application of video tutorials

As an important component of digital resources, video tutorials have become a highlight of our teaching method reform due to their intuitive and vivid characteristics. We have carefully selected or self-made high-quality video tutorials, covering various aspects of teacher professional etiquette, from basic appearance and demeanor to complex communication skills, all of which have been explained in detail and depth. In the production process, we pay attention to the realistic reproduction of the scene and the meticulous attention to details, striving to make

students feel as if they are in a real workplace environment, experiencing the charm and importance of professional etiquette. At the same time, we also adopt teaching strategies such as segmented explanations and key annotations to help students better grasp knowledge points and improve learning efficiency.

2. Innovative development of interactive simulation software

In order to deepen students' understanding and mastery of professional etiquette in practice, we have innovatively developed interactive simulation software. This software constructs a virtual workplace environment, allowing students to engage in role-playing and scenario simulation, and personally experience etiquette norms and coping strategies in different scenarios. During the simulation process, students not only have the freedom to showcase their etiquette, but also receive immediate feedback and guidance to help them correct mistakes and improve their skills in a timely manner. In addition, the software also sets various difficulty levels and challenging tasks to stimulate students' interest in learning and exploration desire, promoting their growth and progress through continuous experimentation and practice.

3. Flexible application and continuous optimization of teaching methods

In the process of reforming teaching methods, we focus on flexibly using various teaching methods and strategies to meet the learning needs and styles of different students. In addition to the video tutorials, interactive simulation software, and online testing systems mentioned above, we also use various teaching methods such as group discussions, case studies, and project collaborations to stimulate students' interest and initiative in learning. At the same time, we have established a comprehensive feedback mechanism and evaluation system, regularly collecting students' opinions and suggestions, and continuously optimizing and improving teaching methods.

In short, the reform of teaching methods is a long-term and arduous task that requires us to constantly explore and practice. By actively screening, integrating, and developing digital resources suitable for the EOT model, we have successfully innovated teaching methods, stimulated students' interest and enthusiasm for

learning, and laid a solid foundation for improving the professional etiquette literacy of preschool education majors. In the future, we will continue to deepen the reform and innovation of teaching methods, and contribute our efforts to cultivating more excellent preschool teachers.

Step 3 Construction of Online Testing Platform

The construction of an online testing platform aims to timely verify students' learning effectiveness and adjust teaching strategies accordingly. To this end, we have carefully designed a scientifically reasonable online testing system that comprehensively covers all aspects of teacher professional etiquette, using diverse question types and moderate difficulty to ensure a comprehensive and in-depth evaluation of students' knowledge mastery and skill application abilities.

By regularly organizing online testing activities, we can quickly and accurately grasp students' learning situation and existing problems. Based on these real-time feedbacks, we are able to flexibly adjust teaching objectives according to the level development, improvement standards, and basic level classification of different students, and optimize teaching content and methods accordingly, thereby ensuring the smooth achievement of teaching objectives.

In addition, the online testing system also integrates powerful data analysis and report generation functions, which can provide us with detailed and in-depth learning situation analysis reports. These reports not only reveal the learning status and trends of students, but also provide solid data support and powerful support for our teaching decisions, helping us to formulate teaching strategies more scientifically and accurately, and promoting the continuous improvement of teaching quality. The specific implementation path is shown in the following figure

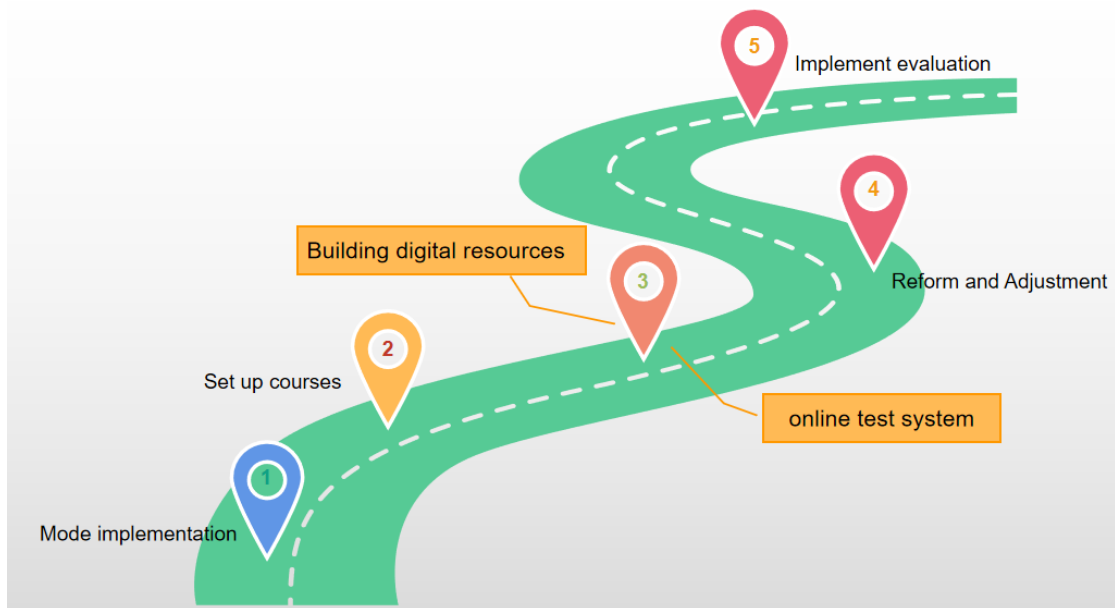


Figure 4.2 Implement path diagram

Part 3. Students in the sample group and the comparison group were given post-test to evaluate the effectiveness of the EOT mode.

After the analysis of the pre-test and the use of EOT model in the teaching of the sample group, the researcher will compare the data of the post-test and pre-test of the sample group, as well as the data of the pre-test and post-test of the sample group to verify the effect of EOT model.

Table 4.15 Reliability analysis of post-test results of sample group

Cronbach Confidence analysis

Name	Correction Total Correlation (CIT)	Item deleted α coefficient	Cronbach α Coefficient
How much do you know about the etiquette of preschool teachers?	0.490	0.808	0.811
Can you demonstrate the etiquette skills of preschool teachers?	0.380	0.821	
Do you actively practice etiquette skills?	0.360	0.897	
Can you learn etiquette for preschool teachers through different learning methods?	0.544	0.871	
How much do you think digital resources can help improve the etiquette?	0.459	0.899	
Can you accurately use the standardized etiquette movements?	0.609	0.864	
Can you demonstrate the etiquette of preschool teachers?	0.510	0.876	
Can you reflect the professionalism of etiquette for preschool teachers?	0.311	0.859	
Can you accurately express the etiquette in different settings?	0.589	0.881	
What do you think is the importance of etiquette for preschool teachers in kindergarten?	0.550	0.837	

Table 4.15 (Continued)

Cronbach Confidence analysis			
Name	Correction Total Correlation (CIT)	Item deleted α coefficient	Cronbach α Coefficient
Have you considered the suitability of the audience when demonstrating the etiquette of preschool teachers?	0.429	0.820	
Can you apply relevant knowledge in the etiquette presentation?	0.452	0.852	
Can you provide a professional explanation based on the etiquette?	0.339	0.854	
How much do you think digital resources can contribute to improving the etiquette?	0.471	0.888	
Can you combine digital resources with teacher etiquette for analysis?	0.630	0.833	
Can you correctly distinguish and express various occasion requirements in the process of etiquette learning?	0.363	0.889	
Can you accurately understand and respond to the etiquette requirements during the interview process?	0.404	0.839	
Can you combine the situation of the kindergarten?	0.581	0.848	
What do you think is the role of digital resources in improving the depth and breadth of etiquette?	0.619	0.815	
Can you adjust the etiquette learning process according to different occasions?	0.657	0.868	

As can be seen from the above table, the reliability coefficient value is 0.811, greater than 0.8, which indicates that the reliability quality of the research data is high and can be used for further analysis.

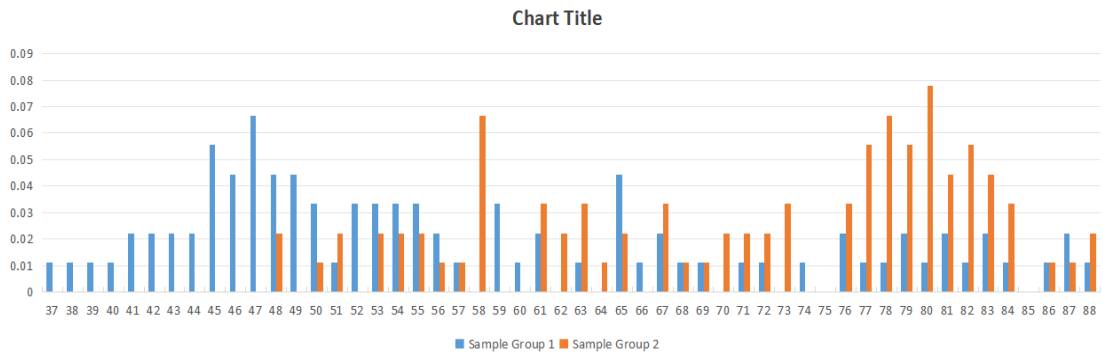


Figure 4.3 Comparative analysis of pre-test and post-test scores of sample group

As can be seen from the above schematic diagram of the pre-test and post-test of the sample group, the scores of the sample group were mostly concentrated in the range of 44 to 52 points in the pre-test, of which 47 points accounted for the largest proportion, reaching 6.67%; The score of the post-test was mostly concentrated in 77 to 87 points, of which 80 points accounted for the largest proportion, reaching 7.78%. It can be clearly seen from the above diagram that students in the sample group have significantly improved their scores after the post-test compared with the pre-test. Next, researchers will conduct a comparative analysis of the results of the two groups through paired T-test to detect whether there is significant consistency between the two groups.

Table 4.16 Paired sample T-test analysis of pre-test and post-test results of sample group

Results were analyzed by the paired t-test					
name	Paired pairs (mean value \pm standard deviation)		Difference (pairing 1-pair 2)	t	p
	Paired 1	Pair 2			
Sample group pretest scores The paired sample group post-test scores	51.37 \pm 11.33	65.78 \pm 9.33	-8.77	-5.261	0.000**

* p <0.05 ** p <0.01

As can be seen from the above table, the paired T-test is used to study the differences of experimental data. As can be seen from the above table, the data of a total of 1 pairs will show anisotropy ($p < 0.05$). Specific analysis shows that the pre-test score of the sample group and the post-test score of the sample group show a significance of 0.01 ($t = -5.261$, $p = 0.000$), and the specific comparison difference shows that the average pre-test score of the sample group (51.37) is significantly lower than the average post-test score of the sample group (65.78). A total of 1 pairs of data will all show anisotropy.

Table 4.17 The post-test results of sample group and pre-test results of comparison group were paired with sample T-test analysis

Results were analyzed by the paired t-test					
name	Paired pairs (mean value \pm standard deviation)		Difference (pairing 1-pair 2)	t	p
	Paired 1	Pair 2			
Contrast group pretest scores for paired sample group posttest scores	53.56 \pm 12.33	61.90 \pm 10.77	-7.65	-5.33	0.000**

* p <0.05 ** p <0.01

As can be seen from the above table, the paired T-test is used to study the differences of experimental data. As can be seen from the above table, the data of a total of 1 pairs will show anisotropy ($p < 0.05$). Specific analysis shows that the pre-test scores of the comparison group and the post-test scores of the sample group show a 0.01 level of significance ($t = -5.33$, $p = 0.000$), and the specific comparison difference shows that the average pre-test scores of the comparison group (53.56) are significantly lower than the average post-test scores of the sample group (61.90). A total of 1 pairs of data will all show anisotropy.

Chapter 5

Discussion Conclusion and Recommendations

This study focuses on improving the etiquette literacy of preschool education majors, aiming to promote the continuous improvement of students' professional level and professional ability through the introduction and application of effective online teaching (EOT) mode, laying a solid foundation for their future career, and looking forward to the broad prospects of information and modernization of preschool teacher professional etiquette education. The research content is divided into three main parts:

Part 1 Investigating the practical needs of etiquette digital resources for preschool teachers.

Part 2 Design and implement an EOT teaching model aimed at improving the professional etiquette skills of preschool teachers.

Part 3 Comprehensive Evaluation of the Effectiveness of EOT Mode in Enhancing the Professional Etiquette Ability of Preschool Teachers.

The questionnaire survey sample size of this study is 90 students from Heqin Preschool Education College, Xuemen Preschool Education College, and Xianjiang Art College of Ningbo Preschool Teachers College. The interviewees are from three colleges, with six senior teachers specializing in early childhood education for every two teachers. This article uses literature analysis, questionnaire surveys, and open-ended interviews as research tools. In the statistical analysis section, the researchers used frequency, reliability, validity, independent sample t-test, and paired t-test.

The conclusions, discussions, and recommendations of this study are summarized as follows

Conclusion

Part 1 Investigating the practical needs of etiquette digital resources for preschool teachers

The main purpose of the interview format is to investigate the current digital resources of teaching professional etiquette for preschool teachers in schools, the positioning and use of digital resources in different colleges, their needs, and difficulties, in order to construct digital resource support for teaching professional etiquette for preschool teachers. The survey questionnaire can be divided into the following types of questions

1. How do you evaluate the level of digital resource utilization in etiquette courses for preschool teachers in schools?
2. How do you integrate traditional professional etiquette teaching content with digital resources?
3. What challenges have you encountered when using digital resources for teaching?
4. What significant advantages do you think digital resources have in improving the effectiveness of professional etiquette teaching for preschool teachers?
5. What are your prospects or suggestions for the development of digital resources for the application of professional etiquette teaching for preschool teachers in the future?

It is not difficult to find a significant demand gap in the current digital resources for etiquette education for preschool teachers. Firstly, from the perspective of cultivating professional ethics, many preschool teachers lack systematic learning and practical guidance in etiquette norms. They often focus on mastering teaching skills, but overlook the importance of etiquette literacy in shaping good teacher-student relationships and improving educational quality. Preschool teachers have relatively scattered exposure and learning of etiquette knowledge from pre service education to in-service training, lacking systematic and targeted educational resources.

Secondly, with the continuous improvement of society's requirements for educational quality, parents increasingly expect teachers to demonstrate a professional and appropriate professional image. However, currently, most digital resources on etiquette for preschool teachers in the market remain in surface form, lacking in-depth analysis and practical guidance, making it difficult to meet the needs of teachers for flexible use in complex educational environments.

Therefore, developing a comprehensive and systematic set of etiquette digital resources for preschool teachers, which not only covers basic etiquette norms, but also integrates cross-cultural communication, emotional management and other comprehensive literacy improvement content, has become an urgent need in the current education field. This not only helps preschool teachers to continue to grow in their careers, but also serves as an important guarantee for improving the overall quality of preschool education and promoting the comprehensive development of young children.

In the journey of improving the etiquette literacy of preschool teachers, experts generally advocate the use of diversified and practice oriented educational strategies. Specifically, a comprehensive digital resource system covering professional courses, workshops, simulation exercises, and practical exchanges should be designed and promoted. Through carefully designed online courses, combined with video demonstrations, interactive Q&A, and other forms, every detail of preschool teacher etiquette is thoroughly explained, strengthening the combination of theory and practice. In addition, teaching methods such as case analysis and group discussions are introduced to guide teachers to deeply analyze the application of etiquette in different educational scenarios, cultivating their keen situational awareness and adaptability.

At the same time, emphasizing the importance of an international perspective, developing cross-cultural etiquette education resources, helping preschool teachers understand and respect educational norms in a multicultural context, and enhancing their global literacy. Encourage and promote online communication and cooperation among teachers, share successful experiences, solve

common problems, form a learning community, and jointly promote the overall improvement of etiquette literacy among preschool teachers.

Through this series of systematic digital resource construction and application, not only can the personal charm and professional image of preschool teachers be effectively enhanced, but also a good educational atmosphere can be shaped unconsciously, laying a solid foundation for the comprehensive development of young children. Such efforts will inject new vitality into the field of preschool education, showcasing the unique charm and value of etiquette education for preschool teachers in the new era.

When exploring the demand for etiquette digital resources for preschool teachers, we also conducted a detailed questionnaire survey to gain a deeper understanding of the current situation and personalized needs of students majoring in preschool education to improve their etiquette literacy. The survey results revealed the following key findings

1. In terms of course resources Although most universities have set up etiquette related courses and incorporated them into the credit system, students generally reflect that the course content is relatively basic, lacking innovation and pertinence, and difficult to meet the complex needs of practical teaching work.

2. Expert guidance and interaction The school regularly invites industry experts to give lectures and exchange ideas, which is welcomed by students. However, students expect more opportunities to have one-on-one consultations or participate in more in-depth discussions with experts to obtain more specific guidance.

3. Practical activities Although the school organizes a variety of on campus and off campus practical activities, there are relatively few specialized practices for preschool teachers' etiquette. Students are eager to transform theoretical knowledge into practical operational skills through simulated teaching, observing excellent classrooms, and other methods.

4. Preferences and Expectations Compared to traditional classroom teaching, students are more inclined to improve their etiquette literacy by participating in

practical activities such as off campus internships, teaching observations, role-playing, watching high-quality etiquette teaching videos, and participating in online interactive discussions.

5. Cultural atmosphere and learning resources Students generally believe that the cultural learning atmosphere on campus needs to be strengthened, especially the lack of specialized activities and cultural resources related to etiquette for preschool teachers, which makes it difficult to meet the diverse learning needs of students.

Teacher guidance and personalized teaching Students pointed out that teachers lack personalized guidance strategies in improving students' etiquette literacy. It is suggested that teachers should flexibly design teaching activities and optimize teaching content based on students' interests, professional characteristics, and future career plans, in order to better stimulate students' learning interest and motivation.

In the survey of etiquette digital resources for preschool teachers, we also noticed a significant phenomenon: although more than half of the students have low participation in the etiquette related activities provided by the school, and as the grade increases, some students' enthusiasm decreases. Behind this phenomenon, there is actually a profound understanding of the importance of etiquette literacy among students and a confusion about the path to improvement.

Most students deeply understand that good etiquette is not only a display of personal image, but also the key to improving educational and teaching abilities and promoting harmonious relationships between teachers and children. They have a strong desire to further enhance their etiquette cultivation, but in practical operation, they often feel at a loss and lack effective guidance and resources. In addition, the improvement of cultural literacy often requires long-term accumulation and precipitation, and its effectiveness is not achieved overnight. This makes some students have to make choices when facing heavy professional skill learning and part-time pressure, and invest their limited energy more in areas where short-term visible results can be achieved.

Therefore, developing high-quality etiquette digital resources for preschool teachers is particularly important. These resources should be systematic, practical, and interesting, able to flexibly adapt to students' learning pace and interests, and provide them with convenient and efficient learning paths. At the same time, through the establishment of incentive mechanisms and interactive platforms, students' intrinsic motivation is stimulated, and they are guided to actively participate in the improvement of etiquette literacy, ultimately achieving synchronous development of professional skills and humanistic literacy.

Part 2 Design and implement an EOT teaching model to enhance the professional etiquette skills of preschool teachers.

In the study of etiquette digital resources for preschool teachers, the steps are as follows:

Step 1 Verify the consistency of the etiquette knowledge foundation between the participating students (sample group and control group) to ensure that their levels are equivalent before the experiment.

Step 2 Conduct reliability and validity analysis on the etiquette knowledge pre-test using the control group, and then compare the initial scores of the sample group and the control group to ensure data reliability.

Step 3 Divide the sample group of students into different groups and implement a three-month targeted training on the application and improvement strategies of etiquette digital resources for preschool teachers to optimize their etiquette professional abilities.

Specific research conclusions are as follows:

Step 1 Test the consistency of learning ability of the students in the sample group and the comparison group and get the result.

1. Students majoring in preschool education have conducted preliminary tests on the effectiveness of using etiquette digital resources, and the practicality and applicability of their content have been evaluated and confirmed by six senior teachers in the field of early childhood education.

2. Through reliability analysis, the results of students using this digital resource for learning have met the expected reliability standards, laying a solid foundation for subsequent research.

3. Through independent sample t-test, it was found that there was no significant difference in the basic etiquette level of preschool teachers between the sample group and the control group, ensuring the effectiveness of the subsequent pre-test and post test comparative analysis.

4. During the learning process, some students have reported a lack of interest in purely theoretical etiquette knowledge and a preference for practical etiquette simulation and interaction, believing that this will be more helpful in improving practical teaching abilities.

5. Compared to other skills, more students self-reported weaker improvisational etiquette coping abilities in early childhood interactions. Although they were able to cope with basic situations, they lacked fluency and naturalness.

6. Research has found that students hold a reserved attitude towards the teaching module of etiquette and emotional expression in digital resources, believing that "it can be learned, but it is difficult to naturally integrate". In practical operation, students also showed unfamiliarity and discomfort when using etiquette in simulated scenarios.

7. In the self-assessment of self-management ability, nearly half of the students stated that they are able to plan their study time, but are susceptible to external interference and find it difficult to adhere to established plans, hoping to receive more guidance and supervision.

8. When asked to evaluate their etiquette performance in different early childhood education scenarios, most students expressed a lack of confidence in their adaptability and flexibility, fearing that they may not be able to respond flexibly to diverse teaching needs.

9. The results of the emergency response ability test show that most students feel powerless and believe that their reaction speed and lack of practical experience are the main reasons.

In addition, the study also delved into students' learning habits, understanding of the development of early childhood etiquette industry, and the positioning of individual roles in team cooperation. The results showed that there were no significant differences between the two groups of students in these aspects, indicating the challenges and needs that current preschool education majors generally face, and pointing out the direction for adjusting and optimizing teaching strategies in the future.

Step 2 Test the reliability and validity of the pre-test questions by the comparison group, and then compare the pre-test scores of the sample group and the comparison group.

1. When asked about their level of understanding of cultural etiquette background knowledge in early childhood education, most students answered "slightly understood" or "generally understood", while few students stated "very understood" or at a higher level.

2. In a survey on whether cultural etiquette elements are actively integrated into simulated early childhood education activities, most students chose "never tried", while only a few students expressed "very willing and capable".

3. Research has found that most students lack systematic integration and preparation of etiquette and cultural content when preparing materials for early childhood education activities, making it difficult to independently and comprehensively integrate them into teaching design.

4. Nearly 70% of the respondents admitted that in actual teaching situations, they do not or rarely use different cultural background knowledge to enrich etiquette teaching content, and the cultural background knowledge of a few students who can try is relatively limited.

5. Regarding cultural literacy related tests such as handling unexpected events and switching between different teaching activity styles in early childhood education, most students agree that the improvement of cultural literacy has a significant effect on enhancing such teaching abilities.

6. Students generally reflect that when organizing teaching activities such as art and storytelling, it is difficult to demonstrate rich cultural and etiquette professionalism according to the content needs. Often, teaching tasks are only completed according to the process, lacking depth and connotation.

7. When asked if it is possible to combine commentary with the required cultural etiquette content in various teaching activities such as sports, science, music, etc., most students said "completely impossible" or "almost impossible". Among them, the performance of sports activities is slightly better than that of science or finance activities.

8. For the broadcast of teaching content such as news and current events, international perspectives, etc., students generally express difficulty in conducting in-depth investigations and understanding of cultural backgrounds, and even more difficult to integrate a multicultural perspective into the broadcast. Most students emphasize that they focus more on language accuracy and rhythm control when broadcasting, while neglecting the preparation and presentation of cultural backgrounds.

In summary, the pre-test results show that both the sample and control groups of students focus more on technical expression in early childhood teaching activities, such as language fluency and pronunciation accuracy, while they appear relatively weak in integrating and outputting cultural etiquette content. Even students who are willing to try face challenges such as insufficient preparation and difficulty in implementation.

Step 3 A study was conducted to divide the sample group of students into different directions and implement a three-month etiquette skills improvement training model

We have carefully planned and implemented the use of etiquette digital resources for preschool education majors. Firstly, through comprehensive testing, 90 outstanding students were selected from three classes in three colleges, and based on their interests and expertise, they were divided into teacher image shaping group, classroom etiquette group, and oral etiquette group.

1. The students in the teacher image shaping group focus on how to use digital resources to showcase the professional image and affinity of teachers. They learn how to simulate dressing and posture in different teaching scenarios through high-quality online courses, virtual fitting rooms, and other tools, ensuring that they can face young children at their best in any teaching environment. At the same time, they are also exploring the use of social media platforms to share teachers' etiquette experiences, expand their influence, and lead a good industry trend.

2. The classroom etiquette group focuses on the application of digital resources in classroom management. They are researching how to use digital means such as animation and interactive games to make classroom etiquette more standardized, lively, and interesting, and to enhance children's interest and participation in learning. In addition, they also use big data to analyze children's performance in classroom etiquette, adjust teaching strategies in a timely manner, and ensure the maximization of teaching effectiveness.

3. Students in the oral etiquette group are committed to enhancing the artistic and infectious nature of language expression. They use speech recognition and synthesis technology to provide precise training in oral pronunciation, intonation, and other aspects, ensuring that language expression is both clear, accurate, and infectious. At the same time, they have also developed a series of oral etiquette teaching apps, which help young children master oral etiquette knowledge and improve communication skills through simulated dialogues, role-playing, and other forms of practice.

Through the implementation of this series of measures, we have not only improved the etiquette literacy of preschool teachers for students majoring in early childhood education, but also provided them with rich experience in the use of digital resources, laying a solid foundation for the future of early childhood education.

Part 3 Evaluate the cultivation mode of this strategy.

The researchers reexamined the students in the sample group through the post-test to see whether the data of the sample group and the data of the sample

group changed after 3 months of cultural literacy improvement strategy training mode. The specific test conclusions are summarized as follows:

1. In the test of whether there is a habit of actively consulting relevant cultural materials before etiquette activities, the post test data of the sample group is significantly higher than the pre test data.

2. In the test of whether cultural allusions can be used for etiquette activities, the pre-test data is mostly "completely impossible" or "rarely possible", while most students who choose the post test data are "sometimes possible" and "mostly possible". The test data is also significantly higher than the pre-test.

3. In the test of whether etiquette programs can be combined with social hot topics during broadcasting, most students chose "sometimes possible" and "most people", and the test results were significantly higher than the previous test.

4. In the test of whether international news can be combined with international cultural content, the test data has slightly improved, and sometimes the selected students have improved compared to the pre-test.

5. When it comes to whether variety shows can be combined with different types of cultural programs for production and broadcasting, most students have higher exam scores in sports and cultural programs than before, but the range of changes in financial programs is not significant.

Overall, the data from the post test is significantly higher than that from the pre-test, which indirectly proves that the effective online mode has played a certain role in improving the comprehensive etiquette literacy of preschool education teachers.

Discussion

After analyzing the above research results and conclusions, this section intends to explore the training mode of improving the etiquette literacy of preschool teachers for students majoring in preschool education through effective online mode from the following three directions:

Step 1 Comparative Analysis of Training Status at Home and Abroad

Step 2 Reflection on the Current Situation of Etiquette Quality Cultivation for
Preschool Teachers

Step 3 Demonstration Practice Combining Innovation and Practice

Step 1 Comparative analysis of domestic and international training status quo

1. Domestic training mode

This article aims to comprehensively evaluate the existing online training models in China based on the specific requirements of etiquette for kindergarten teachers, and propose targeted improvement suggestions. Firstly, we conducted an in-depth analysis of the etiquette courses provided by well-known domestic universities, professional training institutions, and online education platforms for preschool teachers, while also referring to advanced international experience. The evaluation dimensions include the systematicity of the course, the integration of practical activities, the professional competence of teachers, the improvement of students' comprehensive abilities, and the application of training results in practical work.

Data collection and organization: To ensure the comprehensiveness and timeliness of the research, the research team not only extensively collected course resources from major online education platforms, but also obtained first-hand information from educational institutions, teachers, and students through visiting official websites, questionnaire surveys, and in-depth interviews.

Comparative analysis: When comparing domestic and foreign training cases horizontally, we found that domestic online etiquette courses are relatively systematic in imparting theoretical knowledge, but there is still room for improvement in practical application and interactive feedback. In contrast, some international courses place more emphasis on simulating real-life teaching scenarios, enhancing students' practical skills through role-playing, online simulations, and other methods.

Advantages and disadvantages analysis: The advantages of domestic online training models lie in abundant resources and flexible learning, but the shortcomings lie in weak practical links and insufficient teacher-student interaction. In response to these issues, the research team has proposed improvement measures such as strengthening practical teaching, introducing interactive elements, and enhancing teachers' professional abilities.

Improvement strategy: Based on the above analysis, this article proposes a series of strategies to optimize the online training mode of etiquette for domestic preschool teachers. For example, introducing virtual reality (VR) technology to simulate kindergarten teaching environment and enhance students' practical experience; Set up online workshops to promote communication and sharing among students; Strengthen teacher training to enhance their online teaching skills and professional competence; And establish a feedback mechanism for students, adjust teaching strategies in a timely manner to meet their needs.

Summary and outlook: Through the implementation of this series of improvement strategies, we hope to build a more efficient and practical online training model for preschool teachers' etiquette. This not only helps to improve the etiquette literacy and teaching quality of kindergarten teachers in China, but also contributes new ideas and practical experience to the development of online education.

2. Comparison of International Training Models

In the process of exploring how to improve the quality of online etiquette training for preschool teachers, a comparative analysis of international training models is particularly important. In the context of global sharing of educational resources, innovative practices in etiquette training for preschool teachers in various countries have provided us with valuable references.

Interactive teaching mode in Europe and America: European and American countries emphasize the interactivity and participation of online courses, stimulating students' learning interest through small class teaching, real-time discussions, case analysis, and other methods. For example, some online platforms in the United

States provide rich video resources and simulated teaching scenarios, allowing students to learn etiquette knowledge and enhance practical abilities in simulated real environments.

Asian apprenticeship and mentorship: In Asian countries, especially Japan and South Korea, traditional apprenticeship plays an important role in etiquette training for preschool teachers. This model emphasizes one-on-one guidance and feedback, which helps students quickly master etiquette skills and integrate into local culture. Although it is difficult to fully replicate this traditional model in an online environment, we can learn from its essence, such as setting up an online mentor system to provide personalized guidance and support for students.

Latin American Drama Teaching Method: Latin American drama teaching methods have unique advantages in cultivating the expression ability and on-site adaptability of preschool teachers. By simulating daily activities and role-playing in kindergarten, students can learn and master etiquette knowledge in a relaxed and enjoyable atmosphere. This method is also applicable to online training. We can utilize the technological advantages of online platforms to design rich interactive activities and simulation scenarios.

Summary and Inspiration: Based on international experience, successful online etiquette training models for preschool teachers often focus on the combination of theory and practice, enhanced teacher-student interaction, and the integration of cultural characteristics. When constructing an online training model for preschool teachers' etiquette in China, we should actively draw on international advanced experience, combine with China's educational reality and cultural background, innovate training methods and content, in order to meet the professional development needs of the majority of kindergarten teachers.

Step 2 Reflection on the Current Status of Etiquette Cultivation for Preschool Education Professional Preschool Teachers

When examining the current situation of cultivating etiquette and digital resource literacy among preschool teachers in the field of early childhood education, we also face the urgent need to construct a new model that adapts to the

development of the times and industry demands. At present, the cultivation of etiquette for preschool teachers in the field of early childhood education often focuses on the imparting of traditional knowledge, while the cultivation system of digital resource literacy, as an important ability in the new era, is still insufficient and has not been fully integrated into the overall quality improvement of preschool teachers. Therefore, based on the concept of comprehensive literacy cultivation, this article aims to explore a new training model that integrates preschool teachers' etiquette and digital resource literacy.

The concept of comprehensive literacy cultivation: This concept emphasizes the importance of not only imparting and practicing traditional etiquette knowledge, but also cultivating digital resource literacy in the process of early childhood teacher training, ensuring that early childhood teachers can carry out their work with ease in the digital age. This requires us to fully consider the individual differences of preschool teachers in the training process, design flexible and diverse curriculum systems and learning paths to meet the development needs of preschool teachers with different backgrounds and learning styles.

Curriculum system and personalized learning: In order to effectively integrate preschool teachers' etiquette and digital resource literacy, we need to build a comprehensive curriculum system that includes traditional courses such as etiquette norms and child psychology, as well as modern courses such as information technology basics and digital education resource design and application. At the same time, utilizing online learning platforms, intelligent recommendation systems, and other technological means, personalized learning resources and path planning are provided for each preschool teacher to promote their self-directed learning and sustainable development.

Combining theory with practice: In course design, we pay special attention to the deep integration of theory and practice. Through simulation teaching, case analysis, project practice and other methods, preschool teachers can use digital resources to carry out teaching activities in real or simulated kindergarten environments, thereby deepening their understanding of etiquette norms and

enhancing their ability to apply digital resources in practice. In addition, encourage preschool teachers to participate in the construction and sharing of digital education resource libraries, promoting knowledge innovation and dissemination.

Psychological resilience and stress resistance: Given the unique and challenging nature of preschool education, we also pay special attention to the psychological resilience and stress resistance of preschool teachers during the training process. By offering mental health education courses, organizing team building activities, and providing psychological counseling services, we help preschool teachers establish a positive attitude and improve their ability to cope with work pressure and complex situations. At the same time, by simulating emergency event handling, crisis public relations and other scenario training, the adaptability and resilience of preschool teachers can be enhanced.

Innovation driven and sustainable development: In the new model of cultivating etiquette and digital resource literacy among preschool teachers, innovation is the key to promoting its sustainable development. We encourage preschool teachers to continuously explore new teaching methods, digital resource application methods, and evaluation systems in their educational and teaching practices, in order to stimulate their creativity and innovative spirit. At the same time, we will strengthen cooperation and exchanges with universities, research institutions, and industry enterprises to jointly promote knowledge updates and technological progress in the field of preschool education.

International perspective and local practice: Finally, we are committed to cultivating a team of preschool teachers with international perspectives and local practical abilities. By drawing on advanced international educational concepts and practical experience, and combining them with the actual situation and needs of preschool education in China, we aim to construct a preschool teacher etiquette and digital resource literacy training system with Chinese characteristics. This not only helps to enhance the overall quality and international competitiveness of China's preschool teacher team, but also provides strong talent support for the healthy development of China's preschool education industry.

Step 3 Comprehensive evaluation of the effectiveness of EOT mode in improving the professional etiquette ability of preschool teachers.

When exploring the effectiveness of using etiquette digital resources for preschool education majors, we can also construct a discourse framework around the integration of innovation and practice, the equal emphasis on theory and practice, and the application of diversified teaching methods.

In the field of preschool education, the effectiveness of the use of etiquette digital resources by preschool teachers depends on closely integrating innovative concepts with practical operations to meet the educational needs of the information age. This concept is based on the forefront of modernization of early childhood education and professional development of teachers, aiming to build a new education system that not only conforms to the characteristics of children's physical and mental development, but also effectively enhances teachers' etiquette literacy through efficient and interactive digital resources. This system aims to break through the limitations of traditional education models, promote preschool education majors to deeply understand etiquette culture in a digital environment, cultivate innovative thinking, and enhance practical abilities.

We focus on the deep integration of theory and practice using digital resources as carriers. By developing innovative methods such as interactive learning platforms and virtual reality (VR) teaching scenarios, students can directly apply theoretical knowledge of preschool teacher etiquette to simulated teaching practices. For example, using VR technology to simulate daily scenes in kindergarten, students can engage in role-playing in a virtual environment, experience etiquette responses in different contexts, and deepen their understanding and mastery of etiquette norms. This 'learning by doing' approach not only increases students' participation, but also enhances the effectiveness and fun of learning.

Meanwhile, case teaching method also plays an important role in the application of digital resources. We have selected representative cases of etiquette for preschool teachers, combined with various forms of digital resources such as videos, audio, graphics, etc., to guide students to conduct in-depth analysis. In the

process of case analysis, guide students to think about the educational philosophy, cultural background, and practical significance behind etiquette, and cultivate their critical thinking and problem-solving abilities. In addition, by integrating interdisciplinary knowledge such as psychology, sociology, etc., students' horizons can be broadened and their comprehensive literacy can be promoted.

While strengthening the integration of digital resource utilization and practice, we also focus on the design of simulation training and role-playing. By developing a series of simulation teaching software, online interactive games, etc., we provide students with a teaching environment that is close to reality. In simulation training, students can independently choose roles such as preschool teachers, parents, etc., experience interactions and communication between different roles, and enhance their ability to cope with complex situations. Role playing not only exercises students' improvisation ability, but also promotes the development of their comprehensive thinking and teamwork skills.

In summary, the effectiveness of the use of etiquette digital resources by preschool education students and teachers is attributed to the close combination of innovation and practice, the deep integration of theory and practice, and the comprehensive application of diversified teaching methods. This mode not only improves students' etiquette literacy and professional skills, but also broadens their vision and thinking mode, and trains more excellent teachers with noble morality, exquisite skills and innovative ability for the future preschool education.

Recommendations

Implications

In the unique field of early childhood education, improving teachers' etiquette literacy is crucial. For this reason, we urgently need to further develop specialized digital resources, which should be closely centered around preschool education scenarios, such as daily teaching interactions, home school communication strategies, and children's psychological comfort skills. Through highly simulated scenarios, we can enhance the pertinence and effectiveness of learning. At the same

time, utilizing big data and artificial intelligence technology to enhance the interactivity and personalization of digital resources, automatically adjusting learning paths according to students' different needs, integrating interactive activities such as role-playing, online Q&A, and peer evaluation to stimulate students' interest and promote active learning.

We advocate the construction of a hybrid teaching model of "online+offline", which closely integrates theoretical knowledge and case analysis from digital resources with practical activities such as on-site observation and simulated teaching, to ensure that preschool teachers' etiquette knowledge can be deeply rooted in their bones and transformed into practical skills in their work. In addition, as the cornerstone of etiquette education, teacher ethics and style should be vividly demonstrated through digital means, such as outstanding teacher deeds, teacher ethics norms animations, and professional ethics tests, in order to strengthen students' awareness of teacher ethics and set a positive example.

In order to ensure the continuous optimization and updating of digital resources, we propose to establish a feedback and iteration mechanism, regularly collect feedback from students and front-line teachers, constantly adjust the content and form of resources in combination with the latest research results and technology trends at home and abroad, maintain its timeliness and progressiveness, and contribute to the cultivation of high-quality and professional kindergarten teachers.

Future Researches

In future research, the intelligent development and application of etiquette digital resources for preschool teachers can be further explored, such as using artificial intelligence technology for personalized learning recommendations, intelligent evaluation and feedback. At the same time, we should pay attention to the integration and innovation of advanced educational concepts at home and abroad, explore how to combine international advanced experience with China's local education reality, and promote the modernization and internationalization of etiquette education for preschool teachers. In addition, interdisciplinary research

cooperation should be strengthened, such as the cross integration of psychology, educational technology and other disciplines, to provide a broader theoretical basis and practical guidance for the development and application of etiquette digital resources for preschool teachers.

References

- Chen,S.Y. (2016). Research on the transformation and upgrading of Chinese program hosts under the "all-media era". Doctoral dissertation, Tianjin Normal University.
- Du,C.&Liu X.b. (2022). Exploration of the Construction of Online Teaching Resources in Universities in the Internet Era. **Journal of Liaoning Normal University (Natural Science Edition)**. Vol. 03, 16-18.
- Gao,S.P. (2020). A study on strategies for improving the excellent traditional Chinese cultural literacy of primary and secondary school teachers. Collection of Contemporary Teaching and Research (6), 2
- Gao,Y.B. (2022). Discussion on the Construction of Network Teaching Resources Based on OBE Concept -- Taking Visual communication as an Example.**Research on Art Education**. Vol. 08, 170-171.
- Gu,M.Y. (1998). *A Dictionary of Education (an additional volume)*, Education in Shanghai Press.Vol. 08,20-24.
- H,I.&L,L.J. (2007). Discussion on the construction of online teaching resources in universities. **China Medical Education Technology**.Vol. 02,103-106.
- H,Y.&H,Z. (2023). Research on Strategies for Improving Online Teaching Quality , **China Education Technology Equipment**.Vol.06, 26-28.
- J,Y.H. (2016). Analysis of the problems and solutions in the construction of online teaching resources in universities. **Journal of Yunyang Normal College**. Vol.06, 140-142.
- L,J.H. (1995). *New Theory of Resource Economy*. Chongqing Chongqing University Press. Vol.05, 35-37.
- L,P.&C,H. (2013). *Theoretical and Practical Research on Network Information Resources*," China Book Press,.Vol.05, 34-36.

- L,Z.G. (2020). Research on Monitoring and Management Strategies for Online Teaching in Universities . **Science and Technology Information**, Vol.05, 104-105.
- M,L. (2014). Advantages of Network Teaching and Effective Mode Construction.**Science and Education Guide (first ten-day issue)**, Vol.05, 21-23.
- M,W.H&L,Y.H. (2011). Research on the self-organization construction of online teaching resources .**Modern Intelligence**, Vol.06,166-170.
- Q,L. (2020). Research on the Path to Improve the Scale of Online Teaching in Universities under the New Situation. **China Adult Education**,Vol.12,54-57.
- Q,L.H. (2020). Research on the Path to Improve the Scale of Online Teaching in Universities under the New Situation. **China Adult Education**,Vol.12,54-57.
- S,C.Y. (1994). *Introduction to Environmental Science*. Beijing China Renmin University Press, Vol.08,65.
- S,X.B.&L,S.B.&Z,C.L. (2021). Research on Classification and Application Strategies of Internet Teaching Resources. **China Education information**. Vol.11, 90-93.
- S,Y. (2021). The practice of flipped classroom model in primary school Chinese teaching Study. **Prose Hundred (New Chinese Loose-leaf)**,Vol.08,32-35.
- T,Y.Z. (2017). *Research on the Development and Application of Digital Resources for Preschool Education Curriculum Modernization of Education*. Vol.29, 129-131.
- T,Z.H. (2011). *Elementary course of etiquette for preschool teachers*. Shanghai Fudan University Press,Vol.02,23-25.
- W,N.B. (2020). Construction and application of online teaching resources for teacher education in the context of Internet plus: taking Y University as an example. **China Education information**,Vol.09, 41-45.
- W,N.B. (2020). network teaching resources for teacher education under the background of ". Internet +"Construction and Application: A case study of Y University. **China Educational information**,Vol.05, 47-49.

- W,Q.&Z,Y.S.&M,X.H. (2020). etal. To promote the construction of network teaching resource platform Reform of college education model.**Petroleum Organization and Personnel**,Vol.09,99-101.
- Y,H.M.&P,Q.J. (2017). Research on the Effectiveness of Vocational Etiquette Classroom Teaching, **Vocational**,Vol.07,36-38.
- Y,H.Q.&Z,S.Y. (2021). Construction and Sharing of college network teaching resources Analysis. **Information Systems Engineering**,Vol.06,175-176.
- Y,L.P. (2022). Research on the application of multimedia teaching method in primary school Chinese teaching.**Selected Chinese Loose-leaf Literature (Teachers Edition)**,Vol.12,30-32.
- Y,N.&L,D. (2013). Discussion on the Reform of Case Driven Office Automation Curriculum .**Heilongjiang Science and Technology Information**, Vol.08, 40-42.
- Y,Z.K.&W,D.&L,Q.T. (2003). *Network Education Standards and Technology*, Beijing: Tsinghua University Press, Vol.11,20-22.
- Z,B.K.&Z,J.X. (2021). Research on the Construction of Network Teaching Resources in Universities. **Wireless Internet Technology**,Vol.05,14-16.
- Z,J.H.&Y,L. (2010). Summary of Experiential Teaching Research. **Heilongjiang Higher Education Research**,Vol.04,143-145.
- Z,L. (2007). *Digital Sports Exploration*. Beijing Sport University Press, Vol.11,20-23.
- Z,Q. (2021). Research on online teaching problems and countermeasures in local universities in the post epidemic era . **Wireless Internet Technology**, Vol.05,156-159.
- Z,Q. (2021). Research on online teaching problems and countermeasures in local universities in the post epidemic era. **Wireless Internet Technology**, Vol.06,156-159.
- Z,X.J.&Q,C. (2017). Construction and research of online teaching resource libraries in universities. **Computer enthusiasts**, Vol.01,157-158.

- Z,X.L.&S,Y.M. (2021). College network teaching platform under the background of informationExploration of development and construction path . **Journal of Wuzhou University**,Vol.04,82-87.
- Z,Y.P. (2021). New forms of teaching organization and management in universities in the context of blended learning in the post pandemic era: an empirical study based on a large-scale online teaching questionnaire survey of teachers and students. **Journal of Wuhan Vocational and Technical College**, Vol.04,53-63.

Appendices

Appendix A

List of Specialists and Letters of Specialists Invitation
for IOC Verification

List of experts who participated in the open-ended interview

Serial number	Name of expert	Highest degree	Current position and the workplace.	expertise
1	Huang zhibing	PhD	Director of the Development Planning Department of Ningbo Preschool Teachers College	Educational technology
2	Yu kaiye	PhD	Secretary of the Discipline Inspection Commission of Ningbo Preschool Teachers College	Educational management
3	Wen shijiang	PhD	Vice Dean of Xianjiang Art College, Ningbo Preschool Teachers College	Teaching management
4	Yan yan	PhD	Vice President of Ningbo Preschool Teachers College	Scientific research and academic research
5	Zhang quanmin	PhD	Dean of Yangming College, Ningbo Preschool Teachers College	Education and teaching management

Appendix B
Official Letter



Ref.No. MHESI 0643.14/1143

Bansomdejchaopraya Rajabhat University
1061 Itsaraparb Hirunrujee
Thonburi Bangkok 10600

8 August 2024

Subject: Invitation to validate research instrument

Dear Professor Yu Kaiye

Ms. Wang Qingdi is a graduate student in Digital Technology Management for Education of Bansomdejchaopraya Rajabhat University. She is undertaking research entitled "Construction a support of application teaching digital resources of preschool teachers' professional etiquette"

The thesis advisory committee has considered that you are an expert in this topic. Your recommendations would be useful for further improvement of this research instrument.

With your expertise, we would like to ask your permission to validate the attached research instrument. In this regard, we would like to avail ourselves of this opportunity to express our sincere thanks and appreciation for your help.

Yours faithfully,

Assistant Professor Dr.Thanaput Chanchaoren
(Vice Dean of Graduate School for Dean of Graduate School)

Bansomdejchaopraya Rajabhat University

Tel.+662-473-7000

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E-mail: grad@bsru.ac.th



Ref.No. MHESI 0643.14/ 1446

Bansomdejchaopraya Rajabhat University
1061 Itsaraparb Hirunrujee
Thonburi Bangkok 10600

8 August 2024

Subject: Invitation to validate research instrument

Dear Professor Zhang Quanmin

Ms. Wang Qingdi is a graduate student in Digital Technology Management for Education of Bansomdejchaopraya Rajabhat University. She is undertaking research entitled "Construction a support of application teaching digital resources of preschool teachers' professional etiquette"

The thesis advisory committee has considered that you are an expert in this topic. Your recommendations would be useful for further improvement of this research instrument.

With your expertise, we would like to ask your permission to validate the attached research instrument. In this regard, we would like to avail ourselves of this opportunity to express our sincere thanks and appreciation for your help.

Yours faithfully,

Assistant Professor Dr.Thanaput Chanchaoren
(Vice Dean of Graduate School for Dean of Graduate School)

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Ref.No. MHESI 0643.14/ 1642

Bansomdejchaopraya Rajabhat University
1061 Itsaraparb Hirunrujee
Thonburi Bangkok 10600

8 August 2024

Subject: Invitation to validate research instrument

Dear Professor Huang Zhibing

Ms. Wang Qingdi is a graduate student in Digital Technology Management for Education of Bansomdejchaopraya Rajabhat University. She is undertaking research entitled "Construction a support of application teaching digital resources of preschool teachers' professional etiquette"

The thesis advisory committee has considered that you are an expert in this topic. Your recommendations would be useful for further improvement of this research instrument.

With your expertise, we would like to ask your permission to validate the attached research instrument. In this regard, we would like to avail ourselves of this opportunity to express our sincere thanks and appreciation for your help.

Yours faithfully,

Assistant Professor Dr. Thanaput Chanchaoren
(Vice Dean of Graduate School for Dean of Graduate School)

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Ref.No. MHESI 0643.14/1694

Bansomdejchaopraya Rajabhat University
1061 Itsaraparb Hirunrujee
Thonburi Bangkok 10600

8 August 2024

Subject: Invitation to validate research instrument

Dear Professor Wen Shijiang

Ms. Wang Qingdi is a graduate student in Digital Technology Management for Education of Bansomdejchaopraya Rajabhat University. She is undertaking research entitled "Construction a support of application teaching digital resources of preschool teachers' professional etiquette"

The thesis advisory committee has considered that you are an expert in this topic. Your recommendations would be useful for further improvement of this research instrument.

With your expertise, we would like to ask your permission to validate the attached research instrument. In this regard, we would like to avail ourselves of this opportunity to express our sincere thanks and appreciation for your help.

Yours faithfully,

Assistant Professor Dr.Thanaput Chanchaoren
(Vice Dean of Graduate School for Dean of Graduate School)

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Ref.No. MHESI 0643.14/1645

Bansomdejchaopraya Rajabhat University
1061 Itsaraparb Hirunrujee
Thonburi Bangkok 10600

8 August 2024

Subject: Invitation to validate research instrument

Dear Professor Yan Yan

Ms. Wang Qingdi is a graduate student in Digital Technology Management for Education of Bansomdejchaopraya Rajabhat University. She is undertaking research entitled "Construction a support of application teaching digital resources of preschool teachers' professional etiquette"

The thesis advisory committee has considered that you are an expert in this topic. Your recommendations would be useful for further improvement of this research instrument.

With your expertise, we would like to ask your permission to validate the attached research instrument. In this regard, we would like to avail ourselves of this opportunity to express our sincere thanks and appreciation for your help.

Yours faithfully,

Assistant Professor Dr.Thanaput Chanchaen
(Vice Dean of Graduate School for Dean of Graduate School)

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Appendix C
Research Instrument

Expert interview

Directions

This interview is part of the research titled "Building Digital Resources to Support Professional Etiquette Teaching for Preschool Teachers". I hope experts can provide suggestions for the model research of this topic.

Research Objectives 1. To Investigate the digital resource needs of preschool teachers to enhance their etiquette education abilities.

The following open questions are the data collection tools in the first stage of this study, involving issues affecting the path of cultural literacy improvement of students majoring in broadcasting.

Please write down your opinion on each question. The data obtained from this questionnaire were used only for the purposes of the above research and are confidential. Submission of personal or personal data will be avoided. These questions are a tool for collecting data in the first phase of the study.

Section 1 The information about the Bio-social characteristic of the respondents.

1. Name: _____
2. Gender: A.Male B.Female
3. Work unit _____
4. Working years _____

Section 2 Interview on the current situation of improving teacher etiquette among students majoring in preschool education.

Directions The type of question is open-ended questions, you can answer according to your actual situation. Your answers will only be used in this research and will not be disclosed individually.

1. How do you evaluate the level of digital resource utilization in etiquette courses for preschool teachers in schools?
2. How do you integrate traditional professional etiquette teaching content with digital resources?

3. What challenges have you encountered when using digital resources for teaching?
4. What significant advantages do you think digital resources have in improving the effectiveness of professional etiquette teaching for preschool teachers?
5. What are your prospects or suggestions for the development of digital resources for the application of professional etiquette teaching for preschool teachers in the future?

Questionnaire for students

Directions

This interview is part of the research titled "Building Digital Resources to Support Professional Etiquette Teaching for Preschool Teachers". The purpose is to collect feedback, needs, and suggestions from students on the current status of the application of etiquette digital resources by preschool teachers.

The questionnaire can be divided into the following parts:

Section 1 Basic information of respondents

1. Gender: A.Male B.Female
2. School attended _____
3. Grade enrolled _____
4. Age _____

Section 2 Feedback, needs, and suggestions from students on strategies to enhance the etiquette and digital resources of preschool teachers.

The questionnaire type is closed ended and can only be answered by selecting from the numbers provided in the total rating scale (5 scales).

The main issues of this project consist of two parts: feedback from respondents on the literacy measures developed by the school for students, and respondents' needs for literacy strategies.

Directions

Fill in the form according to the requirements of each question. You can only choose one answer for each question.

- 5 Indicates that you strongly agree with the project.
- 4 indicates that you strongly agree with the project.
- 3 indicates that you are neutral.
- 2 indicates that you do not strongly agree with the project.
- 1 indicates that you do not strongly agree with the project.

Questions	Answers				
	5	4	3	2	1
An evaluation of the current situation					
1. The preschool education major attaches great importance to etiquette education.					
2. The school regularly holds special lectures and workshops on etiquette for preschool teachers.					
3. External experts and senior teachers in the field of early childhood education are often invited to teach at the school.					
4. The school actively organizes and leads students to participate in extracurricular preschool teacher etiquette display activities.					
5. Most students learn through courses and practical activities.					
6. The school encourages students to participate in various cultural and educational themed speech competitions to enhance their overall quality.					
7. In the classroom, teachers focus on using methods such as case analysis and situational simulation.					
8. The school offers elective courses covering various aspects such as Chinese and Western etiquette.					
9. The evaluation methods for etiquette courses for preschool teachers are flexible and diverse.					
10. Developed good reading habits.					
Students' demand for strategies for improving cultural literacy					
1. I hope that the cultural interpretation of digital resources can be easily understood and help me master etiquette knowledge.					
2. I hope that resources can be continuously updated, keep up with current events, and enhance learning value.					

Questions	Answers				
	5	4	3	2	1
3. I hope the content keeps up with educational trends and feels the pulse of etiquette culture in the era.					
4. I hope that the selection of resources takes into account students' interests and stimulates their enthusiasm for learning etiquette.					
5. I hope to deeply interpret classic etiquette and understand its essence and connotation.					
6. I hope to participate in extracurricular cultural activities to enhance my organizational and collaborative skills.					
7. I hope the school can invite external experts to give lectures and broaden the perspective of etiquette.					
8. I hope teachers can combine digital resources to enhance the practicality of etiquette learning.					
9. I hope the platform can establish an expert database to promote etiquette learning and communication.					
10. I hope to participate in extracurricular activities to enhance my professional etiquette and comprehensive abilities.					

The sample group and the Comparison group learn level conformance tests

Directions

This questionnaire test is mainly to test whether the learning level of the comparison group and the sample group is consistent, so as to prepare for the subsequent data investigation and research.

Section 1 Basic information of respondents

1. Your category is

- Sample group Comparison group

2. Your school is

- Heqin Preschool Education College
 Xuemen Preschool Education College
 Xianjiang Art College

Section 2 The survey mainly focuses on the learning of etiquette, professional learning abilities and habits, self-evaluation of professional level, and understanding of the future development of the industry among students majoring in preschool education. Observe whether the learning ability and professional development level of the two groups of students are consistent.

The questionnaire type is closed-end and can only be answered by choosing from the numbers provided to the total rating scale (5 scales).

Directions

Fill in the form according to the requirements of each question. You can only choose one answer for each question.

- 5 Indicates that you strongly agree with the project.
- 4 indicates that you strongly agree with the project.
- 3 indicates that you are neutral.
- 2 indicates that you do not strongly agree with the project.
- 1 indicates that you do not strongly agree with the project.

Questions	Answers				
	5	4	3	2	1
1. I can clearly understand the core concepts and principles in the etiquette curriculum for preschool teachers.					
2. I am able to naturally and appropriately demonstrate the etiquette of preschool teachers in simulated teaching situations.					
3. I can accurately use standard language and posture to demonstrate teaching for young children.					
4. I can flexibly adjust my teaching etiquette performance according to different teaching scenarios.					
5. When facing teaching pressure, I can maintain a calm and professional etiquette attitude.					
6. I am able to deeply understand and effectively convey the educational significance behind the etiquette of preschool teachers.					
7. I am familiar with and proficient in various etiquette teaching methods and techniques for preschool teachers.					
8. I am able to adjust my teaching etiquette strategies in a timely manner based on the reactions of children and parents.					
9. I am proficient in using multimedia and other teaching resources to assist with etiquette teaching.					
10. In team learning, I can actively contribute and promote the sharing and improvement of etiquette teaching knowledge.					
11. I am able to effectively plan and manage my time, ensuring adequate preparation and efficient participation in etiquette courses.					
12. I am able to actively accept and reflect on the					

Questions	Answers				
	5	4	3	2	1
criticism and feedback in the course, constantly improving my learning.					
13. I have a clear understanding of the development trend of etiquette for preschool teachers in the field of early childhood education.					
14. I am able to calmly deal with sudden etiquette issues during teaching internships or classes.					
15. I often consolidate and improve my etiquette skills as a preschool teacher through practical exercises.					
16. I am good at observing and imitating the etiquette behavior of excellent preschool teachers to improve myself.					
17. I am capable of independently designing and implementing etiquette teaching activities that are tailored to the characteristics of young children.					
18. I am able to flexibly apply etiquette knowledge in different types of preschool education activities.					
19. I am able to deeply analyze and understand the expectations and needs of young children and parents for etiquette education.					
20. I am confident in my ability to learn etiquette courses as a preschool teacher and continue to pursue progress.					

Student learning ability assessed through ability assessment

Directions

This test is a pre-test and post test conducted by students in the sample group and control group. Through this test, we can observe and study the changes in the etiquette literacy training mode for preschool education majors before and after, and use it as an important reference for this study.

Section 1 Basic information of respondents

1. Your category is

- Sample group Comparison group

2. Your school is

- Heqin Preschool Education College
 Xuemen Preschool Education College
 Xianjiang Art College

Section 2 The content of this test tests the use and proficiency of digital resource content by preschool education majors in the process of teacher etiquette learning from several aspects. Including whether it is possible to showcase relevant etiquette literacy based on different content, whether it is possible to develop good etiquette literacy habits, and whether it is possible to fully understand the background of the preschool teacher environment before interacting with young children.

The questionnaire type is closed-end and can only be answered by choosing from the numbers provided to the total rating scale (5 scales).

Directions

Fill in the form according to the requirements of each question. You can only choose one answer for each question.

It should be noted that the 5 choices for each question represent the highest score (5 points), 4 represents 4 points, and so on, with the lowest score for each question being 1 point. A total of 20 to 100 points, 60 points is a passing score.

5 Indicates that you strongly agree with the project.

4 indicates that you strongly agree with the project.

3 indicates that you are neutral.

2 indicates that you do not strongly agree with the project.

1 indicates that you do not strongly agree with the project.

Questions	Answers				
	5	4	3	2	1
1. How much do you know about the etiquette of preschool teachers during your studies in preschool education?					
2. Can you demonstrate the etiquette skills of preschool teachers?					
3. Do you actively practice etiquette skills as a preschool teacher?					
4. Can you learn etiquette for preschool teachers through different learning methods?					
5. How much do you think digital resources can help improve the etiquette of your preschool teacher?					
6. Can you accurately use the standardized etiquette movements of preschool teachers?					
7. Can you demonstrate the etiquette of preschool teachers in accordance with current kindergarten requirements?					
8. Can you reflect the professionalism of etiquette for preschool teachers?					
9. Can you accurately express the etiquette of preschool teachers in different settings?					
10. What do you think is the importance of etiquette for preschool teachers in kindergarten?					
11. Have you considered the suitability of the audience when demonstrating the etiquette of preschool teachers?					
12. Can you apply relevant knowledge in the etiquette					

Questions	Answers				
	5	4	3	2	1
presentation of preschool teachers?					
13. Can you provide a professional explanation based on the etiquette of preschool teachers?					
14. How much do you think digital resources can contribute to improving the etiquette of preschool teachers?					
15. Can you combine digital resources with teacher etiquette for analysis?					
16. Can you correctly distinguish and express various occasion requirements in the process of etiquette learning for preschool teachers?					
17. Can you accurately understand and respond to the etiquette requirements of preschool teachers during the interview process?					
18. Can you combine the situation of the kindergarten when demonstrating etiquette?					
19. What do you think is the role of digital resources in improving the depth and breadth of etiquette for preschool teachers?					
20. Can you adjust the etiquette learning process for preschool teachers according to different occasions?					

Specialized grouping tests conducted by sample groups

Directions

This test mainly divides the sample group of students into different types based on their interests, hobbies, and majors, in order to provide targeted training for students according to the next step of etiquette literacy improvement strategy training mode.

Section 1 Basic information of respondents

1. Your name is _____

2. Your school is

Heqin Preschool Education College

Xuemen Preschool Education College

Xianjiang Art College

Section 2 This test mainly investigates students' shaping of teacher image, classroom etiquette, oral etiquette, and interaction with young children, in order to summarize the conclusions and group them according to the above content.

Directions

The question type is a closed multiple choice question. Each question has four answers, calculate the number of students who choose A or C and the number of students who choose B or D, and group them according to the majority tendency of the choices. For example, students who choose six A's or C's and four B's or D's are assigned to each class.

Questions	Answers			
	A	B	C	D
1.What teacher etiquette behaviors are you good at?	Teacher image shaping	Teacher's oral English	Classroom etiquette	Class Day Activity Etiquette
2.What kind of teacher etiquette do you think you are better at?	Class Day Activity Etiquette	Oral Etiquette	Classroom etiquette	Other Etiquette
3.What do preschool teachers pay more attention to in their daily etiquette?	Display standardized actions	affinity	objectivity	love and care for children
4.Which teacher etiquette style do you think is more suitable for you?	Authority, major	Affinity, funny	Calm, analyze	Enthusiasm, interaction
5.What type of content do you prefer to handle?	An approachable teacher	A preschool teacher with childlike innocence	A caring preschool teacher	Responsible preschool teachers
6.How do you behave under stressful situations?	Stay calm, stay professional	Resolve tension with humor	Treat rationally	Relax the atmosphere with enthusiasm and interaction
7.Which work environment do you prefer?	Serious quiet	It's fun	Orderly and rational	Full of vitality
8.What do you think of everyone's evaluation of your presentation?	Pay attention to and adjust the	I am very interested in the audience's	Analyze audience feedback to correct	Enhance communication through active

Questions	Answers			
	A	B	C	D
	standardization of actions	immediate reactions	behavior	engagement
9.How do you prepare for etiquette as a preschool teacher?	Conduct thorough background checks and prepare sufficient information	Actively communicate and enhance communication	Analyze children's coping problems	Actively communicate with children
10.Which type of child do you prefer?	Through active communication and interaction	Interact through games and activities	Interacting through learning and communication	Interacting through problem-solving

Appendix D

The Results of the Quality Analysis of Research Instruments

Questionnaire for students Validity analysis results

name	Factor load factor					Common degree (common factor variance)
	factor	factor	factor	factor	factor	
	1	2	3	4	5	
Your gender is	0.161	0.079	0.114	0.206	0.696	0.841
Your current grade is	0.136	0.235	0.614	-0.008	0.462	0.513
What is your current focus on learning teacher etiquette?	-0.155	0.403	0.497	-0.379	0.450	0.845
Are you satisfied with the teacher etiquette classes provided by our school?	0.290	0.777	0.020	-0.075	0.082	0.816
Do you think teachers will guide your preschool teacher's etiquette learning based on your learning progress?	0.037	0.866	-0.103	0.049	-0.050	0.591
What are your expectations for professional etiquette digital resources for preschool teachers?	0.111	0.543	0.659	-0.050	-0.156	0.748
Which of the following best meets your expectations?	0.036	-0.112	0.805	0.029	0.004	0.505
Are you satisfied with the learning atmosphere of etiquette for preschool teachers in our school?	0.771	0.002	0.261	-0.025	-0.102	0.622
Do you think the coverage of using digital resources in the classroom is sufficient?	0.744	0.330	0.130	0.004	-0.137	0.559

Questionnaire for students Validity analysis results

name	Factor load factor					Common degree (common factor variance)
	factor	factor	factor	factor	factor	
	1	2	3	4	5	
Do you think the courses offered by the school are rich and diverse?	0.836	0.174	0.016	-0.022	0.439	0.545
Are you satisfied with the construction of digital resources in the school?	0.836	-0.042	-0.069	-0.109	0.135	0.693
How satisfied are you with the teacher's guidance and assistance in digital resources?	0.106	0.400	0.021	0.201	-0.591	0.791
Which of the following ways do you like the most to improve your etiquette? (Multiple Choice)	-0.134	0.001	-0.264	0.724	0.143	0.520
What aspects do you most hope the school can provide support and assistance in improving your professional etiquette and communication skills? (Multiple Choice)	-0.031	-0.028	0.124	0.707	-0.152	0.698
KMO price <input type="checkbox"/>			0.799			-
Bart spherical value			395.227			-
df <input type="checkbox"/>			91			-
p price <input type="checkbox"/>			0.000			-

Measuring items	Expert 1	Expert 2	Expert 3	Expert 4	Expert 5	Expert 6	Content validity (I-CVI)	I-CVI appraise	Correct content validity (adjusted Kappa, K *)	K * value evaluation
What is your current focus on learning teacher etiquette?	4	4	3	4	4	4	1.000	pass through	1.000	outstanding
Are you satisfied with the construction of digital resources in the school?	4	4	3	4	4	3	1.000	pass through	1.000	outstanding
How satisfied are you with the teacher's guidance and assistance in digital resources?	4	4	4	4	4	4	1.000	pass through	1.000	outstanding
What are your expectations for professional etiquette digital resources for preschool teachers?	4	3	4	4	3	4	1.000	pass through	1.000	outstanding
Which of the following best meets your expectations?	4	4	4	4	4	3	1.000	pass through	1.000	outstanding

Measuring items	Expert 1	Expert 2	Expert 3	Expert 4	Expert 5	Expert 6	Content validity (I-CVI)	I-CVI appraise	Correct content validity (adjusted Kappa, K *)	K * value evaluation
Are you satisfied with the learning atmosphere of etiquette for preschool teachers in our school?	3	4	4	4	4	4	1.000	pass through	1.000	outstanding
Do you think the coverage of using digital resources in the classroom is sufficient?	3	4	4	4	4	3	1.000	pass through	1.000	outstanding
Do you think the courses offered by the school are rich and diverse?	4	3	3	4	4	4	1.000	pass through	1.000	outstanding
Are you satisfied with the construction of digital resources in the school?	4	4	3	4	4	3	1.000	pass through	1.000	outstanding
How satisfied are you with the teacher's guidance and assistance in digital resources?	4	4	4	4	3	4	1.000	pass through	1.000	outstanding

Measuring items	Expert 1	Expert 2	Expert 3	Expert 4	Expert 5	Expert 6	Content validity (I-CVI)	I-CVI appraise	Correct content validity (adjusted Kappa, K *)	K * value evaluation
How satisfied are you with the teacher's guidance and assistance in digital resources?	4	4	4	4	4	4	1.000	pass through	1.000	outstanding
What aspects do you most hope the school can provide support and assistance in improving your professional etiquette and communication skills? (Multiple Choice)	4	4	4	4	4	4	1.000	pass through	1.000	outstanding

The sample group and the Comparison group learn level conformance tests
Validity analysis results

Name	Factor load factor						Common degree (common factor variance)
	Factor 1	Factor 2	Factor 3	Factor 4	Factor 5	Factor 6	
1.I can clearly understand the core concepts and principles in the etiquette curriculum for preschool teachers.	0.745	0.383	-0.006	0.106	0.326	0.187	0.778
2. I am able to naturally and appropriately demonstrate the etiquette of preschool teachers in simulated teaching situations.	0.707	0.443	-0.057	-0.009	0.048	0.376	0.546
3. I can accurately use standard language and posture to demonstrate teaching for young children.	0.205	0.634	0.090	-0.101	0.463	0.205	0.849
4. I can flexibly adjust my teaching etiquette performance according to different teaching scenarios.	0.192	0.179	-0.078	0.147	0.807	0.080	0.645
5.When facing teaching pressure, I can maintain a calm and	0.071	-0.070	0.365	0.536	0.444	0.082	0.793

Name	Factor load factor						Common degree (common factor variance)
	Factor 1	Factor 2	Factor 3	Factor 4	Factor 5	Factor 6	
professional etiquette attitude.							
6.I am able to deeply understand and effectively convey the educational significance behind the etiquette of preschool teachers.	0.099	0.063	0.570	0.289	0.366	0.325	0.679
7. I am familiar with and proficient in various etiquette teaching methods and techniques for preschool teachers.	0.373	0.113	0.226	0.667	0.158	-0.121	0.618
8.I am able to adjust my teaching etiquette strategies in a timely manner based on the reactions of children and parents.	0.148	0.155	0.494	0.054	0.553	0.346	0.566
9.I am proficient in using multimedia and other teaching resources to assist with etiquette teaching.	-0.025	0.122	0.172	0.147	0.111	0.843	0.833
10. In team learning, I can actively contribute and promote the	0.504	0.151	0.023	0.063	0.189	0.654	0.688

Name	Factor load factor						Common degree (common factor variance)
	Factor 1	Factor 2	Factor 3	Factor 4	Factor 5	Factor 6	
sharing and improvement of etiquette teaching knowledge.							
11. I am able to effectively plan and manage my time, ensuring adequate preparation and efficient participation in etiquette courses.	0.069	0.203	0.126	0.740	0.046	0.366	0.826
12. I am able to actively accept and reflect on the criticism and feedback in the course, constantly improving my learning.	0.084	0.520	-0.106	0.596	0.001	0.078	0.724
13. I have a clear understanding of the development trend of etiquette for preschool teachers in the field of early childhood education.	0.367	0.569	0.314	0.128	0.373	0.101	0.672
14. I am able to calmly deal with sudden etiquette issues during teaching internships or classes.	0.790	-0.066	0.107	0.121	0.123	-0.099	0.592

Name	Factor load factor						Common degree (common factor variance)
	Factor 1	Factor 2	Factor 3	Factor 4	Factor 5	Factor 6	
15.I often consolidate and improve my etiquette skills as a preschool teacher through practical exercises.	0.143	0.139	0.818	0.076	-0.071	0.025	0.577
16.I am good at observing and imitating the etiquette behavior of excellent preschool teachers to improve myself.	0.150	0.664	0.474	0.120	0.027	0.325	0.557
17.I am capable of independently designing and implementing etiquette teaching activities that are tailored to the characteristics of young children.	0.196	0.824	0.057	0.269	0.029	0.027	0.584
18.I am able to flexibly apply etiquette knowledge in different types of preschool education activities.	0.089	0.451	0.369	0.226	0.309	0.038	0.519
19.I am able to deeply analyze and understand the	0.597	0.341	0.195	0.285	0.272	0.250	0.770

Name	Factor load factor						Common degree (common factor variance)
	Factor 1	Factor 2	Factor 3	Factor 4	Factor 5	Factor 6	
expectations and needs of young children and parents for etiquette education.							
20.I am confident in my ability to learn etiquette courses as a preschool teacher and continue to pursue progress.	0.651	0.196	0.375	0.144	-0.052	0.025	0.781
KMO price <input type="checkbox"/>	0.895	-					
Bart spherical value	435.786	-					
df <input type="checkbox"/>	190	-					
p price <input type="checkbox"/>	0.000	-					

Measuring items	Expert 1	Expert 2	Expert 3	Expert 4	Expert 5	Expert 6	Content validity (I-CVI)	I-CVI appraise	Correct content validity (adjust Kappa, K*)	K * value evaluation
1.I can clearly understand the core concepts and principles in the etiquette curriculum for preschool teachers.	4	3	4	4	4	4	1.000	pass through	1.000	outstanding
2. I am able to naturally and appropriately demonstrate the etiquette of preschool teachers in simulated teaching situations.	4	4	4	4	4	3	1.000	pass through	1.000	outstanding
3. I can accurately use standard language and posture to demonstrate teaching for young children.	4	3	4	3	4	4	1.000	pass through	1.000	outstanding
4. I can flexibly adjust my teaching etiquette performance according to different teaching scenarios.	4	4	4	4	4	4	1.000	pass through	1.000	outstanding

Measuring items	Expert 1	Expert 2	Expert 3	Expert 4	Expert 5	Expert 6	Content validity (I-CVI)	I-CVI appraise	Correct content validity (adjust Kappa, K*)	K * value evaluation
5. When facing teaching pressure, I can maintain a calm and professional etiquette attitude.	3	4	4	3	4	4	1.000	pass through	1.000	outstanding
6. I am able to deeply understand and effectively convey the educational significance behind the etiquette of preschool teachers.	4	4	4	4	4	4	1.000	pass through	1.000	outstanding
7. I am familiar with and proficient in various etiquette teaching methods and techniques for preschool teachers.	4	4	4	4	4	4	1.000	pass through	1.000	outstanding
8. I am able to adjust my teaching etiquette strategies in a timely manner based on the reactions of children and parents.	4	3	4	4	4	4	1.000	pass through	1.000	outstanding

Measuring items	Expert 1	Expert 2	Expert 3	Expert 4	Expert 5	Expert 6	Content validity (I-CVI)	I-CVI appraise	Correct content validity (adjust Kappa, K*)	K * value evaluation
9.I am proficient in using multimedia and other teaching resources to assist with etiquette teaching.	4	4	4	3	4	4	1.000	pass through	1.000	outstanding
10. In team learning, I can actively contribute and promote the sharing and improvement of etiquette teaching knowledge.	3	4	4	4	4	4	1.000	pass through	1.000	outstanding
11. I am able to effectively plan and manage my time, ensuring adequate preparation and efficient participation in etiquette courses.	4	4	4	4	3	4	1.000	pass through	1.000	outstanding
12.I am able to actively accept and reflect on the criticism and feedback in the course, constantly	3	4	4	4	4	3	1.000	pass through	1.000	outstanding

Measuring items	Expert 1	Expert 2	Expert 3	Expert 4	Expert 5	Expert 6	Content validity (I-CVI)	I-CVI appraise	Correct content validity (adjust Kappa, K*)	K * value evaluation
improving my learning.										
13.I have a clear understanding of the development trend of etiquette for preschool teachers in the field of early childhood education.	4	4	4	3	4	4	1.000	pass through	1.000	outstanding
14.I am able to calmly deal with sudden etiquette issues during teaching internships or classes.	3	4	4	4	4	4	1.000	pass through	1.000	outstanding
15.I often consolidate and improve my etiquette skills as a preschool teacher through practical exercises.	4	4	4	4	4	4	1.000	pass through	1.000	outstanding
16.I am good at observing and imitating the etiquette behavior of excellent preschool teachers to improve myself.	4	4	4	4	4	4	1.000	pass through	1.000	outstanding

Measuring items	Expert 1	Expert 2	Expert 3	Expert 4	Expert 5	Expert 6	Content validity (I-CVI)	I-CVI appraise	Correct content validity (adjust Kappa, K*)	K * value evaluation
17.I am capable of independently designing and implementing etiquette teaching activities that are tailored to the characteristics of young children.	4	4	4	4	4	4	1.000	pass through	1.000	outstanding
18.I am able to flexibly apply etiquette knowledge in different types of preschool education activities.	4	4	3	4	4	4	1.000	pass through	1.000	outstanding
19.I am able to deeply analyze and understand the expectations and needs of young children and parent: for etiquette education.	4	4	4	3	4	4	1.000	pass through	1.000	outstanding
20.I am confident in my ability to learn etiquette courses as a preschool teacher and continue to pursue progress.	4	4	4	4	4	4	1.000	pass through	1.000	outstanding

Student literacy using proficiency assessment Validity analysis results

Name	Factor load factor						Common degree (common factor variance)
	factor	factor	factor	factor	factor	factor	
	1	2	3	4	5	6	
1.How much do you know about the etiquette of preschool teachers during your studies in preschool education?	0.241	0.784	0.006	0.179	0.047	-0.046	0.506
2.Can you demonstrate the etiquette skills of preschool teachers?	0.326	0.717	0.114	0.317	0.012	0.077	0.514
3.Do you actively practice etiquette skills as a preschool teacher?	0.194	0.594	0.297	-0.000	0.295	0.217	0.714
4.Can you learn etiquette for preschool teachers through different learning methods?	0.123	0.468	0.165	0.233	-0.145	0.760	0.519
5.How much do you think digital resources can help improve the etiquette of your preschool teacher?	-0.057	0.652	0.077	-0.108	0.374	0.054	0.679
6.Can you accurately use the standardized etiquette movements of preschool teachers?	0.647	0.187	0.173	0.078	-0.077	0.331	0.818
7.Can you demonstrate the etiquette of preschool teachers in	0.850	0.125	0.087	-0.060	0.218	0.042	0.596

Measuring items	Expert 1	Expert 2	Expert 3	Expert 4	Expert 5	Expert 6	Content validity (I-CVI)	I-CVI appraise	Correct content validity (adjust Kappa, K*)	K * value evaluation
accordance with current kindergarten requirements?										
8.Can you reflect the professionalism of etiquette for preschool teachers?		0.709	0.155	0.176	0.126	0.243	-0.005	0.687		
9.Can you accurately express the etiquette of preschool teachers in different settings?		0.417	0.097	0.039	0.263	0.665	-0.176	0.829		
10.What do you think is the importance of etiquette for preschool teachers in kindergarten?		0.115	0.147	0.055	0.196	0.680	0.150	0.629		
11.Have you considered the suitability of the audience when demonstrating the etiquette of preschool teachers?		0.348	0.119	0.407	0.504	0.206	0.180	0.755		
12.Can you apply relevant knowledge in the etiquette presentation of preschool teachers?		0.217	-0.082	0.101	0.814	0.097	0.006	0.624		
13.Can you provide a professional explanation based on the etiquette of preschool teachers?		-0.122	0.274	0.143	0.698	0.047	0.088	0.673		

Measuring items	Expert 1	Expert 2	Expert 3	Expert 4	Expert 5	Expert 6	Content validity (I-CVI)	I-CVI appraise	Correct content validity (adjust Kappa, K*)	K * value evaluation
14.How much do you think digital resources can contribute to improving the etiquette of preschool teachers?		-0.046	0.096	-0.153	-0.007	0.009	0.687		0.676	
15.Can you combine digital resources with teacher etiquette for analysis?		0.005	0.206	0.444	0.452	-0.041	-0.329		0.699	
16.Can you correctly distinguish and express various occasion requirements in the process of etiquette learning for preschool teachers?		0.042	0.258	0.790	0.172	0.074	0.016		0.587	
17.Can you accurately understand and respond to the etiquette requirements of preschool teachers during the interview process?		0.165	0.024	0.751	0.124	0.175	0.071		0.814	
18.Can you combine the situation of the kindergarten when demonstrating etiquette?		0.358	0.175	0.593	0.075	0.041	-0.095		0.689	
19.What do you think is the role of digital resources in improving the		0.211	-0.065	0.163	0.002	0.301	0.656		0.557	

Measuring items	Expert 1	Expert 2	Expert 3	Expert 4	Expert 5	Expert 6	Content validity (I-CVI)	I-CVI appraise	Correct content validity (adjust Kappa, K*)	K * value evaluation
depth and breadth of etiquette for preschool teachers?										
20.Can you adjust the etiquette learning process for preschool teachers according to different occasions?	0.222	0.304	0.297	0.004	0.602	0.056	0.784			
KMO price <input type="checkbox"/>					0.857					-
Bart spherical value					497.341					-
df <input type="checkbox"/>					190					-
p price <input type="checkbox"/>					0.000					-

Measuring items	Expert 1	Expert 2	Expert 3	Expert 4	Expert 5	Expert 6	Content validity (I-CVI)	I-CVI appraise	Correct content validity (adjusted Kappa, K *)	K * value evaluative
1.How much do you know about the etiquette of preschool teachers during your studies in preschool education?	4	4	4	4	4	4	1.000	pass through	1.000	outstanding
2.Can you demonstrate the etiquette skills of preschool teachers?	4	4	3	4	4	4	1.000	pass through	1.000	outstanding
3.Do you actively practice etiquette skills as a preschool teacher?	4	3	4	4	4	4	1.000	pass through	1.000	outstanding
4.Can you learn etiquette for preschool teachers through different learning methods?	4	3	4	4	4	4	1.000	pass through	1.000	outstanding

Measuring items	Expert 1	Expert 2	Expert 3	Expert 4	Expert 5	Expert 6	Content validity (I-CVI)	I-CVI appraise	Correct content validity (adjusted Kappa, K *)	K * value evaluative
5.How much do you think digital resources can help improve the etiquette of your preschool teacher?	4	4	4	3	4	4	1.000	pass through	1.000	outstanding
6.Can you accurately use the standardized etiquette movements of preschool teachers?	4	4	4	3	4	4	1.000	pass through	1.000	outstanding
7.Can you demonstrate the etiquette of preschool teachers in accordance with current kindergarten requirements?	4	4	4	4	3	4	1.000	pass through	1.000	outstanding
8.Can you reflect the professionalism of etiquette for	4	3	4	4	4	4	1.000	pass through	1.000	outstanding

Measuring items	Expert 1	Expert 2	Expert 3	Expert 4	Expert 5	Expert 6	Content validity (I-CVI)	I-CVI appraise	Correct content validity (adjust Kappa, K *)	K * value evaluative
preschool teachers?										
9.Can you accurately express the etiquette of preschool teachers in different settings?	4	4	4	4	4	4	1.000	pass through	1.000	outstanding
10.What do you think is the importance of etiquette for preschool teachers in kindergarten?	4	4	3	4	4	4	1.000	pass through	1.000	outstanding
11.Have you considered the suitability of the audience when demonstrating the etiquette of preschool teachers?	4	4	4	4	3	4	1.000	pass through	1.000	outstanding
12.Can you apply relevant	3	4	4	4	4	4	1.000	pass through	1.000	outstanding

Measuring items	Expert 1	Expert 2	Expert 3	Expert 4	Expert 5	Expert 6	Content validity (I-CVI)	I-CVI appraise	Correct content validity (adjust Kappa, K *)	K * value evaluative
knowledge in the etiquette presentation of preschool teachers?										
13.Can you provide a professional explanation based on the etiquette of preschool teachers?	4	4	4	4	3	4	1.000	pass through	1.000	outstanding
14.How much do you think digital resources can contribute to improving the etiquette of preschool teachers?	3	4	4	4	4	4	1.000	pass through	1.000	outstanding
15.Can you combine digital resources with teacher etiquette for analysis?	4	4	3	4	4	4	1.000	pass through	1.000	outstanding

Measuring items	Expert 1	Expert 2	Expert 3	Expert 4	Expert 5	Expert 6	Content validity (I-CVI)	I-CVI appraise	Correct content validity (adjust Kappa, K *)	K * value evaluative
16.Can you correctly distinguish and express various occasion requirements in the process of etiquette learning for preschool teachers?	4	4	4	4	4	4	1.000	pass through	1.000	outstanding
17.Can you accurately understand and respond to the etiquette requirements of preschool teachers during the interview process?	4	4	4	4	4	3	1.000	pass through	1.000	outstanding
18.Can you combine the situation of the kindergarten when demonstrating etiquette?	3	4	4	4	4	4	1.000	pass through	1.000	outstanding

Measuring items	Expert 1	Expert 2	Expert 3	Expert 4	Expert 5	Expert 6	Content validity (I-CVI)	I-CVI appraise	Correct content validity (adjust Kappa, K *)	K * value evaluative
19.What do you think is the role of digital resources in improving the depth and breadth of etiquette for preschool teachers?	4	4	4	4	4	4	1.000	pass through	1.000	outstanding
20.Can you adjust the etiquette learning process for preschool teachers according to different occasions?	4	4	4	4	4	4	1.000	pass through	1.000	outstanding

Measuring items	Expert 1	Expert 2	Expert 3	Expert 4	Expert 5	Content validity (I-CVI)	I-CVI appraise	Correct content validity (adjust Kappa, K *)	K * value evaluative
What teacher etiquette behaviors are you good at?	4	4	4	4	3	1.000	pass through	1.000	outstanding
What kind of teacher etiquette do you think you are better at?	4	4	4	4	3	1.000	pass through	1.000	outstanding
What do preschool teachers pay more attention to in their daily etiquette?	4	3	4	3	4	1.000	pass through	1.000	outstanding
Which teacher etiquette style do you think is more suitable for you?	4	3	3	4	3	0.833	pass through	0.816	outstanding
What type of content do you prefer to handle?	4	4	4	4	4	1.000	pass through	1.000	outstanding

Measuring items	Expert 1	Expert 2	Expert 3	Expert 4	Expert 5	Content validity (I-CVI)	I-CVI appraise	Correct content validity (adjust Kappa, K *)	K * value evaluative
How do you behave under stressful situations?	3	4	4	4	4	1.000	pass through	1.000	outstanding
Which work environment do you prefer?	4	4	4	3	4	1.000	pass through	1.000	outstanding
What do you think of everyone's evaluation of your presentation?	4	4	3	4	4	1.000	pass through	1.000	outstanding
How do you prepare for etiquette as a preschool teacher?	3	4	4	4	4	1.000	pass through	1.000	outstanding
Which type of child do you prefer?	4	4	4	4	4	1.000	pass through	1.000	outstanding

Appendix E
Certificate of English

**BS
RU** BANSOMDEJCHAOPRAYA
RAJABHAT UNIVERSITY

This is to certify that

Ms. Wang Qingdi

Achieved BSRU English Proficiency Test (BSRU-TEP) level

C2

Given on 22nd August 2021



(Assistant Professor Dr. Kulsirin Aphiratvoradej)
Director

Appendix F

The Document for Acceptance Research



วารสาร RSU JET

วิศวกรรมและเทคโนโลยี มหาวิทยาลัยรังสิต

RANGSIT UNIVERSITY JOURNAL OF ENGINEERING AND TECHNOLOGY

1 ตุลาคม 2567

เรื่อง ตอบรับบทความเรื่อง *"Constructing an Effective Online Teaching (EOT) Model for Etiquette Education for Preschool Teachers"* ลงตีพิมพ์ในวารสารวิศวกรรมและเทคโนโลยี มหาวิทยาลัยรังสิต (RSU JET)

เขียน Wang Qingdi, Asst.Prof.Dr.Prapai Sridama, Dr.Piyanan Issarawit and Asst.Prof.Dr.Kanakorn Sawangcharoen

กองบรรณาธิการวารสารวิศวกรรมและเทคโนโลยี มหาวิทยาลัยรังสิต (RSU JET) ขอเรียนแจ้งให้ท่านทราบว่า บทความเรื่อง *"Constructing an Effective Online Teaching (EOT) Model for Etiquette Education for Preschool Teachers"* ที่ท่านส่งมาเพื่อพิจารณาและตีพิมพ์กับวารสารฯ นั้น ขณะนี้ผ่านการพิจารณาแล้ว โดยทางวารสารฯ จะนำบทความของท่านลงตีพิมพ์ในวารสารฯ เล่มปีที่ 27 ฉบับที่ 2 (กรกฎาคม-ธันวาคม 2567)

ขอแสดงความนับถือ

(รองศาสตราจารย์ ดร. ตวงอาทิตย์ ศรีมุด)

บรรณาธิการวารสารวิศวกรรมและเทคโนโลยี มหาวิทยาลัยรังสิต

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- Master of Software Engineering, Yunnan University Ethnicity, 2013
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Work experience

- Teacher, Zhejiang Ningbo Public Relations and Marketing Management
School, from 2001 to 2006
- Teacher, Zhejiang Ningbo Electronic Vocational High School, from 2007 to 2012
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