



**EXPLORATION OF INNOVATION AND CREATIVITY IN CREATIVE
ART ACTIVITIES: ATTITUDES AND PERCEPTIONS OF
KINDERGARTEN TEACHERS IN YUNNAN**



**BY
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Abstract

This study uses the creative art education in kindergartens in Qujing City, Yunnan Province, as an example to explore teachers' attitudes, perceptions, innovations, and creativity towards children's creative art activities. The research subjects include 261 kindergarten teachers and ten kindergarten principals from 10 public kindergartens. This study adopts a mixed-methods research approach, using two research tools: a questionnaire survey and a semi-structured interview. The quantitative research results show that kindergarten art teachers' attitudes and perceptions towards creativity and innovation significantly influence their choices of art teaching activities, consisting of evaluating and perceiving teaching activities, planning classroom activities, setting classroom goals, choosing specific art activities, adopting creative art activities and creative art activities. Teachers' positive attitudes and high creativity levels significantly promote the quality of art education. The qualitative research results revealed the differences in art education resources and teaching methods across the kindergartens. Additionally, teachers should actively explore and practice teaching innovative methods and innovative thinking according to the laws of children's physical and mental development; moreover, they should improve their professional ability and professional quality, and form the internal driving force for sustainable development. A teaching guide for creative art activities is proposed based on the research results. Further research studies should focus on improving the overall level of art education through teacher training and the enhancement of teaching resources. In addition, this study also provides empirical evidence for educational administrators and policymakers, aiming to promote the reform and development of kindergarten art education by improving teacher professional development and optimizing resource allocation.

(Total 224 pages)

Keywords: attitude and perception, innovation and creativity, factors affecting creative arts activities, kindergarten teachers

Student's Signature..... Dissertation Advisor's Signature.....

TABLE OF CONTENTS

	Page
ACKNOWLEDGEMENTS	i
ABSTRACT	ii
CONTENTS	iii
LIST OF TABLES	vi
LIST OF FIGURES	viii
CHAPTER 1 INTRODUCTION	1
1.1 Background of Research and Significance of the Study	1
1.2 Research Objectives	6
1.3 Research Questions	6
1.4 Conceptual Framework of Creativity and Innovation in Creative Art Activities	7
1.5 Research Scope	6
1.6 Definitions of Terms	11
1.7 Research Contributions	14
CHAPTER 2 LITERATURE REVIEWS	16
2.1 Theoretical Concepts of Attitude	16
2.2 Teacher's Attitude and Perception	26
2.3 Theoretical Concepts of Creativity	29
2.4 Creative art activities	45
2.5 Innovation theory	62
2.6 Kindergarten Art Teachers	66
2.7 Current Situation of Kindergarten Teachers in Qujing City, Yunnan Province	70
2.8 Related Research	73

TABLE OF CONTENTS (CONT.)

	Page
CHAPTER 3 RESEARCH METHODOLOGY	79
3.1 Research Plan	79
3.2 Population and Sample	80
3.3 Research Instruments	81
3.4 Data Collection	86
3.5 Reliability and Validity	86
3.6 Qualitative Research Design	94
3.7 Data Analysis	97
3.8 Ethical Considerations	99
CHAPTER 4 DATA ANALYSIS	100
4.1 The Analysis of Quantitative Data	100
4.2 The Analysis of Qualitative Data	127
4.3 Conclusion	146
CHAPTER 5 SUMMARY,DISCUSSIONAND RECOMMENDATION	148
5.1 Summary	148
5.2 Discussion	151
5.3 Recommendation	164
REFERENCES	167
APPENDICES	185
APPENDIX A The List of IOC Check Experts	186
APPENDIX B The Results of IOC Check for Instruments	188
APPENDIX C Sample of Research Instruments and Experts'	198
Evaluation Forms and The Sample of Questionnaire	
Evaluation Form	

TABLE OF CONTENTS (CONT.)

	Page
APPENDIX D Qualitative Data	208
APPENDIX E Consent Form	216
APPENDIX F The Final Evaluation Index	218
 BIOGRAPHY	 224



LIST OF TABLES

Table	Page
2.3 Staffing ratio of staff and children in kindergartens with different service types	71
2.4 Class size and standard of full-time teachers and nursery staff in kindergartens	71
3.1 Population and Sample	81
3.2 Three scale components	86
3.3 K-DOCS Scale Reliability Analysis Results	90
3.4 IAS Scale Reliability Analysis Results	91
3.5 Reliability Analysis Results Dependent Variable of the ACAS	92
3.6 K-DOCS Scale Validity Analysis Results	93
3.7 IAS Scale Validity Analysis Results	93
3.8 ACAS Validity Analysis Results	94
4.1 Demographic Variable Frequency and Percentage	102
4.2 Descriptive analysis of KDOCEVD	104
4.3 Descriptive analysis of KDOCSCL	105
4.4 Descriptive analysis of KDOCPFM	106
4.5 Descriptive analysis of KDOCSCL	107
4.6 Descriptive analysis of KDOCARTI	107
4.7 Descriptive analysis of K-DOCS scale and variables	108
4.8 Descriptive analysis of IASPBI	109
4.9 Descriptive analysis of IASMP	110
4.10 Descriptive analysis of IASLI	111
4.11 IAS scale and descriptive analysis of each variable	112
4.12 Descriptive analysis of EPTA	113
4.13 Descriptive analysis of ACSAA	114
4.14 Descriptive analysis of ACEOTPCO	116
4.15 Descriptive analysis of ACEOTPCA	118

LIST OF TABLES (CONT.)

Table	Page
4.16 Creative arts activity selection scale and descriptive analysis of each variable	119
4.17 Correlation	120
4.18 Correlation	120
4.19 Correlation	121
4.20 Correlation	121
4.21 ACAS Regression Coefficient	122
4.22 ACAS Regression Coefficient	123
4.23 EPTA Regression Coefficient	124
4.24 ACSAA Regression Coefficient	124
4.25 ACEOTPCO Regression Coefficient	125
4.26 ACEOTPCA Regression Coefficient	126
4.27 ACAS Regression Coefficient	127
4.28 Conceptualization Example	128
4.29 Examples of Concept Categorization and Category Induction	136
4.30 Typical Relational Structures of Main Categories	140
5.1 Guidelines Form	155

LIST OF FIGURE

Figure		Page
1.1	Conceptual Framework	7
2.1	ABC tripartite model	20
2.2	Attitude elements	21



CHAPTER 1

INTRODUCTION

1.1 BACKGROUND OF RESEARCH AND SIGNIFICANCE OF THE STUDY

Creativity is the ability of the human mind to search and find many original, innovative alternatives to solve various problems, ideas, and solutions (Antonis, 2021). Especially in education, creativity has become an essential aspect of teaching and learning that influences and shapes the possibilities of educational innovation (OECD, 2019). In China, since 2012, in the Guide to Early Learning and Development for Children Aged 3-6, it has been proposed the main goals of encouraging kindergarten learning acquisition to be imaginative and creative (Ministry of Education of the People's Republic of China, 2012). All young children must learn how to think and feel in order to survive to the next stage of education (OECD, 2018). Similarly, UNESCO endorsed that the development of physical, intellectual, social, emotional, and aesthetic issues are salient in young children's early and overall growth in their cognitive abilities and linguistic progress (UNESCO, 2018). Early childhood education at the kindergarten level aims to ensure the healthy physical and mental development of all young children entering the higher education stage (Zhou, 2007). A child's experience adversely impacts their overall health and development, affecting health, growth, learning, behavior, adult social relationships, well-being, and earnings (World Health Organization, 2023).

Creativity of using imagination or original ideas to create the world around them is vital to developing relevant skills needed for everyday life, which involve critical thinking, communication, collaboration, computational thinking, technological literacy, and socio-emotional development (UNESCO, 2015). Teachers' constant creative teaching skills will help prepare and stimulate young children for school and extend their lives (Scott, 2019).

Along with creativity, innovation is defined as a process, idea, or product designed to achieve a reasonable outcome. (Weiss & Legrand, 2011), Because creativity is considered an unlimited source of innovation, innovation can be called the application and implementation of creativity (Cachia, Ferrari, & Punie, 2009).

Continuously in 2013, the development of Chinese early childhood education mandated that all kindergarten teachers at all levels, the head teacher, teacher, and assistant teacher, must pass the assessment of the Kindergarten Work Regulations in the same year (Feng, 2013). Putting together regulations and teaching accreditation, the national curriculum guidance opts to urge all teachers in all fields, including art teachers, to better prepare and apply their knowledge and skills to their teaching and learning with creativity (Li & Wang, 2018) to continue with children's skills and development (Dinham & Stritter, 2013). Creativity and innovation are recognized as part of early modern education reform (Zhand, 2021); aesthetic education is the primary education for the all-round development of young children. My country's Ministry of Education has proposed to carry out aesthetic education in early childhood education. It enacted the Kindergarten Education Guidelines for children ages 3-6 Children, which incorporate physical and mental health, enriching life, aesthetic experience, and developing creative thinking, leading to innovation (Song, 2022).

To respond to the educational reform and Ministry of Education Policy, kindergarten art teachers, in particular, must pay attention to the school curriculum and the government guidelines (Benton, 2018). This is to develop young learners' artistic appreciation and creative abilities through skills and techniques of artistic expression. Using various methods and activities related to different arts, genres, and purposes, art teachers gain an aesthetic understanding and appreciation of art by learning about each student's interests and abilities to discover and uncover their artistic talents (AppliTrack, 2022). Accordingly, good art teachers should develop their intellectual, perceptual, emotional, and aesthetic abilities and qualities to enhance creativity and innovation in the teaching process (Erim & Cetin, 2020).

It is argued that to be a good art teacher, one must have a positive attitude and perception towards creativity and innovation, as this not only helps to promote children's individuality, active activities, and learning but also provides a student-centered approach and philosophy with integrated teaching techniques and activities (Li, 2014). While a teacher's attitude is the opinion or beliefs in working with students in the matters of choice of teaching methods and student's learning experience with positive, supportive, and inclusive, often, teacher attitudes can help encourage active participation in learning and improve their academic achievement and self-esteem (Weiss, 2019). In teaching art through activities, coupled with attitudes, perceptions also play an essential role in that the more the teachers perceive different stimuli and then internalize what they think will work for teaching their young students, the more of the links between imagination and engagement will show themselves freely in real life situation will y become (Zong, 2021). The National Association for Art Education (2018) recognizes that art teachers must pay attention to the different levels of creativity and innovation in art teaching that affect the fluency, flexibility, articulation, and originality of student students and behaviors (Narayanan & Murphy, 2017).

This is because the diversity of art teaching can help create creativity. Collaborative and imaginative problem-solving skills will increase adaptability to future changes, foster an appreciation for cultural diversity and freedom of expression, and develop innovative and critical thinking skills (UNESCO, 2022). For more than two decades, with creativity, kindergarten art teachers have improved their teaching quality with innovative teaching content and methods (Chang et al., 2012; Chen, 2010; Department of Education and Training Melbourne, 2017; OECD, 2017). Even at the kindergarten level, at ages 3-6, when young learners engage in diverse art activities, they can explore their cognitive and behavioral skills guided by the teachers as the facilitator. Choose what they want to do, think and talk about what they do, and share their aesthetic sense with the right artistic, verbal, and nonverbal behaviors through different art teaching activities (UNESCO, 2015, 2022).

While it is obvious that creativity and innovation are necessary, understanding the kindergarten art teachers' levels of creativity and innovation became prominent. Existing research investigating teachers' beliefs about creativity has produced valuable findings on how teachers conceptualize creativity and innovation. They believed that the more the teachers become creative, the more ideas and perceptions of creativity they tend to have, especially in fostering teaching and learning the art to children (Bereczki & Kárpát, 2018). More importantly, creativity and innovation are considered the most necessary skills for the 21st Century; because the concept is open to interpretation, covering everything from artistic extensions to economic, social, and problem-solving in the context of sustainable development, the United Nations has designated April 21 of each year as World Creativity and Innovation Day to raise awareness of the role of creativity and innovation in all aspects of human development.

While attitudes reflect an individual's perceptions and tendencies toward specific objects, including positive, negative, or neutral feelings, beliefs, and opinions, teachers' attitudes towards creativity are considered critical to the teaching methods they plan for teaching creativity to students, especially in the field of art (Kasirer & Schnitzer Meirovich, 2021). Some kindergarten teachers may have different attitudes regarding what methods to use in teaching creativity (Kettler, 2018). Many consider themselves creative in artistic activities such as music, song, dance, drama, and visual arts and crafts. (Al- Dababneh & Al-Zboon 2017).

Moreover, theoretically, as children become toddlers, they experience, to varying degrees, rapid development through participation in various types of creative arts teaching activities, which include) music-based activities-- listening to music, singing, playing instruments, dancing, bouncing, or moving to rhythmic sounds; 2) drama -- theater, story-telling, story-acting, fictional spaces and roles, and puppetry (Nicolopoulou et al., 2009); 3) visual arts and crafts, -- playing with building blocks; drawing, painting or finger-painting; and sculpting clay or playing with sand; 4) invention -- arts construct tactile and tangible invented objects -- cloth, paper, clay and dough; and 5) technological innovation -- Children use ICT to play games, listen to stories, draw pictures, take photos or role-play

activities. With those activities, young students can explore and play to create finished works of art (NEA, 2015; Walshe, 2022). Accordingly, adopting choices in planning and integrating creative art activities into art teaching is considered ultimate (Basak & Erdem, 2022; University of Illinois at Urbana-Champaign College of Education, 2023).

Since 2003, the National Association for the Education of Young Children (NAEYC) has advocated for the qualifications needed for a well-developed kindergarten program staffed with well-educated and well-planned arts teachers to 1) support the developmental needs of children; 2) ensure that children build on their existing knowledge to lead happy lives; 3) encourage children to experience, advocate for, and communicate about their own culture; 4) develop program goals based on children's observable developmental needs, skills, and abilities; 5) integrate technology and teaching strategies into program and curriculum content (Albrecht & Miller, 2004).

While the overall emphasis in this study was kindergarten teachers' attitudes and perceptions of innovation and creativity in teaching and learning art, it appeared that very few research concerning kindergarten art teachers in China, particularly in Qujing, Yunnan Province. To respond to the Guidelines for Kindergarten Education Policy of inspiring young children's aesthetic feelings of beauty, express the taste of beauty, and enrich children's emotional experience and aesthetics, this study filled the gap in exploring the attitudes and perceptions towards creativity and innovation of kindergarten art teachers on the adoption of choices in planning and integrating creative art activities into art teaching in Qujing City, Yunnan Province, because of the direct policy granted from the Yunnan Province and Ministry of Education of the People's Republic of China (2012) that the teachers must reform their abilities before reforming others, namely, their students. This study explored the influences of attitudes and perceptions towards creativity and innovation on integrating creative art activities into the practice of kindergarten art teaching and learning with the expectation to help understand the actual situation of kindergarten art teaching and learning by using the results gained for the interviews of the kindergarten principles to obtain of how to better creative art education in Qujing City, Yunnan Province.

1.2 RESEARCH OBJECTIVES

1.2.1 To explore the levels of attitudes and perceptions towards creativity and innovation of the kindergarten art teachers on the adoption of choices in planning and integrating art activities into creative art teaching in Qujing City, Yunnan.

1.2.2 To study the influences of attitudes and perceptions towards creativity and innovation of the kindergarten art teachers on the adoption of choices in planning and integrating art activities into creative art teaching in Qujing City, Yunnan.

1.2.3 To obtain the guidelines from the kindergarten principals to better creative art education in Qujing City, Yunnan.

1.3 RESEARCH QUESTIONS

1.3.1 What are the levels of attitudes and perceptions towards creativity and innovation of the kindergarten art teachers on the adoption of choices in planning and integrating art activities into creative art teaching in Qujing City, Yunnan.

1.3.2 What are the influences of attitudes and perceptions towards creativity and innovation of the kindergarten art teachers on the adoption of choices in planning and integrating art activities into creative art teaching in Qujing City, Yunnan.

1.3.3 What are the guidelines obtained from the kindergarten principals to better creative art education in Qujing City, Yunnan?

1.4 CONCEPTUAL FRAMEWORK OF CREATIVITY AND INNOVATION IN CREATIVE ART ACTIVITIES

Independent variables	Dependent Variable
Attitudes and perceptions towards creativity and innovation of kindergarten art teachers	Adoption of Choices in Planning Integrating Creative Art Activities

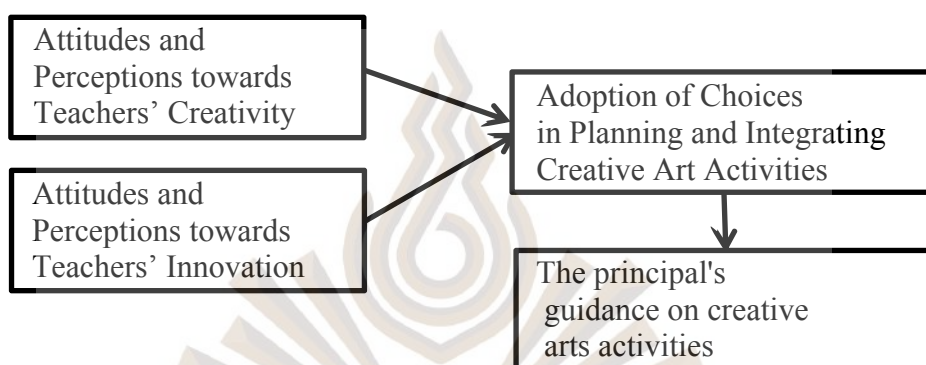


Figure 1.1 Conceptual Framework

1.5 RESEARCH SCOPE

This study utilized a mixed-methods approach consisting of an initial quantitative phase to explore the phenomenon and analyze data, followed by a qualitative phase to investigate further and explain the quantitative results in greater depth.

1.5.1 Quantitative Phrase

The quantitative phase focused on exploring kindergarten teachers' attitudes and perceptions towards creativity and innovation in teaching creative art activities and adopting choices in planning and integrating art activities into creative art teaching in Qujing City, Yunnan in Qujing City, Yunnan.

1.5.2 Population

The population was 742 art kindergarten teachers, ten of the highest specifications among the first-class public demonstration kindergarten classes that meet provincial standards in Qujing, Yunnan Province (Qujing Statistical Yearbook, 2022).

1.5.3 Sampling

A random sampling technique with a counting technique Krejcie and Morgan (2017) was used to gather the samples to ensure the representation of teachers from ten Qujing, Yunnan Province schools while maintaining a degree of randomness in the selection process. In summary, the sampling procedure was done by picking up every second name on the list from the ten kindergarten teachers' school lists until 261 respondents were yielded.

1.5.4 Measures

Before distributing the questionnaire, its validity was ensured by conducting the index of item-objective Congruence (IOC) with the five experts who are scholars in the field of Education. A survey research design was employed with the items of the questionnaire that will be taken and adapted from three different scales with the result:

Kaufman Domains of Creativity Scale (Kaufman, 2012), consisting of five domains: 1) daily (creative activities in everyday life); 2) academic (intellectual and verbal creativity); 3) performance (creativity in literature and music); 4) science (creativity in mechanics; and mathematics); 5) artistic (creativity in the visual arts).

The Innovation Attitude Scale (IAS) (Christensen & Knezek, 2022), three concepts were used to represent attitudes toward innovation and leadership in the advancement of new ideas: 1) creativity, 2) motivation or pride, and 3) leadership;

The Adoption of Choices for Creative Art Activities (Basak & Erdem, 2022) is based on 1) Evaluation Perception of Teaching Activities, 2) specified art activities in art education, 3) expected outcomes based on art objectives, 4) identify anticipated outcomes based on classroom activities planned by the teacher. Develop questionnaire items that align with these objectives and delineate the intended outcomes and goals teachers envision when devising activities.

Therefore, the questionnaire for the teacher respondents consisted of 57 questions, and a five-point Likert scale was utilized.

1.5.5 Research Instrument

The questionnaire used in this study aimed to explore the attitudes and perceptions towards creativity and innovation of kindergarten teachers in the adoption of choices in planning and integrating creative art activities in Qujing City, Yunnan;

The questionnaire consisted of two parts:

Part I: Demographic information

Part II: Kaufman Domains of Creativity Scale (Kaufman, 2012) Daily (Creative Activities in Everyday Life); 2) Academic (Intellectual and Verbal Creativity); 3) Performance (Creativity in Literature and Music); 4) Science (Creativity in Mechanics; and Mathematics); and 5) Artistic (Creativity in the Visual Arts);

Innovation Attitude Scale (IAS) (Christensen & Knezek, 2022) attitudes towards innovation and leadership in advancing new ideas are encapsulated by three key concepts: 1) creativity, 2) motivation or pride, and 3) leadership.

The Adoption of Choices for Creative Art Activities Scale: 1) Evaluation Perception of Teaching Activities; 2) specified art activities in the art education; 3) expected outcomes based on art objectives; 4) expected outcomes based on teachers'

planned classroom activities. The questionnaire items were designed to correspond with the research question and to determine which activities were adopted for the expected outcomes and objectives teachers considered while planning and integrating art teaching activities.

1.5.6 Data Analysis

Statistical Computer Program was used for Descriptive Statistics: Frequency, Percentages, Mean, Standard Deviation, Skewness, and Kurtosis. According to Taherdoost (2019), attitudes range from Strongly Agree to Disagree Strongly and will be further delineated as Strongly Positive Attitudes (SPA) to Strongly Negative Attitudes (SNA).

With the reliability of the survey, items were examined using Cronbach's Alpha Coefficient. From Table 3.3-3.4 above, we can see that the reliability α values of K-DOCS, IAS, ACAS, and each variable are 0.967, 0.960, 0.911, and 0.980, respectively, and the differences are all higher than 0.7. They are more significant than the standard value of 0.8, indicating that the current data results of this questionnaire have good consistency.

The results of multiple regression analysis in Figures 3.6-3.8 show that KDOCS and IAS have significant and positive effects on EPTA, ACSAA, ACEOTPCO, ACEOTPCA, and ACAS. They also substantially and positively impact the choice of creative art activities.

1.5.7 Qualitative Phase

The results from the questionnaire were drawn to write questions for the interview with the principals of the kindergarten schools in Qujing City, Yunnan.

In the qualitative portion of the study, the content analysis with a thematic analysis Peel (2020) was employed to elucidate the findings of the quantitative phase. The

structured coding techniques of thematic analysis utilized the Nvivo12 program to conduct a detailed thematic analysis of data. Embracing an inductive approach, the raw content underwent a systematic transformation, progressing through stages of open initial coding, reviewing, and naming themes. Peel (2020)

1.5.8 Interview

Interviews will be used to collect data. Semi-structured interviews included ten management interviewees, all of whom were school administrators, such as principals, deputy principals, and department heads from 10 public kindergartens in Qujing City, Yunnan Province. All participants were informed of the purpose of the study and signed a consent form. The investigator conducted the semi-structured interviews in Mandarin, recorded, transcribed verbatim, and translated into English. Each participant's interview lasted about 30 minutes. The number of participants was 10, and these 10 participants were drawn from different kindergartens in the ten kindergartens in Qujing City, Yunnan Province.

The study found that exploring the innovation and creativity of kindergarten teachers in creative art activities is a complex process influenced and restricted by multiple factors involving various dimensions such as teaching innovation methods, innovative thinking cultivation, teacher ability improvement, teacher quality cultivation, and teaching evaluation methods. These factors are intertwined and influence each other, constituting the internal mechanism and implementation path of kindergarten teachers' innovation of creative art activities.

1.6 DEFINITION OF TERMS

Attitude: individual's perceptions and tendencies toward specific objects, including positive, negative, or neutral feelings, beliefs, and opinions; teachers' attitudes toward creativity are considered critical to the teaching methods they plan for teaching

creativity to students, especially in the field of art. The held opinion, evaluation, belief, or emotional tendency of a person towards certain things, issues, people, or things. Attitudes reflect an individual's tendencies toward specific objects, including positive, negative, or neutral feelings, beliefs, and opinions. Attitude is often essential and may be based on an individual's experience, culture, values, emotions, and acquired information. In general, attitude is an emotional cognition and evaluation of a specific object, which can significantly influence a person's behavior and decision-making.

Teacher's Attitude: Teacher attitude refers to the attitude and emotional tendency of teachers towards work, students, and education. It includes care and support for students, enthusiasm, dedication to teaching, and recognition and commitment to professional responsibilities and missions. A positive teacher attitude can usually promote the good development of students and inject positive energy into the entire educational environment. The opinion or beliefs of teachers in working with students in the matters of choice of teaching methods and the student's learning experience. Positive, supportive, and inclusive teacher attitudes often help to encourage students' active participation in learning and improve their academic achievement and self-esteem.

Perception: Perception means having meaningful contact with various stimuli and then interpreting previous experiences into new experiences, creating new knowledge from within the person. In this study, one makes meaningful contact with various stimuli and then interprets previous experiences into new experiences, creating new knowledge from within the person. Perception of teachers, hence, is how teachers perceive different stimuli and then internalize what they think works for them in teaching and learning of the students.

Creativity: New ideas, new approaches, new attitudes, new understandings, and the way to look at problems in new ways. In this study, the creativity in creative art activities concerned with music, drama, arts and crafts, tactile and tangible creative objects or inventions, and technological innovation. When creativity is less obvious, it comes in

the form of expanding one's conceptual framework or performance that provides some answers or looking at the world or a problem outside the box.

Creative Art Activities: Creative art activities involve training in working independently and practicing creative expression of both thoughts and actions. Which are conveyed into works of art and lead to learning creative art. In this study, the coaching or training of self-knowledge with the practice of creative expression of ideas and actions, which are disseminated as works of art and lead to singing, performing, drawing, painting, printing, tearing art paper, collage art, carving, pottery, and scrap making, using ICT to perform art activities among others.

Innovation: The thinking, practicing, inventing new things that have never been used before, or implementing new methods after experimenting so that they are invented first and developed from experimentation to final execution. It can also serve as a valuable tool for organizing respondents into collaborative groups to achieve greater success when working on projects that benefit from positive attitudes towards innovation, multitasking, or other long-term and hands-on endeavors.

Kindergarten Art Teachers: Kindergarten teachers are professionals responsible for delivering kindergarten education and teaching. They must undergo rigorous training, uphold professional solid ethics, and possess comprehensive professional knowledge and skills. Professional standards serve as the fundamental requirements set by the state to ensure the professional competence of qualified kindergarten teachers, establish essential norms for educational practices, provide guidance for the professional development of kindergarten teachers, and form a crucial basis for teacher training, recruitment, education, and assessment. The Ministry of Education in our country has issued the "Professional Standards for Kindergarten Teachers (Trial). [2012] No. 1", (Ministry of Education of the People's Republic of China, 2012). This indicates the exploration of kindergarten teachers in Qujing City, Yunnan Province, that all Kindergarten teachers with all levels, the head teacher, teacher, and assistant teacher, must pass the assessment of the kindergarten Work Regulations in the same year. Kindergarten art teachers in this study are teachers with

special certificates in teaching art to young learners aged 3 to 6 in Qujing City, Yunnan Province.

Kindergarten Schools in Qujing, Yunnan Province: 10 kindergarten schools with the highest specifications among the first-class public demonstration kindergarten classes that meet provincial standards. All of those 10 kindergartens are 1) The First Kindergarten of Qujing; 2) Qujing No. 3 Kindergarten; 3) No. 1 Kindergarten, Qilin District, Qujing City; 4) No. 2 Kindergarten, Qilin District, Qujing City; 5) No. 3 Kindergarten, Qilin District, Qujing City; 6) Kindergarten, Qilin District, Qujing City; 7) Zhanyi District No.1 Kindergarten; 8) Zhanyi District No 2 Kindergarten; 9) The First Kindergarten of Huize County; and 10) The Second Kindergarten of Huize County. Qujing City, Yunnan Province: A city located at the source of the Pearl River and the junction of Yunnan, Guizhou, and Guangxi provinces in China. It is known as the "Throat of Yunnan".

1.7 RESEARCH CONTRIBUTIONS

1.7.1 The study explores the influence of art teachers' attitudes and perceptions of creativity and innovation on the planning and selection of art activities in creative art teaching, aiming to improve teachers' professional ability and quality and promote improving education quality.

1.7.2 By studying the influence of art teachers' attitudes and perceptions of creativity and innovation on the planning and selection of art activities in creative art teaching, we can deepen our understanding and improve the design and implementation of kindergarten art courses and enhance children's comprehensive literacy in the field of art.

1.7.3 Obtaining guidance from the principal can effectively guide kindergartens in Qujing City, Yunnan Province, to carry out targeted, inspiring, and practical, creative art education activities and provide better support for children's overall development.

CHAPTER 2

LITERATURE REVIEW

Chapter 2 contains 2.1) Theoretical Concepts of Attitude, 2.2) Teacher's Attitude and Perception, 2.3) Theoretical Concepts of Creativity, 2.4) Creative Art Activities, 2.5) Innovation Theory, 2.6) Kindergarten Art Teachers, 2.7) Current Situation of Kindergarten Teachers in Qujing City, Yunnan Province, and 2.8) Related research, and a Summary.

2.1 THEORETICAL CONCEPTS OF ATTITUDE

2.1.1 Concept of Attitude

Attitude refers to a person's attitude or feelings towards something. Alternatively, it is a verb, an attitude, or a feeling. The academics have defined the concept of attitude as follows:

Purithath (2019) argues that attitude may stem from meeting a person's needs. If a person cannot meet their needs, they will develop a bad attitude toward them. The truth may be learned through reading or from other people's stories. I have a bad attitude toward others. I tell you in advance from listening to others scold.

Ratchanee (2004) explains that an attitude is a combination or organization of confidence in a particular thing or situation. The total of this belief determines a person's tendency to react in ways he likes or dislikes.

Allport (1975) argues that attitudes can come from different things, including learning that newborn children receive culture and traditions directly and indirectly from their parents and seeing their parents accept the practices followed.

Rokeach (1986) agrees that attitudes are part of peripheral beliefs. They are superficial feelings that can always be changed.

In the same article, Loudon and Della (1988) define an attitude as the feeling of agreeing or disagreeing with something. It is expressed as positive or negative, favorable or unfavorable, a perception of mentality in the sense of feeling.

Songpol (2018) refers to the five main elements of attitude:

- 1) The cognitive component is part of a person's beliefs about things in common, including likes and dislikes. A person who knows or thinks something is good usually has a positive attitude toward it.
- 2) Feeling is the part that deals with the emotions associated with something. This has a different effect on that person's personality, which is a trait, and the values of the individual.
- 3) Behavioral intent refers to an individual's intention to express a particular thing or concept as a result of elements such as knowledge, thought, and emotion.
- 4) Behavior is the response of a person to a specific concept or person, and it is the result of cognitive components. Thoughts and feelings.
- 5) Attitude is the tendency to evaluate objects, concepts, people, institutions, etc.

Assael(1998) similarly refers to attitudes as thoughts or emotions. This gives rise to the readiness and tendency to react, which result from learning to respond positively or negatively to an object or class of objects.

Myers (1993) and Plotnik (1999) coherently point out that attitudes, which vary in degree from person to person, involve assessments of likes or dislikes, positivity and negativity, or support and rejection. Attitudes are an essential part of determining the direction of response to a person's particular action, which is directed towards it in a definite way.

In conclusion, attitude refers to a cognitive evaluation of a behavior determined by one's learning or experience, expressed in terms of positive and negative emotions and feelings. It consists of 1) a cognitive component, 2) an emotional component, 3) a behavioral intent, 4) behavior, and 5) attitude.

2.1.2 Attitude Theory

Attitude theory is an essential concept in social psychology and communication, and this word is widely used to define it. Attitude theory has many scholars giving its meaning as follows:

Rosenberg and Hovland (1960) summarize and explain the cognitive-affective congruence theory, which states that attitudes are not affected locally by affecting balance. Since it tends to maximize returns and minimize losses, it also depends on feelings of happiness or unhappiness. This group theory explains how to resolve different emotional imbalances and predicts the rankings of the most commonly used methods. An easy way to achieve balance is to try it first and then use the most frequent method. Rosenberg stresses the importance of coherence between attitude, concept, and feeling. When there is more than a certain degree of difference between two elements, one or both components must inevitably change to lead to consistency, and it is assumed that changing one component will lead to a change in the other element in the attitude. It focuses primarily on changing the knowledge component. That is, to provide new info action. This will lead to a change in the composition of feelings and attitudes.

Jirawat (1993) summarizes the characteristics of attitudes, and there are six types:

1) Attitude is learned, not inherited, and is strongly influenced by experience. Experience is acquired directly or indirectly through the process of interacting with things. Directly influences attitudes in society.

Attitude is an evaluative characteristic. Attitude stems from evaluating one's thoughts or beliefs about other people's things or events, which will regulate responses. Attitudes have an evaluative nature, thoughts or beliefs with underlying feelings. How one feels about something depends on one's assessment, knowledge, ideas, or beliefs about it, which makes the evaluator feel positive or negative about the outcome of such an assessment and may vary. Depending on personal experience, Attitudes toward the same thing may differ by gender, age, or occupation.

Attitudes are about quality and intensity. Attitude is the difference in each person's attitude towards things. When a person evaluates something, there may be a positive or negative attitude towards it. It creates a state of readiness to approach or avoid it. Intensity indicates the severity of a positive or negative attitude or a rating level, such as very like, medium like, or not very like.

Persistent attitudes are persistent because their assessments are clear and accurate or experience has been accumulated. Learning new things long enough or forcing them to take action may not affect the existing attitude, which will not change.

The attitude must have a clear meaning for the attitude object, i.e., to what attitude? To a person, to a thing, or a situation. An attitude expresses a relationship between a person, an object, another person, or a situation. The relationship is a feeling of motivation.

2) Motivation affects attitude, showing a person's relationship to an object, another person, or a situation; that relationship is a feeling of motivation.

In addition, Feldman (2013) proposes a three-dimensional model of attitude. Also known as the ABC tripartite model, it shows the relationship between three components: intelligence, feelings, and behavior.

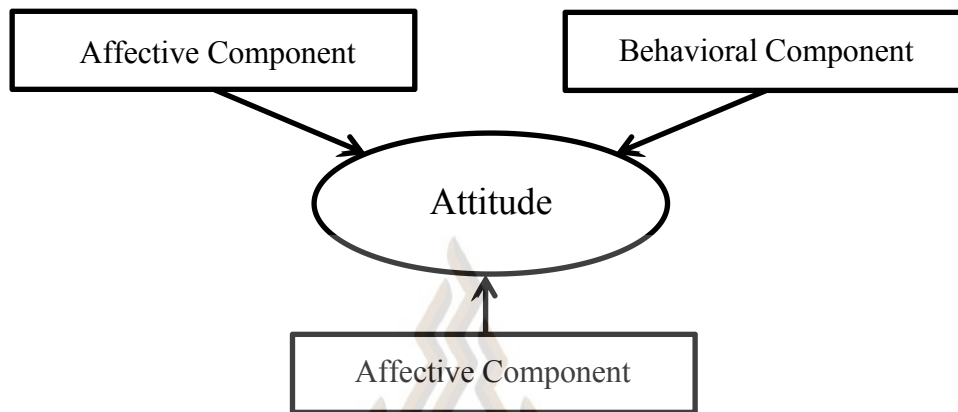


Figure 2.1 ABC tripartite model

Source: Feldman, 2013

In conclusion, there are six attitude traits: 1) Attitude comes from learning and experience. 2) Attitude is a characteristic of evaluation that results from evaluating one's thoughts or beliefs about things. 3) Attitude is quality, and attitude is the difference between people's attitudes towards things. 4) Attitudes are persistent and not easily changed because the content of the assessment is precise and accurate. 5) Attitude must be defined as the object's attitude toward an object or situation. 6) An attitude is characterized by a relationship between a person, an object, and another person or a situation, and this relationship is a motivating feeling.

2.1.3 Elements of Attitude

There are two components to attitude: 1) the cognitive component and 2) the affective component. Many psychologists support the division of attitudes as follows:

Songpol (2018) shows that attitude components are formed by systematic behavior expressed by components that influence Behavior. These components include

performing behaviors or actions and expressing intentions, knowledge, understanding, beliefs, feelings about actions, and behavioral responses.

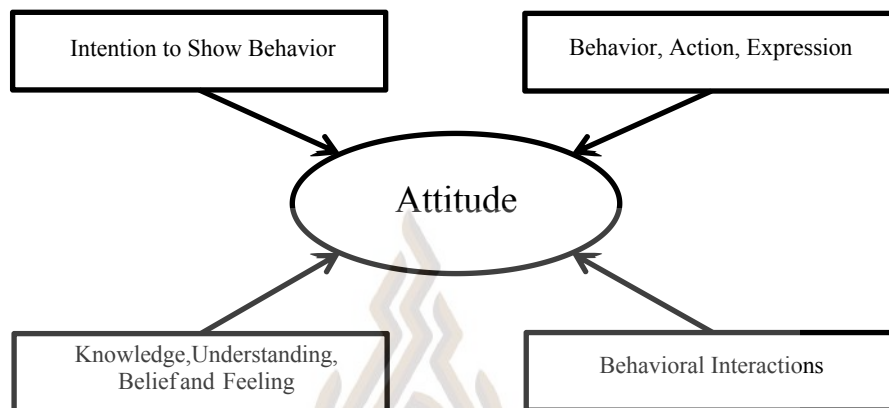


Figure 2.2 Attitude elements

Source: Zimbardo & Lepe, 1991

In conclusion, attitude elements are 1) the intention to manifest behavior, 2) behavior, action, and expression, and 3) the interaction of knowledge, understanding, beliefs and feelings, and behavior.

2.1.4 ABC Tripartite Model: Elements of Attitude Scale in Attitude Art Teaching

Attitude comes as an assessment of likes or dislikes, positive and negative, or support and rejection; the high and low levels vary from person to person. It is an essential part of determining the direction of an individual's behavioral response, according to Myers (1993) and Plotnik (1999). The attitude triad (ABC model): The concept that the three aspects of emotion, behavior, and cognition influence human experience originates from early Greek philosophers (McGuire, 1969). It is also mentioned in the first social psychology texts and studies (Bogardus, 1925; McDougall, 1908).

However, it was not until the late 1940s that the term "attitude" regarding the three-component model was formally clarified. Bate-Smith and Bendall (2007) distinguished

attitudes' emotional, cognitive, and policy-oriented characteristics. The attitudinal triad, also known as the ABC model, was initially proposed by Rosenberg and Hovland in 1960 and has since been widely embraced and utilized by researchers in attitudes and behaviors (Solomon, Bamossy, Askegaard, & Hogg, 2010). According to Rosenberg and Hovland (1960), attitudes have three fundamental components: emotion, behavior, and cognition. They advocated for measuring these components to gain a comprehensive understanding of attitudes. The model underscores the interconnectedness between feelings, thoughts, and actions. (Solomon et al., 2010).

Being open to creative behavior and placing a premium on independence of thought Agnoli (2018) Aruldoss, Bizas, Davis, and McNair (2012) found that providing flexibility in the learning environment, offering learner-led activities, and recognizing that creativity is not limited to a specific content area may help foster creativity and innovation in learners and teachers. Davies et al. (2014) suggested that in addition to considering the physical environment that supports creative learning, it is also important to emphasize how teachers “organize learning and teaching” to achieve the purpose of “teaching for creativity” in the teaching environment.

Emotions, behaviors, and cognitions are theoretical and unobservable constructs influencing individuals' responses to attitudinal stimuli (Breckler, 1984). For instance, an individual may perceive telemarketing as annoying (cognition), experience dissatisfaction with this marketing approach (emotion), and consequently exhibit a negative attitude towards the telemarketer and the marketing strategy itself (behavior). A standard method for assessing attitudes is to prompt individuals to express their attitudes through verbal or written responses to specific questions. Attitudes have direction and intensity. The direction can be positive or negative, and the intensity indicates how strong the attitude is. Direction and intensity depend on the degree of internationalization and people's experience and skills. There is usually an interplay between attitudes and skills. Suppose people perceive themselves to be skilled in a particular area. In that case, their attitude will usually become more positive, leading to more effort to develop and improve skills in that area Krosnick (1991). Emotion describes how the recipient feels about the object of the attitude and is the emotional component. These feelings can be positive or negative,

depending on the individual's perception of the item, and contribute to forming an attitude toward it. The stronger the associated emotions, the stronger the anticipatory attitude. The behavioral aspect is related to the receiver's intention to do something to the object of the attitude. This component is a positive element of the attitude and focuses on the person's tendency to react to the object. The response will vary depending on the impact of the receiver's knowledge and feelings about the object. The behavioral aspect can be challenging to separate from the other two elements due to a lack of insight on the part of researchers.

The cognitive component pertains to the recipient's beliefs and concepts regarding the object. This element may encompass personal viewpoints, perspectives, and knowledge about various issues or subjects. While not necessarily grounded in objective assessments or truths, personal opinions significantly influence an individual's perception of reality and attitude toward the subject. The cognitive component is often more consciously processed than other elements of attitude and is also more amenable to persuasion techniques based on logic Solomon et al. (2010).

To further explain the different components in the attitude model, the following example is based on Solomon et al. (2010): The cognitive component is a belief about something; for example, email marketing messages are often unsolicited messages that recipients do not want. The affective or emotional component expresses how positively or negatively people feel about the attitude object, for example, "I like email marketing messages and want to read all of them."

A behavioral component is how people act a certain way on the object of the attitude. For example, I only read email marketing messages from known senders. 1. The three levels of influence: The change in attitude depends on the levels of the different components in the three-component model. Each hierarchy contains a fixed sequence of steps that create an attitude. 1.1) Standard learning hierarchies Standard learning hierarchies, also known as high engagement levels, indicate that consumers will conduct extensive research and form beliefs. The basis of the standard learning level is that

individuals are driven to acquire a large amount of information, carefully consider various options, and make well-thought-out decisions. Affect or feelings toward the attitude object will follow the individual's behavior. The cognitive-influence-behavior (CAB) approach is dominant in purchase decisions that require a high level of involvement. Attitudes are processed based on cognitive information. Consumers start by gathering information and considering various options for purchases that involve a high level of engagement, such as a home. They develop feelings and beliefs about it, and finally, they act on the behavior and decide whether or not to buy a house. The result of this careful selection process often manifests itself as loyalty to the product. Over time, consumers form a positive relationship with the product that is difficult to break. This creates loyalty to the brand (Solomon et al., 2010). Experience Hierarchy: The experience hierarchy is the emotion-behavior-cognitive (ABC) processing order. In an ABC scenario, a consumer's purchase decision is based solely on feelings about a particular product or service. Cognition emerges after the purchase and reinforces the initial impact. For example, consumers find smartphones pleasing and exciting. Consumers buy smartphones and then form attitudes towards the products. Packaging, brand names, and advertising about the product also influence attitudes. Researchers have recently emphasized emotional responses as a core aspect of attitudes.

However, beliefs and behaviors are still considered central to attitudes and essential in assessing an individual's attitude toward an object. Solomon et al. (2010) Emphasize that "emotional contagion" often appears in attitudes formed by experience. Emotional contagion refers to consumers being strongly influenced by emotions in advertisements or products. Several studies by Aylesworth and MacKenzie (1998) showed that people's feelings when exposed to marketing information affect people's perception of the ad and the degree of memory of the information. This indicates how consumers will feel about the advertised product in the future.

Low participation levels: Unlike standard learning levels, low participation levels require a cognitive-behavior-impact (CBA) sequence of events. Consumers' interest in attitude objects can be intense, and a lack of information and experience is typical. For instance, when a consumer is faced with choosing different varieties of toothpaste, they are

likely to recall that brand X claims to whiten teeth more effectively than brand Y and may not bother comparing all the brands on the shelf. This type of consumer represents a typical low-involvement, attitude-forming individual. Rather than making purchase decisions based on a strong preference for a particular brand, individuals make choices based on what they know rather than what they feel. After purchasing a product, individuals evaluate it and develop feelings about it. However, this limited-knowledge approach is unsuitable for high-involvement purchases such as cars or new homes.

Cognitive dissonance is a phenomenon that occurs when an individual experiences conflicting thoughts or feelings simultaneously. According to cognitive dissonance theory, people have an inherent need to reduce this discomfort by changing their attitudes, beliefs, and behaviors. Justification, blame, and denial can also help reduce cognitive dissonance (Loudon & Della, 1988). Brownstein (2003) asserts that cognitive dissonance is one of social psychology's most influential and extensively researched areas. He argues that cognitive dissonance exists in every decision-making situation because the chosen option always has some negative aspects, while every rejected option has some positive aspects. As a result of decision-making processes, individuals undergo cognitive restructuring where the chosen option is reinforced through a process known as "endorsement." Endorsement is a prominent example of defensive avoidance because it emphasizes the chosen option's benefits while minimizing its potential drawbacks. Similarly, endorsement can make unselected alternatives appear more attractive and riskier than the selected item (Festinger, 1957).

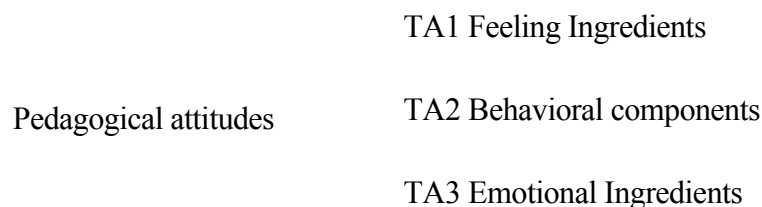
Criticisms: Despite the acceptance of the triadic model by many textbook authors (Baron & Byrne, 1977; Krech et al., 1962; Solomon et al., 2010), it has yet to have a significant impact on attitude research. Research on attitudes and the theories developed to understand the process of attitude change have primarily focused on influence rather than exploring other characteristics of attitudes (Ostrom, 1969). Furthermore, in the 1970s, research suggested that attitude is just one of several variables influencing behavior. This perspective on attitudes was termed the "other variables approach" by Ajzen and Fishbein (1980). Another criticism of the model centers around uncertainty regarding the close

connection between affective, cognitive, and behavioral components (LaPiere, 1934). Wicker (1969) presented a compelling argument challenging previous theories suggesting that people's attitudes do not change. Wicker argued that having attitudes related to specific behaviors is not sufficient. Basic attitudes influencing behavior: Wickers asserted that it is essential to consider attitudes directly linked to observable behaviors.

In addition, Feldman (2013) put forward the three-dimensional form of attitude, also known as the ABC tripartite model, which includes the relationship among the three, the affective component, the behavioral component, and the cognitive component.

The tripartite model shown in the figure below is the Spooncer (1992) attitude model, also known as the tripartite model. The model consists of the three components of attitude: feelings, beliefs, and behaviors. The first component includes the individual's emotions, which represent oral statements of emotions; the second component includes the individual's cognitive responses, which represent oral statements of beliefs; and the final third component includes the individual's public actions, which represent oral statements of expected behavior in response to environmental stimuli.

In conclusion, the ABC Tripartite Model: Elements of Attitude Scale in Attitude Art Teaching is the concept that the three aspects of emotion, behavior, and cognition influence human experience.



ABC Tripartite Model (Feldman, 2013)

2.2 TEACHER'S ATTITUDE AND PERCEPTION

Teachers' attitudes are vital in developing children's creative thinking ability. Teachers can promote the development of children's creativity through classroom interactions in creative thinking experiences. Therefore, teachers who actively interact with children will improve their creativity (Sharifah et al., 2021).

Accordingly, teachers who develop a positive mindset toward their students' abilities can significantly enhance their academic success. Teacher attitudes that convey high expectations and belief in students' potential are critical factors in fostering achievement (Hattie & Zierer, 2018).

Kim and Asbury (2020) said the rapid transition to remote teaching during the COVID-19 pandemic highlighted the importance of teachers' attitudes in maintaining student engagement and emotional well-being. Teachers who remained positive and supportive helped mitigate some adverse effects on students.

Koomen, Oort, Roorda, and Spilt (2017). Affective teacher-student relationships characterized by teachers' positive attitudes significantly impact student engagement and academic achievement. Teachers who foster warm and supportive relationships create an environment conducive to learning.

Hammond (2015) stated that culturally responsive teaching requires teachers to adopt an attitude of inclusion and respect for different cultural backgrounds. Teachers' positive attitudes toward cultural diversity can promote students' cognitive and socio-emotional development.

Greenberg (2016) said Teacher stress and burnout can lead to negative attitudes towards students and teaching, adversely affecting student outcomes. Conversely, teacher well-being is linked to positive attitudes and better classroom environments.

So, when it comes to perception is a set of various human senses that has been studied extensively. Taylor and Roberts (2004) wrote the book *Flavor Perception*, about human perception through the oral senses (taste).

Tripathi and Sharma (2017) state that perception refers to the process by which sensory information from our environment is transformed into meaningful experiences. Perception of beauty can vary across different cultures, reflecting the influence of cultural norms and values on our perceptual experiences.

Matlin (2002) summarized the meaning of the perception process as a process that uses our previous knowledge to connect with the senses received at that time and interpret the meaning of the perception. Using our prior knowledge, such as thinking about the faces of humans we have met or the complex images we once knew, these methods of drawing on memories or previous knowledge to interpret the meaning of that perception, and two, perception from connecting what is perceived at that moment, which here mean various stimuli in the environment, such as color, size, shape, texture, and dimensions, will affect our perception.

Day (1969) states that perception is also related to the environment and inner personality.

Goldstein (2002) concluded that the recognition process must follow the following sequence of steps:

- 1) Found various stimuli located in the environment
- 2) There is a response to those stimuli.
- 3) There is a connection to the previous knowledge network.
- 4) Through brain processes
- 5) Awareness arises.
- 6) At the same time, a recollection or recollection occurs.

7) Result in action

8) Knowledge arises because of the process.

In conclusion, perception means having meaningful contact with various stimuli and then interpreting previous experiences into new experiences, creating new knowledge from within the person.

2.3 THEORETICAL CONCEPTS OF CREATIVITY

The theory of creativity refers to the methodical process of problem-solving that occurs in the brain—the act of becoming perceptive to issues or items that are lacking. Next, compile your ideas and formulate a hypothesis. Moreover, diverse data must be gathered to verify the theory and find a fresh approach. The outcome was a novel strategy.

Davis (1973) compiles ideas of creativity that psychologists have mentioned. Creativity theories fall into the following four major groups:

1) Psychoanalytic Theory of Creativity: Many psychoanalytic psychologists, such as Freud (1947) and Chris (1952), have advanced this idea. The birth of creativity is the result of an internal subconscious conflict between sexual desire (libido) and social conscience and is translated into creativity in socially acceptable forms or behaviors. New psychoanalysts Kubly and Luger say that creativity occurs between the conscious and subconscious minds, located in the region of the mind known as the pre-conscious.

2) Behavioral Creativity Theory: This group of psychologists argues that creativity stems from learning. It emphasizes the importance of reinforcing the right response to a particular stimulus or situation. It also emphasizes cognitive relationships,

the connections that go from a stimulus to something to cause a new idea or something to happen.

3) A theory of creativity based on humanist concepts. The humanist concept of creativity, as defined by Maslow and Rogers, plays a vital role in this group of ideas, which holds that a creative person is one who truly knows himself, knows himself, and accepts his flaws and strengths, both of whom are aware of his weaknesses and aware of his abilities to be self-reliant, proactive and self-directed. Being able to reach one's full potential, having the freedom to think and decide what to do without causing trouble for oneself and others, and seeing that dignity and self-worth can create oneself and society for the benefit of people who will be able to develop and reach their goals for happiness. Humanism emphasizes situations that promote creativity, including:

(1) A state of psychological security, i.e.

- a. Recognize the value of respect, rights, and opinions.
- b. There is no evaluation, evaluation or comparison of opinions, and the outcome of everyone's work at ease without fear, fear of punishment, censure, or assertiveness.
- c. Assertiveness tends to make decisions for itself and is willing to take responsibility for success or failure.

(2) The state of free speech, i.e.

- a. Have an open mind to experience ideas and be willing to acknowledge interest in events, changes in the world, and Ongoing controversies.
- b. Enjoy playing with ideas and novelties.

4) Creative Theory: AUTA is the conceptual model for this creative theory. This is an idea invented by Sullivan and Phillip (1997) that explains that creativity can be cultivated by fostering creative thought processes and a series of developments that have the following four stages:

(1) Awareness is the recognition of the importance of creativity to the current and future self, and society, and the realization of creativity with one's creativity.

(2) Understanding is deeply understanding various stories related to creativity.

- a. The character of the creative person
- b. Nature of the creative process
- c. Creativity
- d. Theory of Creativity
- e. Creativity Test
- f. Training methods and factors that produce creativity.

(3) Techniques: Understand techniques and methods for developing creativity. Both personal techniques and standardized techniques are:

- a. Brainstorming
- b. Remove features and enumerate or adjust different features.
- c. Pairing two sides and alternating several pairs will result in many patterns.
- d. Use existing information to take initiative or create new things.
- e. Bringing together disparate things to think or do mundane things about is innovation using comparative features.

(4) Realizing things: Realizing is knowing or realizing oneself, being self-satisfied, and striving to reach one's full potential. Self-awareness involves the following areas:

- a. Be open to appropriately adaptive experiences.
- b. Knowing fellow human beings together.
- c. Manual productivity.
- d. Having a flexible mindset for a variety of lifestyles. These four

elements motivate people to tap into their creative potential.

Robert (1990) proposed that creativity is the ability to work effectively and creatively, put knowledge and experience into practice under uncertain conditions to solve specific practical problems, and be prepared for the adaptive use of acquired knowledge, self-education, and self-improvement. Kirillov et al. Professors understand students' creativity through self-reflection, independent decision-making, expression of curiosity and motivation, and the creation and development of new things.

In conclusion, creativity theory can be divided into four categories: 1) Psychoanalytic creativity theory, 2) Behavioral creativity theory, 3) Creativity theory, based on humanist concepts, and 4) Creativity Theory, OTA Model.

2.3.1 Creative Elements

The creative element comes from internal motivation, or the motivation to work for one's own sake. Individuals find it interesting and exciting.

Guilford (1967) and Sukpachara (2013) concluded that critical thinking contributes to creativity through the individual's ability to engage in bifurcation, or what is known as divergent thinking, thinking in multiple directions and on various fronts. Such thoughts consist of the following four kinds of thoughts:

1) Fluency is the ability of the brain to think through answers with fluency, speed, or agility and to think and respond to as many stimuli as possible. This kind of thinking focuses on many thoughts about the same topic, which are divided into.

2) Flexibility refers to the type or form of thought division.

a. Spontaneous flexibility is the ability to try to think independently in many ways. What are newspapers suitable for? One needs to be more flexible and can only believe in one direction.

b. Adaptive flexibility is the ability to modify knowledge or experience to obtain a variety of benefits that are useful for problem-solving, in which case flexible thinkers think differently.

3) Originality is the ability of the brain to find innovative solutions, answers that are unique to someone else's answer. It is an idea that differs from normal thought.

4) Crafted is the idea of using details in the decoration to complete the initiative.

In conclusion, the element of creativity is initiative. According to Guilford's theory, fluent thinking, flexible thinking, and thoughtful thinking the very nature of these ideas will make them divergent. The concepts of each of these styles interact to create creativity, but for this study, the researchers only looked at three elements of creativity: fluency, flexible thinking, and unique initiative.

2.3.2 Creative Process

The creative process of each psychologist and educator is divided into different types of interests, and each person's focus is as follows:

Sirikhwan (2018) divides the creative process into seven stages based on his theory of creativity:

- 1) Problems identify problems that require creativity to solve them.
- 2) Information preparation and collection is the collection of information used to solve a problem.
- 3) Analyze the data, think about it, consider it, and distribute it.
- 4) Use ideas or options to find options. This is a stage of careful consideration and several possible options.
- 5) Thought incubation and clarification are the steps of forming empty thoughts, thought incubation, and then clarifying thoughts.

- 6) The synthesis and packaging of parts together.
- 7) Evaluation is the choice of the most effective answer.

Sucha (1998) points to how creative initiatives succeed. These include 4 steps:

- 1) Preparation means preparing the questions you want to ask.
- 2) Thinking about solutions (incubation) means thinking about questions or information you want to know. Where can I find information I can research and gather?
- 3) Making things clear (illumination) means seeing different ways to solve the problem.
- 4) Finding the answer (validation) is the confirmation of the test. Which solution gives the most accurate answer?

Krisada (2015) defines the steps for creating creativity as follows:

- 1) Analysis is the stage of touching or confronting a situation, in which most of the problems will be defined by the analysis definition to bring about an understanding of the problem and its components.
- 2) Combination stage: understanding the situation, analyzing the problem, and proposing solutions to the problem. This will require frustration and an understanding of the problem and its components.
- 3) Gridlock is the most common and superior step in problem-solving. At this stage, there is a feeling that the solution to the problem is not working; I cannot think, I feel failed, and I feel solved.
- 4) Eureka is a problem solved immediately after an obstacle is encountered, giving you a clear idea of how to solve the problem.

5) Verification is the next step, from finding the obstacle and thinking to proof and verifying the idea to confirm such an idea.

In conclusion, the creative process has multiple steps. It can be summarized as follows: 1. Analysis 2. Manipulation 3. Gridlock 4. Eureka 5. Verification.

2.3.3 Factors That Influence Creativity

Factors that contribute positively are those that help promote creativity.

1) People, families, and schools influence the basis of human life in every field, so parents and teachers are the ones who help support the growth of creativity, especially in the first six years of life. Regularly, the child has a high imagination. Creative potential is developing. If the child has the right experiences during this time, that is the beginning of a strong foundation for later creative development.

2) Environment and society: In addition to the atmosphere of the home and school, the general atmosphere of society can also help or devalue creativity. The study of the environment that affects creativity has found that the environment that promotes creativity is one in which a person feels forgiven and has freedom of thought. There is a sense of self-worth and acceptance, including freedom of thought and expression.

3) Desirable characteristics of a creative person

(1) Albert Alstein said that imagination is more valuable than knowledge because human knowledge is limited, but imagination is vast and inexhaustible, and therefore, creativity requires a lot of imagination. Includes connecting the dots between observation, attention, and determination.

(2) Motivation, achievement, inspiration, serious effort, and hard work until success include attitudes, perspectives, and emotional optimism that influence decision-making behavior.

4) Adverse factors create creative barriers, i.e., those that impair human creativity.

(1) Defensive barriers are psychological principles when new information or experiences are transmitted to cognitive processes. Humans choose to identify only the parts that interest them, such as satisfaction and consistency with their prior experience and knowledge, which resolutions and habits. This is one of the main barriers to perception. It's a thought trap that traps humans in the old ways of lacking creativity.

(2) Mood disorders Emotions are related to personality traits. Fear is a barrier to many manifestations, such as fear of doing the wrong thing, fear of failure, fear of blame, fear of being blamed, fear of being laughed at, etc. Fear keeps people from taking the initiative, but creativity takes the initiative. If you're afraid to start, you're so scared to try and make mistakes. Coupled with this, it makes it harder to succeed. Being shy about expressing disappointment and insecurity can lead to creative deficits.

5) Environmental Barriers Environments, including customs, traditions, society, culture, and the environment, are challenging to change. Examples of environmental barriers that negatively affect creativity are the habit of not asking questions, the oft-cited tradition of imitation, like thinking, following each other, and doing the same thing, a social culture that values success and condemns failure, an atmosphere of rigor, adopting too many vices, etc.

6) In conclusion, factors that influence creativity include (1) people, families, and schools; (2) environment and society; (3) desirable characteristics of a

creative person; and (4) adverse factors, i.e., those that create creative barriers, i.e., those that impair human creativity.

2.3.4 Characteristics of Creative Individuals

There are four behavioral characteristics of creative people: 1) having extensive experience, 2) being willing to take risks, 3) having the love to move forward, and 4) having the ability to change ideas quickly. High level of maneuverability, other scholars have given the meaning of the behavioral characteristics of creative people as follows:

Highly creative individuals are in high demand in society. As educators and psychologists say, this can be observed in unique identities. Garrison and Magoon (1954) describe the characteristics of creative individuals as follows:

1) People interested in accepting change do not retreat from problems as they arise but confront them head-on, always eager to solve them, looking for ways to improve, change, and develop themselves and their work.

2) To be a person with a wide range of interests, to keep abreast of all aspects of the situation, and to wish to pay more attention to the study of knowledge from various sources, to receive helpful commentary from writings, and to use this information to consider and improve their work.

3) A person who likes to think of many ways to solve problems. There is always more than one solution to a problem.

4) A person who is physically and mentally healthy, or physically fit and mentally healthy, is good. This is due to having plenty of rest and being interested in discoveries. The mechanic will also demand and remember well, thus putting the remembered information to good use.

5) Accept and trust the person who influences the atmosphere and environment of creativity. Therefore, setting the atmosphere, place, and environment is

appropriate. They will be able to remove distractions and obstacles, allowing the development of creativity to be equally effective.

Roger (1959) defines the personality of a creative person as follows:

- 1) Experience all kinds of experiences; do not escape, do not accept experiences, do not escape, do not retreat.
- 2) Work for your happiness, not for the judgment or praise of others.
- 3) The ability to think and invent.

The key to developing creativity Guilford (1950). Cropley and Cropley (2008) noted that creativity requires divergent thinking, especially in one's early years, because it increases the number of possible ideas. The more children consider alternative viewpoints, the better solutions they are likely to produce. They further commented that divergent thinking does not directly solve the problem but generates many possibilities for further analysis and evaluation of the problem.

In conclusion, the personality of a creative person tends to be interested in problems, is open to change in the face of various experiences, does not hold back, has a wide range of interests, likes to think of many solutions to problems, is physically healthy, and works happily for himself.

2.3.5 Creativity Measurement

Kaufman Domains of Creativity Scale (K-DOCS)

The K-DOCS (Kaufman & Baer, 2004; Kaufman, Cole, & Baer, 2009; Kaufman, 2009; Kaufman, 2012) was designed according to the APT model rather than relying on general-factor models; creativity should be interpreted in a hierarchical model which includes both domain-general initial requirements and domain-specific outcomes Baer and Kaufman (2005). Based on the APT model, Kaufman (2012) developed the Kaufman Domains of Creativity Scale (K-DOCS). As an essential

supplement to earlier self-assessments of creativity, the K-DOCS has become one of the most popular self-assessments of creative behaviors across different domains.

The K-DOCS consists of 50 items that tap into creative behaviors across five different domains:

- 1) Everyday -- creativity in daily life and in managing interpersonal and intrapersonal issues of individual creativity
- 2) Scholarly -- creativity in academic research and nonfiction writing;
- 3) Performance -- kinesthetic activities, music, and lyrical writing;
- 4) Scientific -- creativity in mathematics, mechanical engineering, and technology; and
- 5) Artistic -- creativity in artistic creation and aesthetic appreciation.

The K-DOCS has shown evidence for internal consistency, test-retest reliability, and convergent and discriminant validity (Kaufman, 2012) with translation and adaptation into several languages (2020). The examination of the K-DOCS's factor structure across these translations has shown that most of these translations supported the existing five-factor structure Kandemir and Kaufman (2019). In addition, the evidence has demonstrated its measurement invariance and translations across gender (Kaufman, 2020).

In this study, the Kaufman K-DOCS measurement will be used to measure the attitudes and perceptions towards creativity and innovation of kindergarten art teachers in Yunnan since it has the power to tap five domains of teachers' creativity that will fit into answering the objectives of the study in terms of their attitudes and perceptions towards creativity in different creative art activities use to teach.

Measuring creativity is an assessment of creativity. Some creativity measurements are types of thinking characterized by thinking outside the box, different from existing original thinking in which they aim to achieve new or original ideas or prototype thinking. Two major creativity measurements are the Torrens Test of Creative Thinking (Torrence, 1966) and the Kaufman Domains of Creativity Scale (K-DOCS) (Kaufman, 2012).

Torrens Test of Creative Thinking

1) Torrens Test of creative thinking. This quiz was created by Torrance (1966). 1966: scope and content of education. This is a phased research program focusing on the classroom experience to support and encourage test children to focus on having fun, eliminating fear, and creating warm feelings. The test is valid from kindergarten through college. The Torrance creativity test consists of oral and verbal forms A and B and figural, which is the picture test A and picture test B (forms A and B).

2) Creative Thinking with Words is a language-based test. We ask test-takers to express their creativity. It consists of the following seven activities: 1. Asking questions, having students ask as many questions as possible from a given picture to get the answer they want to know.

3) Guess the cause by asking the student to guess the cause or event that will happen. As much as possible before the event in the picture.

4) Guess consequences: Students write about the outcome or event after the event in the picture. 4. Product Improvement: Have students think about, modify, or improve a given picture to make it cute or exciting to tell as much as possible. Activity 5. Unusual Use: Ask students to tell as many stories as possible about the benefits of the cardboard box 6. Unusual questions: Have students ask strange questions. Ask students about cardboard boxes as often as you can. 7. Assume that students make predictions. An event that occurs from a fictional event. What will happen? Write as many replies as possible.

5) Creative Thinking with Pictures There are two types of image-based creativity tests, Type A and Type B, which are parallel tests that assign stimuli with similar characteristics.

Image Creativity, Quiz Type A, consists of 3 sub-activities: Activity 1, compose a new image and name it; Activity 2, draw a picture and fill out the picture for the student to supplement. Assign a variety of styles of line images to a total of 10 images to get the most interesting one. In conjunction with Activity 3's title, "The Use of Parallel Lines, ask students to add images from 30 parallel lines, get as many strange pictures as possible, and name the added images.

The picture-based creativity quiz is similar to the picture quiz, with the difference being only in the given stimulus in Activity 1. The drawing is done by adding a picture of an orange sausage-like figure. Activity 2: Complete the drawing by having students add more from different lines; unlike Pattern A and Activity 3, children use circles to add 30 images from circles to test Torrance's creativity. Test speed is an essential factor. Starting from above, each activity should take 5 or 10 minutes.

Guilford's Fluency Test and Christensen Guilford (1967). Quiz, University of Southern California, measured divergent thinking by measuring the factors in each cell according to the brain's functional structure, which has three dimensions of content, mode of thinking, and productivity, respectively, such as DSU. D refers to a productive way of thinking that classifies content and products of thought considered symbolic in the form of units into the Guilford and Christensen Fluency Test, consisting of 4 subtests, 11 divided into seven written language domains, three pictures, and 1 question. This quiz is suitable for high school students and adults.

1) Word Fluency (DSU): write words consisting of the characters assigned to them, such as swipe, swipe, swipe, etc.

2) Conceptual Fluency (DMU): Name items that belong to the same class, such as fuel liquids such as kerosene, gasoline, and alcohol.

3) Linking fluency (DMR) is a fluent way to write words similar in meaning to the given words, such as hard, hard, hard, etc.

4) Expression Fluency (DSS): write a sentence in four words. In each starting word, a given letter, e.g., Kuy-i, holds your interest and kills useless yellow insects.

5) Alternative Uses (DMC) Other uses for a particular task. It is not for general use, such as in a newspaper. How can

6) Consequence (DMU, DMC): Oral events. A consequence occurs as a result of a hypothetical event. What if a person did not need to be on bed rest? No alarm clock is required.

7) Occupation Type (Possible jobs, DMI): List various jobs. Relate to the given term, for example, lightbulb, electrical engineer, lamp factory owner, etc.

8) Making Objects (DFS): Drawing a specific object using a specified set of images, such as circles, triangles, etc., when drawing a particular object. You can use pictures set to a slower setting and change the size, but you must not add more images or lines.

9) Sketches (Sketches, DFU) are added to images from specified sketches, such as circles, triangles, and full pictures, and are as different as possible.

Matching Problem (DFT) Remove a certain number of matchsticks from a given problem (e.g., matching problem). Use the remaining matchsticks to form a square or triangle with the desired number of images.

Decorations: The DFI has drawings of everyday objects decorated with different designs.

2.3.6 Concept of Creativity

1) The Meaning of Creativity

Creativity involves thinking holistically and coming up with novel ideas to tackle issues. Make positive things happen and contribute to society, others, or oneself. It's thinking positively. Provide advantages and produce new items. It is possible to foster or cultivate creativity. Many scholars have defined the meaning of creativity as follows:

Osborn (1957) and Apichat (2016) state that creativity is applied imagination, where the human imagination solves the difficult problems experienced by humans rather than the general distractions of imagination that help bring about innovative and useful products. (Getzels and Jackson, 1962; Jarasporn, 2019) say that creativity is a way of thinking that can find answers for many people, responding to this stimulus, which usually happens in a person with much freedom to respond to it.

Anderson (1970) and Apichat (2016) define creativity as the ability to think and solve problems by thinking deeply beyond normal thought. Creativity is the trait of a person who can think about new, correct, and more complete ideas from different angles.

Torrance (1974) and Chorruck (2020) state that creativity is a phenomenon that occurs without limit, that one can be creative in many ways, and that the results of this creativity are endless and unlimited.

Mednick (1978) and Apichat (2016) say creativity is the ability to relate elements in new ways. Yes, the farther away they gather things, the more constructive the connections are.

DeBono (1982) and Aphittha (2016) refer to the ability to create new ideas through lateral thinking that can solve many problems and that can be further developed to solve desired problems.

Rawlinson (1985) and Lakkhana (2006) define creativity as having two levels: the first level refers to the expression of imagination or a sense of freedom on a problem of serious interest, while the second level refers to the discovery and invention of something new.

Foreman, Murphy, Molloy, Molloy, and Simpson (1992) and Lakkhana (2006) refer to a person's creativity as the brain's ability to try to distinguish itself from the original idea and generate new ideas.

Wallach and Kogan (2010) and Kannikar (1990) point out that creativity is an interconnected mind. A creative person is someone who can think in connected chains.

The more you think, the greater your creative potential. Creativity is at the heart of innovation, which drives any product's growth.

In conclusion, creativity refers to a person's ability to think, solve problems with brain thinking, solve problems with deep thinking, and relate those elements in a new way.

2) The Importance of Creativity

Creativity is essential because it enables one to think, understand, solve, and anticipate obstacles that will arise, thus allowing one to solve problems well. The importance of creativity to many of you is as follows:

Jersild (2009) and Atiyot (2016) state that creativity is essential for developing learners' learning in the following areas:

(1) To promote aesthetics, students should appreciate things and have a good attitude towards them. He came up with the idea that teachers should set an example by accepting and valuing students' works, by encouraging learners to see the works students think or create that are meaningful to them, and by encouraging learners to improve their aesthetics by observing the things they have never heard of from the everyday stuff and learning to make students interested in the surrounding things.

(2) Emotional relaxation, creative work, stress, frustration, and aggression.

(3) Establish good work habits while students work. Teachers should also teach rules and good work habits, such as how to wash hands when done.

(4) Provide learning opportunities for learners. Most students are willing to participate in promotional activities. He uses his imagination to create new things, so teachers should allow students to experiment with new buildings using their imagination, such as training students to pretend to be architects.

Hurlock (2009) and Sukpachara (2013) highlight the importance of creativity. Creativity provides the learner fun and pleasure, greatly impacts the student's personality, and creates no value.

In conclusion, the importance of creativity lies in 1) providing fun, pleasure, and satisfaction to learners; 2) allowing learners to observe new things; 3) relaxing; and 4) letting them use their imagination to create new things and think endlessly.

2.4 CREATIVE ART ACTIVITIES

Teaching art strategies and activities can help promote creativity throughout continuous learning. Unconditionally accepting people's abilities and worth shows that everyone's ideas are valuable and can be put to good use. Some scholars have given the meaning of promoting and developing creativity as follows:

Hallman offers the following creative development advice for students (Saisunee, 2002):

1) allow students to learn on their own. This will inspire students to want to be discoverers and to experiment.

2) Provide an accessible learning environment where students have the freedom of thought and expression to learn freely within the framework of their interests and abilities, and teachers must not act as despots.

3) Encourage students to learn more by providing information that stimulates their interest in their learning.

4) Promote creative thought processes by encouraging students to think about relationships between information in more unconventional ways. Encourage

imaginative thinking. Encourage students to come up with innovative solutions and take intellectual risks.

5) Not strict with results, answers, or conclusions from students' survey results. Teachers must remember inaccuracies. I must admit that it is expected to have discrepancies and mistakes.

6) Encourage intellectual flexibility by encouraging students to think about answers or solve problems in multiple ways and by using old experiences in new contexts to create new meanings rather than clinging to the same experience.

7) Encourage students to evaluate their achievements and progress. Let students take proactive responsibility, knowing that self-assessment avoids using benchmarks or standardized tests.

8) Encourage students to respond to sensory stimuli and social and personal issues.

9) Students are encouraged to answer meaningful, open-ended questions with no definitive answers. This type of question encourages more research.

10) allow students to contribute their materials, ideas, and problem-solving tools to keep them informed of the process from start to finish.

11) Creative people must be able to navigate ambiguous situations and deal with them appropriately to train students to struggle with failures and setbacks.

12) Train students to recognize, integrate, and understand problems by thinking about them holistically rather than as small ones.

How to engage in purposeful and systematic deliberate practice when considering creativity as a developable skill Briceno (2016); Ericsson (2004) and Sale (2015) to monitor and improve their creativity. Inadequate knowledge and training Cachia and Ferrari (2010) can lead teachers to rely on their implicit theories about creativity and the ways they can support creativity in their daily practice Gralewski and Karwowski (2018).

In conclusion, the right atmosphere plays a vital role in cultivating students' creativity by training them to initiate new things, be imaginative, brainstorm open-ended questions, evaluate their progress and practice fighting against failure. Grievances may be placed in an ambiguous situation; however, students should be

flexible in demanding answers, avoid using benchmarks, and provide an atmosphere of freedom of thought and expression.

2.4.1 Definition of Creative Arts Activities

Creative art activities involve training in working independently and practicing creative expression of both thoughts and actions, which are conveyed into works of art and lead to learning creative art. Many academics define creative arts activities as follows:

Peterson (1958) states that all children want to express their thoughts and feelings. Art is a way of describing children who need an opportunity to express themselves. It can also convey the child's feelings and understanding, as well as the child's individuality and independence. These things are inherited from each child's experience and imagination.

Pornpen (2012) says that creative arts activities are diverse. They give children the opportunity to express their ideas and imagination independently and support them in various fields according to their potential.

Phakakan (2013) says that creative arts activities are the process of handling the work in different ways, be it drawing, shaping, injecting, tinkering, etc., which affects the physical, emotional, social, and intellectual development of the child.

Rawiporn (2014) believes that creative arts activities refer to activities where children can experiment, practice independently, and express emotions, feelings, thoughts, creativity, and imagination through activities. In addition, creative arts activities create joy and impressions for children. Children take pride in their work, promoting all aspects of their development.

In conclusion, the meaning of creative arts activities is that they can develop thoughts and feelings and also connect the development of many organs. This creates nerve fiber connections that can be developed into learning patterns in the brain.

Teachers should allow children a wide range of hands-on experience and practice. When a child has enough skills to be confident in his or her abilities, he or she can fully play with his or her imagination.

2.4.2 Importance of Creative Arts Activities

The importance of creative art activities will encourage children to think. Know how to do it and how to use your free time beneficially. There is neatness and orderliness. Many academics define the importance of the creative arts as follows:

Busarin (1998) states that the influence of artistic works shows children's growth. The social context in which he lived influenced the child's life and produced great human perception.

Phakakan (2013) says that creative arts activities are valuable and very important for young children, helping to develop them in many ways, such as developing hand muscles that prepare them for writing and improving language skills. It provides opportunities for children to express their thoughts and feelings, encourages imagination, allows children to express themselves freely, and relieves frustration. It also encourages children to know how to share. It is possible to learn to socialize, and knowing how to work independently and successfully create work can help children feel proud.

Rawiporn (2014) mentioned the importance of creative arts as it is already a child's nature to learn from the outside world through sensory perception, and artistic activities are one of the activities that train children to use their nature to gather knowledge — especially surrounding knowledge, which will become the basis for developing one's aesthetic maturity. It is also indirect experience or knowledge gained from art and social experience. The experience of using simple tools, knowing materials, etc., contributes to a child's physical, intellectual, emotional, and social development.

In conclusion, the importance of creative artistic activities. This can allow children to play with their imagination independently and give them the courage to think, innovate, and express their ideas and feelings, especially for children who cannot

communicate well with words. Give the child a love of work and self-esteem; when the child's art creation is completed, the child will be very proud of his work. Making it eager to create new work helps to practice delicate and firm focus according to the maturity of children of all ages, training children to work together and know how to adapt and adjust their ideas and accept each other accordingly. This is the foundation of harmonious, democratic coexistence.

2.4.3 Types of Creative Arts Activities

Types of creative art activities include drawing, painting, tearing, collating, sculpting, creating scrap materials, etc. Many scholars have defined the types of creative art activities as follows:

Pornpen (2012) says that there are a variety of arts activities for preschool children, most importantly one that focuses on children taking action, giving children the opportunity to express themselves according to their ideas and imagination, and activities that also promote children's well-rounded areas of development. Children can do activities with their friends, which helps them share things that will lead to good social behavior and further learning.

Phakakan (2013) discussed the types of art activities children can engage in. Since it is an activity that uses feelings, materials, and techniques to make works, the classification of art activities should be divided mainly according to the nature of the works created by children, including:

The secondary art activity refers to the activity of creating pictures on the surface of flat materials such as glass, paper, cloth, cement walls, sand, and the ground by drawing, coloring, and printing with children as objects. , so-imprint, and imprinting with colored paper or material fragments. This type of activity involves painting with your fingers or hands. Print images using scrap pencil drawings, crayon coloring, powder colors, poster colors, watercolors, etc. This type of art looks flat. There is only one width and one length.

1) D art activities have the purpose of creating floating images for children. Use a variety of materials and techniques to protrude or recede into the floor,

such as making sand, clay, paper, dough, or assembling materials. Strategies for getting a child to do this activity must be simple enough. It can be done quickly, efficiently, and without risk of injury. For example, the materials that will be put together should be cardboard box material, seeds, beads, leaf fragments, easy-to-apply glue, etc.

2) Mixed 2D and 3D art activities allow children to create images using a combination of 2D and 3D activity materials and strategies, such as having a child draw a poster on clay or make a dough sculpture. Drying allows children to paint or seal on colored paper (i.e., tear or cut into various images). Decorate the cardboard box.

3) All three types of art activities should be done in small groups for children. For 3– 5 people, it should be a diverse activity such as painting and painting experiments in color, printing, engraving, and scrap manufacturing. These activities promote development, develop the child's ability to observe and touch things around him, and allow the child to have fun.

4) Rawiporn (2014) says that types of creative arts activities include line-drawing activities. Decorative craft activities, sculpture activities, printmaking activities, coloring activities, and especially early childhood arts and crafts activities emphasize children's exposure to media. A variety of materials appropriate to your child's age and needs. Lots of activities and hundreds of flowers. This is an activity that helps to develop fine motor, hand, and finger coordination between hand and eye. This will help you express your ideas, create works, and enhance your understanding of color shapes by using things that exist in nature and relate to everyday life as artificial installations (such as flowers, leaves, etc.).

In conclusion, there are many types of creative art activities, such as painting, printing, sculpture, decorative objects, or using things that exist in nature and are related to everyday life as artificial installations. This will help promote development, train children to observe and touch things around them, and have fun.

2.4.4 The Role and Responsibilities of Teachers in Organizing Creative Arts Activities

Creative arts activities for children should focus on process rather than production. A time for children to draw or write to communicate ideas, talk or think about new ways, be happy on their own, and have fun is more important than the work adults expect to be beautiful, neat, and accurate. Because the creation of children's art is often a matter of trial and error and solving problems until they succeed, these solutions may or may not be suitable. Children's innate ability to create will help them develop gradually. Chainarong (1988), the organization of creative arts teaching activities for young children, is not separated from the activities but allows children to choose to do them on their own according to their particular interests or groups.

In conclusion, teachers' role and responsibility in organizing creative arts activities should focus on the process rather than production during children's drawing and writing. Exchanging ideas and talking or thinking about new things can be fun and can create beautiful, neat, and accurate imaginations for children appropriate for their age.

2.4.5 Art Teaching Strategies and Stages for Students

Students must use effective arts strategies. This is especially true in today's diverse classrooms, with students from various backgrounds, abilities, and learning styles. Therefore, creating a positive and inclusive learning environment becomes a big challenge.

Phatcharee and Woranat (2014) divide the stages of children's art development into the age range of the following stages.

Chun (2016) argues that this novel teaching method can promote students' language skills and cultural understanding by using digital technology and online resources.

The graffiti stage refers to the stage of development between the ages of 2 and 4. Children's early behavior is manifested as graffiti, and they cannot control the direction when children can control their large muscles well. The lines will be longer. Repeating lines with similar directions may look messy, but it can be seen that they are different from the ones at the beginning. As the child moves through the controlled kickoff level, the child will have behaviors that are combined with kickoff storytelling. Watching the images the children draw is illusory and difficult to understand. It can only be understood if you hear it in the children's stories.

The pre-symbol stage is the developmental stage in the age group of about 4–7 years and is the last step in the kicking process, where the child can control better muscles. The child will be able to draw better muscles in their concept, for example, the circle representing the head. Success at this stage is significant because it responds to the child's confidence.

The symbolic stage is the developmental stage in the approximately 7-9-year age range in which the child is shown as a symbol. Those symbols represent a gathering of thoughts between people and the environment. Children's artworks at this stage differ in detail, but there is no difference in the type of symbol.

The Incentive Realism Stage is the development of this stage from 9 to 11 years old. The artistic expression of this stage begins to tend toward the real visual environment, and more natural children try to convey the things they see and the perceived relationship.

The analytical realism stage is the developmental stage. Between the ages of 11 and 13, artworks at this stage have evolved into more realistic writing, and the use of colors, shapes, flaps, and surfaces will be more detailed. Step up until it is seen, such as creating a dim and transparent atmosphere.

The realism stage is the development of the 13–15 year old stage. Analyze yourself. Children can look at art and see the artist's work to understand it better. It's on demand.

The recoverable stage is the stage of development after the age of 15 when the child has accumulated problems, obstacles, and experiences. Please find it in Step 6 as a foundation for self-discovery.

In conclusion, there are several stages regarding creative arts strategies that can be applied according to learning. Teachers can use these stages to apply them to activities to achieve set goals and very early childhood skill levels.

2.4.6 The Adoption of Choices for Creative Art Activities

Basak and Erdem (2022) have developed the scale based on 1) Evaluation Perception of Teaching Activities, 2) specified art activities in art education, 3) expected outcomes based on art objectives, 4) expected outcomes based on teachers' planned classroom activities. The questionnaire items were designed to correspond with the research question and to determine what outcomes and objectives teachers considered while planning activities.

Accordingly, the survey questionnaire included 27 items with five-level Likert scale questions for teacher respondents.

2.4.7 Teaching Art to Kindergarten

Abdul Rauf and Tan (2020) note that art activities have been identified as an example of preschool exercises that can encourage creative thinking.

Bosgraaf and Hooren (2020), Arts-based interventions focus on fostering self-expression, creativity, and consolidating social skills through art-making, discussion, play, and collaborative projects; not only does it provide a way to learn information in

an unconventional, non-verbal, holistic, and expressive way through rich sensory experiences with a variety of art materials; but art therapy allows children to become active participants in treatment and use their creativity in meaningful and productive ways.

Art education is an essential element of communication with art that stimulates the functioning of a child's cognitive and, more significantly, affective areas to learn the language of art and to be able to refer to it in the future Draves (2021). Kindergarten teaching activities are an essential part of kindergarten art education. They can stimulate children's cognitive areas, especially the emotional areas, to learn artistic language and refer to it in the future Draves (2021). The sensitivity of art teaching activities can stimulate children's cognition, which plays a significant role in forming an open mind and a personality that can continue to develop. Theoretical orientations exist to expand assumptions that understand a human's presence and influence as the only force essential to artmaking. These orientations recognize matter as an equal "agential presence in artmaking and consequently diversifies the picture of reality used to think about children's lives and everyday practices" (Thompson & Schulte, 2019).

Considering emergent tactile experiences involved in kindergarteners' play-based practices can call attention to the significance and meanings embedded in children's culture during artmaking, many of which have been historically overlooked. Treating childhood art spaces as a material ecology in which children and things co-shape each other invites adults to perceive kindergarteners' artmaking in a new light and come to know the art classroom as a space in which a plurality of learning, both human and material, is essential to the formation of knowledge (Schulte, 2018).

There is growing recognition that arts tools (e.g., music, dance, art, drama, literary arts, and media) can encourage creativity and self-expression and promote academic achievement and social-emotional development in children and adolescents (Russell & Hutzler, 2007).

Sehriban Koca et al. (2021) Developmental stages of artistic expression:

Manipulation (1 - 2 years) The first contact stage with materials is manipulation. Manipulation may be inappropriate, for example, putting clay in the mouth or writing on the wall with a pencil. As long as children and adults can smear, record, model, and build with natural materials, we allow them to do so but limit their use of natural materials to unacceptable situations and behaviors. When the child realizes that it is the person who changes the appearance of clay or other materials, he becomes interested in the making process and the product that will be created. However, they do not care about the final product's appearance at this stage.

Building (2 - 3 years): As children mature intellectually and physically, they have more control over their actions and a greater sense of responsibility for what happens when they use tools such as clay or pencils. They practice and demonstrate control of materials by repeating specific actions or activities, such as scraping horizontally or circularly, rolling, or pressing (flattening) the clay. They begin to consciously change how they handle the material, making the first points and lines, or lines and shapes, rolling and flattening; they start to build in a way that is more than just simple gathering and piling. Then, they begin to make isolated shapes or objects. Although not representative, they represent a step towards creativity and creating forms of will.

Naming (3 - 4 years) Whether due to the curiosity of adults and the child's constant questioning or due to the child's maturity reaching a point when they want to do "something," the next stage for almost every child is to name the object as a real thing. Adults are often confused because the mix of colors and the configuration of clay or wood is nothing like the object they named. At the same time, the product can symbolize different things to the 3-year-old, and their identity changes because it is not fixed but rather fixed, depending on the child's associations at that particular moment.

Educators in preschool schools need to constantly innovate the art teaching mode of preschool children and continuously enhance their subjective consciousness. in preschool art classroom teaching curriculum, educators can let children become the main body of classroom teaching, that is to say, let children come to the podium to

share with their classmates or directly share their understanding and mastery of a particular part of art knowledge, and then understand the inadequate and give some advice. Most texts available to art educators emphasize what to make or do with clay yet say little about how one might think with it Kind, Kocher, and Pacini-Ketchabaw (2017). To a large extent, it has changed children's central position in art classroom teaching. It has trained children's art thinking and expressive abilities in the classroom, which is conducive to their better understanding and mastery of children's art theory knowledge.

Preschool school educators should effectively combine existing information technology for preschool art theoretical knowledge teaching to promote children's understanding and mastery of art knowledge and improve their art performance level. Oikonomidis (2016) thinks preschool art teachers can use computer drawing software to draw technical images for children so that children can more intuitively feel the characteristics of technical photos, help them learn this part of the art knowledge points of techniques, but also more conducive to them when they draw technical images. Children can learn more about some skills with the help of other teaching videos on the network.

The development of multimedia teaching resources is more and more rapid, so educators in kindergarten schools can combine multimedia teaching resources to teach children's art, which is conducive to activating the dull atmosphere of the classroom, the classroom to play videos for children, activate the classroom atmosphere, arouse their interest and enthusiasm in learning art knowledge. Multimedia facilities can visually display the teaching content and enhance the vividness and activity of the teaching form and content (Briggs, 2018).

Abdi (2020) reinforces that the development of creativity in learning at a young age is through the creation of art and spirituality in the child's learning environment. The two foundations of this opinion provide a strong assumption that the embodiment of innovation departs from fun activities for Teachers. Creative activities in the art of batik are the key to this research, providing a sense of feeling for fun activities.

Hidayat et al. (2021) said that Teaching creativity refers to using techniques that can make class fun and engaging. Their research, Fauziyyah Increases Teacher Creativity in Early Childhood Learning in the Digital Age, was carried out based on the problems that occur, namely teachers' lack of ideas and creativity in providing an interesting, fun, and favorable environment for kindergarten-age children.

Bylica et al. (2023). Learners seek more diversity in their learning experiences and want schools to provide more space for new technologies, creativity, curiosity, or collaboration. In the face of the changes in the education landscape and the aspirations of students after the epidemic, now is the time to take a more thoughtful approach to integrating technology into art education. Smart and meaningful technology integration is needed. Fusing the expertise of teaching artists with digital tools created by technology designers represents a significant move in combining technology and art learning. In addition, interactive workshops have proven themselves to be a successful technology-integrated art learning experience.

2.4.8 Definition of Teaching Efficiency

Teachers' teaching efficiency is crucial to developing teaching and learning and realizing perfect learning. In the teaching process, there must be a close relationship between the teacher and the learner, including the teacher's behavior towards the learner during the teaching. This is an essential element of effective education. Many scholars have different definitions of teaching efficiency. What is effective teaching?

Doal (1978) defines effectiveness as a teacher whose attitudes, understandings, skills, and behaviors contribute to students' physical and mental well-being, both socially and intellectually. Good (1973, as cited in Chatree, 2010) defines instructional effectiveness as using lesson plans or teaching methods that allow learners to change behavior in desired ways.

Surang (1998) defines teaching effectiveness as teaching that enables students to learn according to the sexuality and abilities of all students.

Creativity cannot be promoted by issuing policy documents alone. When initiating and implementing creative practices, teachers need support to identify good creative practices and adopt appropriate strategies to cultivate children's creativity (Lucas, 2001). Many researchers (Cheng, 2004; McMullen, 1999; Vartuli, 1999) have found that school-related factors strongly influence teachers' teaching decisions. Teachers are motivated to develop good creative practices when school management shows a supportive attitude and allows teachers to carry out these practices freely and autonomously (Dineen & Collins, 2005). Therefore, in addition to providing teachers with knowledge and strategies for creative practices, supportive schools also significantly promote transforming traditional teaching practices into innovative practices.

Surasak (2003) defines instructional efficiency as the ability to teach or the strategy to teach—as well as teacher characteristics or behaviors that will result in teaching and learning succeeding according to objectives.

Therefore, it is essential to develop training programs for these teachers, with a greater focus on theoretical and practical knowledge and strategies to promote creativity education Chien and Hui (2010); according to Cropley (1995, p. 20), teachers who foster creativity habitually do the following when interacting with students:

Encourage students to learn independently 2. Adopt a cooperative, socially inclusive teaching style 3. Motivate students to master factual knowledge and lay a solid foundation for students' divergent thinking 4. Wait until students' ideas are thoroughly thought out and clearly expressed before judging them 5. Encourage students to think flexibly 6. Promote student self-assessment 7. Take students' suggestions and questions seriously 8. Provide students with opportunities to use various materials and learn under different conditions 9. Help students learn to deal with frustration and failure so that they dare to try new and unusual things.

In conclusion, teaching efficiency refers to the ability of the teacher to achieve successful teaching and learning by learning and changing behaviors for learners based on the goals set by the teacher academically and personally.

2.4.9 Characteristics of Teachers That Affect Teaching Efficiency

The quality of good teachers: teachers should assume essential roles and responsibilities. Cultivate a variety of arts and sciences. It is also a trainer for cultivating national morality, ethics, and good culture and organizes activities to promote learners' progress. The characteristics of a good teacher have been studied and discussed by many scholars, mainly in the following points:

Suwat (2004) outlines the following concepts about the characteristics of a good teacher: 1. Knowledgeable 2—humorous 3. 4. Flexible. Be optimistic 5. Be honest. 7. Be concise. 8. Be open. 9. Be patient 10. Set an example 11. Connect theory with practice. 12. Be confident and diverse, and 13. Be well-groomed and maintain personal hygiene.

In conclusion, teacher characteristics affect teaching efficiency. Teachers are characterized by being loving and compassionate towards students or learners and by making sacrifices and being patient for the good rather than for dignity, wealth, or any other material gain.

Therefore, it is essential to develop training programs for these teachers, focusing on theoretical and practical knowledge and strategies to promote creativity education Chien and Hui (2010). According to Cropley (1995, p. 20), teachers who foster creativity habitually do the following when interacting with students:

- 1) Encourage students to learn independently.
- 2) Adopt a cooperative, socially inclusive teaching style.
- 3) Motivate students to master factual knowledge and lay a solid foundation for students' divergent thinking.

4) Wait until students' ideas are thoroughly thought out and clearly expressed before judging them

5) Encourage students to think flexibly.

6) Promote student self-assessment.

7) Take students' suggestions and questions seriously.

8) Provide students with opportunities to use various materials and learn under different conditions.

9) Help students learn to deal with frustration and failure so that they dare to try new and unusual things. must achieve goals with knowledge, kindness, and the ability to understand and work responsibly, systematically, and creatively.

2.4.10 Effectiveness of Teaching Art

All kinds of teaching need efficiency, including teaching art. In doing so, art teachers need to possess, especially creativity. Thus, in teaching art, promoting thinking about doing new things that are good and useful is important. There is always evaluation while teaching art.

Various methods, such as observation, questioning, and testing, ensure that teachers' teaching meets the objectives as much as possible. Many academics have defined "teaching that affects the effectiveness of teaching" as follows:

Dunhill (1965) described a teacher's basic competence as having four abilities:

1. Knowledge and skills of what is being taught and what students are interested in knowing; 2. Ability to understand children; 3. Ability to improve existing knowledge to suit age; and 4. Ability to use basic teaching skills such as calligraphy.

To identify the teaching practices that teachers can use to foster an essential aspect of children's creativity (possibility thinking), Cremin, Burnard, and Craft (2006) found that taking a step back, analyzing learner agency, and creating time and space are three essential teaching elements. Sharp (2004) also proposed possible strategies for fostering creativity in young children, including asking open-ended questions,

tolerating ambiguity, modeling creative thinking and behavior, encouraging experimentation and persistence, and praising children who provide unexpected answers.

Supaporn (2017) comments that effective teachers should be competent and enthusiastic teachers who are honest, trustworthy, and keep their promises to learners—people who understand students well. Supervising class activities by providing advice, setting clear goals, and allowing for class discussion can control the class by encouraging students to be brave enough to express their opinions, providing modern knowledge to keep up with changes in science, and having a sense of humor.

When praise is effective, it is an essential factor in motivation, job satisfaction, and building trust in the workplace (Webb Beck, 2016). Recognition of teachers' practice is critical in helping educators feel appreciated and teach as they wish (Canadian Education Association and Canadian Teachers' Federation, 2012).

Anderson, Gold, and Krajewski (1980) studied the differences between effective and ineffective teachers. They found the following variables that make teachers effective: 1) Describe the curriculum objectives and the units that require students to be clear about what they are learning 2) Use multiple textbooks 3) Prepare teaching and learning AIDS and tools to be used simultaneously in teaching and learning 4) Use books, experiences, and activities to help students develop their learning 5) Teach students the importance of Lesson 6) Know how to use every second effectively and optimize the content by thinking about duration; 7) The teacher should teach the students to maintain a consistent success rate in learning 8) The content taught is of interest to the students 9) The teacher's expectations and standards for student success must be appropriate, not too high or too low.

Saksit (2011) discusses five characteristics of effective teaching behavior: 1) Clarity 2) Variety 3) Task orientation 4) Engagement in the learning process, and 5) Medium to high success rate.

In conclusion, teaching affects teachers' teaching efficiency. The preliminary characteristics of teaching art through creativity can be summarized as follows: be ready to teach art effectively; constantly evaluate your teaching to develop your teaching skills. There are techniques to stimulate students' artistic interest in learning, apply the principles of psychology, facilitate teaching and learning, and create a democratic atmosphere in the art teaching classroom according to the right social conditions. Help struggling students with less artistic sense succeed and have good measurement techniques.

2.5 INNOVATION THEORY

2.5.1 Definition of Innovation Strategy

The definition of innovation strategy is new things developed from knowledge, abilities, skills, experience, and creativity in the form of products or services that create economic benefits. Other scholars have defined innovation strategy as follows:

Sivanun (2011) pointed out that, from the perspective of entrepreneurship, innovation is a unique tool for entrepreneurs to seek benefits and opportunities from changes to create businesses and services that differentiate themselves from their competitors.

Hughes (1987, as cited in Supakorn, 2016) says that innovation is the introduction of new methods that are trialed or developed in stages, starting with invention and development, and can be experimented with before being put into practice, which is different from previous practices.

Rogers (1995) states that an innovation is an idea, practice, or something new.

Betje (1998) defines innovation as something used in producing, distributing, and consuming goods and services.

Chaiyot (2003) says that innovation means new practices that differ from the original. This may stem from the discovery of new methods or the corresponding improvement of old techniques, and all these things are tested and developed until they can reliably work well in practice, thus enabling the system to move efficiently to its destination.

Pasu (2011) discusses "innovation" in economics, which is the application of new ideas or the use of existing ideas in new ways to achieve economic benefits. It also defines innovation narrowly as the product of combining scientific and technological achievements with the dynamics of social enterprise. Although its broad meaning refers to concepts, practices, or things, it is new to the individual or the unit that adopts it and includes activities that lead to the pursuit of business success, the creation of new markets, new products, new processes, and new services; to do things differently from others through the various changes taking place around us, thus creating opportunities and generating new ideas that benefit ourselves and society. These things can be confirmed by a survey of the National Innovation Agency by the Ministry of Science and Technology, whose top management survey of innovation organizations concluded that top management believes that innovation will lead to the creation of market stability or the creation of new markets, and companies, including companies, will see the importance of continued investment and innovative development.

In conclusion, "innovation" is something new, focusing on something new, whether it's a new idea or a new product, service, or process. It could be created by knowledge and creativity, and making benefit differences leads to changes in the organization.

2.5.2 Strategic Innovation Thinking

Strategic innovation thinking is the process of coming up with novel ideas to address issues or create new products. There are other academics, and you may respond to consumers or clients with new goods or services or a valuable new procedure. The meaning of strategic innovation thinking is as follows:

There are multiple ways to achieve strategic innovation, and the ways that will lead to proposals are as follows (Pasu, 2011):

1) The ability to see an alternative industry in an alternative industry that clearly distinguishes itself from the alternative industry

2) Create a new business from two industries which may or may not be entirely related. The principle is combining products and services from two or more industries to create something new.

3) Learn and apply the experience of other industries, learn the achievements of other sectors, and adopt the themes or methods of that industry, such as successfully implementing different business models in new ones.

4) Customer conceptualization is the reinvention of customers' perspectives and ideas. Instead of looking at the customer as the only purchaser of goods and services, look at who buys the goods and services, as the people who buy the goods and services may be different from the people who pay for the goods and services -- Decision-makers can be divided into the following three groups:

(1) Purchasers are people who pay for goods or services.

(2) A user is a person who uses the products or services.

(3) Influencers are people who influence the purchase of products and services.

In conclusion, conceptual approaches to achieving strategic innovation include the ability to visualize the industry and create new businesses in two different industries, learning and applying industry experience, and adjusting concepts about customers.

2.5.3 Strategies for Creating Innovation

A strategy for creating innovation can be made as follows:

- 1) Create a person with a can-do mindset who thinks positively while being self-reliant and must believe that set goals can be achieved.
- 2) Have a clear goal to work for the organization and must find the strengths to be seen;
- 3). To take action, the head of the organization must lead by example, and the employees will follow;
- 4) Think win-win: every department should benefit;
- 5) Understand others first, then others will understand us;
- 6) Fusing differences, everyone has different ideas and must align the direction of staff and officials (Pasu, 2011).

Cropley and Cropley (2008) can cultivate and teach creativity. Creativity does not come out of thin air but requires specific basic knowledge (Craft, 2001; NACCCE, 1999; Sweller, 2009). The National Advisory Committee on Creative and Cultural Education (NACCCE, 1999) emphasizes that as long as the conditions are right and relevant knowledge and skills are mastered, everyone has the ability to achieve creative achievements in certain areas of activity.

Since innovation is something new, its emergence should begin with analyzing new opportunities. Innovation should be analyzed from a variety of perspectives. Because innovation is all about ideas and the visible elements of success, it must come from the left and right hemispheres of the brain. That's analytical thinking and using creativity and looking at things, looking at people, looking for results. Innovation has to be simple and focused. This should be done alone, and it has to start from a minor point; it doesn't have to be significant when trying to do something specific. Innovation requires more than genius: knowledge, wisdom, talent, and above all, hard work and dedication.

In conclusion, the innovation strategies of managers and scholars are increasingly focused on strategic innovation, and for an organization to succeed among its competitors, it must stand out in the same industry. The factors that cause the organization to differentiate itself from its competitors constantly are inevitable. The

ability of an organization to innovate. This innovation is not just about developing new products or services; it includes value and disruptive innovation.

2.5.4 The Innovation Attitude Survey (IAS)

The Innovation Attitude Scale is an instrument with 16 items designed by Christensen and Knezek (2022) to measure curricular enhancement programs that employ project-based instruction. Its development was guided by self-efficacy theory and several attributes deemed important for measuring innovation, such as a tendency to be inventive and persevere to the completion of innovative ideas. Instrument development began by seeking and reviewing instruments that measured innovation and leadership-related disposition.

The IAS was developed for educators as an intervention or curriculum featuring related activities. The survey can be applied as a baseline measure for developing programs to target implementation of innovation-based program elements or to compare subsets of a population such as genders or ethnic groups. It can be also a beneficial tool for putting respondents together into collaborative groups for greater success in working on projects that benefit from positive attitudes related to innovation, other multitask-related projects, or other long-term or hands-on- projects.

2.6 KINDERGARTEN ART TEACHERS

Kindergarten readiness encompassed multiple skills and characteristics, including academics, social-emotional, and physical preparedness for formal schooling. Many states created readiness standards to help guide pre-K programs and assess readiness for kindergarten Slutzky and DeBruin-Parecki (2019). The U.S. Department of Health and Human Services, Office of Head Start (2022) regarded school readiness as acquiring the skills, knowledge, and attitudes essential for success in school and throughout life. Physical, cognitive, social, and emotional development was crucial in determining school readiness.

In the opinion of several pedagogues (Daniel & Parkes, 2013; Kenny, 2017), we should begin to prepare children at preschool age for the conscious reception of works of art, as this is a crucial resource that inspires their independent creativity, from this source they draw ideas for their own personal and original artistic expression.

The primary goal of pre-K education has always been to provide a strong foundation for learning and future success (Pianta et al., 2020). Educators recognized pre-K education as essential to children's early learning development. Pre-K programs aim to offer children a foundation of knowledge and skills necessary to succeed in school and beyond (Pianta et al., 2020), including developing social, emotional, language, art, and math skills.

In the United States of America, kindergarten began formal education for children aged 5 or 6 and acted as a transition from home to formal schooling. In Kindergarten, children develop fundamental skills through play and social interactions. Although the child may have gone to preschool, kindergarten was considered the first year of formal education (U.S. Legal, Inc., 2024).

In kindergarten art education, the main body is infant children rather than teachers. Teachers mainly play a guiding and assistance role in the entire teaching process. In the whole process of kindergarten art education, the main cultivation content is infant children's emotions, attitudes, and emotional experiences. For infant children, painting in art education is not only a process of learning skills but also a process of playing games and entertainment most of the time. Such art education activities can exercise the ability of infant children to jointly use hands, eyes, and brains, and develop the imagination and creativity of infant children. Infant children can paint according to the information obtained from the outside world and their imagination and express their thoughts through painting.

There is still no consensus among ECE researchers and educators in terms of defining effective ways to educate children in arts (Cutcher & Boyd, 2016; Lindsay, 2021); observed kindergarten classrooms, found that teachers regulated children's art

activities and shaped their expression by tightly directing their selection of art materials and manipulating them to produce artworks similar to dummies prepared by the teachers. Many studies have noted that didactic practices, such as rote memorization drills and training, deprive children of their voices and reduce opportunities for peer learning (Suzannie et al., 2023).

kindergarten teachers receive limited training e in quantity and quality e in arts as a subject matter. This deficit may discourage them from practicing non-directive and child-centred pedagogies. Leung's (2018) studies have found that kindergarten teachers must still be pedagogically ill-prepared for early arts. They lack the content and pedagogical content knowledge to develop children's procedural and declarative knowledge and facilitate their aesthetic experiences meaningfully in kindergarten classrooms. Rochovska and Svabova (2021) explained that teachers must acquire knowledge of the theory and history of art and various art techniques to interpret works of art with children.

Teachers' intrinsic motivation reflects their developmental level, influenced by existing values, instructional practices, and interactions (Liu et al., 2018). Positive emotions evoked during teaching, coupled with progress and success in instructional practices, contribute to intrinsic motivation (Han & Yin, 2016).

whether as a preschool art bishop or assistant teacher, listening and speaking ability, basic art knowledge, and skills are more critical. The purpose of preschool children's art learning must be free of theory; only through continuous practice can they acquire the skills to organize kindergarten art teaching activities. Art teachers of preschool education specialty require children to have good professional qualities. Based on mastering five fields of kindergarten education activities, preschool education, preschool psychology knowledge, and solid professional skills such as vocal music, dance, art, and so on, they constantly improve art skills and learn and practice preschool art teaching (Craemer et al., 2017).

Pedagogical Content Knowledge (PCK) is a concept to represents teachers' professional knowledge and has been widely used in teacher knowledge literature. Newsome et al.(2019) revealed that the point of PCK is the way the subject matter is changed for teaching, and this happens when educators interpret the subject matter and find different ways to represent it and make it accessible to students according to the context of the material, learning theme, or field of study。 Kindergarten art teaching activities also need to pay attention to this point.

The Early Childhood Education Association, which is spread worldwide, also agrees that they need to understand the characteristics of children, be able to interact with children Fuk Kink et al. (2019), as well as the techniques used to achieve optimal development in all aspects of growth (National Association for the Education of Young Children, 2019).

Bielienka, Brovko, and Kondratets (2021) In the elementary subject "Art education for preschool children," any subject's development involves using ICTs. It allows students to watch and present video clips, photos, illustrations; show reproductions of artists' works, works of sculptors, architects, musicians, actors, composers, dancers; demonstrate technical methods of visualization through multimedia short films; create graphic materials (tables, charts); Approval of ICT projects proves that the use of various ICTs increases students' interest in the subject; stimulates self-improvement and self-development; modernizes the subject content with innovative interactive forms and methodological technologies; forms appropriate professional competences of future teachers.

According to Ramli and Musa (2020), teachers or lecturers should be trained before conducting any teaching action exploration activities. Teachers must also strive to update knowledge, skills, self-improvement, and personal and professional growth. Teachers must remember that the proper methods and well-made educational materials contribute to "effectively developing students' personal qualities, creative abilities, and artistic and aesthetic education."

Muhamad and Rofidah (2020) In early childhood education, teachers must know that visual arts education is critical to developing creativity. In addition, teaching sketching and imaging techniques can improve the thinking skills of preschoolers. Art education practice needs to be led by teachers who are competent in teaching and skilled in art. Whether kindergarten teachers feel that they are qualified enough in art teaching activities Rochovská and Šváblová (2021, 2022) and to what extent they integrate art and its stimulation into kindergarten educational activities through art teaching activities, guide children to stimulate innovative thinking learning, which is an essential teaching activity.

2.7 CURRENT SITUATION OF KINDERGARTEN TEACHERS IN QUJING CITY, YUNNAN PROVINCE

Since 2020, the number of full-time teachers and teaching staff in our country has been increasing (Forward-looking Industry Research Institute). However, according to the provisions of the "Kindergarten staff staffing standards (Interim)", the ratio of full-time kindergarten staff to children needs to reach 1:5 to 1:7 standards, and the number of kindergartens in China will reach 48.18 million in 2020. The number of teachers will be equipped according to 1:7 standards, and at least 6.88 million teachers will be required. Currently, the number of preschool education teachers in China has not reached this standard (Ministry of Education of the People's Republic of China, 2013).

To further standardize the employment practices of various kindergartens, our department has studied and formulated the "Standards for the Staffing of Kindergartens (Provisional)". The staffing ratio of kindergarten staff and children in different service types is shown in Table 2.3

Table 2.3 Staffing ratio of staff and children in kindergartens with different service types

Type of service	Kindergarten-to-child ratio	Comparison of all kindergarten staff and children
Full-time	1:5 to 1:7	1:7 - 1:9
Half-day	1:8 to 1:10	1:11 - 1:13

Standards for the Staffing of Kindergartens (Provisional)

Source: Rydland, Nord, and Christensen, 2022

Full-day kindergarten has two full-time teachers and one childcare worker per class, or three full-time teachers; half-day kindergarten has two full-time teachers per class and can be equipped with one childcare worker if conditions permit.

Kindergartens should, according to the actual situation of the development of local preschool education, add more types and numbers of teachers' posts to meet the needs of the kindergarten's development and nursing work and ensure that temporary nursing and nursing staff are available for teachers' further education, volunteer teaching, sick maternity leave, etc.

The standards of class size, full-time teachers, and nursery staff of different age classes and mixed-age classes in kindergartens with varying types of service are shown in Table 2.4

Table 2.4 Class size and standard of full-time teachers and nursery staff in kindergartens.

		Full-time		Half-day	
Age Classes	Class size (people)	Full-time teacher	Child-care workers	Full-time teacher	Child-care workers
Small classes (3 to 4 years old)	20 to 25	2	1	2	Those with conditions should be equipped with 1 childminder
Middle Class (4-5 years old)	25 to 30	2	1	2	

Table 2.4 Class size and standard of full-time teachers and nursery staff in kindergartens.

(Cont.)

(5 to 6 years old) Mixed-age Class	30 to 35	2	1	2	
Mixed-age Class	The < 30	2	1	2 to 3	

Standards for the Staffing of Kindergartens (Provisional)

Source: Rydland et al., 2022

Other staffing: Principal: 1 for kindergartens with fewer than six classes, no more than 2 for kindergartens with 6 to 9 classes, and 3 for kindergartens with ten classes or more.

This standard is the qualification standard for all types of kindergartens at all levels. Based on their economic and social development level and the actual development of preschool education, all localities may formulate specific implementation plans suitable for their localities (Ministry of Education of the People's Republic of China, 2013).

Qujing has about 1,900 kindergartens, with about 240,000 children in them. The number of teaching staff is about 19,000, including 12,000 full-time kindergarten teachers (Qujing Statistical Yearbook, 2022). According to the data of kindergartens that have cooperated or are cooperating in related projects, although the strength of teachers is constantly increasing, there is still a large distance from the required standard of a 1:7 ratio of teachers to children in kindergartens. Many structural imbalances exist, such as uneven distribution in urban and rural areas, an uneven ratio of men to women, and a low degree of specialization.

However, in this study, the kindergartens will be 742 art kindergarten teachers at 10 of the highest specifications among the first-class public demonstration kindergarten classes that meet provincial standards in Qujing, Yunnan Province (Qujing Statistical Yearbook, 2022).

Kindergarten Schools in Qujing, Yunnan Province: 10 kindergarten schools with the highest specifications among the first-class public demonstration kindergarten

classes that meet provincial standards. All of those 10 kindergartens are 1) The First Kindergarten of Qujing; 2) Qujing No. 3 Kindergarten; 3) No. 1 Kindergarten, Qilin District, Qujing City; 4) No. 2 Kindergarten, Qilin District, Qujing City; 5) No. 3 Kindergarten, Qilin District, Qujing City; 6) Kindergarten, Qilin District, Qujing City; 7) Zhanyi District No.1 Kindergarten; 8) Zhanyi District No 2 Kindergarten; 9) The First Kindergarten of Huize County; and 10) The Second Kindergarten of Huize County . Qujing City, Yunnan Province: A city located at the source of the Pearl River and the junction of Yunnan, Guizhou, and Guangxi provinces in China. It is known as the "Throat of Yunnan".

2.8 RELATED RESEARCH

Abdellah, Ahmed, Alharbi, Elfeky, and Sultan (2022) conducted a study using PBL to enhance creativity and skills in the arts among kindergarten student teachers. The research was conducted on students in the kindergarten department who were divided into two equal groups randomly. The main research instruments were a creativity scale and a product evaluation card for skills in the arts. The empirical results revealed that PBL had a positive and significant influence on enhancing kindergarten student teachers' creativity, mediated by idea manipulation and generation and analogical and metaphorical thinking. Results also showed that PBL positively and significantly influenced the development of kindergarten student teachers' art skills, mediated by esthetic and creative aspects.

Acomi et al. (2023) studied creativity and arts in digital social innovation. There is a multifaceted relationship between creativity, art, digital social innovation, education, and their implications for the future of work. This book explores the sources of innovation and creativity, focusing on the role of creativity in the arts.

The book delves into the relationship between creativity and the arts, exploring how artistic practices, such as visual arts, music, and performing arts, enhance

innovative thinking, problem-solving skills, and imagination. In summary, this book sheds light on the importance of creativity, art, digital social innovation, and education in driving innovation and preparing individuals for the future of work. It emphasizes the transformative power of imagination and the arts and highlights the potential of digital social innovation as a force for positive change in society.

Basri, Halim, Saputra, and Syahrin (2023) conducted a study on the Development of Creative Activities Through Batik Art of Decorative Variety Design to Improve Kindergarten Teachers' Creativity. The purpose of this research is to examine the development of the activities of the teachers of Al-Muna Kindergarten to improve their creative abilities through decorative batik designs. The results showed that the development of decorative batik design creative activities had an impact on increasing teachers' ability in the art of creativity. The teacher's creativity was formed through batik decorative designs, namely the formation of one's personality with a positive side to find new things by creating phases (systems). And products. The resulting product is the manufacture of batik motif paintings with decorative designs on glass media, where the activity development period is two weeks with two stages of activity and the involvement of Al-Muna Kindergarten teachers totaling ten people with a basic understanding of art.

Basak and Erdem (2022) examined kindergarten teachers' art-based activities and practices that were useful and functional in learning processes that help learning in other subject areas. In Turkey, as teachers allocate their classroom time for art practices, an art curriculum is not required or enforced at the kindergarten level. Thus, the kindergarten curriculum was investigated to clarify to what extent curriculum objectives and learning outcomes met art education learning outcomes specified for elementary-level art education state standards. The results revealed that while the kindergarten and visual arts curricula were compared and analyzed about teacher responses, it appeared that an integrated approach to kindergarten activities consisted of art-based practices in that an art-based comprehensive understanding of educational interventions should be encouraged.

According to Various Variables in Jerusalem, Ishtayah, and Abushokhedem (2023) studied Kindergarten Teachers' Perceptions of Creative Child Characteristics. Objectives: This study aimed to explore kindergarten teachers' perceptions of the characteristics of creative children in Jerusalem, considering various variables. Results: The study revealed statistically significant differences in responses based on specialization and experience, favoring teachers with 5–10 years of experience. No statistically significant differences were found in teachers' perceptions of creative children's characteristics based on academic qualifications. Kindergarten teachers' perceptions of creativity were found to be associated with originality. Children's creativity was observed in various domains. The main challenge for creative children in Jerusalem was the lack of specialized programs to meet their needs. Conclusions: The study recommends developing specific programs in kindergartens that cater to the needs of creative children.

Kurniawan and Zunidar (2022) studied creative teachers and teaching creativity: an effort in learning activities in the new average era. The nation's future is primarily determined by the optimal role of teachers in educating children to become creative human beings capable of solving increasingly complex national problems. As professional educators, teachers have a moral responsibility to develop children's personalities, including improving the quality of students' creativity. For this reason, professional educators must first understand and be skilled at developing students' creativity in the learning process. Therefore, this paper tries to explain how to become a creative desert to create the creative children needed to achieve 21st-century skills. The “new normal” policy is based on changing behavior or habits.

Paik (2022) conducted a study on the analysis of structural relations between kindergarten teachers' teaching creativity and play support competency and children's peer play interaction. Objectives: This study aims to select the teaching creativity of kindergarten teachers and the play support capacity of kindergarten teachers that affect children's peer play interaction and to analyze the structural relationship between each variable. Results examining the structural relationship revealed that, first, there was a positive correlation between the kindergarten teachers' teaching creativity, play support

ability, and children's peer play interaction. Second, the independent variable, the kindergarten teacher's teaching creativity, directly affected the children's peer play interaction. Conclusions: The influence on the increase or decrease of children's peer play interaction is also significant due to the kindergarten teacher's teaching creativity, but it was found that the influence increased when the kindergarten teacher's play support ability was added to the kindergarten teacher's teaching creativity.

Yeung (2021) studied the arts and creativity in Hong Kong kindergarten education. Thus, Hong Kong kindergarten teachers are encouraged to integrate art and creativity. The study had two objectives: 1) to examine the presence of the various art forms in Hong Kong kindergartens and 2) to identify positive pedagogical practices and exemplars of good teaching and learning activities in this learning area. These findings question the socio-cultural appropriateness of the Western notion of creativity within Hong Kong's official curriculum framework. These findings substantially affect curriculum designers, teacher educators, and professional development providers.

Erim and Cetin (2020) conducted a study on "Future teachers' views on the attitudes of practicing teachers in observing teaching practices." With the goal of individual intelligence, sensibility, emotion, and other aspects of education, visual arts education as one of the fields of education is placed in an important position. In this study, emphasis is placed on the attitudes that practitioners should display in the observation process, which play a crucial role in the career development of future teachers in teaching practice. These attitudes are addressed in the framework of guiding behaviors that are considered beneficial to prospective teachers during the observation process.

Li and Li (2019). Examining kindergarten teachers' beliefs about creative pedagogy and their perceived implementation in teaching practices. The purpose of the present study was to uncover kindergarten teachers' beliefs about creative pedagogy, their perceived implementation of innovative pedagogy in teaching practices, and factors contributing to differences between teachers' beliefs and practices in China. Results showed that teachers overall held positive attitudes towards the importance of

four creative pedagogy dimensions (possibility thinking, interpersonal exchange, self-initiated pursuit, and teacher-oriented pursuit). Teachers also reported favorably about all four dimensions of their practice. However, there is a divergence between teachers' beliefs and their reported practice. Teachers had neutral beliefs about teacher-oriented pursuit but implemented it more in their reported practice.

Several pedagogues (Daniel & Parkes, 2013; Kenny, 2017) believe that we should begin preparing children at preschool age for the conscious reception of works of art, as this is an important resource that inspires their independent creativity. From this source, they draw ideas for their own personal and original artistic expression.

Johnson (2017) acknowledged that personalized teaching methods are essential for balancing the educational needs of different students, which helps to create "effective surprises". Therefore, creative teachers must be familiar with various teaching techniques and strategies to avoid repetition, as repetition kills creativity.

Therefore, creative teachers must be familiar with various teaching techniques and strategies to avoid repetition, as repetition kills creativity. In addition, they must abandon established teaching strategies and practices, innovate, and use methods not necessarily prescribed in books. They must be willing to rethink and modify some ineffective teaching techniques when necessary to impart knowledge to children (Zagrebu et al., 2016)

As Vygotsky (1978) pointed out, children's development transforms from social interaction to an internal psychological process. High-quality teaching interaction and teaching situation design are the keys to promoting the development of children's creativity.

Scholars believe that cultivating children's creativity requires the joint efforts of all officials and leaders in the education sector so that teachers can keep up with the development of creativity teaching courses (Yemez & Dikilita, 2022)

In conclusion, the study's results showed that the positive effects of kindergarten teachers' creativity and artistic skills were mediated by promoting idea manipulation and metaphorical thinking. The study also revealed that it is possible to cultivate students' creativity and creative skills at this stage and prepare them for their future societal roles.



CHAPTER 3

METHODOLOGY

This study adopted a mixed-method design of quantitative and qualitative methods. First, a questionnaire survey was used to collect data and test the reliability and validity of the measurement tool. The data results obtained from the questionnaire were recorded for interview questions. Second, interviews were conducted to discuss further the attitudes and views of kindergarten teachers on creative and innovative creative arts teaching activities and to provide guidelines for better creative arts activities in kindergartens in Yunnan.

3.1 RESEARCH PLAN

Quantitative

After the Oral Defense Committee approved the research proposal, the first step was to create a questionnaire. The questionnaire was submitted to the experts to ensure content validity. To validate the questionnaire, it was submitted to a panel of five experts composed of scholars in the field of education. This validation process utilized the Index of Objective Congruence (IOC) and asked experts to rate each questionnaire item for validity.

Moser and Korstjens (2018) obtained the necessary permissions to proceed with data collection. This included securing permission letters from Suryadhep Teachers College to issue permission letters to collect data. At the same time, the research design for the study aimed to understand the attitudes and perceptions towards creativity and innovation in creative art activities of art teachers in kindergartens in Yunnan Province. Public kindergartens that participated in questionnaires and interviews were contacted for permission to collect data in their kindergartens.

3.2 POPULATION AND SAMPLE

The main reason for choosing these particular kindergartens is that they had the highest specifications among the first-class public demonstration kindergarten classes that meet provincial standards. All ten kindergartens were in Qujing City, Yunnan Province, located at the Pearl River's source and the junction of Yunnan, Guizhou, and Guangxi provinces. It was known as the "Throat of Yunnan."

3.2.1 Population

The number of teaching staff is 742 full-time kindergarten teachers from 10 public kindergarten schools in Qujing, Yunnan, China, with the First-Class Public Demonstration Kindergarten Classes that Meet Provincial Standards in Qujing City, Yunnan Province (Qujing Statistical Yearbook, 2022). The Kindergarten Schools with the First-Class Public Demonstration Kindergarten Classes that Meet Provincial Standards in Qujing City, Yunnan Province.

3.2.2 Sampling

The sample comprised 261 kindergarten teachers from Qujing City, Yunnan Province public kindergartens. The selection criteria based on Neuman's (2003) concept with a confidence level of 95% with a margin of error of 5% were used to determine the sample size, which was for a total population of 742 teachers, and the sample size of 261 was obtained for this study. A random sampling technique with a counting technique Krejcie and Morgan (2017) was used to gather the samples to ensure the representation of teachers from all ten schools while maintaining a degree of randomness in the selection process. In summary, the sampling procedure was to pick up every second name of the kindergarten teachers' school lists until 261 respondents were yielded.

Table 3.1 Population and Sample

Schools in Qujing	The population of the Teachers	Sampling
1. The First Kindergarten of Qujing	55	26
2. Qujing No. 3 Kindergarten	62	27
3. No. 1 Kindergarten, Qilin District, Qujing City	155	26
4. No. 2 Kindergarten, Qilin District, Qujing City	145	26
5. No. 3 Kindergarten, Qilin District, Qujing City	90	26
6. No. 4 Kindergarten, Qilin District, Qujing City	44	26
7. Zhanyi District No.1 Kindergarten	56	27
8. Zhanyi District No 2 Kindergarten	27	25
9. The First Kindergarten of Huize County	46	26
10. The Second Kindergarten of Huize County	62	26
Total	742	261

3.3 RESEARCH INSTRUMENTS

3.3.1 Kaufman Domains of Creativity Scale (K-DOCS)

Kaufman Domains of Creativity Scale (K-DOCS). The K-DOCS (Kaufman, 2012; Kaufman & Baer, 2004) was designed according to the APT model rather than relying on general-factor models; creativity should be interpreted in a hierarchical model that includes both domain-general initial requirements and domain-specific outcomes (Baer & Kaufman, 2005). Kaufman (2012) developed the Kaufman Domains of Creativity Scale (K-DOCS) based on the APT model. As an essential supplement to

earlier self-assessments of creativity, the K-DOCS has become one of the most popular self-assessments of creative behaviors across different domains.

The K-DOCS consists of 50 items that tap into creative behaviors across five different domains:

- 1) Everyday -- creativity in daily life and in managing interpersonal and intrapersonal issues of individual creativity;
- 2) Scholarly -- creativity in academic research and nonfiction writing;
- 3) Performance -- kinesthetic activities, music, and lyrical writing;
- 4) Scientific -- creativity in mathematics, mechanical engineering, and technology,
- 5) Artistic -- creativity in artistic creation and aesthetic appreciation.

The K-DOCS has shown evidence for internal consistency, test-retest reliability, and convergent and discriminant validity (Kaufman, 2012; McKay et al., 2017) with translation and adaptation into several languages (Kaufman, 2020; Miroshnik et al., 2022). The examination of the K-DOCS factor structure across these translations has shown that most of these translations supported the existing five-factor structure (Kandemir & Kaufman, 2020). In addition, the evidence has demonstrated its measurement invariance and translations across genders (Kaufman, 2020).

In this study, the Kaufman K-DOCS measurement was used to measure the attitudes and perceptions towards creativity and innovation of kindergarten art teachers in Yunnan since it is believed to have the power to tap five domains of teachers' creativity that will fit into answering the objectives of the study in terms of their attitudes and perceptions towards creativity in different creative art activities use to teach.

It has been argued that the Creative Self-belief Scale provides precise levels of creative ability, mainly when used to assess creativity in a specific field (Lee et al., 2001). Furthermore, in some studies, a significant relationship between creative self-

belief and performance has been reported, as creative personal identity is a causal predictor of creative confidence and performance (Tang, Karwowski, & Werner, 2016; Tierney & Farmer, 2002), which in turn become intermediaries for creative expression (Choi & Oxley, 2004).

However, to ensure the appropriateness of the length and time spent answering the questionnaire, this study used the brief yet precise version of the Kaufman K-DOCS Scale, which has 17 items (Kaufman, 2020).

3.3.2 The Innovation Attitude Survey (IAS)

The Innovation Attitude Scale is an instrument with 16 items designed by Christensen and Knezek (2022) to measure curricular enhancement programs that employ project-based instruction. Its development was guided by self-efficacy theory and several attributes deemed important for measuring innovation, such as a tendency to be inventive and persevere to the completion of innovative ideas. Instrument development began by seeking and reviewing instruments that measured innovation and leadership-related disposition.

The IAS was developed for educators as an intervention or curriculum featuring related activities. The survey can be applied as a baseline measure for developing programs to target implementation of innovation-based program elements or to compare subsets of a population such as genders or ethnic groups. It can also be a beneficial tool for putting respondents into collaborative groups for tremendous success in working on projects that benefit from positive attitudes related to innovation, other multitask-related projects, or other long-term and hands-on projects.

The IAS consisted of 13 items that tap into creative behaviors across three different domains:

- 1) Propensity to Be Inventive;
- 2) Motivation or Pride;

3) Leadership in Innovation.

3.3.3 The Adoption of Choices for Creative Art Activities Scale

The Adoption of Choices for Creative Art Activities Scale was based on evaluating the Perception of Teaching Activities, 2) specified art activities in art education, 3) expected outcomes based on art objectives, and 4) expected outcomes based on teachers' planned classroom activities. The questionnaire items were designed to correspond with the research question and to determine what activities were adopted for the expected outcomes and objectives teachers considered while planning and integrating art teaching activities. Accordingly, the questionnaire included 27 items with five-level Likert scale questions for teacher respondents.

This scale was initially developed to clarify to what extent kindergarten curriculum content, outcomes, and practices are consistent with art education curriculum content and outcomes. Consequently, research questions were structured to answer whether art-based kindergarten activities and practices correspond to the general level of art education curriculum outcomes and objectives. Thus, the survey questionnaire was designed based on outcomes specified in the art education curriculum. Outcomes based on art objectives were precisely combined into the survey items to edify and match the expected outcomes on art objectives and choice(s) of activities planned to integrate into their art teaching practice. Accordingly, the questionnaire included 57 items with five-level Likert scale questions for teacher respondents.

3.3.4 Instrument

The questionnaire was divided into two parts:

Part I: The demographic information: genders, ages, educational level, and years of teaching experience in art.

Part II: The Scales to measure Kindergarten Art Teachers ' Creativity, Innovation, and Choices of Creative Art Activities Planning and Integrating into Art Teaching.

The K-DOCS consists of items that tap into creative behaviors across five different domains:

- 1) Everyday -- creativity in daily life and in managing interpersonal and intrapersonal issues of individual creativity;
- 2) Scholarly -- creativity in academic research and nonfiction writing;
- 3) Performance -- kinesthetic activities, music, and lyrical writing;
- 4) Scientific -- creativity in mathematics, mechanical engineering, and technology;
- 5) Artistic -- creativity in artistic creation and aesthetic appreciation.

The IAS consisted of 13 items that tap into creative behaviors across three different domains:

- 1) Propensity to Be Inventive;
- 2) Motivation or Pride;
- 3) Leadership in Innovation.

The Adoption of Choices for Creative Art Activities Scale was composed of 27 items based on the following:

- 1) Evaluation of Perception of Teaching Activities;
- 2) Specified art activities in the art education;
- 3) Expected outcomes based on art objectives;
- 4) Expected outcomes based on teachers' planned classroom activities.

Accordingly, the questionnaire included 57 items with five-level Likert scale questions for teacher respondents.

It involves three scale components: 1) K-DOCS (Q1--17); 2) IAS (Q18--30); and 3) ACAS (Q31--57). The specific sub-items are shown in Table 3.2 below.

Table 3.2 Three scale components

K-DOCS		
KDOCEVD		1-4
KDOCSCL		5-7
KDOCPFM		8-11
KDOSCI		12-14
KDOCART		15-17
IAS		
IASPBI		18-21
IASMP		22-25
IASLI		26-30
ACAS		
EPTA		31-37
ACSAA		38-46
ACEOTPCO		47-53
ACEOTPCA		54-57

3.4 DATA COLLECTION

The research tools included questionnaires and interviews conducted in 10 public kindergartens in Qujing, Yunnan Province. The researchers started the study by informing the purpose of the study in advance and distributing the informed consent form and consent agreement. Participants had the opportunity to read these documents. The questionnaire was distributed online through the application, and the questionnaire data was collected using the "Questionnaire Star" software.

3.5 RELIABILITY AND VALIDITY

This study adopted quantitative methods and supplemented them with qualitative methods. It first drew preliminary conclusions through data surveys and then

verified and explained relevant conclusions through questionnaires and interviews with the results obtained from the questionnaire written for the interview questions (Bailey, Hutter, & Hennink, 2020) with ten principal kindergarten schools in Qujing, Yunnan Province. The interview, on the one hand, deepened the understanding of the research question; on the other hand, the research findings of the quantitative research part were supplemented, and administrators' perspectives on better creative art education in Qujing were explained.

Statistical analysis methods were used to test the theoretical/conceptual framework, and sample data by Statistical Computer Program was used for Descriptive Statistics the sample of kindergarten teachers in Qujing City, Yunnan Province, China, including kindergarten teachers in government schools in Qujing City, Yunnan Province, China. Using off-the-shelf computer programs and compilation tables for data analysis, researchers could analyze the data and test hypotheses as follows: frequency, percentage, mean, and standard deviation. The statistic used in the hypothesis test would be multiple regression.

The statistical illustration was described using frequency, percentage, mean, standard deviation, and Multiple Regression. The level of agreement was analyzed and determined by the study of Kahn, Barczak, and Moss (2006).

The Level of Attitudes and Perceptions:

The Score of 4.5-5.00 = Strongly Positive Attitudes and Perceptions

The Score of 3.50-4.49 = Positive Attitudes and Perceptions

The Score of 2.5-3.49 = Moderately Positive Attitudes and Perceptions

The Score of 1.50-2.49 = Negative Attitudes and Perceptions

The Mean scores 1.00-1.49 = Strongly Negative Attitudes and Perceptions

The Level of Agreement:

The Score of 4.5-5.00 = Strongly

Agree the Score of 3.50-4.49 = Agree

The Score of 2.5-3.49 = Moderately

Agree on the Score of 1.50-2.49 = Disagree

The Mean scores 1.00-1.49 = Strongly Disagree

1) Validity

This study was divided into three levels: the attitudes and perception level of the kindergarten teachers, the innovative attitudes and perceptions of kindergarten art teachers. First, the IOC should be assessed by five experts related to the field of education. When the content validity construction of the questionnaire was completed, the calculation was calculated by the consistency index of the question and the objective index of project-to-objective consistency (IOC), and approved by the expert opinion score that checks the accuracy of the questionnaire content.

The content validity results were compared by the average scores and percentages of five experts on kindergarten art teachers' attitudes and perceptions in creative art education. IOC is positive, equal to .50, or rather, a question or good content may be used, but should be amended if the IOC is less than .50, experts have common opinions and doubts, or the content is inconsistent or inappropriate (Turner & Carlson, 2003).

- +1 Means the questionnaire is consistent with the research objectives.
- 0 The means questionnaire needs help with the research objectives.
- 1 means that the questionnaire is inconsistent with the research objective.

The average score on the questionnaire has a qualifying index (IOC) of 3 experts to determine the overall validity score of the questionnaire content to be 0.93, where questions with an IOC value between 0.50 and 1.00 indicated that the questionnaire had a level of consistency. It is a very high precision or confidence value that could be used to query a sample accurately and precisely. Corrections were then

made based on expert recommendations, and the questionnaire was sent to a consultant to be rechecked for correctness before being distributed.

After passing the IOC, the back-translation method was used to check the accuracy of the language used in data collection, in this case, translation from English version to Chinese and Chinese back to English. Translation in cross-cultural studies recommends at least three bilinguals as translators (Cha et al., 2007). The IOC result was 0.899.

2) Reliability

An original scale with a high degree of internal consistency and structural accuracy does not mean that it is suitable for a new research group, even if five experts have evaluated its contents. Before formal sampling, the reliability and validity of the measuring instrument are considered established by the method in the pretest (Out) of 30 correct samples Rovinelli and Hambleton (1977) outside the sampling. In pre-test testing, the reliability and accuracy of the scales are essential to statistical methods. A measuring instrument with optimal reliability and accuracy can provide a high guarantee for the results of subsequent complex modeling studies. A Cronbach Alpha coefficient of 0.7 will indicate that the questionnaire has high reliability or confidence and can be used to store actual data. The instrument is not reliable if the alpha point is 0.00 or less. Cortina (1993) asserts that for a construct to be deemed trustworthy, Cronbach's Alpha value associated with it should exceed 0.7.

In this study, the reliabilities were: KDOC =0.94, IAS = 0.96, and ACAS=0.95; from the pre-test results, it can be seen that the reliability α values of each dimension of daily life, academic, performance, science, art, creative tendency, motivation/pride, innovative leadership, innovative leadership, art activities, expected results of art goals, and expected results of teacher plans are the same. The reliability α values greater than 0.7 align with this study's standards, indicating that the career resilience data results of this questionnaire have good consistency.

3) Reliability and Validity analysis

This survey uses Cronbach's α reliability coefficient method to test the reliability of the questionnaire. It is generally believed that the range of Cronbach's Alpha coefficient values is between 0 and 1. When the α value is ≥ 0.9 , it means that the reliability of the scale is very high; $0.8 \leq \alpha < 0.9$ indicates that the reliability of the scale is high; when $0.7 \leq \alpha < 0.8$, it is considered that the reliability of the scale is acceptable, but individual items need to be revised; and when $\alpha < 0.7$, it means that the reliability of the scale is general, and the questionnaire scale needs to be modified or redesigned. This shows that the internal consistency of the questionnaire scale in this study is very high and has strong reliability.

Table 3.3 displays the reliability analysis results of the sub-variables of the K-DOCS scale and the overall scale: 1) KDOCEVD=0.879; KDOCPFM=0.884; KDOCSCL=0.834; KDOSCI = 0.844, and KDOCART = 0.816, with the reliability of the KDOCS at 0.967.

The results showed that the K-DOCS scale is highly reliable and consistent in assessing target traits and can be effectively used to measure them in research.

Table 3.3 K-DOCS Scale Reliability Analysis Results

Variable	Cronbach's Alpha Coefficient	Reliability Level
KDOCEVD	0.879	High
KDOCSCL	0.834	High
KDOCPFM	0.884	High
KDOSCI	0.844	High
KDOCART	0.816	High
KDOCS	0.967	High

Table 3.4 shows the reliability analysis results of the sub-variables of the IAS scale and the overall scale of 1) IASPBI = 0.873; IASMP = 0.886, and IASLI = 0.907

in which of them were all higher than 0.8, indicating the highest level of reliability, with overall of IAS at 0.960.

The results showed that the IAS scale is highly reliable and consistent in assessing target traits and can be effectively used to measure them in research.

Table 3.4 IAS Scale Reliability Analysis Results

Variable	Cronbach's Alpha Coefficient	Reliability Level
IASPBI	0.873	High
IASMP	0.886	High
IASLI	0.907	High
IAS	0.960	High

Table 3.5 shows the reliability analysis results of the activity selection scale sub-variables and the overall ACAS scale: ACSAA = 0.944; EPTA = 0.926; ACEOTPCO = 0.925; and ACEOTPCA = 0.879. All of them are higher than 0.8, indicating that each variable has the highest level of reliability, with ACAS at 0.980.

The results also showed a high level of reliability. The activity selection scale is highly reliable and consistent in assessing target traits and can be effectively used to measure these traits in research.

From Tables 3.3-3.5 above, we can see that the reliability α values of K-DOCS, IAS, ACAS, and each variable are 0.967, 0.960, 0.911, and 0.980, respectively, and the differences are all higher than 0.7. They are more significant than the standard value of 0.8, indicating that the current data results of this questionnaire have good consistency.

Table 3.5 Reliability Analysis Results Dependent Variable of the ACAS

Variable	Cronbach's Alpha Coefficient	Reliability Level
EPTA	0.926	High
ACSAA	0.944	High
ACEOTPCO	0.925	High
ACEOTPCA	0.879	High
ACAS	0.980	High

Validity analysis is the process of evaluating whether a measurement tool can accurately and effectively measure the concept or trait to be measured. Validity analysis can help determine whether a measurement tool accurately reflects the concept or trait of interest in the study. If a measurement tool lacks validity, the data it produces may be inaccurate or unreliable, affecting the interpretation and inferences of research results. In addition to verifying the suitability of measurement tools and evaluating their structure and composition, validity analysis is crucial to ensure the accuracy and reliability of research data.

Table 3.6 presents the validity analysis results of each variable of the K-DOCS scale. The KMO values are 1) KDOCEVD =0.838, 2) KDOCSCL =0.723, 3) KDOCPFM = 0.838, 4) KDOSCI=0.728, and 5) KDOCART=0.714, all above 0.7, indicating that the sample data is suitable for in-depth analysis.

The results of Bartlett's test of sphericity indicate that the correlation matrix observed under all variables is significantly different from the identity matrix, which means that it is reasonable to conduct a validity analysis.

Overall, the results support the high validity of each variable of the K-DOCS scale, indicating that the scale is a reliable tool that can effectively measure target traits and provides a reliable data basis for research. Moreover, the KMO value of KDOCS is 0.981, and the significance P of Bartlett's sphericity test is $0.000 < 0.05$, indicating that the K-DOCS scale has good validity.

Table 3.6 K-DOCS Scale Validity Analysis Results

Dimensions	KMO	Bartlett's Test of Sphericity		
		Bangla	Degrees of Freedom	Significance
KDOCEVD	0.838	526.170	6	0.000
KDOCSCL	0.723	300.098	3	0.000
KDOCPFM	0.838	547.030	6	0.000
KDOSCI	0.728	321.765	3	0.000
KDOCART	0.714	268.150	3	0.000
KDOCS	0.981	3617.025	136	0.000

Table 3.7 presents the validity analysis results of each variable of the IAS scale. The KMO value of 1) IASPBI = 0.829, 2) ASMP=0.840,3) IASLI = 0.897. The KMO values are all above 0.8, indicating that the sample data is suitable for in-depth analysis.

The results of Bartlett's sphericity test indicate that the observed correlation matrix under all variables is significantly different from the identity matrix, which means that it is reasonable to conduct a validity analysis.

Overall, the results support the high validity of each variable of the IAS scale, indicating that the scale is a credible tool that can effectively measure target traits and provides a reliable data basis for research. The KMO value of IAS is 0.975, and the significance P of Bartlett's sphericity test is $0.000 < 0.05$, indicating that the IAS scale has good validity.

Table 3.7 IAS Scale Validity Analysis Results

Dimensions	KMO	Bartlett's Test of Sphericity		
		Bangla	Degrees of Freedom	Significance
IASPBI	0.829	507.054	6	0.000
IASMP	0.840	555.126	6	0.000
IASLI	0.897	783.106	10	0.000
IAS	0.975	2720.328	78	0.000

Table 3.8 presents the validity analysis results of each variable of the ACAS scale. The KMO values are 1) EPTA=0.939, 2) ACSAA=0.959, 3) AEOTPCO=0.938, and 4) AEOTPCA=0.826. The KMO values are all above 0.8, indicating that the sample data is suitable for in-depth analysis.

Bartlett's sphericity test results indicate that the observed correlation matrix under all variables is significantly different from the identity matrix, so it is reasonable to conduct a validity analysis.

Overall, the results support the high validity of each variable of the activity selection scale, indicating that the scale is a credible tool that can effectively measure target traits and provides a reliable data basis for research. Moreover, the KMO value of ACAS is 0.955, and the significance P of Bartlett's sphericity test is $0.000 < 0.05$, indicating that ACAS has good validity.

Table 3.8 ACAS Validity Analysis Results

Dimensions	KMO	Bartlett's Test of Sphericity		
		Bangla	Degrees of Freedom	Significance
EPTA	0.939	1193.350	21	0.000
ACSAA	0.959	1723.060	36	0.000
ACEOTPCO	0.938	1171.502	21	0.000
ACEOTPCA	0.826	531.831	6	0.000
ACAS	0.985	6380.123	351	0.000

3.6 QUALITATIVE RESEARCH DESIGN

Since this study adopts quantitative research and is supplemented by qualitative research, preliminary conclusions are first drawn through data investigation. Then the relevant findings are verified and explained through questionnaires and interviews. The questionnaire survey results will be organized into interview questions (Bailey et al., 2020), and combined with the interview opinions of 10 kindergarten principals in

Qujing City, Yunnan Province. On the one hand, the interview deepened the understanding of the research problem; on the other hand, it supplemented the research results of the quantitative research part and explained the managers' views on creative art education in Qujing City.

3.6.1 Research Purpose

This study aims to gain an in-depth understanding of the attitudes and perceptions of kindergarten teachers in Yunnan Province regarding art creation activities, find out the key factors affecting their innovation and creativity, and analyze the impact of these factors on teachers' choice of creative art activities. Finally, based on the research results, a set of art teaching guidelines to enhance teachers' innovation and creativity is proposed.

3.6.2 Research Questions

- 1) What is the impact of the attitude and cognitive level of creativity and innovation of kindergarten art teachers in Qujing, Yunnan on the choices they make in planning and integrating art activities into creative art teaching;
- 2) What is the impact of the attitude and cognitive level of creativity and innovation of kindergarten art teachers in Qujing, Yunnan on the choices they make in planning and integrating art activities into creative art teaching;
- 3) What guidelines were obtained from kindergarten principals that are better for creative art education in Qujing, Yunnan?

3.6.3 Research Methods

This study adopted a qualitative research method and collected data mainly through semi-structured interviews. The research subjects were 261 teachers and ten principals of Qujing City, Yunnan Province public kindergartens. The purposive sampling method was used to collect data through semi-structured interviews, each lasting about 30 minutes.

The interview outline included the following main questions:

- 1) What do you think is the innovation and creativity of kindergarten art teaching?
- 2) How do you describe the acceptance and adoption of innovation and creativity in art teaching activities by kindergarten teachers?
- 3) Can you choose the least important one among the three factors that affect the innovation of kindergarten teachers' art teaching? Daily life experience, academics, art.
- 4) What do you think are the most important to least important factors that affect the creativity of kindergarten art teachers' art teaching? For example, daily life experience, academics, performance, science, and art.
- 5) How does your kindergarten cultivate the most important innovation and creativity in teachers' teaching?
- 6) Does your school use some evaluation or assessment method to measure kindergarten teachers' innovation and creativity in art activities in Yunnan Province?

3.6.4 Research Plan

- 1) Preliminary Preparation (1 month): Develop a research plan and design interview and discussion outlines.
- 2) Select and contact participants and schedule interviews and discussions. : Data Collection (2 months)
- 3) Conduct semi-structured interviews to collect data. Data Analysis (2 months):
- 4) Transcribe, code, and analyze the collected data to extract significant themes and patterns. : Report Writing (1 month)
- 5) Write a research report and provide guidance. Feedback on preliminary results will be provided to participants, comments will be solicited, and revisions will be made. : Feedback and Revision (1 month)

Through this qualitative study, we will gain an in-depth understanding of the attitudes, perceptions, and factors that influence the innovation and creativity of kindergarten teachers in Yunnan Province in their art creation activities. We will also put forward practical guidance to help improve teachers' innovation capabilities and thus promote the all-around development of young children.

3.6.5 Semi-structure Interview

The interview was to investigate whether the principal teachers were kindergarten teachers in Qujing, Yunnan Province, China. The current situation of creative art education teachers significantly impacts the quality and efficiency of creative art teaching. In short, this interview aimed to understand how the principals react to attitudes and perceptions towards creative and innovative skills in creative art activities to give guidelines that could be used to improve creative art education in Qujing kindergarten schools.

The interview was to qualitatively explain, refine, and confirm the outcomes in the quantitative phase of the research (Creswell & Hirose, 2019). Semi-structured interviews were conducted, and afterward, Thematic analysis was performed to provide a more holistic picture of how creative art education should be improved in terms of activities used to teach young learners in Qujing, Yunnan Province.

3.7 DATA ANALYSIS

The interview was analyzed qualitatively using a thematic analysis approach. Nvivo12 was applied to coding in this study's qualitative analysis (Guetterman et al., 2018; Xu & Zammit, 2020). Thematic analysis is a widely used method for systematically identifying and examining recurring themes or patterns within qualitative data (Creswell, 2018).

The participant replies were captured, written down, and coded for a subsequent qualitative data analysis. The transcriptions were coded, collated into a qualitative interview codebook, and anonymized by evolving best practices for qualitative data analyses (Creswell, 2018). The codebook was then evaluated for coding frequency. To address the research question, the interview data were uploaded to Nvivo12 and transcribed before coding.

As “coding is a cyclical act”, interviews were analyzed through thematic analysis as a method for identifying, analyzing, and reporting patterns and themes within data (Braun & Clarke, 2006) by combining multiple perspectives and focusing on studying the interview data through the following steps:

- 1) Phase 1: Generating initial codes;
- 2) Phase 2: Searching for themes;
- 3) Phase 3: Defining and naming; and
- 4) Phase 4: Producing the reports.

The first phase occurs after the recorded audio data is transcribed into written form; it involves the production of initial codes from the data. The codes were checked, compared, and revisited to reduce overlap and redundancy. The second phase sorted the different codes into potential themes and collated all the relevant coded data extracts within the identified themes. It also involved reviewing and modifying the themes. The third phase involved defining and naming themes. The final phase involved the final analysis and report of a thematic analysis and provided a comprehensive description of the data within the themes. In the end, the researchers summarized coding systems consisting of different dimensions. Based on these coding systems, the study further categorized the data and constructed a coding framework to guide the subsequent analysis and organization of the findings, which are ready to be reported.

This study adopts a qualitative research method. Through in-depth interviews with kindergarten teachers in Qujing City, Yunnan Province, we understand their attitudes, perceptions, creativity, and teaching practices in art education. The interview

subjects are the principals of kindergartens in Qujing City, a total of 10 people. The interview location is the kindergarten where the teacher is located, and the interview time is about 30 to 1 hour each time. Through grounded theory analysis by Glaser and Strauss (1967), this study systematically explores kindergarten teachers' attitudes, perceptions, creativity, and teaching practices in art education. It puts forward suggestions for improving the quality of art education. Grounded Theory is a systematic qualitative research method that generates theories from data through continuous comparison and coding. According to the steps of grounded Theory, this study was conducted using open, axial, and selective coding on the interview data.

3.8 ETHICAL CONSIDERATIONS

3.8.1 Informed consent: Before the study began, all participants were informed of its purpose, methods, possible risks, and benefits, and written consent was obtained. During the study, the identity information of all participants was kept confidential, and a coding system was used instead of real names.

3.8.2 Voluntary participation: The voluntary participation of participants was emphasized, and they were assured that they could withdraw from the study at any time without any punishment.

3.8.3 Expected results: In-depth understanding of the attitudes and perceptions of kindergarten teachers in Yunnan Province in art creation activities.

Identify the key factors that influence teachers' innovation and creativity. Analyze the impact of these factors on teachers' choice of creative art activities. Propose a set of art teaching guidelines to enhance kindergarten teachers' innovation and creativity.

CHAPTER 4

DATA ANALYSIS

This chapter is about quantitative and qualitative data analysis. The results were used to answer three research questions.

4.1 Quantitative data analysis

Abbreviation	symbols
$\bar{X}$	Arithmetic Mean
S.D.	Standard Deviation
R^2	Chi-square
n	Sample size
p	Statistical Significance
T	T-test
SPA	Strongly Positive Attitude
PA	Positive Attitude
MPA	Moderately Positive Attitude
K-DOCS	Kaufman Domains of Creativity Scale
KDOCEVD	K-Doc Everyday
KDOCSCL	K-Doc Scholarly
KDOCPFM	K-Doc Performance
KDOSCI	K-Doc Scientific
KDOCART	K-Doc Artistic
IAS	Innovation Attitude Scale
IASPBI	IAS Propensity to Be Inventive
IASMP	IAS Motivation or Pride

IASLI	IAS Leadership Innovation
ACAS	The Adoption of Choices for Creative Art Activities
EPTA	Evaluation Perception of Teaching Activities
ACSAA	Adoption of Choices for Creative Art Activities Scale: Specified Art Activities in the Art Education
ACEOTPCO	Adoption of Choices for Creative Art Activities Scale: Expected Outcomes Based on Teachers' Planned Classroom Objectives
ACEOTPCA	Adoption of Choices for Creative Art Activities Scale: Expected Outcomes Based on Teachers' Planned Classroom Activities

The chart to read the Level

The Score of 4.5-5.00 = Strongly Positive Attitudes and Perceptions

The Score of 3.50-4.49 = Positive Attitudes and Perceptions

The Score of 2.5-3.49 = Moderately Positive Attitudes and Perceptions

The Score of 1.50-2.49 = Negative Attitudes and Perceptions

The Mean scores 1.00-1.49 = Strongly Negative Attitudes and Perceptions

4.1.1 Demographic Variable Frequency Analysis Table

In terms of the demographic profile, as shown in Table 4.1, Most were female (92%), with the rest of the male participants (8%), the most bachelor's degrees (80.8%), below the bachelor's degree (18.4%), master degree (0.4%) and doctorate (0.4%), respectively. The age distribution showed that the participants between 20 and 29 years were the most (32.2%), between 30 and 39 years old (36.4%), between 40 and 49 years old (24.9%), followed by between 50 and 59 years old (6.5%). In terms of work experience, the most were between 1 to 5 years (19.9%), 6 to 10 years (23.4%), 11 to 15 years (24.5%), and 16 to 20 years (10.7%). 21 to 25 years (7.7%), 26 to 30 years (9.6%), and lastly, 31 years (4.2%). The workplace distribution showed equal numbers of participants in different kindergartens (10%). Finally, in terms of teaching level, the most were the head teachers (51.7%), teachers (46.4%), trainee teachers (1.5 %), and teaching assistants (0.4%), respectively.

Table 4.1 Demographic Variable Frequency and Percentage

Variables	Options	Frequency	Percentage
Gender	Male	21	8.0
	Female	240	92.0
Levels of Studies	Below Undergraduate	48	18.4
	Bachelor Degree	211	80.8
	Master Degree	1	0.4
	Doctorate Degree	1	0.4
Ages	20 to 29	84	32.2
	30 to 39	95	36.4
	40 to 49	65	24.9
	50 to 59	17	6.5
Years of Working Experience	1 to 5	52	19.9
	6 to 10	61	23.4
	11 to 15	64	24.5
	16 to 20	28	10.7
	21 to 25	20	7.7
	26 to 30	25	9.6
	31 Years and above	11	4.2
Working Places	Qijing No. 1 Kindergarten	26	10.0
	Qijing No. 3 Kindergarten	27	10.3
	No. 1 Kindergarten, Qilin District, Qijing City	26	10.0
	The Second Kindergarten of Qilin District, Qijing City	26	10.0

Table 4.1 Demographic Variable Frequency and Percentage (Cont.)

	No. 3 Kindergarten, Qilin District, Qujing City	26	10.0
	No. 4 Kindergarten, Qilin District, Qujing City	26	10.0
	Zhanyi District No. 1 Kindergarten	27	10.3
	Zhanyi District No. 2 Kindergarten	25	9.6
	The First Kindergarten of Huize County	26	10.0
	The Second Kindergarten of Huize County	26	10.0
Teaching Levels	Head Teacher	135	51.7
	Teacher	121	46.4
	Assistant Teacher	1	0.4
	Intern Teacher	4	1.5
n = 261			

4.1.2 Descriptive Analysis

Table 4.2 shows each question's average score and standard deviation in the KDOCEVD. The sample size of the participants is $n=261$. The overall score ($\bar{x}=3.43$, $SD=1.034$) shows that the participants generally hold moderately positive attitudes and views on everyday creativity.

In general, I can teach art to kindergarten students well ($\bar{x}=3.43$, $SD=1.265$). I think I am a good kindergarten art teacher because I have a good balance between my personal life and professional life ($\bar{x}=3.44$, $SD=1.287$). I can choose the best art activities to teach creative arts to my kindergarten students ($\bar{x}=3.43$, $SD=1.301$). I

have a positive attitude towards my teaching experience as a kindergarten art teacher ($\bar{x}=3.40$, $SD=1.254$).

Table 4.2 Descriptive analysis of KDOCEVD

n=261				
KDOCEVD		$\bar{x}$	SD	Level of
Q1	Overall, I can teach art to kindergarten students very well.	3.43	1.265	MPA
Q2	I consider myself a good kindergarten art teacher because I have a good balance between my personal and professional life.	3.44	1.287	MPA
Q3	I can choose the best art activities to teach creative arts to my kindergarten students.	3.43	1.301	MPA
Q4	I have a positive attitude towards my teaching experience as a kindergarten art teacher.	3.40	1.254	MPA
Total		3.43	1.034	MPA

Table 4.3 shows each question's average score and standard deviation in the KDOCSCL. The sample size of the participants is $n=261$. The overall score ($\bar{x}=3.48$, $SD=1.129$) shows that the participants generally hold moderately positive attitudes and views on creativity in academic research and non-fiction writing.

Among them, I would like to find more options for teaching creative arts to kindergarten students ($\bar{x}=3.46$, $SD=1.284$). I have more options to create art activities to teach my kindergarten art class ($\bar{x}=3.52$, $SD=1.308$). I can provide a variety of constructive art activities in kindergarten art class ($\bar{x}=3.46$, $SD=1.317$).

Regarding the degree of agreement and attitude, Q6 holds a strong positive attitude, while the others hold a moderately positive attitude toward creativity in academic research and non-fiction writing.

Table 4.3 Descriptive analysis of KDOCSCL

n=261				
KDOCSCL		$\bar{x}$	SD	Level of
Q5	I love finding more options for teaching creative arts to kindergarten students.	3.46	1.284	MPA
Q6	I have more options for creating art activities to teach my kindergarten art class.	3.52	1.308	PA
Q7	I can provide a variety of constructive art activities in kindergarten art classes.	3.46	1.317	MPA
Total		3.48	1.129	MPA

Table 4.4 shows the average score and standard deviation of each question in the KDOCPFM, N=261 represents the sample size of the participants. For the overall score ($\bar{X}=3.45$, $SD=1.098$), Results indicated that participants generally held moderately positive attitudes and perceptions regarding literary and musical creativity.

Among them, I am a teacher who likes to write a poem or rhyme for the kindergarten art class ($\bar{X}=3.50$, $SD=1.320$). I have the ability to write lyrics for an original song for the kindergarten art class ($\bar{X}=3.49$, $SD=1.297$). I can sing or play an instrument for the kindergarten art class ($\bar{X}=3.39$, $SD=1.253$). I like to act, dance, and perform drama for my kindergarten art class ($\bar{X}=3.43$, $SD=1.228$).

In terms of the degree of agreement and attitude, Q8 held a strong positive attitude, while the others held moderately positive attitudes towards literary and musical creativity.

Table 4.4 Descriptive analysis of KDOCPFM

		n=261		
KDOCPFM		$\bar{X}$	SD	Level of
Q8	I am a teacher and would love to write a poem or rhyme for my kindergarten art class.	3.50	1.320	PA
Q9	I was able to write the lyrics to an original song for my kindergarten art class.	3.49	1.297	MPA
Q10	I can sing or play an instrument for kindergarten art class.	3.39	1.253	MPA
Q11	I love to act, dance and do plays for my kindergarten art class.	3.43	1.228	MPA
Total		3.45	1.098	MPA

Table 4.5 shows the average score and standard deviation of each question in the KDOCSCI. N=261 represents the sample size of the participants. The overall score ($\bar{X}=3.37$, $SD=1.083$), showed that participants generally held moderately positive attitudes and opinions regarding mechanical and mathematical creativity.

Among them, I can create a computer program or application to teach creatively for my kindergarten class ($\bar{X}=3.37$, $SD=1.197$). I can incorporate math problems or puzzles into my kindergarten art teaching activities ($\bar{X}=3.41$, $SD=1.312$). I can learn to build something mechanical for my art teaching activities ($\bar{X}=3.34$, $SD=1.210$).

In terms of the degree of agreement and attitude, Q12 holds a strong positive attitude, and the rest of the respondents generally hold moderately positive attitudes toward mechanical and mathematical creativity.

Table 4.5 Descriptive analysis of KDOCSCI

n=261				
KDOCSCI		$\bar{X}$	SD	Level of
Q12	I could create a computer program or app to teach creatively to my kindergarten class.	3.37	1.197	PA
Q13	I can incorporate math problems or puzzles into my kindergarten art activities.	3.41	1.312	MPA
Q14	I could learn to build something mechanical for my art teaching activities.	3.34	1.210	MPA
Total		3.37	1.083	MPA

Table 4.6 shows the average score and standard deviation of each question in the KDOCARTI. N=261 represents the sample size of the participants. The overall score ($\bar{X}=3.42$, $SD=1.097$) showed that participants generally held moderately positive attitudes and opinions about creativity in the visual arts.

Among them, I can create art through drawing, painting, or drawing ($\bar{X}=3.43$, $SD=1.250$). I can create art through sculpture or pottery ($\bar{X}=3.43$, $SD=1.322$). I appreciate beautiful paintings, sculptures, and artworks ($\bar{X}=3.39$, $SD=1.277$).

Table 4.6 Descriptive analysis of KDOCARTI

n=261				
KDOCART		$\bar{X}$	SD	Level of
Q15	I can create art by sketching, drawing, or painting.	3.43	1.250	MPA
Q16	I can make art through sculpture or pottery.	3.43	1.322	MPA
Q17	I admire beautiful paintings, sculptures, and artwork.	3.39	1.277	MPA
Total		3.42	1.097	MPA

As can be seen from Table 4.7, the average score of K-DOCS with 17 items ($\bar{x} = 3.43$, $SD = 1.034$) indicates that the overall survey sample has a certain stability in K-DOCS, and the standard deviation is small, indicating that the scores are relatively concentrated. With five different subscales of) KDOCEVD with the items 1, 2, 3, and 4 with the highest mean score of the item($\bar{x}=3.43$, $SD = 1.094$); 2) KDOCSCL with the items 1, 2, and 3 with the highest mean score of the item($\bar{x}=3.48$, $SD = 1.129$);3) KDOCPFM with the items 1, 2,3 and 4 with the highest mean score of the item($\bar{x}=3.45$, $SD = 1.098$);4) KDOCSCI with the items 1, 2, and 3 with the highest mean score of item($\bar{x}=3.37$, $SD = 1.083$);5) KDOCRTI with the items 1, 2, and 3 with the highest mean score of item($\bar{x}=3.42$, $SD = 1.097$); particularly that KDOCSCL with the highest mean score of the item($\bar{x}=3.48$, $SD = 1.129$)

The absolute values of skewness and kurtosis are both less than 1, indicating that the K-DOCS scale and its variables conform to normal distribution.

Table 4.7 Descriptive analysis of K-DOCS scale and variables

n=261						
variable	Min	Max	$\bar{x}$	SD	Skewness	Kurtosis
KDOCEVD	1.00	5.00	3.43	1.094	-0.806	-0.569
KDOCSCL	1.00	5.00	3.48	1.129	-0.783	-0.585
KDOCPFM	1.00	5.00	3.45	1.098	-0.863	-0.467
KDOCSCI	1.00	5.00	3.37	1.083	-0.689	-0.627
KDOCART	1.00	5.00	3.42	1.097	-0.668	-0.588
KDOCS	1.12	4.71	3.43	1.034	-0.969	-0.474

Table 4.8 shows the average score and standard deviation of each question in the IASPBI. N = 261 represents the sample size of the participants. The overall score ($\bar{x}=3.39$, $SD=1.095$) shows that the participants generally hold moderately positive attitudes and views propensity to be inventive.

Among them, it is interesting for me to find new ideas to create new art teaching activities for kindergartens ($\bar{x}=3.38$, $SD=1.236$). I am eager to figure out how to make the existing art teaching activities in kindergartens better ($\bar{x}=3.43$, $SD=1.318$). I think it is challenging to invent some new art teaching activities for kindergartens ($\bar{x}=3.36$, $SD=1.319$). I want to create a new environment to bring positive changes to art teaching in kindergartens ($\bar{x}=3.39$, $SD=1.268$).

Table 4.8 Descriptive analysis of IASPBI

n=261				
IASPBI		$\bar{x}$	SD	Level of
Q18	It is fun for me to find new ideas to create new art teaching activities for kindergarten.	3.38	1.236	MPA
Q19	I would love to figure out how to make existing arts instructional activities in kindergarten better.	3.43	1.318	MPA
Q20	I think it is challenging to invent some new art teaching activities for kindergarten.	3.36	1.319	MPA
Q21	I want to create a new environment and bring positive changes to art teaching in kindergartens.	3.39	1.268	MPA
Total		3.39	1.095	MPA

Table 4.9 shows the average score and standard deviation of each question in the IASMP. $N=261$ represents the sample size of the participants. For the overall score ($\bar{x}=3.43$, $SD=1.128$), shows that the participants generally hold moderately positive attitudes and views propensity to be inventive.

Among them, inventing new art activities may become an important part of my work as a kindergarten art teacher ($\bar{x}=3.46$, $SD=1.314$). As a kindergarten art teacher, I like to complete my work wholeheartedly to achieve my goals ($\bar{x}=3.40$, $SD=1.322$).

As a kindergarten art teacher, I would feel very proud if I could invent something new ($\bar{x}=3.44$, $SD=1.256$). I hope that my kindergarten art teaching will be as challenging as possible ($\bar{x}=3.43$, $SD=1.336$).

Table 4.9 Descriptive analysis of IASMP

n=261				
IASMP		$\bar{x}$	SD	Level of
Q22	Inventing new art activities will probably become a big part of my role as a kindergarten art teacher.	3.46	1.314	MPA
Q23	As a kindergarten art teacher, I like to put my heart and soul into my work to achieve my goals.	3.40	1.322	MPA
Q24	As a kindergarten art teacher, I would feel very proud if I could invent something new.	3.44	1.256	MPA
Q25	I want my kindergarten art instruction to be as challenging as possible.	3.43	1.336	MPA
Total		3.43	1.128	MPA

Table 4.10 shows the average score and standard deviation of each question in the IASLI. $N=261$ represents the sample size of the participants. The overall score ($\bar{x}=3.40$, $SD=1.065$), shows that the participants generally hold moderately positive attitudes and views propensity to be inventive.

If I were a leader, I would like to ensure that the new art teaching activities in the kindergarten are good ($\bar{x}=3.46$, $SD=1.368$). I am often chosen as the leader of the kindergarten art teaching team ($\bar{x}=3.34$, $SD=1.290$). I think I would like to be the leader in inventing new art teaching activities ($\bar{x}=3.39$, $SD=1.256$). I think solving any problem in kindergarten art teaching is innovation in itself ($\bar{x}=3.38$, $SD=1.267$). I think it is a challenge to create innovative art teaching activities and environments to help students become creative young learners ($\bar{x}=3.37$, $SD=1.290$).

Table 4.10 Descriptive analysis of IASLI

		n=261		
IASLI		$\bar{x}$	SD	Level of
Q26	If I were a leader, I would want to make sure that the new art teaching activities in kindergarten were good ones.	3.46	1.368	MPA
Q27	I am often chosen as the leader of the kindergarten art teaching team.	3.34	1.290	MPA
Q28	I think I would enjoy being a leader in inventing new art teaching activities.	3.39	1.256	MPA
Q29	I think solving any problem in kindergarten art teaching is innovation in itself.	3.38	1.267	MPA
Q30	I think it is a challenge to create innovative arts teaching activities and environments to help students become creative young learners.	3.37	1.290	MPA
Total		3.40	1.065	MPA

As can be seen from Table 4.11, the average score of IAS with 13 items ($\bar{x} = 3.40$, $SD = 1.065$) With 3 different subscales of) IASPBI with the items 1, 2, 3, and 4 with the highest mean score of the item($\bar{x}=3.39$, $SD = 1.095$); 2) IASMP with the items 1, 2, 3, and 4 with the highest mean score of the item($\bar{x}=3.43$, $SD = 1.128$);3) IASLI with the items 1, 2,3,4, and 5 with the highest mean score the of item($\bar{x}=3.39$, $SD = 1.105$); particularly that IASMP with the highest mean score of item($\bar{x}=3.43$, $SD = 1.128$)

The absolute values of skewness and kurtosis are both less than 1, indicating that the IAS scale and each variable conform to the normal distribution.

Table 4.11 IAS scale and descriptive analysis of each variable

n=261						
variable	Min	Max	$\bar{x}$	SD	Skewness	Kurtosis
IASPBI	1.00	5.00	3.39	1.095	-0.722	-0.694
IASMP	1.00	5.00	3.43	1.128	-0.730	-0.715
IASLI	1.00	5.00	3.39	1.105	-0.836	-0.545
IAS	1.15	4.77	3.40	1.065	-0.906	-0.578

Table 4.12 shows the average score of EPTA. N=261 represents the sample size of the participants. The overall score ($\bar{x}=3.41$, $SD=1.0$), shows that the participants generally held moderately positive attitudes and views regarding the evaluation perception of teaching activities.

Among them, I like to cultivate the physical abilities and skills of kindergarten students through my art teaching activities ($\bar{x}=3.52$, $SD=1.302$). I require kindergarten students to experience their inner thoughts and feelings through my art teaching activities ($\bar{x}=3.37$, $SD=1.232$). I encourage my kindergarten students to communicate and cooperate in various forms through my art activities ($\bar{x}=3.38$, $SD=1.306$). I urge my kindergarten students to explore more solutions through my art teaching activities ($\bar{x}=3.36$, $SD=1.316$). I inspire kindergarten students to form and maintain their creativity through various art activities ($\bar{x}=3.45$, $SD=1.281$). I help my kindergarten students develop and express their aesthetic appreciation through my art teaching activities ($\bar{x}=3.38$, $SD=1.300$). I inspire my kindergarten students to interact with others through my teaching art ($\bar{x}=3.46$, $SD=1.326$).

In terms of the degree of recognition and attitude, Q31 holds a strong positive attitude, and the rest of the respondents generally hold a moderately positive attitude on the evaluation of teaching activities.

Table 4.12 Descriptive analysis of EPTA

n=261				
EPTA		$\bar{x}$	SD	Level of
Q31	I enjoy developing physical abilities and skills in my kindergarten students through my art instruction activities.	3.52	1.302	PA
Q32	I ask kindergarten students to experience their inner thoughts and feelings through my art teaching activities.	3.37	1.232	MPA
Q33	I encourage my kindergarten students to engage in many forms of communication and collaboration through my art activities.	3.38	1.306	MPA
Q34	I push my kindergarten students to explore more solutions through my art instruction activities.	3.36	1.316	MPA
Q35	I inspire kindergarten students to develop and maintain their creativity through a variety of art activities.	3.45	1.281	MPA
Q36	I help my kindergarten students develop and express their aesthetic appreciation through my art instruction activities.	3.38	1.300	MPA
Q37	I inspire my kindergarten students to interact with others through my art of teaching.	3.46	1.326	MPA
Total		3.41	1.078	MPA

Table 4.13 shows the average score of ACSAA. N=261 represents the sample size of the participants. For the overall score ($\bar{x}$ =3.41, SD=1.070, showed that the participants generally held moderately positive attitudes and opinions regarding specific arts activities in arts education.

Among them, I support my kindergarten students to develop their artistic and aesthetic awareness through dance ($\bar{x}=3.32$, $SD=1.251$). I let kindergarten students develop their artistic and aesthetic awareness through painting ($\bar{x}=3.41$, $SD=1.314$). I stipulate that kindergarten students develop their artistic and aesthetic awareness through painting ($\bar{x}=3.36$, $SD=1.304$). I encourage my kindergarten students to develop their artistic and aesthetic awareness by tearing art paper ($\bar{x}=3.49$, $SD=1.282$). I support my kindergarten students to develop their artistic and aesthetic awareness through collage ($\bar{x}=3.43$, $SD=1.259$). I let kindergarten students develop their artistic and aesthetic awareness through carving ($\bar{x}=3.56$, $SD=1.328$). I support my kindergarten students in developing their artistic and aesthetic awareness through pottery ($\bar{x}=3.30$, $SD=1.271$). I encourage my kindergarten students to develop their artistic and aesthetic awareness through escarpment ($\bar{x}=3.46$, $SD=1.308$). I challenge my kindergarten students to develop their artistic and aesthetic awareness through ICT ($\bar{x}=3.40$, $SD=1.275$).

In terms of recognition and attitude, Q43 holds a strong positive attitude, and the rest of the respondents generally hold moderately positive attitudes toward specific art activities in art education.

Table 4.13 Descriptive analysis of ACSAA

n=261				
ACSAA		$\bar{x}$	SD	Level of
Q38	I support my kindergarten students in developing their artistic and aesthetic awareness through dance.	3.32	1.251	MPA
Q39	I have my kindergarten students develop their artistic and aesthetic awareness through drawing.	3.41	1.314	MPA

Table 4.13 Descriptive analysis of ACSAA (Cont.)

Q40	I require kindergarten students to develop their artistic and aesthetic awareness through drawing.	3.36	1.304	MPA
Q41	I encourage my kindergarten students to develop their artistic and aesthetic awareness by tearing art paper.	3.49	1.282	MPA
Q42	I support my kindergarten students in developing their artistic and aesthetic awareness through collage.	3.43	1.259	MPA
Q43	I have kindergarten students develop their artistic and aesthetic awareness through sculpting.	3.56	1.328	PA
Q44	I support my kindergarten students in developing their artistic and aesthetic awareness through pottery.	3.30	1.271	MPA
Q45	I encourage my kindergarten students to develop their artistic and aesthetic awareness through Clay.	3.46	1.308	MPA
Q46	I challenge my kindergarten students to develop their artistic and aesthetic awareness through ICT.	3.40	1.275	MPA
Total		3.41	1.070	MPA

Table 4.14 shows the average score of ACEOTPCO. N=261 represents the sample size of participants in the survey. The overall score ($\bar{x}=3.43$, $SD=1.073$) shows that the respondents generally hold moderately positive attitudes and opinions on the expected outcomes based on the classroom goals planned by teachers.

Among them, I teach my kindergarten students to be good people through creative art teaching and learning ($\bar{x}=3.52$, $SD=1.314$). I let my kindergarten students

explore and get inspiration from the environment through creative art teaching and learning ($\bar{x}=3.39$, $SD=1.249$). I encourage my kindergarten students to know themselves when interacting with others through creative art teaching and learning ($\bar{x}=3.47$, $SD=1.305$). I let kindergarten students express courage in my creative art activities ($\bar{x}=3.37$, $SD=1.269$). I encourage my kindergarten students to understand the importance of art in life through the process of creative art activities ($\bar{x}=3.41$, $SD=1.294$). I allow my kindergarten students to express themselves freely through my creative arts teaching activities using knowledge and skills ($\bar{x}=3.42$, $SD=1.294$). I ensure that my kindergarten students recognize their individual skills and abilities through my creative arts activities ($\bar{x}=3.43$, $SD=1.310$).

In terms of the degree of recognition and attitude, Q47 holds a strong positive attitude, and the rest of the respondents hold moderately positive attitudes toward the expected results of classroom goals set by teachers.

Table 4.14 Descriptive analysis of ACEOTPCO

n=261				
ACEOTPCO		$\bar{x}$	SD	Level of
Q47	I teach my kindergarten students to be good people through creative arts teaching and learning.	3.52	1.314	PA
Q48	I engage my kindergarten students in exploring and being inspired by their environment through creative arts teaching and learning.	3.39	1.249	MPA
Q49	I encourage my kindergarten students to learn about themselves through creative arts instruction and learning as they interact with others.	3.47	1.305	MPA
Q50	I have kindergarten students express courage in my creative arts activities.	3.37	1.269	MPA

Table 4.14 Descriptive analysis of ACEOTPCO (Cont.)

Q51	I encourage my kindergarten students to understand the importance of art in life through the process of creative art activities.	3.41	1.294	MPA
Q52	I allow my kindergarten students to express themselves freely using knowledge and skills through my creative arts teaching activities.	3.42	1.294	MPA
Q53	I ensure that my kindergarten students realize their artistic skills and abilities through my creative arts activities.	3.43	1.310	MPA
Total		3.43	1.073	MPA

Table 4.15 shows the average score of ACEOTPCA. N=261 represents the sample size of the participants. For the overall score ($\bar{x}=3.43$, $SD=1.098$) showed that participants generally held moderately positive attitudes and opinions on the expected outcomes of classroom activities based on teacher plans.

Among them, I divide the kindergarten students into groups to learn group work habits and collective work habits through my creative art activities ($\bar{x}=3.49$, $SD=1.314$). I ensure that my kindergarten students use or express the correct language and expressions when participating in any art appreciation or inspiration activities ($\bar{x}=3.36$, $SD=1.313$). I will continue to inspire my kindergarten students to love learning creative artwork and art creation ($\bar{x}=3.35$, $SD=1.279$). I ensure that my kindergarten students retain the moral, humanitarian, social, and national values of artworks and art creation ($\bar{x}=3.49$, $SD=1.239$).

Table 4.15 Descriptive analysis of ACEOTPCA

n=261				
ACEOTPCA		$\bar{x}$	SD	Level of
Q54	I divide my kindergarten students into small groups to learn group work habits and collective work habits through my creative arts activities.	3.49	1.314	MPA
Q55	I ensure that my kindergarten students use or express the correct language and expressions when participating in any art appreciation or inspiration activities.	3.36	1.313	MPA
Q56	I will continue to inspire my kindergarten students to love learning about creative artwork and making art.	3.35	1.279	MPA
Q57	I ensure that my kindergarten students retain the moral, humanitarian, social, and national values of artwork and artistic creation.	3.49	1.239	MPA
Total		3.43	1.098	MPA

As can be seen from Table 4.16, the average score of ACAS with 27 items ($\bar{x} = 3.42$, $SD = 1.046$) With three different subscales of: 1) EPTA with the items 1, 2, 3, 4, 5, 6, and 7 with the highest mean score of the item the ($\bar{x} = 3.41$, $SD = 1.078$); 2) ACSAA with the items 1, 2, 3, 4, 5, 6, 7, 8, and 9 with the highest mean score of the item ($\bar{x} = 3.41$, $SD = 1.070$); 3) ACEOTPCO with the items 1, 2, 3, 4, and 5 with the highest mean score of item ($\bar{x} = 3.43$, $SD = 1.073$); 4) ACEOTPCA with the items 1, 2, 3, 4, and 5 with the highest mean score of item ($\bar{x} = 3.43$, $SD = 1.098$); particularly that IASMP with the highest mean score of item ($\bar{x} = 3.43$, $SD = 1.098$)

The absolute values of the skewness and kurtosis are both less than 1, indicating that the K-DOCS scale and each variable conform to the normal distribution.

Table 4.16 Creative art activity selection scale and descriptive analysis of each variable (Cont.)

n=261						
Variable	Min	Max	$\bar{x}$	SD	Skewness	Kurtosis
EPTA	1.00	5.00	3.41	1.078	-0.850	-0.536
ACSAA	1.00	4.89	3.41	1.070	-0.884	-0.587
ACEOTPCO	1.00	5.00	3.43	1.073	-0.841	-0.678
ACEOTPCA	1.00	5.00	3.43	1.098	-0.817	-0.618
ACAS	1.19	4.67	3.42	1.046	-0.957	-0.554

4.1.3 Related Analysis

Correlation analysis is a research statistical method that studies the relationship between variables. Before testing and studying the causal relationship of each variable, that is, regression analysis, it is necessary to examine the closeness between the two variables in the model through correlation analysis. Generally speaking, if there is a significant correlation between the research variables, then the regression relationship test can be continued. On the contrary, if there is no significant correlation between the research variables, it means that the hypothesis is not established, and the regression relationship will no longer be tested. Carry out inspection. This study uses the Pearson correlation coefficient to conduct correlation analysis on the relationship between various variables.

Table 4.17 shows the correlation coefficients between the K-DOCS scale, IAS, and ACAS. In the correlation coefficient matrix, the correlation coefficient between K-DOCS and IAS is 0.535 (significant at a confidence level of 0.01 in a two-sided test).

It shows that there is a moderate positive correlation between the K-DOCS scale and IAS. The correlation coefficient between K-DOCS and ACAS is 0.547, and the correlation coefficient between IAS and ACAS is 0.500, both of which are significant at the 0.01 confidence level of the two-sided test.

It can be seen that K-DOCS has a significant positive correlation with ACAS, and IAS has a significant positive correlation with ACAS.

Table 4.17 Correlation

	K-DOCS	IAS	ACAS
K-DOCS	1		
IAS	.535**	1	
ACAS	.547**	.500**	1

Note The Correlation is Significant at A Confidence Level (Two Tests) of 0.01.

It can be seen from Table 4.18 that the variables of the K-DOCS scale and IAS scale the variables all have significant positive correlations.

It shows that KDOCEVD has a significant positive correlation with IASPBI ($r=0.468$, $P<0.01$). And KDOCSC, KDOCPFM, KDOCSCI, KDOCART all have a significant positive correlation with IASPBI, among which KDOCEVD, KDOCSC, KDOCPFM, KDOCSCI, KDOCART also have a significant positive correlation with IASMP, KDOCEVD; KDOCSC; KDOCPFM; KDOCSCI; KDOCART also has a significant strong positive correlation with IASLI.

Table 4.18 Correlation

	KDOC EVD	KDOCSC L	KDOCPF M	KDOCS CI	KDOCAR T	IASPB I	IAS MP	IAS LI
KDOCEVD	1							
KDOCSC	.850**	1						
KDOCPFM	.887**	.858**	1					
KDOCSCI	.851**	.829**	.852**	1				
KDOCART	.862**	.830**	.866**	.837**	1			
IASPBI	.468**	.456**	.476**	.492**	.470**	1		
IASMP	.489**	.479**	.505**	.483**	.482**	.867**	1	
IASLI	.499**	.474**	.489**	.487**	.484**	.893**	.883*	1

Note The Correlation is Significant at A Confidence Level (Two Tests) of 0.01.

It can be seen from Table 4.19 that the variables of the K-DOCS scale (KDOCEVD; KDOCSCL; KDOCPFM; KDOCSCI; KDOCART) and the variables of the ACAS scale. The variables (EPTA; ACSAA; ACEOTPCO; ACEOTPCA) all have significant positive correlations.

Table 4.19 Correlation

	KDOC EFD	KDOCS CL	KDOCP FM	KDOCS CI	KDOC ART	EPTA	ACSA A	ACEO TPCO	ACEO TPCA
KDOCEFD	1								
KDOCSCL	.850**	1							
KDOCPFM	.887**	.858**	1						
KDOCSCI	.851**	.829**	.852**	1					
KDOCART	.862**	.830**	.866**	.837**	1				
EPTA	.530**	.512**	.506**	.469**	.531**	1			
ACSAA	.503**	.504**	.491**	.447**	.516**	.933**	1		
ACEOTPCO	.493**	.493**	.494**	.462**	.511**	.926**	.927**	1	
ACEOTPCA	.503**	.541**	.499**	.471**	.507**	.899**	.919**	.901**	1

Note The Correlation is Significant at A Confidence Level (Two Tests) of 0.01.

It can be seen from Table 4.20 that the variables of the IAS scale (IASPBI; IASMP; IASLI) and the variables of the ACAS scale (EPTA; ACSAA; ACEOTPCO; ACEOTPCA) All have significant positive correlations.

Table 4.20 Correlation

	IASPBI	IASMP	IASLI	EPTA	ACSAA	ACEOTPCO	ACEOTPCA
IASPBI	1						
IASMP	.867**	1					
IASLI	.893**	.883**	1				
EPTA	.469**	.462**	.474**	1			
ACSAA	.486**	.464**	.483**	.933**	1		
ACEOTPCO	.479**	.440**	.469**	.926**	.927**	1	
ACEOTPCA	.459**	.429**	.440**	.899**	.919**	.901**	1

Note The Correlation is Significant at A Confidence Level (Two Tests) of 0.01.

4.1.4 Regression Analysis

Through thorough correlation analysis, the two variables have a sin. To understand each variable's influence, regression analysis is used to study the dependent variable's impact further—recession analysis of K-DOCS variables on ACAS.

Table 4.21 shows that KDOCEVD, KDOCSCL, KDOCPFM, KDOCSCI, and KDOCART are used as independent variables, and ACAS is used as the dependent variable. Interestingly, artistic creativity has statistically significant effects on the adoption of creative art activities, $R^2 = 0.312$ ($p = 0.000$).

From this, we can know the equation:

$$\text{ACAS} = 1.525 + 0.156 * \text{KDOCEVD} + 0.224 * \text{KDOCSCL} + 0.036 * \text{KDOCPFM} - 0.089 * \text{KDOCSCI} + 0.256 * \text{KDOCART}$$

Table 4.21 ACAS Regression Coefficient

Variable	Unstandardized Coefficient		Standard Coefficient	t	Sig
	B	Standard Error	Beta		
(constant)	1.525	0.188		8.094	0.000
KDOCEVD	0.149	0.126	0.156	1.187	0.236
KDOCSCL	0.207	0.106	0.224	1.957	0.051
KDOCPFM	0.034	0.128	0.036	0.268	0.789
KDOCSCI	-0.086	0.110	-0.089	-0.777	0.438
KDOCART	0.244	0.114	0.256	2.143*	0.033
$R^2 = 0.312$					

Note Dependent Variable: ACAS

As can be seen from Table 4.22, with IASPBI, IASMP, and IASLI as independent variables and ACAS as the dependent variable, IASPBI, IASMP, and IASLI have no significant impact on ACAS, and the $R^2 = 0.252$, indicating that the independent variables IASPBI and IASMP, IASLI can affect 25.2% of the change in the dependent variable ACAS.

From this, we can know the equation:

$$ACAS=1.746+0.252*IASPBI+0.085*IASMP+0.184*IASLI$$

Table 4.22 ACAS Regression Coefficient

Variable	Unstandardized Coefficient		Standard Coefficient	t	Sig
	B	Standard Error	Beta		
(constant)	1.746	0.189		9.232	0.000
IASPBI	0.240	0.123	0.252	1.946	0.053
IASMP	0.078	0.115	0.085	0.684	0.495
IASLI	0.174	0.130	0.184	1.340	0.181
R ² = 0.252					

Note Dependent Variable: ACAS

As can be seen from Table 4.23, with K-DOCS and IAS as independent variables and EPTA as the dependent variable, the R²= 0.350, indicating that the independent variables K-DOCS and IAS can affect 35% of the change in the dependent variable EPTA, and KDOCS ($\beta=0.395$, $P=0.000$) positively affects EPTA; IAS ($\beta=0.277$, $P=0.000$) positively affects EPTA.

From this, we can know the equation:

$$EPTA=1.051+0.395*K-DOCS+0.277*IAS$$

It can be seen that the attitudes towards creativity and innovation have a significantly strong impact on the evaluation perception of teaching activities.

Table 4.23 EPTA Regression Coefficient

Variable	Unstandardized Coefficient		Standard Coefficient	t	Sig
	B	Standard Error	Beta		
(constant)	1.051	0.208		5.041	0.000
KDOCS	0.411	0.062	0.395	6.643** *	0.000
IAS	0.281	0.060	0.277	4.667** *	0.000
R ² = 0.350					

Note Dependent Variable: EPTA

As can be seen from Table 4.24, with K-DOCS and IAS as independent variables and ACSAA as the dependent variable, the R²=0.341, indicating that the independent variables K-DOCS and IAS can affect The dependent variable ACSAA has a change of 34.1%, and KDOCS ($\beta=0.361$, P=0.000) positively affects ACSAA; IAS ($\beta=0.305$, P=0.000) positively affects ACSAA.

From this, we can know the equation:

$$\text{ACSAA} = 1.090 + 0.361 * \text{K-DOCS} + 0.305 * \text{IAS}$$

It can be seen that the attitudes towards creativity and innovation have a significantly strong impact on specific art activities in art education.

Table 4.24 ACSAA Regression Coefficient

Variable	Unstandardized Coefficient		Standard Coefficient	t	Sig
	B	Standard Error	Beta		
(constant)	1.090	0.208		5.231	0.000
KDOCS	0.373	0.062	0.361	6.034** *	0.000
IAS	0.306	0.060	0.305	5.095** *	0.000
R ² =0.341					

Note Dependent Variable: ACSAA

It can be seen from Table 4.25 that with K-DOCS and IAS as independent variables and ACEOTPCO as the dependent variable, the $R^2=0.330$, indicating that the independent variables K-DOCS and IAS can affect The dependent variable AEOTPCO has a 33% chance, and KDOCS ($\beta=0.370$, $P=0.000$) positively affects AEOTPCO; IAS ($\beta=0.285$, $P=0.000$) positively affects AEOTPCO.

From this we can know the equation:

$$\text{ACEOTPCO} = 1.137 + 0.370 * \text{K-DOCS} + 0.285 * \text{IAS}$$

It can be seen that the attitudes towards creativity and innovation both have a significantly strong impact on the expected results based on teachers' planned classroom goals.

Table 4.25 ACEOTPCO Regression Coefficient

Variable	Unstandardized Coefficient		Standard Coefficient	t	Sig
	B	Standard Error	Beta		
(constant)	1.137	0.211		5.400	0.000
KDOCS	0.384	0.063	0.370	6.132***	0.000
IAS	0.287	0.061	0.285	4.719***	0.000
$R^2=0.330$					

Note Dependent Variable: AEOTPCO

As can be seen from the table 4.26, with K-DOCS and IAS as independent variables and ACEOTPCA as the dependent variable, $R^2=0.330$, indicating that the independent variables K-DOCS and IAS can affect 33% of the variation of the dependent variable ACEOTPCA, and K-DOCS ($\beta=0.405$, $P=0.000$) positively affects ACEOTPCA; IAS ($\beta=0.244$, $P=0.000$) positively affects ACEOTPCA.

From this we can know the equation:

$$\text{ACEOTPCA} = 1.094 + 0.405 * \text{K-DOCS} + 0.244 * \text{IAS}$$

It can be seen that the attitudes towards creativity and innovation have a strong significant positive impact on the expected results based on teacher-planned classroom activities.

Table 4.26 ACEOTPCA Regression Coefficient

Variable	Unstandardized Coefficient		Standard Coefficient	t	Sig
	B	Standard Error	Beta		
(constant)	1.094	0.216		5.074	0.000
KDOCS	0.430	0.064	0.405	6.718***	0.000
IAS	0.252	0.062	0.244	4.049***	0.000
R ² =0.330					

Note Dependent Variable: ACEOTPCA

As can be seen from the table 4.27, with K-DOCS and IAS as independent variables and ACAS as the dependent variable, $R^2=0.359$, indicating that the independent variables KDOCS and IAS can affect 35.9% of the change in the dependent variable ACAS, and K-DOCS ($\beta=0.392$, $P=0.000$) positively affects ACAS; IAS ($\beta=0.290$, $P=0.000$) positively affects ACAS.

From this we can know the equation:

$$\text{ACAS} = 1.092 + 0.392 * \text{K-DOCS} + 0.290 * \text{IAS}$$

It can be seen that attitudes towards creativity and innovation have a significantly strong impact on the adoption of creative art activities.

Table 4.27 ACAS Regression Coefficient

Variable	Unstandardized Coefficient		Standard Coefficient	t	Sig
	B	Standard Error	Beta		
(constant)	1.092	0.201		5.441	0.000
KDOCS	0.396	0.060	0.392	6.643	0.000
IAS	0.285	0.058	0.290	4.920	0.000
R ² =0.359					

Note Dependent Variable: ACAS

4.2 The Analysis of Qualitative Data

4.2.1 Open Coding and Extraction of Concepts and Categories

Open coding is the first step of this study, which aims to gain a preliminary understanding of the data collected through semi-structured interviews. We transformed the descriptions, opinions, and feedback on innovation and creative exploration in creative art activities in the interview text into concept labels to form free nodes (or primary concepts). The goal of this study is to collect various data fragments related to kindergarten teachers' attitudes and perceptions on innovation and creative exploration in creative art activities and provide a basis for subsequent axial coding and selective coding.

By analyzing the interview texts of the interviewed teachers in detail, we used tables to divide and code the texts into basic nodes to gain a deeper understanding of the data. We jointly analyzed a large number of text fragments, annotated sentences related to teachers' attitudes, influencing factors, practice methods, and evaluation methods in innovative and creative exploration in creative art activities, and generated several initial concepts. To ensure the universality and effectiveness of these labels, we excluded labels that were only mentioned once and cleared labels that were not related to the research topic. Subsequently, we merged similar labels and finally formed a

series of representative initial categories. This article extracts some coded data as an example of demonstration, as shown in the following table.

Table 4.28 Conceptualization Examples

Initial Category	Original sentence	Interview No.
Create teaching situations	By creating scenarios to help teach, we can guide scientific concepts and applications to fully cultivate children's observation, discovery, thinking, and questioning in life. This is some awareness related to art teaching.	1
Create a relaxing atmosphere	If conditions permit, young children are willing to try and learn knowledge through visual arts, which helps their all-round development in terms of physical and intellectual development.	5
Close to children's lives	Because we can share with children the things they see and touch in their daily lives, then inspire them to observe the environment around them and cultivate their ability to think and express themselves.	5
Introducing picture book games	The characteristic of our kindergarten is that we use picture books as a carrier. For example, a picture book like the one about David going to school may convey to the children more that he is very naughty. During his time at school, his mother keeps telling him, David, you can't do this, you can't do that.	4

Table 4.28 Conceptualization Examples (Cont.)

Art activities teach	What can be better achieved through art is to cultivate children's creative thinking and observation skills.	5
In the game	In the game, young children can not only have fun and be happy but also exercise their thinking and promote the development of intelligence during the game.	7
Fusion of various arts	Then we can add various kinds of music and dance to the teaching, for example, painting and handicrafts, to make them more interested.	3
Utilizing multiple materials	At the same time, you can also use a variety of art materials and tools, such as paper, paint, stickers, soil, colored sand, clay, stone, wood, leather, metal, thread, etc., and combine games, music, dance movements, performances, and other methods to increase children's interest in artistic expression.	8
Carry out interdisciplinary activities.	Teachers are encouraged to collaborate with teachers from other disciplines to create interdisciplinary art teaching activities. By integrating with other disciplines, richer and more diverse art teaching forms can be created.	8
Encourage multi-perspective thinking	Encourage children to think about problems from multiple perspectives	7

Table 4.28 Conceptualization Examples (Cont.)

Breaking the rules	What we want more is for teachers to break the inherent way of thinking in their minds.	5
Creative problem solving	I think creativity can be better reflected in the aspect of thinking. The understanding of different things, the teacher's understanding of different things, and the child's understanding of different things will all produce different effects. This is what teachers teach students.	6
Designing Gamified Teaching	Enhance the playability of creative activities, mobilize children's enthusiasm, let them learn through play, stimulate their imagination, and give wings to their development.	7
Games foster innovation	Cultivate innovation through games	7
Gamification inspires creativity	Stimulate creativity through gamification	7
Encourage free expression	In art education, we encourage children to express themselves freely and let them draw according to their feelings and ideas.	8
Expressing emotions through art	Support children to express their feelings through art	7

Table 4.28 Conceptualization Examples (Cont.)

Create a relaxed, creative environment.	Educators must open the door to children's creativity, adopt open and innovative teaching concepts through the development of creative art activities, implement rich and colorful teaching methods, guide children, and generate some new ideas.	7
Strengthen professional training	Our kindergarten will have relevant professional training, seminars, and workshops to help teachers understand the latest teaching methods, artistic techniques, and concepts.	8
Carry out teaching and research sharing.	Then they can get something. On the other hand, they can see some activities about creativity and innovation that they want to know about on the Internet and other social media.	6
Learn cutting-edge concepts	Let the university teachers share some of the cutting-edge new ideas and developments related to art teaching that they have come across with our kindergarten teachers.	5
Arrange tasks reasonably	Arrange teaching tasks reasonably and reserve time for innovative practice	7
Gain support from leaders and parents	Gain support from leaders and parents for innovative teaching	7
Use teaching resources	In addition, during the teaching process, there may be many children in each class in a kindergarten, and the teacher can only take care of some children.	2

Table 4.28 Conceptualization Examples (Cont.)

Breaking through traditional constraints	If kindergartens require teachers to incorporate these innovations and creativity, they may need help. Provide teachers with more learning space, training for innovative thinking, and exchange of courses between teachers.	2
Child-centered	To unleash the creativity of art teaching activities, we, as teachers, should regard children as the masters of cognition and then give full play to their central role in the cognitive process, guiding children with interest as the guide.	4
An open and inclusive attitude	Establish an open and inclusive educational attitude	7
Improve artistic appreciation	Improve teachers' artistic aesthetics and appreciation	7
Enriching artistic skills	Teachers should have professional skills and be more professional in activities so as to better teach children to improve their creative ability and techniques.	7
Improving artistic practice	Improving teachers' artistic practice ability	7

Table 4.28 Conceptualization Examples (Cont.)

Strengthen professional theory	Of course, academic knowledge is the most basic ability that every teacher should possess, but the current situation shows that each teacher's academic situation is different and their levels of acceptance are also different.	1
Understanding Early Childhood Development	From another perspective, we can be a kind of theoretical knowledge reserve of the teachers. For example, the teachers' thinking and problem-solving methods, such as observation, experiment, etc., actually have a profound impact on children.	5
Study Creativity Theory	Learn theories related to children's creativity development	7
Enrich life experience	Enrich teachers' life experiences and feelings	7
Cultivate observational empathy	In contrast, art is also essential. The appeal of art often goes beyond the content presented in the text of the book. In our class, I will design more organized and inclusive projects that dare to challenge greater difficulty to awaken the children's inner exploration. I will guide the children to try different styles, colors, and lines.	2
Improve humanistic literacy	Improve teachers' humanistic qualities and sense of social responsibility	7

Table 4.28 Conceptualization Examples (Cont.)

Observe and participate in the interaction	Secondly, observe the children's participation and enthusiasm, as well as their interests during the process. Look at the interaction between the teacher and the children, and pay attention to the performance of each child.	7
Pay attention to changes in thinking ability	I think science can help them develop a rigorous way of thinking through experimentation and reasoning to solve problems, while performance is often required on special occasions.	2
Evaluate teaching organization design	Then we observed our children's participation in the activities organized by the teacher and their level of participation.	5
Analyze the performance of your work	Are you interested in participating in our art activities? Are you actively cooperating with the teacher? Are you actively participating? Do you have other emotions? Secondly, we can also have our teacher reflect after class and integrate what he taught: What did I do? What did the children do? What else can I do?	6
Carry out exhibitions of works	In fact, these works created by these children can also serve as a tool for us to evaluate the teacher's art education activities.	5
Collecting Parent Feedback	Teachers can get feedback from parents and children through the display of work and make improvements later.	10

Table 4.28 Conceptualization Examples (Cont.)

Summarize the teaching gains and losses	It also requires post-class reflection, feedback from young children, and communication and learning among colleagues.	7
Sharing the experience with colleagues	It is through communication with colleagues, our own communication, and finally we can present it.	6
Improve based on the evaluation	Continuously improve teaching based on evaluation results	7

4.2.2 Spindle Ending

In this study, the open coding stage generated a series of initial categories involving multiple aspects of kindergarten teachers' innovation and creative exploration in creative art activities. Although these categories have theoretical value, they are still isolated and lack interconnection. In order to gain a deeper understanding of the connection between these categories, we conducted axial coding.

Axial coding, as the second stage of the study, further organizes and categorizes the data based on open coding to clarify the core themes and main concepts of the study. Axial coding helps integrate a large amount of open coding into more organized information to better understand the inherent connection between the data related to innovation and creative exploration in kindergarten teachers' creative art activities.

In our study, the goal of axial coding was to integrate the initial categories in open coding into main categories in order to more deeply analyze and discuss the

structural dimensions of the impact of kindergarten teachers' innovation and creative exploration in creative art activities. Through axial coding, we were able to integrate scattered information into a clearer and more organized structure, so as to better understand the multiple aspects of kindergarten teachers' attitudes and perceptions of innovation and creative exploration in creative art activities. The study ultimately formed five core categories, namely, teaching innovation methods, innovative thinking cultivation, teacher ability improvement, teacher quality cultivation, and teaching evaluation methods.

Table 4.29 Examples of Concept Categorization and Category Induction

Initial Category	Main Category	Core Areas
Create teaching situations	Situation creation	Innovative teaching methods
Create a relaxing atmosphere		
Close to children's lives		
Introducing picture book games	Fun and educational	
Art activities teach		
In the game		
Fusion of various arts	Artistic Fusion	
Utilizing multiple materials		
Carry out interdisciplinary activities		
Encourage multi-perspective thinking	Divergent thinking	Cultivation of innovative thinking
Breaking the rules		

Table 4.29 Examples of Concept Categorization and Category Induction (Cont.)

Creative problem solving		
Designing Gamified Teaching		
Games foster innovation	Gamification	
Gamification inspires creativity		
Encourage free expression		
Expressing emotions through art	Autonomous Expression	
Create a relaxed creative environment		
Strengthen professional training		
Carry out teaching and research sharing	Professional Development	
Learn cutting-edge concepts		
Arrange tasks reasonably		
Gain support from leaders and parents	Time Management	Teacher capacity building
Use teaching resources		
Breaking through traditional constraints		
Child-centered	Concept Update	
An open and inclusive attitude		

Table 4.29 Examples of Concept Categorization and Category Induction (Cont.)

Improve artistic appreciation	Artistic Literacy	Teacher quality training
Enriching artistic skills		
Improving artistic practice		
Strengthen professional theory	Academic Literacy	
Understanding Early Childhood Development		
Study Creativity Theory		
Enrich life experience	Life Literacy	
Cultivate observational empathy		
Improve humanistic literacy		
Observe and participate in the interaction	Process Evaluation	Teaching evaluation method
Pay attention to changes in thinking ability		
Evaluate teaching organization design		
Analyze the performance of your work	Outcome evaluation	
Carry out exhibitions of works.		
Collecting Parent Feedback		

Table 4.29 Examples of Concept Categorization and Category Induction (Cont.)

Summarize the teaching gains and losses.	Reflective Evaluation	
Sharing the experience with colleagues		
Improve based on the evaluation		

4.2.3 Selective Coding

In this study, the selective coding process involved integrating the main categories summarized in the main axis coding: innovation and creative exploration of kindergarten teachers in creative art activities, into a comprehensive theoretical framework, so as to deeply understand the factors affecting teachers' innovation and creative exploration in creative art activities and their interactions. At the same time, when conducting selective coding, the core purpose is to build a theoretical framework through which the core category - innovation and creative exploration of kindergarten teachers in creative art activities - and the interaction between other categories can be understood. The following is a typical relationship structure table based on the main categories. This table shows the relationship structure, structural connotation, and corresponding examples between the main categories:

Table 4.30 Typical Relational Structures of Main Categories

Relationship Structure	Structural connotation	Example
Improve teacher ability → Innovative teaching methods	Improving teachers' professional capabilities (such as participating in training and learning new concepts) helps implement more innovative teaching methods	"We have some relevant professional training, seminars, and workshops in our kindergarten to help teachers understand the latest teaching methods, artistic techniques, and concepts."
Teacher quality training → Innovative thinking training	Improving teachers' artistic, academic, and life literacy is conducive to cultivating children's innovative thinking.	"Teachers should have professional skills and be more professional in activities. Only in this way can they better teach children to improve their creative abilities and techniques."
Teaching evaluation method → Teaching innovation method	Adopting diversified teaching evaluation methods (such as process evaluation and reflective evaluation) can encourage teachers to continuously improve and innovate teaching.	"Continuously improve and perfect teaching based on evaluation results"
Cultivating innovative thinking ↔ Innovative teaching methods	Focusing on cultivating children's innovative thinking (such as encouraging multi-angle thinking and free expression) and implementing innovative teaching methods promote and complement each other	"We encourage children to express themselves freely in art education" "We enhance the playfulness of creative activities, mobilize children's enthusiasm, let them learn through play, and stimulate their imagination"

Table 4.30 Typical Relational Structures of Main Categories (Cont.)

Teachers' ability improvement← Teachers' quality training	The improvement of teachers' own artistic literacy, academic literacy, and life literacy can promote the comprehensive development of teachers' professional abilities.	"In fact, this may be a little similar to what I just mentioned, that is, both mentioned the influencing factors, and also mentioned life experience, artistry, and academics. In this regard, for the innovation of art teaching by kindergarten teachers, I think the most important factor is artistry."
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Note A→B means A has a positive impact on B; A↔B means A and B influence each other; A←B means B has a positive impact on A

4.2.4 Theoretical Saturation Verification

In this study, we carefully analyzed the innovation and creative exploration of kindergarten teachers in creative art activities and explored the influencing factors behind it and its potential role in children's development. In order to achieve theoretical saturation, we took a series of steps to ensure the integrity and depth of the research. Theoretical saturation means that in the process of data collection and analysis, new data no longer change the theoretical framework of the research, that is, new information no longer introduces new concepts or categories, and existing concepts and categories are consistently verified in new data. Reaching theoretical saturation indicates that the research has a relatively complete understanding of the phenomenon at the current stage, and no additional data is needed to supplement the existing theoretical framework.

In the early stages of the study, we systematically collected a large amount of preliminary data on kindergarten teachers' attitudes and perceptions of innovation and creative exploration in creative art activities and their influencing factors. Through open coding, we identified a series of initial categories, covering multiple dimensions from teaching innovation methods to teacher competence and quality, from teaching

evaluation to the cultivation of innovative thinking. As the study progressed, we continued to collect data and repeatedly tested and verified these initial categories.

To ensure the depth and breadth of the theory, we constantly reviewed and compared the data collected earlier and later to verify the stability and consistency of these categories. In this process, some preliminary categories were further refined or merged to more accurately reflect the problems and complexity of kindergarten teachers' attitudes and perceptions of innovation and creative exploration in creative art activities. At the same time, we also paid attention to whether the new data introduced new perspectives or concepts to ensure the comprehensiveness of the study. When the continuously collected data began to repeat and no longer provided new insights into the existing theoretical framework, we believed that theoretical saturation had been achieved.

Through this process, this study established a comprehensive theoretical framework on the attitudes and perceptions of kindergarten teachers in innovation and creative exploration in creative art activities and their influencing factors. This framework not only includes the main problems and challenges faced by teachers in innovation and creative exploration in creative art activities but also explores the reasons behind these problems and how to improve teachers' innovation ability and thinking through professional training and environmental support. Reaching theoretical saturation means that the research has a comprehensive enough understanding of kindergarten teachers' innovation and creative exploration in creative art activities at the current stage, which provides a solid theoretical foundation and practical guidance for subsequent research.

4.2.5 Theory Building

Based on the coding process of grounded theory, this study constructed a "theoretical model of innovation and creative exploration of kindergarten teachers' creative art activities". The model takes "innovation and creative exploration of

kindergarten teachers in creative art activities" as the core category and revolves around five main categories, namely teaching innovation methods, innovative thinking training, teacher ability improvement, teacher quality training, and teaching evaluation methods. These five main categories are interrelated and together constitute a dynamic theoretical system, revealing the internal mechanism and implementation path of innovation and creative exploration of kindergarten teachers in creative art activities.

Teaching innovation is an important part of this theoretical model, which directly reflects the innovative practice of kindergarten teachers in creative art activities. Interview data show that teachers mainly achieve teaching innovation through situation creation, teaching through entertainment, and art integration. For example, the interviewed teachers mentioned that "through the creation of scenarios to help to teach, guide scientific concepts and applications to fully cultivate children's observation, discovery, thinking and questioning in life", which reflects the important role of situation creation in promoting teaching innovation.

At the same time, teachers also emphasized the need to "introduce vivid forms such as picture books and games" and stimulate children's interest in learning through "teaching through entertainment in art activities". In addition, "integrating multiple art forms such as music, dance, and drama" to achieve interdisciplinary and diversified art teaching is also an important way for teachers to innovate and practice. The implementation of these innovative teaching methods is inseparable from the support of teachers' innovative ability and quality.

Cultivating innovative thinking is another focus of kindergarten teachers in creative art activities. During the interview, teachers repeatedly emphasized that they should "encourage children to think about problems from multiple perspectives" and cultivate children's divergent thinking; "encourage children to express themselves freely" and support children to express their inner feelings in artistic forms; and "design fun and challenging game-based teaching activities" to cultivate children's innovative consciousness and creativity in games. These practices reflect that teachers attach great

importance to the cultivation of innovative thinking. The cultivation of innovative thinking and innovative teaching methods promote and complement each other. As one teacher said: "We encourage children to express themselves freely in art education" and "enhance the playfulness of creative activities, mobilize children's enthusiasm, let children learn while playing, and stimulate children's imagination." The cultivation of innovative thinking provides motivation and direction for teaching innovation, and innovative teaching methods provide soil and stage for the development of innovative thinking.

In the process of promoting teaching innovation and cultivating innovative thinking, the improvement of teachers' abilities and the cultivation of teachers' qualities play a key role. On the one hand, teachers need to continuously improve their professional abilities through professional training, teaching and research sharing, and learning cutting-edge concepts. As one teacher said, "There will be some relevant professional training, seminars, and workshops in our kindergarten to help teachers understand the latest teaching methods, artistic skills, and concepts." This continuous professional development has laid the foundation for teachers to implement innovative teaching. On the other hand, teachers' own artistic literacy, academic literacy, and life literacy also have a profound impact on their innovative consciousness and ability. "Teachers should have professional skills and be more professional in activities. Only in this way can we better teach children to improve their creative ability and creative techniques."

This shows that the improvement of teachers' qualities is an inherent requirement for promoting innovative teaching and cultivating innovative thinking. At the same time, there is a mutually reinforcing relationship between the improvement of teachers' abilities and the cultivation of teachers' qualities. As one teacher reflected: "In fact, this may be a little similar to what was just mentioned, that is, both mentioned this influencing factor and also mentioned life experience, artistry, and academics. In this regard, for the innovation of art teaching of kindergarten teachers, I think the most important factor is artistry." The improvement of teachers' quality has laid the

foundation for the development of ability, and the improvement of ability has promoted the further development of quality.

The improvement and innovation of teaching evaluation methods are important means to encourage kindergarten teachers to constantly reflect and improve in creative art activities. The traditional result-oriented evaluation method makes it difficult to comprehensively evaluate teachers' innovative teaching and children's innovative development. Therefore, teachers began to explore diversified evaluation methods such as process evaluation and reflective evaluation. For example, "observing and recording children's participation and interaction in activities", "paying attention to the changing process of children's thinking and ability development", "teachers timely summarize and reflect on the gains and losses of teaching", these evaluation practices help teachers to find problems in time and continuously improve innovative teaching. As one teacher said: "Continuously improve and perfect teaching based on evaluation results", the innovation of teaching evaluation methods directly promotes the transformation of teaching innovation methods. At the same time, teaching evaluation also provides an important reference for teachers' ability improvement and quality training. Through evaluation, teachers can more clearly understand their own shortcomings and strengthen professional learning and self-improvement in a targeted manner.

The "Theoretical Model of Innovation and Creative Exploration of Creative Art Activities of Kindergarten Teachers" constructed in this study reveals the internal connection and mechanism of action between the five main categories of teaching innovation methods, innovative thinking cultivation, teacher ability improvement, teacher quality cultivation, and teaching evaluation methods. These five main categories are intertwined and mutually influential and jointly promote the innovative development of kindergarten teachers in creative art activities. Among them, teacher ability improvement and teacher quality cultivation are the basis and premise of innovation, providing necessary support for the implementation of teaching innovation methods and the cultivation of innovative thinking; while the cultivation of innovative thinking and teaching innovation methods promote each other and complement each

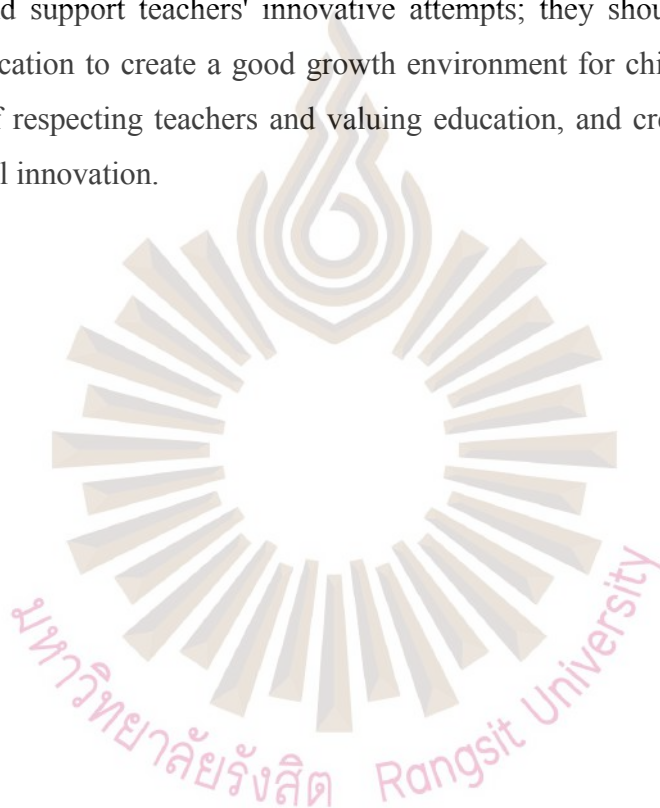
other; the improvement of teaching evaluation methods is an important means to promote teaching reflection and innovation. This theoretical model not only provides a new perspective for an in-depth understanding of the internal mechanism of innovation of creative art activities of kindergarten teachers but also provides theoretical guidance and practical inspiration for promoting the professional development of teachers and the practice of education and teaching reform.

4.3 CONCLUSION

Under the current background of educational reform and innovative development, the innovation and creative exploration of kindergarten teachers in creative art activities is not only an inevitable requirement of the development of the times but also an inherent need for teachers' own professional growth. On the one hand, with the progress of society and the renewal of educational concepts, traditional teaching models and methods can no longer meet the needs of children's growth and development. Kindergarten teachers must actively adapt to new situations and explore innovative teaching methods to stimulate children's creativity and imagination and promote their all-round development. On the other hand, teachers' own professional development also needs to be continuously deepened and improved in innovative practice. Only by constantly updating educational concepts, improving professional literacy, and exploring innovative practices can teachers truly become guides for children's growth and promoters of innovative development.

However, promoting the innovative development of kindergarten teachers in creative art activities is achieved over time, but requires the joint efforts of teachers, kindergartens, parents, society, and other aspects. Teachers, should establish the concept of lifelong learning, constantly improve their own artistic literacy, academic literacy, and life literacy, and lay the foundation for innovative teaching; they should be brave enough to break the routine, explore innovation, and constantly reflect and improve in practice; they should pay attention to the cultivation of children's innovative thinking and provide space and possibilities for the development of children's creativity.

For kindergartens, they should give institutional guarantees and material support for teachers' innovation, create a cultural atmosphere that encourages innovation and tolerates failure; they should strengthen teachers' professional training and teaching and research activities, and build a platform for teachers' growth; they should promote the reform of the evaluation system, establish a diversified teaching evaluation system, and provide motivation and direction for teachers' innovation. Parents and society should change their educational concepts, respect the individual development of children, understand and support teachers' innovative attempts; they should strengthen home-school co-education to create a good growth environment for children, create a social atmosphere of respecting teachers and valuing education, and create a sound ecology for educational innovation.



CHAPTER 5

DISCUSSION

This chapter draws conclusions based on the results of data analysis and discusses the research results, guiding better creative art activities. It is divided into three parts: summary, discussion, and recommendation.

5.1 SUMMARY

This study aims to investigate the levels of attitudes and perceptions of kindergarten teachers in Yunnan Province and the factors that influence innovation and creativity in art and creative arts activities. The results could be used to propose a set of guidelines to enhance the innovation and creativity of kindergarten teachers.

Using statistical computer program software, descriptive statistical analysis and multivariate analysis were performed on the research results to address research questions 1, 2, and 3.

Research Question 1: What are the attitudes of kindergarten art teachers in Qujing, Yunnan Province, toward creativity and innovation, and how do they influence their choices in planning and incorporating art activities into creative arts instruction?

First, it verifies the reliability and validity of K-DOCS, IAS, and ACAS, providing a powerful measurement tool and theoretical basis for subsequent research.

Secondly, the descriptive analysis results show that each variable is highly recognized overall, with 57 items in the three scales of K-DOCS, IAS, and ACAS. Regarding recognition and attitude, the respondents generally hold moderately positive attitudes and opinions.

Research question 2: What are the influences of the attitudes towards creativity and innovation of kindergarten art teachers in Qujing, Yunnan on the choices of planning and integrating art activities into creative art teaching?

The results of correlation analysis showed that the variables are positively correlated: the variables of the creativity scale were also significantly positively correlated with the innovation motivation and pride of the innovation attitude scale; the variables of the creativity scale were also significantly positively correlated with the leadership innovation; the variables of the creativity scale were significantly positive correlated with the variables of the selection scale of creative art activities. The innovation attitudes and perceptions were significantly positively correlated with the variables of the selection scale of creative art activities, and the two were correlated.

Research Question 3: What guidance was obtained from kindergarten principals in Qujing, Yunnan, to better implement creative arts education?

Promoting innovation and creative exploration of creative art activities of kindergarten teachers requires the coordinated cooperation and overall linkage of multiple subjects such as teachers, kindergartens, education authorities, and research institutions. Among them, it is crucial to give full play to the subjectivity and creativity of teachers. Only by fully mobilizing the enthusiasm, initiative, and creativity of teachers and stimulating the endogenous motivation and innovative potential of teachers can we truly promote sustainable development and deepening reform of kindergarten art education innovation.

This requires us to change our educational thinking and management methods, build an educational ecology that respects, understands, and supports teachers, and provide a broader space and more lasting motivation for the innovative development of teachers. I believe that through the joint efforts of all sectors of society, we will be able to continuously create a new situation for the innovative development of kindergarten art education and lay a more solid foundation for the all-round development and lifelong development of young children.

Based on the results of frequency analysis of demographic variables, descriptive statistics analysis, correlation analysis, regression analysis, thematic analysis, etc., the conclusions can be described as follows:

1) Teachers who hold positive attitudes towards creativity and innovation were more inclined to design creative art activities. They may be more willing to try novel teaching methods and materials to stimulate children's creativity.

2) Teachers' perceptions of creativity and innovation directly affect their choices in teaching. Teachers with high perception levels may be more capable of understanding the nature and importance of creative arts and are, therefore, more likely to design challenging and inspiring art activities.

3) Guidance received from kindergarten principals has an important impact on teachers' practice in creative arts education. Kindergarten principals may provide guidance on the concepts and methods of creative arts teaching and encourage teachers to explore new teaching strategies and activity designs, thereby promoting children's all-around development.

5.2 DISCUSSION

The research findings were reported according to 5 of the most significant impact to one of the moderately significant impact of the Kindergarten Art Teachers' Attitudes and Perceptions of Innovation on Adoptions of Choices in Art Teaching Activities were as followed: 1) The Influences of the Kindergarten Art Teachers' Attitudes and Perceptions of Innovation on Evaluation Perception of Teaching Activity; 2) The Influences of the Kindergarten Art Teachers' Attitudes and Perceptions of Creativity and Innovation on Teachers' Planned Classroom Activities; 3) The Influences of the Kindergarten Art Teachers' Attitudes and Perceptions of Creativity and Innovation on Teachers' Planned Classroom Goals; 4) The Influences of the Kindergarten Art Teachers' Attitudes and Perceptions of Innovation on Specific Art Activities in the Art Education; 5) The influences of the Kindergarten Art Teachers' Attitudes and Perceptions towards Creativity and Innovation on Adoption of Creative Art Activities; and 6) The Influences of the Kindergarten Art Teachers' Attitudes and Perceptions of Artistic Creativity on the Adoption of Creative Art.

5.2.1 The Influences of the Kindergarten Art Teachers' Attitudes and Perceptions of Creativity and Innovation on Evaluation Perception of Teaching Activity

The influences of the kindergarten art teachers' attitudes and perceptions of creativity and innovation had the most significant impact on the evaluation perception of teaching activity. This is because teachers' positive attitude towards creativity is the key to their adoption of innovative teaching methods (Kasirer & Schnitzer, 2021). Consistent with Also, Agnoli et al. (2018) who noted that creativity cannot be promoted by issuing policy documents alone but must be initiated and implemented in creative practices through activities, that teachers need good creative practices and adopt appropriate strategies to cultivate children's creativity with an open attitude towards creative behavior, and especially value independence of thinking towards creative art activities.

5.2.2 The Influences of the Kindergarten Art Teachers' Attitudes and Perceptions of Innovation on Specific Art Activities in the Art Education

When it comes to the influences of the kindergarten art teachers' attitudes and perceptions had the most significant impact on specific art activities in art education, it turned out that the specific art activities that are varied from the traditional forms of art, such as music and drama, and the very modern form of art activity which represent specific forms of art activities chosen and adopted from both the older and newer generations of teachers, (NEA, 2004). Moreover, it was found that these diverse activities, either used alone or together as a pair or mixed the classic with new kinds of activities, can have a positive impact on the overall development of the artistic sense of young children and n (Nicolopoulou et al., 2009). Therefore, the curriculum learning model that could help improve the professional ability of future visual arts teachers should be encouraged in that their highly artistic creativity of drama and music, coupled with the innovative IT skills of visual arts, will better stimulate the interest and participation of young children while teaching. Yeung (2021) conducted a study on the arts and creativity in Hong Kong kindergarten education and insisted that Hong Kong kindergarten teachers are currently encouraged to integrate art and creativity in the classroom. This has strong implications for curriculum designers, teacher educators, and professional development providers (Li, Z. & Li, L., 2019).

5.2.3 The Influences of the Kindergarten Art Teachers' Attitudes and Perceptions of Creativity and Innovation on Teachers' Planned Classroom Goals

The finding found that the influences of the kindergarten art teachers' attitudes and perceptions of creativity and innovation also had the most significant impact on expected results based on teachers' planned classroom goals. Lucas and Spencer (2018) explained that teaching tenacity involves encouraging students to persist through challenges, which is closely linked to fostering a creative mindset. That the teachers, especially at the level of kindergarten may choose more challenging and inspiring art activities to meet the learning needs of young children and cultivate their creativity and

critical thinking skills. In the work of Basri et al. (2023), the teacher's creativity was formed through decorative art designs, namely forming one's personality with a positive side to find new things by creating phases (systems). The resulting product is an activity with a basic understanding of art. Basak and Erdem (2022) examined kindergarten teachers' art-based activities and practices that were useful and functional in learning processes that help the learning of little kids in other subject areas. Thus, it appeared that an integrated approach to kindergarten activities majorly consisted of art-based practices with the goal of individual intelligence, sensibility, emotion, and other aspects of the education process.

5.2.4 The Influences of Kindergarten Art Teachers' Attitudes and Perceptions of Creativity and Innovation on Teachers' Planned Classroom Activities

The influences of the kindergarten art teachers' attitudes and perceptions of creativity and innovation had the most significant impact on teachers' planned classroom activities in that Al-Dababneh and Al-Zboon (2017) found that teachers' perceptions of creativity influence their beliefs about using creative practices in the classroom. This study found that teachers' perceptions did influence their implementation of arts activities. Acomi et al. (2023) studied creativity and arts in digital social innovation. There is a multifaceted relationship between creativity, art, digital social innovation, education, and their implications for the future of work. This book explores the sources of innovation and creativity, focusing on the role of creativity in the arts.

Ishtayah and Abushokhedem (2023) studied Kindergarten teachers' perceptions of creative child characteristics favoring teachers with 5 – 10 years of experience. Kindergarten teachers' perceptions of creativity were found to be associated with originality. Children's creativity was observed in various domains. The main challenge for creative children was the development of specific programs in kindergartens that cater to the needs of creative children. Paik (2022) conducted a study on the analysis of

structural relations between kindergarten teachers' teaching creativity and play support competency and children's peer play interaction. The kindergarten teachers teach creativity, play support ability, and children's peer play interaction.

5.2.5 The influences of Kindergarten Art Teachers' Attitudes and Perceptions towards Creativity and Innovation on the Adoption of Creative Art Activities

The influences of the kindergarten art teachers' attitudes and perceptions of creativity and innovation also had the most significant impact on the adoption of creative art activities. According to Amabile (1983), teachers' innovativeness has an important influence on their choice of creative activities in teaching. The results showed that teachers with higher scores on the K-DOCS scale show higher levels of innovativeness. Highly innovative teachers are more inclined to choose and implement creative art activities, which is consistent with the research by Bereczki and Kárpát (2018) which revealed that teachers with high creativity are better able to foster a learning environment and innovative thinking. Abdellah et al. (2022) conducted a study using PBL to enhance creativity and skills in the arts among kindergarten student-teachers with the impact on enhancing kindergarten student-teachers creativity, mediated by idea manipulation and generation and analogical and metaphorical thinking. Results also showed that PBL positively and significantly influenced the development of kindergarten student teachers' art skills, mediated by esthetic and creative aspects.

The pedagogies that integrate creative thinking into everyday classroom activities emphasize the importance of a supportive and flexible learning environment (Beghetto & Kaufman, 2017) for nurturing creativity and providing opportunities for choice, encouraging risk-taking, and promoting a classroom culture that values creative thinking.

5.2.6 The Influences of the Kindergarten Art Teachers' Attitudes and Perceptions of Artistic Creativity on the Adoption of Creative Art Activities

Lastly, it appeared that artistic creativity turned out to be moderately significant in planning and incorporating art activities into creative arts teaching. It can be explained that, generally, in teaching art a positive attitude towards creativity is the key in that the adoption of innovative teaching methods will help gain effective activities that increase not only the teaching behavior but also the students' learning outcomes through the actual behavior of both the teachers and the students in that the students can be aroused to speak and voice their opinions (Kasirer & Shnitzer, 2021). Also, Bereczki and Kárpát (2018) emphasized that teachers with high creativity are better able to design more attractive and educationally valuable art activities. Davis et al. (2012, 2014) found that providing flexibility in the learning environment, offering learner-led activities, and recognizing that creativity is not limited to specific content areas may help foster creativity and innovation in learners and teachers. In addition to considering the physical environment that supports creative learning, it is also important to emphasize how teachers "organize learning and teaching" to achieve the purpose of "teaching for creativity. The following was the conclusion of the guidelines of the Creative Art Activities for Kindergarten art teachers

5.2.7 Creative Arts Activities Teaching Guidelines Kindergarten Art Teachers Form

Table 5.1 Guidelines Form

Creative Arts Activities Teaching Guidelines Form	
Instructions	Specific recommendations
Develop a good attitude	Teachers are encouraged to actively participate in artistic creation and recognize the importance of artistic activities to the development of young children.

Table 5.1 Guidelines Form (Cont.)

Creating an environment conducive to innovation	Design stimulating and challenging art tasks to encourage teachers to explore different modes and mediums of artistic expression.
Support personalized development	Respect each teacher's personal artistic interests and style, and encourage them to incorporate personalized creative elements into their teaching.
Continuing Professional Development	Provide ongoing professional development opportunities, including seminars, workshops, and interdisciplinary collaborations, to foster faculty growth and innovation in arts education.
Encourage teamwork and communication	Establish an art teaching exchange platform among teachers to promote experience sharing and cooperation, and jointly explore innovative art teaching methods.
Supporting teachers' independent development	Provide resources and support to encourage teachers to explore and experiment with various art creation methods in classroom teaching and to give full play to their personal creativity.
Feedback and evaluation mechanism	Design effective feedback and evaluation mechanisms to help teachers adjust teaching strategies in a timely manner and promote the continuous improvement of the quality of art education.
Continuous Learning and Professional Development	Provide diverse learning opportunities, including participating in art exhibitions, visiting art studios, etc., to stimulate teachers' artistic inspiration and creative motivation.
Cultivate a positive attitude toward artistic creation	Teachers are encouraged to maintain an open and positive attitude towards the arts and welcome the experimentation of new art forms and modes of expression.

Table 5.1 Guidelines Form (Cont.)

Improve cognitive level	Provide systematic art education training courses, including professional training in art theory, technology, and innovative methods.
Create an environment that encourages innovation	Design challenging and stimulating art tasks to encourage teachers to innovate and explore in their teaching.
Promoting interdisciplinary integration	Encourage the integration of art with other subjects, such as the interdisciplinary integration of art with science, mathematics, and language.
Continuing Professional Development	Provide continuous professional development opportunities such as visiting art exhibitions, participating in art seminars and workshops, and interacting with artists.
Integrating technology and art	Introducing modern technologies (such as digital art tools, virtual reality, etc.) and combining them with traditional art forms can stimulate the creativity and imagination of teachers and young children.
Support independent learning and development	Provide resources and support to encourage teachers to try new art teaching strategies and creative techniques in the classroom and promote personalized art teaching practices.
Promote home-school cooperation and utilization of community resources	Build a bridge for parents to participate in art education, use community resources to enrich the practice and experience of kindergarten art education, and expand the influence of education.
Continuing Professional Development and Interdisciplinary Learning	Provide diverse professional development opportunities, including participation in interdisciplinary art education seminars, academic conferences, and art exhibitions, to stimulate teachers' enthusiasm for learning and innovative thinking.

Table 5.1 Guidelines Form (Cont.)

Encourage reflection and experimentation	Teachers are encouraged to reflect on and adjust their art teaching practices, be brave to try new teaching methods and art activity designs, and continuously improve their teaching effectiveness and innovation capabilities.
Focus on teachers' personal development	Support teachers' personal development paths in the field of art education, such as providing funding or recommendations for art education master's programs, and motivating teachers to conduct in-depth research and practice of art education theory.
Promote success stories and best practices	Collect and share successful art teaching cases and best practices to inspire and guide more teachers to pursue excellence in art education.
Utilize diverse teaching resources	Provide a variety of art education resources, including libraries, art exhibitions, cultural activities, etc., to enrich the art experience and learning opportunities of teachers and children.
Encourage cross-age collaboration	Promote cooperation among kindergarten teachers of different ages, share art education practices and teaching resources, and improve overall teaching quality and innovation capabilities.
Strengthen artistic interaction between teachers and children	Encourage open artistic dialogue and interaction between teachers and children to cultivate children's aesthetic ability and artistic expression abilities.
Promote local culture and traditional arts	Guide teachers to integrate local culture and traditional art into art education practice, and cultivate children's identification and understanding of their own culture.
Supporting teachers' innovative projects	Provide support and funding for innovative projects to encourage teachers to design and implement exploratory and experimental art education projects.

Table 5.1 Guidelines Form (Cont.)

Focus on special educational needs	Provide personalized art education support and curriculum design for young children with special educational needs to promote their artistic expression and participation.
Building an arts education network	Establish and develop an art education network within and outside Yunnan Province, share resources and experiences, and promote the best practices and innovative achievements in art education.
Continuous evaluation and adjustment	Regularly evaluate the implementation effects of art teaching guidelines, adjust and optimize the guidelines based on the evaluation results, and ensure their continued effectiveness.
Promoting the integration of art and life	Teachers are encouraged to integrate art education with children's daily lives and cultivate children's artistic creativity and expression skills through art activities in life scenes.
Focus on emotion and expression	Guide teachers to pay attention to children's emotional expression and personality characteristics, and enhance children's self-confidence and expression ability through the display and sharing of artworks.
Diversified art experience	Provide diverse art experiences, including visual arts, performing arts, music, and dance, to meet the interests and development needs of different children.
Advocating sustainable development of art education	Emphasize the sustainable development of art education, and cultivate children's environmental awareness and sense of responsibility through recycling materials and protecting the environment.

Table 5.1 Guidelines Form (Cont.)

Cross-cultural and cross-regional artistic exchanges	Carry out cross-cultural and cross-regional art exchange activities to expand children's artistic horizons and international understanding, and enrich the content and breadth of art education.
Establishing a platform for displaying artwork	Establish regular art exhibitions and competitions to encourage children and teachers to create and enhance their artistic expression and participation.
Develop critical thinking and evaluation skills	Guide children and teachers to develop critical thinking and improve their art appreciation and creative level through analysis and evaluation of artworks.
Developing creative arts teaching materials and resources	Develop and promote creative art teaching materials and resources, support teachers to implement innovative art teaching activities in the classroom, and stimulate children's creativity.

This study takes kindergarten teachers in Yunnan Province as the research subjects, focusing on the theme of innovation and creative exploration in creative art activities. The research method of grounded theory deeply analyzes the innovative practice of kindergarten teachers in creative art activities and the attitudes and cognition behind them. The study found that the innovation and creative exploration of kindergarten teachers in creative art activities is a complex process influenced and restricted by multiple factors, involving multiple dimensions such as teaching innovation methods, innovative thinking cultivation, teacher ability improvement, teacher quality cultivation, and teaching evaluation methods. These factors are intertwined and influence each other and together constitute the internal mechanism and implementation path of innovation in creative art activities of kindergarten teachers.

The study found that teachers mainly achieve teaching innovation through situation creation, teaching through entertainment, and artistic integration. The use of these innovative teaching methods not only enriches the form and content of creative

art activities, and stimulates children's interest in learning and enthusiasm for participation, but more importantly, they provide a good situation and opportunity for the development of children's innovative thinking. As Vygotsky (1978) pointed out, children's development is a process of transformation from social interaction to an internal psychological process. High-quality teaching interaction and teaching situation design are the keys to promoting the development of children's creativity. Therefore, the exploration and practice of teachers' innovative teaching methods are essentially creating conditions for the generation and development of children's innovative thinking, reflecting the responsibility and commitment of teachers to innovative education.

During the interviews, teachers repeatedly emphasized that children should be encouraged to think about problems from multiple perspectives and cultivate their divergent thinking; they should encourage children to express themselves freely and support them to express their inner feelings in artistic forms; they should design interesting and challenging game-based teaching activities to cultivate children's innovative consciousness and creativity in games. These concepts and practices reflect the teachers' high attention and conscious pursuit of cultivating innovative thinking. This pursuit, on the one hand, stems from the teachers' profound understanding of the laws of children's creativity development, and on the other hand, it also reflects the teachers' deep understanding of their own educational mission. In the opinion of several pedagogues (Daniel & Parkes, 2013; Kenny, 2017), we should begin to prepare children at preschool age for the conscious reception of works of art, as this is an important resource that inspires their independent creativity, from this source they draw ideas for their own personal and original artistic expression.

As an important influencer of children's creativity development, teachers have the responsibility and obligation to provide a suitable educational environment and guidance for the cultivation of children's innovative thinking. In this sense, teachers' attention and investment in the cultivation of innovative thinking are not only related to

the current development of children but also to their future innovation potential and sustainable development.

The survey found that the innovation consciousness and innovation ability of kindergarten teachers depend to a large extent on their own professional accomplishments and comprehensive qualities. Teachers with high artistic accomplishments, strong learning abilities, and rich life experiences often show stronger innovation consciousness and innovation abilities. This shows that there is an intrinsic connection between teachers' professional development and innovative development. On the one hand, a solid professional foundation and a broad knowledge perspective are the premise and foundation for teachers to carry out innovative teaching; on the other hand, the experience and insights gained in innovative practice, in turn, promote the improvement of teachers' professional consciousness and professional ability. It can be said that a benign interaction and two-way promotion have been formed between teachers' professional development and innovative development.

Scholars believe that cultivating children's creativity requires the joint efforts of all officials and leaders in the education sector so that teachers can keep up with the development of creativity teaching courses (Yemez & Dikilita, 2022). Therefore, if teachers want to become innovative teachers, they should not only focus on "knowledge learning", but also on "wisdom of action"; they should not only have an open vision and a broad mind but also have the courage to innovate and practice. Only in this way can we constantly break through ourselves and achieve the dual improvement and promotion of professional ability and innovation ability.

Traditional result-oriented evaluation makes it difficult to comprehensively and objectively evaluate teachers' innovative teaching and children's innovative development, which easily leads to teachers focusing on "teaching" rather than "learning", and focusing on results rather than processes. Therefore, teachers began to explore diversified evaluation methods such as process evaluation and reflective evaluation, trying to gain a more comprehensive insight into the teaching and learning

process through multi-dimensional and multi-perspective evaluation and more accurately grasp the characteristics of teacher-student interaction so as to provide more targeted feedback and guidance for teaching innovation. This change in evaluation method essentially reflects the renewal of teachers' educational concepts and the transformation of teaching concepts.

Johnson (2017) acknowledges that individualized teaching styles are important to take into account the educational needs of different students. This helps create “effective surprises”; therefore, creative teachers must be familiar with a wide range of teaching techniques and strategies, thereby avoiding repetition, which can stifle creativity. In addition, they must abandon established teaching strategies and practices, innovate, and use methods that are not necessarily prescribed in the book. They must be willing to rethink and modify, if necessary, some ineffective teaching techniques to impart knowledge to children (Zagrebu et al., 2016). Action research cannot be separated from the support of process and reflective evaluation. It can be said that innovation in teaching evaluation is not only a necessary part of teaching innovation but also a practical need and the only way to teach innovation. Only by continuously improving teaching evaluation can we provide the necessary information, feedback, and intellectual support for teaching innovation and truly stimulate and mobilize teachers' innovation consciousness and endogenous motivation.

The innovation and creative exploration of kindergarten teachers in creative art activities is a complex process of multi-dimensional, multi-level, and multi-subject interaction. Factors such as teaching innovation methods, innovative thinking cultivation, teacher ability improvement, teacher quality cultivation, and teaching evaluation methods are intertwined and mutually influential, jointly promoting and restricting the innovative development of teachers. Behind this process, it reflects the renewal of teachers' educational concepts, the transformation of professional roles, and the generation of practical wisdom, highlighting the professional landscape and development logic of teachers as innovative teachers. For teachers, they should be based on the actual education and teaching, follow the laws of children's physical and

mental development, actively explore and practice in teaching innovation methods and innovative thinking cultivation, continuously improve their professional ability and professional quality in practice, and form the internal driving force for sustainable development; for kindergartens and education authorities, they should further increase policy support and institutional guarantees for teachers' professional development, improve the teacher training system, build a platform for teachers' professional growth, and provide necessary material guarantees and spiritual support for teachers' innovative development; for education researchers, they should further strengthen localized and school-based research on teachers' innovative development, strengthen the systematic excavation and theoretical refinement of practical cases, and provide theoretical guidance and intellectual support for teachers' innovative development.

Promoting innovation and creative exploration of creative art activities of kindergarten teachers requires the coordinated cooperation and overall linkage of multiple subjects such as teachers, kindergartens, education authorities, and research institutions. Among them, it is crucial to give full play to the subjectivity and creativity of teachers. Only by fully mobilizing the enthusiasm, initiative, and creativity of teachers and stimulating the endogenous motivation and innovative potential of teachers can we truly promote sustainable development and deepening reform of kindergarten art education innovation. This requires us to change our educational thinking and management methods, build an educational ecology that respects, understands, and supports teachers, and provide a broader space and more lasting motivation for the innovative development of teachers. I believe that through the joint efforts of all sectors of society, we will be able to continuously create a new situation for the innovative development of kindergarten art education and lay a more solid foundation for the all-round development and lifelong development of young children.

5.3 RECOMMENDATIONS

Based on the above discussion, the following suggestions are given:

1) Teacher training and support: Provide training courses for teachers to enhance their understanding and practical ability in creative arts education. The training content may include creativity stimulation techniques, innovative teaching methods, etc

2 Resource enrichment: Provide a variety of teaching resources and materials, including art materials and teaching tools, to help teachers better design creative art activities.

3) Teamwork and communication: Encourage cooperation and communication among teachers, share successful experiences and teaching methods, and promote common growth and progress.

4) Strengthening the leadership of kindergarten principals: When leading the team, the principal should focus on supporting and guiding creative art education, provide teachers with a positive educational atmosphere and resource support, and promote the improvement of the level of art education in kindergartens.

5.3.1 Research Significance

This study has important theoretical and practical significance:

1) Theoretical significance: This study enriches the theoretical research in the field of early childhood art education, especially in the research on teachers' attitudes, perceptions, creativity, and innovative behaviors. It provides an important reference for subsequent research.

2) Practical significance: This study provides a specific solution to the dilemma faced by kindergarten teachers in actual teaching, which helps to improve the overall level of kindergarten art education. The research results are of great reference

value to education authorities and school administrators in formulating relevant policies and measures.

5.3.2 Future Prospects

Future research can be deepened in the following aspects:

1) Expand the scope of research: This study is limited to Qujing City, Yunnan Province. In the future, it can be expanded to other regions to conduct cross-regional comparative studies and explore the commonalities and differences in art education in kindergartens in different regions.

2) Longitudinal research: In the future, longitudinal research can be conducted to track the long-term development and changes of teachers and children in art education and gain a deeper understanding of the impact of art education on children's growth.

3) Multi-methods: Future research can combine more quantitative and qualitative research methods, such as experimental research, case studies, etc., to further verify and enrich the research conclusions.

Policy research: In the future, we can strengthen research on education policies, explore their role and effect in promoting early childhood art education, and provide an empirical basis for policy-making.

In short, this study provides an important theoretical basis and practical guidance for improving the quality of kindergarten art education. We hope to continue to explore it in depth in the future and make greater contributions to the development of early childhood art education in my country.

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APPENDICES





APPENDIX A

THE LIST OF IOC CHECK EXPERTS

The List of Five Experts for IOC Check

Dr. Jiang Chengfei

Teaching at Qujing Normal University

Academic background: Doctor of Education, Southwest University

Dr. Huang Jichun

Teaching at Yunnan University

Academic background: Doctor of Fine Arts, Sichuan Fine Arts Institute

Dr. Li Na

Professor at Chengdu University, Sichuan

Academic background: Doctor of Education, Rangsit University, Thailand

Dr. Yu Haifei

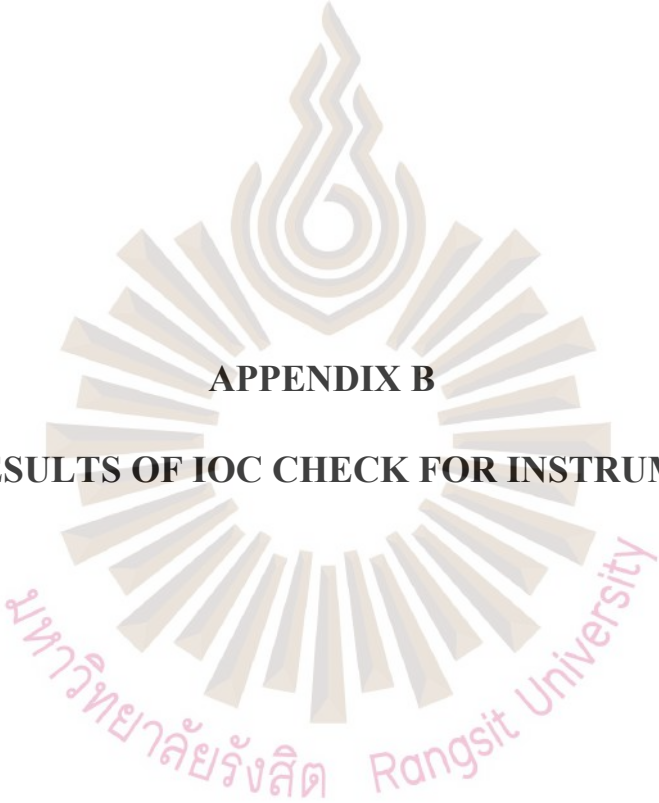
Teaching at Shandong University of Technology

Academic background: Doctor of Philosophy, Renmin University of China

Dr. Wang Zhen

Teaching at Yunnan Normal University

Educational background: PhD in Education, Rangsit University

The logo of Rangsit University is a large, faint watermark in the background. It features a stylized flame or sunburst design at the top, with a circular arrangement of rays below it. The text "มหาวิทยาลัยรังสิต" (Mahavithayalai Rangsit) is written in Thai script along the bottom arc, and "Rangsit University" is written in English along the bottom arc.

APPENDIX B

THE RESULTS OF IOC CHECK FOR INSTRUMENTS

Part 1 K-DOCS							
Item	Questions	Expert 1	Expert 2	Expert 3	Expert 4	Expert 5	IOC Scores
1	In general, I can teach art to my kindergarten students well	1	1	1	1	1	1
2	I consider myself a good kindergarten art teacher because of a good balance of both my personal and professional life.	1	1	1	0	1	0.8
3	I can choose the best art activities to teach creative art to my kindergarten students.	0	1	1	1	1	0.8
4	I am positive about my teaching experiences as a kindergarten art teacher.	1	1	1	1	1	1
5	5. I like to find more options for teaching creative art to kindergarten students.	1	1	1	1	1	1
6	I have more alternatives for creating art activities to teach my kindergarten art classes.	0	1	1	1	1	0.8
7	I can offer various constructive art activities in my kindergarten art	1	0	1	1	1	0.8

	classes.						
8	I am a teacher who loves to write a poem or a rhyme for my kindergarten art classes.	1	1	1	1	1	1
9	I am capable of making up lyrics for an original song for my kindergarten art classes.	1	1	0	1	1	0.8
10	I can sing or play a musical instrument for my kindergarten art classes	1	1	1	1	0	0.8
11	I like can act, dance, a play for my kindergarten art classes.	1	1	1	1	1	1
12	I can create a computer program or application for teaching creativity to my kindergarten classes.	1	1	0	1	1	0.8
13	I can use math problems or puzzles to blend into my kindergarten art teaching activities.	1	1	1	1	1	1
14	I can learn to build something mechanical for my art teaching activities.	1	1	1	0	1	0.8
15	I can do art through sketching,	1	1	1	1	1	1

	drawing, or painting.						
16	I can do art through sculpture or pottery.	1	0	1	1	1	0.8
17	I appreciate a beautiful painting, sculptures, and pieces of art.	1	1	1	1	1	1
Average Score=0.894							

Part 2 IAS							
Item	Questions	Expert 1	Expert 2	Expert 3	Expert 4	Expert 5	IOC Scores
1	Searching for new ideas for creating new art teaching activities for kindergarten is enjoyable to me.	1	1	1	1	1	1
2	I am motivated to figure out how to make existing art teaching activities for kindergarten better.	0	1	1	1	1	0.8
3	I think that inventing some new art teaching activities for kindergarten is challenging.	1	1	1	1	1	0.8
4	I'd like to create a new environment that would bring about positive changes to art teaching in kindergarten.	1	1	1	1	1	1
5	Inventing new art activities could turn into an important part of	1	1	0	1	1	1

	who I am as a kindergarten art teacher.						
6	As a kindergarten art teacher, I like to do my work with a full purpose to fulfill my goal.	1	0	1	1	1	0.8
7	As a kindergarten art teacher, I feel really proud if I can invent something new.	1	1	1	1	1	0.8
8	I want my kindergarten art teaching as challenging as it can be.	1	1	0	1	1	1
9	If I were a leader, I like to make sure that new art teaching activities for kindergarten are good ones.	1	1	1	1	1	0.8
10	I am often chosen to be a leader of the kindergarten art teaching team.	1	0	1	1	1	0.8
11	I think I will enjoy being a leader in inventing new art teaching activities.	1	1	1	0	1	1
12	I think solving any problem in kindergarten art teaching is innovative in itself.	1	1	1	1	1	0.8
13	I think it is a challenge to create innovative art teaching activities and environments that help develop	1	1	1	1	1	1

	students to become creative young learners.						
Average Score=0.908							

Part 3 ACAS							
Item	Questions	Expert 1	Expert 2	Expert 3	Expert 4	Expert 5	IOC Scores
1	I love to develop my kindergarten students' physical ability and skills through my art teaching activities.	1	1	1	1	1	1
2	I encourage my kindergarten students to experience their inner thoughts and feelings through my art teaching activities.	1	1	1	1	1	1
3	I urge my kindergarten students to communicate and collaborate in various forms through my art activities.	1	0	1	1	1	0.8
4	I urge my kindergarten students to explore more options for solutions through my art teaching activities.	1	1	1	0	1	0.8
5	I stimulate my kindergarten students to form and sustain their creativity through many kinds of art activities.	1	1	1	1	1	1

6	I prepare my kindergarten students to develop and express their aesthetic appreciation through my teaching art activities.	1	1	1	1	1	1
7	I arouse my kindergarten students to interact with others through my teaching art activities.	1	1	1	1	1	1
8	I support my kindergarten students in developing their art and aesthetical consciousness through dance.	1	0	1	1	1	0.8
9	I let my kindergarten students develop their art and aesthetical consciousness through drawing.	1	1	1	1	1	1
10	I stipulate my kindergarten students to develop their art and aesthetical consciousness through painting.	1	1	1	1	1	1
11	I encourage my kindergarten students to develop their art and aesthetical consciousness through tearing art paper.	1	1	1	1	1	1
12	I support my kindergarten	1	1	1	0	1	0.8

	students to develop their art and aesthetical consciousness through college.						
13	I let my kindergarten students develop their art and aesthetical consciousness through carving.	0	1	1	1	1	0.8
14	I support my kindergarten students in developing their art and aesthetical consciousness through pottery.	1	1	1	1	1	1
15	I encourage my kindergarten students to develop their art and aesthetical consciousness through Scrap-making	1	1	0	1	1	0.8
16	I challenge my kindergarten students to develop their art and aesthetical consciousness through ICT.	1	1	1	1	1	1
17	I teach my kindergarten students to be good people through creative art teaching and learning.	1	1	1	0	1	0.8
18	I let my kindergarten students explore and get inspiration from the environment through creative	1	1	1	1	1	1

	art teaching and learning.						
19	I encourage my kindergarten students to recognize their own selves while interacting with others through creative art teaching and learning.	0	1	1	1	1	0.8
20	I allow my kindergarten students to express courage during my creative art activities.	1	1	1	1	1	1
21	I encourage my kindergarten students to understand the importance of art in life through the process of creative art activities.	1	0	1	1	1	0.8
22	I allow my kindergarten students to use knowledge and skills to express themselves freely through my creative art teaching activities.	1	1	1	0	1	0.8
23	I ensure that my kindergarten students recognize their individual art skills and abilities through my creative art activities.	1	0	1	1	1	0.8
24	I put my kindergarten	1	1	1	1	0	0.8

The image features a large, faint watermark of the Rangsit University logo in the background. The logo is a circular emblem with a stylized flame or sunburst design at the top, radiating lines in the middle, and the university's name in Thai and English at the bottom.

APPENDIX C

SAMPLE OF RESEARCH INSTRUMENTS AND EXPERTS'
EVALUATION FORMS AND THE SAMPLE OF
QUESTIONNAIRE EVALUATION FORM

**EXPLORATION OF INNOVATION AND CREATIVITY IN CREATIVE ART
ACTIVITIES: ATTITUDES AND PERCEPTION OF KINDERGARTEN
TEACHERS IN YUNNAN**

The researcher aims to study the current status of early childhood art education in China and explore the attitudes, perceptions, creativity, and teaching practices of kindergarten teachers in art education. Provide specific solutions to improve the quality of art education and cultivate a new generation of talents with creativity and innovation.

This study aims to achieve the following three goals:

1. Explore the impact of the attitudes and perceptions of creativity and innovation of kindergarten art teachers in Qujing City, Yunnan Province on art activity planning and creative art teaching selection;
2. Study the impact of creativity, innovative attitudes, and perceptions of kindergarten art teachers in Qujing City, Yunnan Province on art activity planning and creative art teaching selection;
3. Obtain suggestions from kindergarten principals in Qujing City, Yunnan Province on how to better carry out creative art education

The following table consists of three parts: the first part is the preliminary information survey of the respondents, the second part is the creativity, innovation attitude scale, and creative art activity selection scale as a questionnaire, and the third part is semi-structured interview questions. Experts were invited to check the content validity of each item of the research tool.

Thank you very much.

Qiuping Wei

Researcher

Index of Item-Objective Congruence (IOC) Part I: Demographic Information Questionnaire 项目-目标一致性指数 (IOC) 第一部分：受访者主要信息调查					
<i>The expert is kindly requested to examine each item of the research instrument for its content validity.</i> 请专家检查研究工具的每一项内容的有效性。		Expert's Review 专家点评			
NO.	Items	Agree	Not Sure	Disagree	Comment 评论
		+1	0	-1	
1	Gender性别： Male 男 Female 女				
2	Levels of Studies 学历： Below Undergraduate Degree 本科以下 Bachelor Degree 本科学位 Master Degree 硕士学位 Doctorate Degree 博士学位				
3	Ages 年龄： 20 to 29 20~29岁 30 to 39 30~39岁 40 to 49 40~49岁 50 to 59 50~59岁 60 and above 60岁及以上				
4	Years of Working Experiences 工作经验： 1 to 5 years 1~5年 6 to 10 years 6~10年 11 to 15 years 11~15年 16 to 20 years 16~20年 21 to 25 years 21~25年				

	26 to 30 years 26~30年 31 years and above 31年及以上				
5	Working Places工作地点: Qujing No. 1 Kindergarten 曲靖市第一幼儿园 Qujing No. 3 Kindergarten 曲靖市第三幼儿园 No. 1 Kindergarten, Qilin District, Qujing City 曲靖市麒麟区第一幼儿园 The Second Kindergarten of Qilin District, Qujing City 曲靖市麒麟区第二幼儿园 No. 3 Kindergarten, Qilin District, Qujing City 曲靖市麒麟区第三幼儿园 No. 4 Kindergarten, Qilin District, Qujing City 曲靖市麒麟区第四幼儿园 Zhanyi District No. 1 Kindergarten 沾益区第一幼儿园 Zhanyi District No. 2 Kindergarten 沾益区第二幼儿园 The First Kindergarten of Huize County 会泽县第一幼儿园 The Second Kindergarten of Huize County 会泽县第二幼儿园				
6	Teaching Levels教师等级: Headteacher 班主任 Teacher 教师 Assistant teacher 助教 Intern Teacher 实习教师				

Index of Item-Objective Congruence (IOC) Part 2: K-DOCS questions 项目-目标一致性指数 (IOC) 第二部分: K-DOCS问题					
<i>The expert is kindly requested to examine each item of the research instrument for its content validity.</i> 请专家检查研究工具的每一项内容的有效性。		Expert's Review 专家点评			
NO.	Items	Agree	Not Sure	Disagree	Comment 评论
		+1	0	-1	
1	In general, I can teach art to my kindergarten students well 通常，我可以很好地教授幼儿园学生艺术				
2	I consider myself a good kindergarten art teacher because of a good balance of both my personal and professional life. 我认为自己是一名优秀的幼儿园艺术教师，因为我在个人生活和职业生涯中都取得了良好的平衡。				
3	I can choose the best art activities to teach creative art to my kindergarten students. 我可以选择最好的艺术活动来教幼儿园学生创意美术课程。				
4	I am positive about my teaching experiences as a kindergarten art teacher. 作为一名幼儿园艺术教师，我对自己的教学经验持肯定态度。				
5	5. I like to find more options for teaching creative art to kindergarten students. 我希望在向幼儿园学生教授创意美术时能有更多的选择。				
6	I have more alternatives for creating art activities to teach my kindergarten art classes. 我有更多的选择来创造艺术活动来教我的幼儿园美术课。				

7	I can offer various constructive art activities in my kindergarten art classes. 我可以在幼儿园艺术课上提供各种建设性的美术活动。				
8	I am a teacher who loves to write a poem or a rhyme for my kindergarten art classes. 我是一名教师，我喜欢为幼儿园艺术课写诗或儿歌。				
9	I am capable of making up lyrics for an original song for my kindergarten art classes. 我有能力为幼儿园艺术课上的一首原创歌曲编歌词。				
10	I can sing or play a musical instrument for my kindergarten art classes 我会在幼儿园艺术课上唱歌或演奏乐器				
11	I like can act, dance, a play for my kindergarten art classes. 我喜欢表演、跳舞、为幼儿园的艺术课表演话剧。				
12	I can create a computer program or application for teaching creativity to my kindergarten classes. 我可以创建一个电脑程序或应用程序，为幼儿园班级教授创意知识。				
13	I can use math problems or puzzles to blend into my kindergarten art teaching activities. 我可以把数学问题或谜题融入幼儿园艺术教学活动。				
14	I can learn to build something mechanical for my art teaching activities. 我可以为我的艺术教学活动学习制作一些机械装置。				
15	I can do art through sketching, drawing, or painting. 我可以通过写生、素描或绘画来进行艺术创作。				

16	I can do art through sculpture or pottery. 我可以通过雕塑或陶艺来进行艺术创作。				
17	I appreciate a beautiful painting, sculptures, and pieces of art. 我欣赏美丽的绘画、雕塑和艺术品。				

Index of Item-Objective Congruence (IOC) Part 4: 创意艺术活动选择 questions 项目-目标一致性指数 (IOC) 第三部分: 创意艺术活动选择问题					
<i>The expert is kindly requested to examine each item of the research instrument for its content validity.</i> 请专家检查研究工具的每一项内容的有效性。			Expert's Review 专家点评		
NO.	Items	Agree	Not Sure	Disagree	Comment 评论
		+1	0	-1	
1	I love to develop my kindergarten students' physical ability and skills through my art teaching activities. 我喜欢通过艺术教学活动来培养幼儿园学生的体能和技能。				
2	I encourage my kindergarten students to experience their inner thoughts and feelings through my art teaching activities. 我询问幼儿园的学生，让他们通过我的艺术教学活动体验内心的想法和感受。				
3	I urge my kindergarten students to communicate and collaborate in various forms through my art activities. 我通过我的艺术活动，鼓励我的幼儿园学生以各种形式进行交流和合作。				
4	I urge my kindergarten students to explore more options for solutions through my art teaching activities. 我鼓励我的幼儿园学生通过我的艺术教学活动来探索更多的选择和解决方案。				
5	I stimulate my kindergarten students to form and sustain their creativity through many kinds of art activities. 我通过多种美术活动激发幼儿园学生的创造力，使他们的创造力得以形成和延续。				

6	I prepare my kindergarten students to develop and express their aesthetic appreciation through my teaching art activities. 通过艺术教学活动，我培养幼儿园学生发展和表达自己的审美鉴赏能力。				
7	I arouse my kindergarten students to interact with others through my teaching art activities. 我通过美术教学活动唤起幼儿园学生与他人交流的兴趣。				
8	I support my kindergarten students in developing their art and aesthetical consciousness through dance. 我支持我的幼儿园学生通过舞蹈发展他们的艺术和审美意识。				
9	I let my kindergarten students develop their art and aesthetical consciousness through drawing. 我让幼儿园的学生通过绘画来发展他们的艺术和审美意识。				
10	I stipulate my kindergarten students to develop their art and aesthetical consciousness through painting. 我规定我的幼儿园学生通过绘画来发展他们的艺术和审美意识。				
11	I encourage my kindergarten students to develop their art and aesthetical consciousness through tearing art paper. 我鼓励我的幼儿园学生通过撕美术纸来发展他们的艺术和审美意识。				
12	I support my kindergarten students to develop their art and aesthetical consciousness through collage. 我支持我的幼儿园学生通过拼贴画发展他们的艺术和审美意识。				
13	I let my kindergarten students develop their art and aesthetical consciousness through carving. 我让幼儿园的学生通过雕刻来发展他们的艺术和审美意识。				
14	I support my kindergarten students in developing their art and aesthetical consciousness through pottery. 我支持我的幼儿园学生通过陶艺发展他们的艺术和审美意识。				
15	I encourage my kindergarten students to develop their art and aesthetical consciousness through Scrap-making 我鼓励我的幼儿园学生通过废料制作来发展他们的艺术和审美意识。				

16	I challenge my kindergarten students to develop their art and aesthetical consciousness through ICT. 我考验我的幼儿园学生，通过信息和通信技术来发展他们的艺术和审美意识。				
17	I teach my kindergarten students to be good people through creative art teaching and learning. 我通过创造性的艺术教学，教会我的幼儿园学生做一个好人。				
18	I let my kindergarten students explore and get inspiration from the environment through creative art teaching and learning. 我让我的幼儿园学生通过创造性的艺术教学和学习，探索环境，从环境中获得灵感。				
19	I encourage my kindergarten students to recognize their own selves while interacting with others through creative art teaching and learning. 我鼓励我的幼儿园学生通过创造性的艺术教学和学习，在与他人互动的同时认识自己。				
20	I allow my kindergarten students to express courage during my creative art activities. 我允许我的幼儿园学生在我的创意艺术活动中表达勇气。				
21	I encourage my kindergarten students to understand the importance of art in life through the process of creative art activities. 我鼓励我的幼儿园学生通过创造性的艺术活动来理解艺术在生活中的重要性。				
22	I allow my kindergarten students to use knowledge and skills to express themselves freely through my creative art teaching activities. 我通过创造性的艺术教学活动，让我的幼儿园学生运用知识和技能自由地表达自己。				
23	I ensure that my kindergarten students recognize their individual art skills and abilities through my creative art activities. 我保证我的幼儿园学生通过我的创造性美术活动认识到他们的个人美术技能和能力。				
24	I put my kindergarten students into groups to learn group working habits and collective working habits through my creative art activities. 我把我的幼儿园学生分成小组，通过我的创意艺术活动来养成学习小组工作习惯和集体工作习惯。				
25	I make sure that my kindergarten students use or articulate the correct language and expressions while participating in any art appreciation or inspiration occasion. 我确保我的幼儿园学生在参加任何艺术欣赏或启发活动时，都能使用或表达正确的语言和表达方				

	式。				
26	I will continue to inspire my kindergarten students to love to learn creative artwork and art making. 我将继续激励我的幼儿园学生热爱学习创意艺术和艺术制作。				
27	I ensure that my kindergarten students preserve moral, humanitarian, social, and national values of artworks and artmaking. 我向我的幼儿园学生保证，他们将在艺术作品和艺术创作中传承道德、人道主义、社会和民族价值观。				





APPENDIX D
QUALITATIVE DATA

It shows the qualitative data from one interviewee. The interview recording was documented in the script as follows.

R is the abbreviation for the researcher

A is the abbreviation for administrator

R: Hello, teacher. I am doing research related to my thesis and there are some related questions. I would like to know what you think about innovation and creativity in art teaching in our kindergarten.

A: Okay, I think that in fact, the teaching of art activities, the innovation and creativity, or originality in teaching activities, in fact, I think in our kindergarten, probably the most I want to express is to let these teachers not carry out these art teaching activities at the traditional inherent thinking level. We should break our traditional thinking and carry out some relatively new ones. Sometimes, we put the focus on a higher level, yes, and may refer to many cases on the Internet.

A: The focus is very high because teachers work within the existing models of others. But in fact, we often repeatedly emphasize to teachers that, for example, a piece of clay can often become some teaching aid in our art teaching activities or some tools we need to use. But teachers' thinking is sometimes fixed. So most of the time, we want teachers to break the inherent thinking in their minds with this kind of innovation and creativity or originality.

R: Okay, thank you! Well, how would you describe the acceptance

and the actual situation of the teachers in our kindergarten regarding the innovation and creativity in art teaching activities.

A: Actually, regarding this issue, we have regular heart-to-heart talks with many teachers. We know that in our kindergarten, most teachers, or 80% to 90 % of teachers, are very positive about the innovation and creativity of art teaching activities. They want to do this and want to develop this aspect, but what is the actual situation? We can also understand that the work of kindergarten teachers is actually very trivial and complicated.

A: Various trivial matters have broken up the teachers' time, so they don't have the time or energy to make such innovations or develop such creativity, etc. In fact, many teachers I just talked about want to do so in their hearts, but there is another problem here, that is, our kindergarten teachers may have some problems on their personal level. That is to say, some teachers may have received professional training and have certain artistic skills.

A: But some teachers do not have strong professional knowledge and their professional knowledge is limited, so they lack certain innovative or creative thinking.

R: Well, it's about the education you received and the level of your education.

A: Yes, deep down, teachers actually want to innovate and create, but they are influenced by two aspects: one is their own professional knowledge and ability, and the other is the actual limitations of the job, which is that they do not have the time and energy.

R: Yes, yes, I have also discovered this problem. Many teachers, apart from teaching, are engaged in environmental creation, and handicrafts, and have to cope with many festivals and various activities.

A: For rehearsal, I may want to do it well, but time is limited, so I can only complete the task in the simplest and fastest way. That's the only way, and I may feel a little helpless at times, um.

R: OK, thank you. I want to know the five factors that influence the creativity of our kindergarten teachers in art teaching, which are daily life experience, academic, performance, science, and artistry. Among the five factors, can you rank them from the most important to the least important? Can you elaborate on the reasons and causes?

A: Regarding this question, I think what we are talking about here is the creativity of art teaching. For teachers, I think the most important factor is artistry because, through various artistic expressions, we can actually develop children's imagination and creativity! We can also cultivate children's ability to feel, discover, and create beauty through performances, paintings, handicrafts, and other activities. So in this place, I think artistry is the most important. Among the five factors you just mentioned,

R: Okay.

A: Then I think we should shoot the daily life experience, because we often say that art comes from life, it comes from life. But it is also higher than life, so I think this life experience is important because we can share with children the things they can see and touch in daily life, then arouse them to observe the environment around us, and then cultivate their ability to think and express. At the same time, as for our teachers, we often say that teachers design some activities, which must come from daily life so that children can have a certain experience. Otherwise, if many of the activities we design are higher than life, they are only at the level of our thinking, or they are things we have only seen in videos.

A: In fact, children have no sense of experience, and often no sense of participation. They cannot understand what you are talking about, or what you want them to feel. So I think the second aspect is probably the second. The third one I think should be ranked is academic. From another perspective, we can be a kind of theoretical knowledge reserve of the teachers, or we can understand it this way.

R: Okay.

A: Well, for example, teachers' observation, experimentation, and other reasoning thinking and problem-solving methods actually have a profound impact on children. So I think that including the scientific nature, as I just said, the deeper the professional knowledge reserves of teachers, the more beneficial it is for the development of such teaching activities, right? So I think the fourth one should be scientific nature, and finally, I think performance should be ranked at the back.

A: I think that at this stage of development for young children, it may be relatively minor, because it will only play a certain role in certain situations, right? For example, this kind of performance, for example, if you are a drama performance or a concert, etc.

R: OK, teacher, thank you! I would also like to know your evaluation of the most important and least important factor among the three factors that affect our

kindergarten teachers' art teaching innovation. What do you think of daily life experience and its artistic and academic nature?

A: Actually, this may be a little similar to what I just mentioned, that is, both mentioned the influencing factors, and also mentioned life experience, artistry, and academics. In this place, for the innovation of art teaching of kindergarten teachers, I think the most important factor is artistry because art is the core of innovation of art teachers. Only when the teacher has certain artistry or artistic skills, has his own cognition and understanding of colors, shapes, and textures, and has certain professional knowledge, can he teach children and cultivate children's creative thinking.

A: If you don't have observation and expression skills, and don't have such an artistry, then let alone convey it to children. So I think the most important thing is this artistry, and then what? A little less important is the daily life experience, because we just said that art comes from life, and then it is higher than life! Well, that is to say, our experience in daily life actually has a certain impact on our artistic innovation, such as the angle of observing things, and the way of presenting things, and we can have our own unique way of understanding, and teachers can express it in art.

A: Well, and about this kind of daily life experience, it can provide some practical situational materials for children to create and express. It can also enrich children's imagination, so I think it is relatively minor, and it may be the least important factor of daily life experience. It is a bit similar to the previous one. That is, academicity. Among these three factors, academicity may be relatively equally important, because, in my understanding, academicity may represent some academic professional knowledge. Well, such academic professional knowledge is also very important.

A: It is also very important. I think it is also very important in innovation. But among the three, I think it may be in a relatively minor position.

R: Yes, because I went there and understood it, and some teachers also wanted to go there. They organized some creative teaching courses, but they only understood the concepts of creativity and innovation, as well as some theoretical knowledge, which is so-called academic, but not too professional or had little exposure to it.

A: Yes, this is indeed the case for many teachers. They are relatively lacking in professionalism and academics.

R: Yes, in our kindergarten, how do we cultivate teachers' innovation and creativity in art teaching activities? Are there any methods or strategies that we can share?

A: I think our kindergarten is to cultivate teachers' innovation and creativity in art teaching activities. What we can do, what we do, or what we often do, is to give teachers enough space. For example, we set a theme for this period, and under the theme, teachers can freely develop and carry out activities. We don't have so many restrictions. Well, we just try to give teachers space to play, and don't set our activities too rigidly! We only limit the theme, and teachers can freely play with the specific development. This is the first thing, which is to give teachers enough space!

A: It is the theme of each activity. Secondly, we will provide some opportunities for teachers to participate in external training, so that they can learn about art outside, experience some educational ideas at the forefront of art, etc., so that they can participate in some external training and provide such training opportunities. Thirdly, we will also cooperate with some university teachers majoring in preschool education to carry out teaching and research activities. Let the university teachers share some cutting-edge new ideas and new trends related to art teaching that they have come into contact with with our kindergarten teachers.

A: Kindergarten teachers, there is a fourth aspect, that is, we will let our school teachers visit some kindergartens that are doing well in this aspect, go to other provinces and cities, to visit and learn, to see what other kindergartens are doing well, and let them experience and feel it for themselves.

R: Oh, it's pretty good. There are also opportunities for learning and communication and opportunities for external training.

A: We will try to provide teachers with such opportunities within our capabilities, including letting them go to other kindergartens and visit other kindergartens. The teachers are excellent and powerful, and we will let them learn how to carry out such art activities!

R: Wow, that's great, and it's a public kindergarten. If it's a private kindergarten, I know that it's good enough as long as the teacher can complete the teaching task and doesn't make mistakes. I would also like to ask our teachers to share how our teachers evaluate the effectiveness of art teaching activities. What is the evaluation method?

A: Oh, regarding the effect of this art teaching activity, our evaluation method is mainly that we will have a study group. We will divide the teachers into groups, and then we can listen to each other's classes and observe other people's classes. Then after the observation, we will communicate within the group, and there will be mutual communication between groups. For example, the art teaching activity group of the small class is the skill group, the middle class, and the large class. We may divide it like this, and then at each level, our teachers can communicate with each other, and some special activities are held for mutual communication.

A: There are also meetings, but the main thing is to listen to the class. When listening to the class, we mainly observe and record. In this observation and recording, what are the main ways we evaluate? First, we look at the organization of the entire activity by our teacher. From the introduction to the development of the activity to the end of the activity, he controls the entire event. What is the overall effect? Then we observe our children's participation in the teacher's organization of the activity.

R: Yes

A: Also, when the teacher finishes the class, we can communicate with the children in a friendly way, like chatting, and you can get some real feelings from the children about the activity they just participated in.

R: Yes

A: We use these methods to evaluate the teacher's art teaching activities. Secondly, we have many art teaching activities, and they finally produce a result, right? For example, it is a handicraft, a painting, or something else? In fact, these works made by these children can also become a way for us to evaluate the teacher's art education activities. An object is one, we use this thing to evaluate teachers, and this is also one of our evaluation methods.

R: OK, I think it is quite comprehensive. Thank you for your support of my thesis.

A: I hope it helps you! Yeah.



The background of the page features a large, faint watermark of the Rangsit University logo. The logo is circular, composed of many thin, radiating lines that form a sunburst or fan-like shape. At the top of the circle is a stylized flame or torch. Below the circular graphic, the university's name is written in Thai script and English.

APPENDIX E
CONSENT FORM

มหาวิทยาลัยรังสิต Rangsit University

Date...../...../.....

Name of participant _____ Aged _____ years old
 Address _____ District _____ Province _____
 Postal code _____ Telephone number _____

I hereby submit my consent to participate in the research project entitled
EXPLORATION OF INNOVATION AND CREATIVITY IN CREATIVE ART
ACTIVITIES: ATTITUDES AND PERCEPTION OF KINDERGATEN
TEACHERS IN YUNNAN.

I have already been informed as follows:

The background and objectives of the research project.

The procedural details that the participant has to perform or be treated. Possible benefits and risks of participating in the study (Including prevention and remediation plan if risk occurs).

I thoroughly read the information sheet for participants.

I also received explanations and my questions were answered honestly by the principal investigator.

I therefore agree to participate in this research:

I have the right to receive additional information on the benefits and risks of taking part in the study. I have the right to withdraw from participation at any time without penalty. My withdrawal will not affect my treatment in any way. I allow the researcher to use the participant's personal data obtained from this study but do not permit public sharing of my identity.

If I feel physically or mentally uncomfortable while participating in this study, we will tell the researcher as soon as possible. If any adverse event occurs or there is a concern about the research process, I will be able to contact: Qiuping Wei, Telephone number: +86 13678749260.

If I am not treated as indicated in the information sheet, I will be able to contact the Research Ethics Committee of Rangsit University at the Research Ethics Office of Rangsit University, 52/347 Phahonyothin Rd., Tambon Lak Hok, Amphoe Muang, Pathum Thani Province, 12000, Thailand (Building 1, 5th Floor, Room 504), Tel. 66-2791-5728, Fax 66-2791-5689.

I have thoroughly read and understand the information sheet. The signatures below acknowledge my consent to participate in this research project.

Signature.....Participants

(.....)

Date...../...../.....



APPENDIX F

THE CREATIVE ARTS ACTIVITIES TEACHING GUIDELINES FORM

มหาวิทยาลัยรังสิต Rangsit University

Creative Arts Activities Teaching Guidance Form	
Instructions	Specific recommendations
Develop a good attitude	Teachers are encouraged to actively participate in artistic creation and recognize the importance of artistic activities to the development of young children.
Creating an environment conducive to innovation	Design stimulating and challenging art tasks to encourage teachers to explore different modes and mediums of artistic expression.
Support personalized development	Respect each teacher's artistic interests and style, and encourage them to incorporate personalized creative elements into their teaching.
Continuing Professional Development	Provide ongoing professional development opportunities, including seminars, workshops, and interdisciplinary collaborations, to foster faculty growth and innovation in arts education.
Encourage teamwork and communication	Establish an art teaching exchange platform among teachers to promote experience sharing and cooperation, and jointly explore innovative art teaching methods.
Supporting teachers' independent development	Provide resources and support to encourage teachers to explore and experiment with various art creation methods in classroom teaching and to give full play to their creativity.
Feedback and evaluation mechanism	Design effective feedback and evaluation mechanisms to help teachers adjust teaching strategies on time and promote the continuous improvement of the quality of art education.
Continuous Learning and Professional Development	Provide diverse learning opportunities, including participating in art exhibitions, visiting art studios, etc., to stimulate teachers' artistic inspiration and creative

	motivation.
Cultivate a positive attitude toward artistic creation	Teachers are encouraged to maintain an open and positive attitude towards the arts and welcome the experimentation of new art forms and modes of expression.
Improve cognitive level	Provide systematic art education training courses, including professional training in art theory, technology, and innovative methods.
Create an environment that encourages innovation	Design challenging and stimulating art tasks to encourage teachers to innovate and explore in their teaching.
Promoting interdisciplinary integration	Encourage the integration of art with other subjects, such as the interdisciplinary integration of art with science, mathematics, and language.
Continuing Professional Development	Provide continuous professional development opportunities such as visiting art exhibitions, participating in art seminars and workshops, and interacting with artists.
Integrating technology and art	Introducing modern technologies (such as digital art tools, virtual reality, etc.) and combining them with traditional art forms can stimulate the creativity and imagination of teachers and young children.
Support independent learning and development	Provide resources and support to encourage teachers to try new art teaching strategies and creative techniques in the classroom and promote personalized art teaching practices.
Promote home-school cooperation and utilization of community resources	Build a bridge for parents to participate in art education, use community resources to enrich the practice and experience of kindergarten art education, and expand the influence of education.

Continuing Professional Development and Interdisciplinary Learning	Provide diverse professional development opportunities, including participation in interdisciplinary art education seminars, academic conferences, and art exhibitions, to stimulate teachers' enthusiasm for learning and innovative thinking.
Encourage reflection and experimentation	Teachers are encouraged to reflect on and adjust their art teaching practices, be brave to try new teaching methods and art activity designs, and continuously improve their teaching effectiveness and innovation capabilities.
Focus on teachers' personal development	Support teachers' personal development paths in the field of art education, such as providing funding or recommendations for art education master's programs, and motivating teachers to conduct in-depth research and practice of art education theory.
Promote success stories and best practices	Collect and share successful art teaching cases and best practices to inspire and guide more teachers to pursue excellence in art education.
Utilize diverse teaching resources	Provide a variety of art education resources, including libraries, art exhibitions, cultural activities, etc., to enrich the art experience and learning opportunities of teachers and children.
Encourage cross-age collaboration	Promote cooperation among kindergarten teachers of different ages, share art education practices and teaching resources, and improve overall teaching quality and innovation capabilities.
Strengthen artistic interaction between teachers and children	Encourage open artistic dialogue and interaction between teachers and children to cultivate children's aesthetic ability and artistic expression abilities.
Promote local culture and traditional arts	Guide teachers to integrate local culture and traditional

	art into art education practice, and cultivate children's identification and understanding of their own culture.
Supporting teachers' innovative projects	Provide support and funding for innovative projects to encourage teachers to design and implement exploratory and experimental art education projects.
Focus on special educational needs	Provide personalized art education support and curriculum design for young children with special educational needs to promote their artistic expression and participation.
Building an arts education network	Establish and develop an art education network within and outside Yunnan Province, share resources and experiences, and promote the best practices and innovative achievements in art education.
Continuous evaluation and adjustment	Regularly evaluate the implementation effects of art teaching guidelines, adjust and optimize the guidelines based on the evaluation results, and ensure their continued effectiveness.
Promoting the integration of art and life	Teachers are encouraged to integrate art education with children's daily lives and cultivate children's artistic creativity and expression skills through art activities in life scenes.
Focus on emotion and expression	Guide teachers to pay attention to children's emotional expression and personality characteristics, and enhance children's self-confidence and expression ability through the display and sharing of artworks.
Diversified art experience	Provide diverse art experiences, including visual arts, performing arts, music, and dance, to meet the interests and development needs of different children.
Advocating sustainable development of art education	Emphasize the sustainable development of art education, and cultivate children's environmental

	awareness and sense of responsibility through recycling materials and protecting the environment.
Cross-cultural and cross-regional artistic exchanges	Carry out cross-cultural and cross-regional art exchange activities to expand children's artistic horizons and international understanding, and enrich the content and breadth of art education.
Establishing a platform for displaying artwork	Establish regular art exhibitions and competitions to encourage children and teachers to create and enhance their artistic expression and participation.
Develop critical thinking and evaluation skills	Guide children and teachers to develop critical thinking and improve their art appreciation and creative level through analysis and evaluation of artworks.
Developing creative arts teaching materials and resources	Develop and promote creative art teaching materials and resources, support teachers to implement innovative art teaching activities in the classroom, and stimulate children's creativity.

BIOGRAPHY

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