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*Deng Na, Maria Socorro C. L. Fernando*

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## Enhancing Teaching Competency of Art Teachers in Public Elementary School: A Case Study of One County in China

Deng Na <sup>1</sup> Maria Socorro C.L. Fernando<sup>2</sup>

<sup>1</sup>Xi Xin Primary School, High-tech Zone, Chengdu Email: 348411325@qq.com

<sup>2</sup>Lecturer and Program Director, MMOD & PhDOD, Graduate School of Business and Advanced Technology Management, Assumption University, Thailand Email: mlfernando@gmail.com

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### Abstract

With the large-scale implementation of quality education, art education has received increasing attention from society and the government. The effectiveness of art education is closely related to the professional ability of art teachers. The research on the professional ability of primary school art teachers do not only promote the professional development of the teachers, but also foster the aesthetic ability and creativity of children. The purpose of this research is to understand the current situation of the professional competence of primary school art teachers in China's X area and to explore the impact of primary art teachers' soft skills in critical thinking, problem-solving, communication, teamwork, and information management skills on teaching competency. This study utilized quantitative research using a survey questionnaire on 121 primary school art teachers in the district. Multiple linear regression was used for data analysis. The results show that communication skills and problem-solving skills impact the teaching competency of primary and secondary school teachers in the study area. Teachers emphasized the importance of communication skills for classroom teaching, public speaking, and listening skills. Teachers adapted ways to solve problems properly and motivate students to learn, which could significantly boost teachers' confidence and improve teachers' competence. Based on the main findings of this study, a strategic plan was developed to enable these teachers to acquire more important teaching competencies. It can improve the teachers' capability, which may help to contribute to the development of China's education in the long run.

Keywords: teaching competency, critical thinking skills, problem-solving skills, communication skills, teamwork skills, information management skills

### Introduction

With the advent of economic globalization and the popularization of artificial intelligence technology, people's lifestyles also undergo tremendous changes. As a result, aesthetic education has been valued. Art education has its unique value as an indispensable part of the quality education system. Art education is the main way to implement aesthetic education. Through the understanding of the form of art and art language, the depiction of specific images, the appreciation of fine art, and other teaching activities, students come into an art world full of truth, kindness and beauty, which educates students on beauty, enables students to form correct aesthetic concepts, improve aesthetic quality, develop intelligence, cultivate aesthetic abilities and promote students' all-round development.

The effect of art education is closely related to the professional ability of art teachers. Research on the professional ability of primary school art teachers plays an important role in promoting the professional development of primary school art teachers which will eventually promote the aesthetic ability and creativity of children. However, there are few empirical studies on the professional abilities of primary school art teachers.

### **Organization Background**

China X District is one of the first batches of national high-tech industrial development zones in the country and is managed by municipal districts. There are 26 public primary schools in the district, and there are 159 art teachers in post-primary schools.

### **SWOT Analysis**

With the deepening of quality-oriented education, China has introduced many policies to increase the investment in art education. More and more people have begun to attach importance to art education. To better develop art courses and implement art education, primary schools in X district begin to attract excellent art teachers with high salaries. Most young teachers are more innovative and have strong information technology capabilities. Some schools, however, do not pay enough attention to the subject due to the lack of teaching facilities, for which the professional ability of art teachers cannot be fully developed. SWOT refers to strengths, weaknesses, opportunities, and threats. SWOT analysis is a framework that is used to assess a company's competitive position and to develop a strategic planning. It is a tool that can help our team plan strategically and stay ahead of market trends. SWOT analysis cannot only be used for business, but also for a specific project. The author adopted SWOT analysis, hoping to identify competitive opportunities for improvement because it provides a scientific and systematic analysis way for selecting projects, determine project implementation strategies, positioning and formulating strategies. The author hopes to formulate correct and scientific teaching plans by comparing the merits and demerits of art teachers and opportunities and threats in X district.

#### **Strength**

At present, in the context of the vigorous development of compulsory education, the school's selection and further study mechanism for teachers have been more rigorous and complete. All elementary art teachers in Zone X have a bachelor's degree or above and are younger. The age of teachers is generally under 35. These young teachers are perceived to be more innovative and open to the brand-new educational concept, thus easily integrating with students in the teaching process. In addition, art teachers in various middle schools have undergone information-based teaching software training. This systematic training can fundamentally improve teachers' ability to use information technology and help teachers to use modern information technology and fully integrate it with traditional teaching methods which helps to improve the teaching efficiency.

#### **Weakness**

From the point of view of disadvantages, a common problem is that people pay less attention to art for it is not a major subject, which means it hardly affects students for further education. And teaching is less stressful than traditional foreign subjects. At the same time, the courses are relatively easy, and students do not need to take exams and they cannot learn art thoroughly. Due to lack of deep understanding of art education and the non-teaching tasks taken in schools, teachers cannot make progress in terms of teaching competence. There are too many compulsory tasks to be accomplished in each unit of the textbook, making it impossible to devote themselves to improving teaching ability.

## Opportunities

The General Office of the Central Committee of the Communist Party of China and the General Office of the State Council issued the "Opinions on Comprehensively Strengthening and Improving School Aesthetic Education in the New Era" and issued a notice on the art courses. As a result, art subjects will be included in the scope of junior and senior high school level examinations as an important discipline in fine arts, and the demand has also increased from the public. Furthermore, at the technical level, with the continuous popularization and application of Internet technology, some Internet-based teaching modes such as MOOC and flipped classrooms have an important role in promoting the professional development of art teachers.

## Threats

The school does not pay enough attention to art teaching. The primary school art is not a major subject, and there is a certain gap between the school's emphasis on it and the major subjects other than language and mathematics. In addition, the conditions of the art teaching and research in some schools are relatively poor, and the teaching equipment is seriously inadequate, which has greatly hindered the professional development of teachers. At the same time, for some newly recruited young art teachers, the school often assigns them many teaching tasks and hardly pays attention to the teaching effectiveness. As a result, many young art teachers are tired of classroom teaching and have no time for professional development; thus, professional growth process of art teachers in middle schools is very slow. In addition, primary school art teachers' income and social status are relatively low compared to main subject teachers, which leads to increased pressure on art teachers and the inability to devote themselves to professional growth.

## Research Objectives

1. To diagnose the current situation of teaching competency of elementary art teachers.
2. To determine the factors that influence the teaching competency of elementary art teachers.
3. To design strategies to improve the teaching competency of elementary art teachers based on the findings.

## Review of Literature

Teaching competency is gradually formed and developed in the process of teaching practice. Teachers' professional knowledge and teaching skills can promote teachers to complete teaching activities smoothly.

Venkataiah (2000) defines teaching competency as any single knowledge, skill, or professional expertise which (1.) a teacher may be said to possess and (2) the possession of which is believed to be relevant to the successful practice of teaching. The Encyclopedia of Teacher Training and Education (1998) defines teaching competency as suitable or sufficient skill, knowledge, and experience for teaching purposes, properly satisfied.

Pratibha (2016) defines teaching competency as an effective performance of all observable teacher behavior that produces desired pupil outcomes. Teaching competencies include acquiring and demonstrating the composite skills required for student teaching like introducing a lesson, fluency in questioning, probing questions, explaining, pace of lesson, reinforcement, understanding child psychology, recognizing behavior, classroom management, and giving the assignment.

Ngang et al. (2015) found that some soft skills such as communication ability, creative thinking ability, problem-solving ability, and teamwork ability support new teachers in

teaching and learning technology, providing effective strategies and skills to improve their teaching ability. Prasertcharoensuk et al. (2015) showed that teacher competency factors such as curriculum and learning management and self-development could affect students' learning achievement.

Critical thinking ability refers to thinking that uses facts to form judgments. Critical thinking is complex and has many different definitions, generally including rational, skeptical, and unbiased analysis and evaluation of factual evidence (Paul & Elde, 2011). Many definitions of critical thinking present the ideas of "reasoning, judgment, procedural knowledge, metacognition, reflection, questioning and justification" (Wilkin, 2017; Fischer et al., 2000). Critical thinking is considered as the capability to analyze and evaluate evidence, arguments, claims, and beliefs on given matters (Partnership for 21st Century Skills, 2009; Greenhill, 2010).

Critical thinking in schools is one of the main topics regarding the so-called 21st Century skills (Greenhill, 2010). Although some content, such as vocabulary definitions, do require memory, the content's application stimulates thinking. Instruction that supports critical thinking uses questioning techniques that require students to analyze, synthesize, and evaluate information to solve problems and make decisions (think) rather than merely repeat information. Because critical thinking is a mental habit that requires students to think about their thinking and about improving the process, it requires students to use higher-order thinking skills – not memorize data or accept what they read or are told without critically thinking about it (Paul & Elder, 2011). Therefore, critical thinking is a product of education, training, and practice.

Critical thinking is one part of the professional teachers' teaching skills. In addition, knowing when and how to use current educational technology and the most appropriate type and level of technology can maximize student learning (Nessipbayeva, 2012).

Problem-solving skills can solve different kinds of unfamiliar problems in conventional and innovative ways (Partnership for 21st Century Skills, 2009; Greenhill, 2010). There were different proposals to address and assess problem-solving skills in the education field (Reddy & Srinagesh, 2013; Greenberg & Nilssen, 2014). These proposals presented that role of education in building problem-solving skills of students which must be given more focus on.

Hairuzila et al. (2014) found that 84.7% of lecturers related to teaching competence mentioned the importance of problem-solving skills in teaching. Likewise, Ngang et al. (2015) pointed out teachers' problem-solving ability greatly impacted the teaching process.

Since teaching is a practical activity, efficient problem-solving skills are fundamental competencies teachers need to possess. All teachers face challenging school situations during the teaching-learning process (Pearson, 2016). If the teachers can frame and identify their challenges, analyze the cause and effect of their situation, and find solutions and strategies, the students will learn well (Pearson, 2016).

Communication skills are the ability to articulate thoughts and ideas effectively using oral and written communication skills in a variety of forms and contexts (Partnership for 21st Century Skills, 2009; Greenhill (2010).

Kanokorn et al. (2013) proved that most teachers improved their communication and presentation skills after completing soft skills training development. A similar study by Ngang et al. (2015) found that teachers perceived communication skills as important, but teachers' training development was insufficient compared to real teaching. On the other hand, the research findings of Attakorna et al. (2014) showed recently educated teachers had good communication skills. More noticeably, key findings from research of Hairuzila et al. (2014) illustrated that 100% of lecturers emphasized the role of communication skills on teaching competency. Similar research by Hairuzila et al. (2014) revealed that engineering students were well-developed by integrating communication skills in engineering courses.

Teamwork skills are the ability to compromise, share responsibility, exercise flexibility, and work effectively with diverse and different cultural team members. The collaboration demonstrates the ability to work effectively and respectfully with diverse teams (Partnership for 21st Century Skills, 2009; Greenhill (2010).

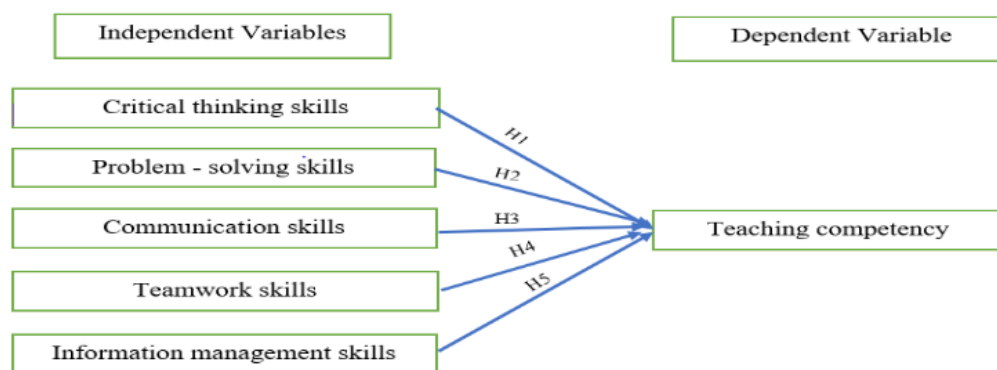
Since teamwork and problem-solving skills are key competencies, problem-based and team-based learning teaching approaches have been developed (Goltz et al., 2007). Ngang et al. (2015) discovered that novice teachers considered teamwork skills important in the teaching task and desired to embed teamwork training into teaching development. Ngang et al. (2015) also proved teachers' important relation teamwork skills on teaching was important. Similarly, Attakorna et al. (2013) found that novice teachers had good teamwork. Greenberg and Nilssen (2014) suggested that collaboration within teachers should be more focused on improving teaching quality.

Information management skills are the capability to "collect and manage information from one or more sources," which can be in the forms of printed, electronic, audio, video, graphics format. The documents can be stored and distributed by using various devices such as mobile phones, flash drivers, portable hard disk drives, tablets, and websites (Conceicao, 2013).

Young male teachers prefer to apply Information Communication Technology to teaching tasks (Al-Bataineh, 2013). The ability to practice information management skills relates to the way lecturers organize, control, process, evaluate, and report information so that teaching-related documents can be processed more effectively and efficiently (Conceicao, 2013). Adnan et al. (2014) pointed out that information management skills are acquired, and practical tasks must be taught at the tertiary level.

**Figure 1**

*Conceptual Framework*



The study's conceptual framework is adapted from the study of Do and Fernando (2018); the researcher explored the teaching competency of primary school art teachers using the independent variables of critical thinking, problem-solving skills, communication skills, teamwork skills, and information management skills. The dependent variable is teaching competency

**Hypotheses of the Study**

H1: Critical thinking skills have a significant influence on the teaching competency of elementary art teachers.

H2: Problem-solving skills have a significant influence on the teaching competency of elementary art teachers.

H3: Communication skills have a significant influence on the teaching competency of elementary art teachers.

H4: Teamwork skills have a significant influence on the teaching competency of elementary art teachers.

H5: Information management skills have a significant influence on the teaching competency of elementary arty teachers.

## Research Methodology

### Research Instrument and Data Analysis

A structured survey questionnaire was used to collect primary data. The questionnaire was designed in Chines when it was distributed to other teachers and translated into English when it was showed in the paper. There are two parts to the questionnaire. The first part includes the factors influencing work efficiency: critical thinking skills, problem-solving skills, communication skills, teamwork skills, and information management skills. The second part inquires on the respondent's demographic data such as academic qualification, job title, age, and gender. The collected data was analyzed using descriptive statistics and multiple linear regression analysis.

### Research Population

The target population of this study is 159 elementary school art teachers in District X. The questionnaire was distributed to all art teachers in the District X on October 12,2021 via WeChat. All teachers should complete all the questions online.

## Results and Discussion

The data analysis shows quantitative data results. The author invited 30 non-participants randomly to test the reliability of the questionnaire, then analyzing the data with JAMOV. After acquiring reliable data, the author distributed the questionnaire.

**Table 1**

*Cronbach Alpha Results (n=30 respondents)*

Variables	Number of Items	Cronbach's Alpha	Reliability
Teaching competency	5	0.912	Excellent
Critical thinking skills	5	0.834	Good
Problem-solving skills	5	0.933	Excellent
Communication skills	5	0.944	Excellent
Teamwork skills	5	0.927	Excellent
Information management skills	4	0.942	Excellent

According to the Cronbach alpha results above, the results of every variable were higher than 0.7, which means that the questions formulated per variable are reliable.

## Personal Data of Respondents

**Table 2**

### *Respondents' Gender*

Valid	Frequency	Percent	Valid Percent
Male	17	14.05	14.05
Female	104	85.95	85.95
Total	121	100.0	100.0

Table 2 above shows that most respondents are females (104), representing 85.95% and 17 males representing 14.05%.

**Table 3**

### *Respondents Age*

Valid	Frequency	Percent	Valid Percent
21—30	61	50.41	50.41
31—40	45	37.19	37.19
41—50	9	7.44	7.44
More than 55	6	4.96	4.96
Total	121	100.0	100.0

Most respondents are from age between 21-30 years old, comprising 61 people out of 121 (50.41%). Second are teachers between 31-40 years old, comprising 45 people representing 37.19%. Third are the 41-50 years old, comprising nine people representing 7.44% followed by six people who are more than 55 years old representing 4.96%.

**Table 4**

### *Respondents' Academic Qualifications*

Valid	Frequency	Percent	Valid Percent
Bachelor's degree	97	80.17	80.17
Master's degree	24	19.83	19.83
PhD	0	0	0
Total	121	100.0	100.0

Table 4 shows that the highest education attained by respondents is Master's degree with 24 people (19.83%). There are 97 people with bachelor's degree representing 80.17%. There is no PhD holder.

**Table 5**

### *Respondents' Title*

Valid	Frequency	Percent	Valid Percent
No title	50	41.32	41.32
Elementary	25	20.66	20.66
First level	42	34.71	34.71



Advanced	4	3.31	3.31
Professor	0	0	0
Total	121	100.0	100.0

Table 5 shows that most respondents are without titles (50) representing 41.32%, followed by "First-level" with 42 respondents, "Elementary" with 25 respondents, "Advanced" with 4 respondents, and no "Professor."

**Descriptive Analysis of the Variables**

**Table 6**

*Descriptive Analysis of Teaching Competency*

Questions on Teaching Competency	N	Mean	Std. Deviation
Q.1 I can keep abreast of students' knowledge and ability level.	121	4.99	0.8111
Q.2 I can adjust teaching according to students' abilities and implement a variety of evaluation strategies for students.	121	5.06	0.722
Q.3 I can answer questions raised by students and ensure that students understand the content of the course.	121	5.04	0.746
Q.4 I can choose appropriate teaching methods to assist teaching.	121	5.07	0.732
Q.5 I can ensure that students abide by the classroom rules to ensure that effective daily teaching work goes on smoothly.	121	5.06	0.840
Valid N/Total Mean and Std. Deviation	121	5.04	0.664

Table 6 shows that all questions had a mean between 4.9-5.06. The question with the highest mean of 5.07 and Std. Deviation at 0.732 is "I can adjust teaching according to students' abilities and implement a variety of evaluation strategies for students".

**Table 7**

*Descriptive Analysis of Critical Thinking Skills*

Questions on Critical Thinking Skills	N	Mean	Std. Deviation
Q.1 I have a sincere and objective attitude towards finding knowledge when the answers I find do not match my original opinions.	121	5.11	0.874
Q.2 I am tolerant towards different opinions to avoid the possibility of personal prejudice.	121	5.27	0.764
Q.3 I can identify the problem and use the reasons and evidence to understand the crux and the expected consequences.	121	4.97	0.741
Q.4 I can work hard to deal with problems in an organized and purposeful manner.	121	5.08	0.690
Q.5 I am enthusiastic to know and understand new learning.	121	5.24	0.592
Valid N/Total Mean and Std. Deviation	121	5.13	0.572

Table 7 shows that all questions had mean between 4.97-5.27. The question with the highest mean of 5.27 is that "I am tolerant towards different opinions to ensure the possibility of personal prejudice".

**Table 8**

*Descriptive Analysis of Problem-solving Skills*

Questions on Problem-solving Skills	N	Mean	Std. Deviation
Q.1 I can solve problems properly.	121	5.07	0.709

Q.2 I am able to reframe the problem encountered in my work into a valuable research question.	121	4.86	0.888
Q.3 When I encounter problems in teaching, I often think of multiple ways to solve them.	121	5.03	0.752
Q.4 My teaching method has many creative designs.	121	4.94	0.840
Q.5 I often actively seek feedback from students on teaching content and methods.	121	5.02	0.841
Valid N/Total Mean and Std. Deviation	121	4.99	0.718

Table 8 shows that all problem-solving skills questions have a mean between 4.86-5.07. Question No.1 has the highest mean, which is 5.07 "I can solve problems properly".

**Table 9**

*Descriptive Analysis of Communication Skills*

Questions on Communication Skills	N	Mean	Std. Deviation
Q.1 I can express my thoughts accurately and fluently in class.	121	5.17	0.687
Q.2 I can listen carefully, patiently, and encouragingly to the messages conveyed by students, and at the same time try to grasp the exact meaning of these messages.	121	5.24	0.671
Q.3 I can extract important information from complex information.	121	5.05	0.762
Q.4 The construction of my communication skills with students guides slow-learning students in the classroom.	121	5.08	0.726
Q.5 I can adjust verbal and non-verbal communication according to the situation.	121	5.03	0.752
Valid N/Total Mean and Std. Deviation	121	5.11	0.652

Table 9 shows that the questions about communication skills obtained a mean between 5.03-5.24. The highest mean is 5.24, and Standard Deviation 0.671 which represents the statement "I can listen carefully, patiently, and encouragingly to the messages conveyed by students and, at the same time, try to grasp the exact meaning of these messages".

**Table 10**

*Descriptive Analysis of Teamwork Skills*

Questions on Teamwork Skills	N	Mean	Std. Deviation
Q.1 I can promptly propose specific solutions when I encounter conflicts with others.	121	4.99	0.701
Q.2 I can take the initiative to provide services or valuable information such as shared experience and knowledge to team members.	121	5.12	0.737
Q.3 I can sincerely solicit opinions and suggestions from others to participate in decision-making or planning.	121	5.18	0.671
Q.4 I can make team members feel respected which stimulates the motivation of others to learn.	121	5.12	0.709
Q.5 I can express the positive expectations of others by positive questions and opinions.	121	5.23	0.716
Valid N/Total Mean and Std. Deviation	121	5.13	0.622

Table 10 shows that the teamwork skills have a mean average between 4.99-5.23. Q.5 has the highest mean, which is 5.23, and Std. Deviation at 0.716, which represents the statement “I can express the positive expectations of others by positive questions and opinions”.

**Table 11**

*Descriptive Analysis of Information Management Skills*

Questions on Information Management Skills	N	Mean	Std. Deviation
Q.1 I use communication technology and social networking in instructional teaching and learning activities.	121	5.12	0.755
Q.2 I can promote students to acquire knowledge through information and communication technology.	121	5.11	0.814
Q.3 I use strategies related to information recovery, processing and use, and use of online resources.	121	4.98	0.851
Q.4 I can express the positive expectations of others by positive questions and opinions.	121	5.21	0.733
Valid N/Total Mean and Std. Deviation	121	5.10	0.729

The mean score of information management skills is between 4.98-5.21; The statement with the highest mean of 5.21 and Std. Deviation 0.733 is that “I can express the positive expectations of others by positive questions and opinions.”

The researcher used multiple linear regression to determine which independent variables influence teaching competency.

**Table 12**

*R Square on Teaching Competency*

Model	R	R Square	Adjusted R Square
1	0.882	0.778	0.768

Table 12 shows that independent variables critical thinking skills, problem solving skills, communication skills, teamwork skills, and information management skills can explain 77.8% of the dependent variable teaching competency variability.

**Table 13**

*Results of Linear Regression on Teaching Competency*

Independent Variables	P-value	Stand. Estimate
1.Critical thinking skills	0.060	0.1862
2.Problem solving skills	0.005	0.3139
3.Communication skills	0.020	0.2862
4.Teamwork skills	0.445	0.0808
5.Information management skills	0.381	0.0709

P value < 0.05 is significant.

Based on the results of multiple linear regression (Table 13) , the hypotheses testing results are shown in Table 14.

**Table 14***Summary of Hypothesis Testing*

	<b>Hypothesis</b>	<b>P value</b>	<b>Results</b>
H1	Critical thinking skills have a significant influence on the teaching competency of lectures.	0.060	H1 is not supported
H2	Problem-solving skills have a significant influence on the teaching competency of lectures.	0.005	H2 is supported
H3	Communication skills have a significant influence on the teaching competency of lectures.	0.020	H3 is supported
H4	Teamwork skills have a significant influence on the teaching competency of lectures.	0.445	H4 is not supported
H5	Information management skills have a significant influence on the teaching competency of lectures.	0.381	H5 is not supported

p-value < 0.05 is significant

Table 14 shows that problem-solving skills and communication skills development significantly influence teaching competency because the level of significant values is less than 0.05. Therefore, H2 and H3 are supported. H1, H4, and H5 are not supported based on the results. The critical thinking skills, teamwork skills, and information management skills have a p-value of more than 0.05. Therefore, these skills have no significant influence on teaching competency.

### Conclusions and Recommendations

#### Demographic Results

Of the 121 respondents in this research, 104 are females and 17 are males. Most of the respondents are between 21-30 years old (50.41%). Ninety-seven (97) people have bachelor's degree (80.17%). Majority of the respondents are without titles (50) or 41.32%.

#### Current Situation

Based on the descriptive mean and standard deviation analysis, the current teaching competency situation can be explained from the highest mean and standard deviation. The results were on the scale of agree or strongly agree on the current situation as follows:

**Table 15***Summary of Highest Means Per Variable*

<b>Critical thinking skills</b>	N	Mean	Std. Deviation
Q.2 I am tolerant towards different opinions to avoid the possibility of personal prejudice.	121	5.27	0.764
<b>Problem solving skills</b>	N	Mean	Std. Deviation
Q.1 I can solve problems properly.	121	5.07	0.709
<b>Communication skills</b>	N	Mean	Std. Deviation
Q.2 I can listen carefully, patiently, and encouragingly to the messages conveyed by students, and at the same time, try to grasp the exact meaning of these messages.	121	5.24	0.671
<b>Teamwork skills</b>	N	Mean	Std. Deviation

Q.5 I can express the positive expectations of others by positive questions and opinions.	121	5.23	0.716
<b>Information management skills</b>	N	Mean	Std. Deviation
Q.4 I can use information technology in teaching.	121	5.21	0.733

Table 15 shows that the variables of critical thinking skills, problem-solving skills, communication skills, teamwork skills, and information management skills are the highest average of each variable.

### Conclusions Based on the Summary of Hypothesis Testing

**Table 16**

*Hypotheses Testing Results*

	Hypothesis	P-value	Results	Stand Estimate	Strength of Influence
H1	Critical thinking skills have a significant influence on the teaching competency of lectures.	0.060	H1 is not supported	0.1862	
<b>H2</b>	<b>Problem-solving skills have a significant influence on the teaching competency of lectures.</b>	<b>0.005</b>	<b>H2 is supported</b>	<b>0.3139</b>	<b>1<sup>st</sup> rank</b>
<b>H3</b>	<b>Communication skills have a significant influence on the teaching competency of lectures.</b>	<b>0.020</b>	<b>H3 is supported</b>	<b>0.2862</b>	<b>2<sup>nd</sup> rank</b>
H4	Teamwork skills have a significant influence on the teaching competency of lecturers.	0.445	H4 is not supported	0.0808	
H5	Information management skills have a significant influence on the teaching competency of lecturers.	0.381	H5 is not supported	0.0709	

Table 16 shows that the values of H2 and H3 are < 0.05, therefore the p-value is significant. H2 has the greatest influence, followed by H3. H1, H4, and H5 p-values are all > 0.05, therefore, they are not significant.

Based on the study results, the following strategies are designed and recommended to improve the teaching competencies of art teachers.

**Table 17**

*Strategies to Improve Teaching Competencies*

Factors influencing Teaching competency of Art Teachers	Highest Mean Question	Strategy for consideration to improve teaching competency	Persons Responsible for Implementation
Problem-Solving skills	I can solve problems properly. (mean=5.07)	1. Strengthen teachers' personal reflective awareness and systematic theoretical learning. 2. Establish a "mentoring pair" model in the organization.	Individuals and organizations (team)

Communication Skills	I can listen carefully, patiently, and encouragingly to the messages conveyed by students and, at the same time, try to grasp the exact meaning of these messages. (mean=5.24)	1. Change teachers' ideas and actively communicate with students on an equal footing. 2. Establish a guaranteed mechanism for teacher development in communication skills.	Individuals and organizations (team)
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Based on Table 17, to improve teachers' skills in solving problems, first, teachers should practice self-reflection. (Cory M et al. 2013) A successful and responsible teacher looks for problems that affect his teaching. He uses these problems as the object of analysis and reflection, investigate the causes of the problems, analyze various methods to solve the problems, and apply them in the process. Therefore, cultivating correct reflective consciousness and habit can improve teachers' problem-solving skills. Second, strengthen systematic theory study; theory is the action guide. Every teacher should constantly learn modern education teaching theory, new curriculum, new ideas, and constantly improve their skill and ability. A competent teacher must keep pace with the times. Third, constantly update the concept of education so that teachers have enough theoretical knowledge to solve the problems encountered in practical teaching and even find various ways to solve the problem (Poghosyan et al., 2022). Finally, it is recommended to set up a "master-apprentice pairing" model in the organization so that experienced teachers can lead young new teachers to help them improve their problem-solving skills in actual teaching.

To improve teachers' communication ability, first, teachers should change their ideas and take the initiative to communicate with students on an equal basis. Teachers must overcome their sense of superiority and dignity, renew their educational concepts, and satisfy students' needs of respect and self-realization. Teachers' professionalism and professional ethics based on teachers' awareness of equality, respect for students' status, and promotion of students' awareness of development are crucial factors for teachers to improve their communication skills. Finally, teacher development and training should be established in the organization. In order to rapidly improve the communication skills of teachers, schools must vigorously carry out theoretical learning and behavioral training as well as establish and improve working in teams. The new mechanism of professional development is to promote the development of teachers' communication ability.

**Recommendations for Further Research**

Due to the impact of COVID-19, this research has many limitations in terms of time, human resources, and material resources. Therefore, the sample scope of the research and investigation needs to be expanded. In the process of collecting samples, due to external factors, this study mainly adopted the convenience sampling method wherein the respondents were mainly concentrated in the elementary school art teachers in Area X. Therefore, in future research, the sample range should be expanded to other art schools in other areas in China. Future research can also incorporate objective performance indicators and other methods for further evaluation of the teaching ability of elementary school teachers. Combining self-evaluation and qualitative research using interviews and field observation is also possible.

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