

The Teacher's Competency Development Model of Fine Arts in Universities Under Liaoning Province

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Abstract

The objectives of this research were: (1) To study the components and variables of teacher's competency model development of fine arts in universities under Liaoning province. (2) To propose the guideline for improving teacher's competency development of fine arts in universities under Liaoning province.

The research was a mixed methodology research. Population was fine arts teachers in universities under Liaoning Province, totaling 640 people, sample size 242. The sample size was determined by Krejcie and Morgan's Table (1970 : 607-610) was obtained by stratified random sampling method, sample size was 242. The instruments used for data collection were semi-structured interview form, five-point rating scale questionnaires and focus group discussion form. The response rate of questionnaires was 100%. Statistics used for data analysis included frequency, percentage, mean, standard deviation, exploratory factor analysis, and content analysis.

The research findings were revealed that (1) teacher's competency development model of fine arts in universities under Liaoning province consisted of 7 components as follow, ego trait contains 15 variables, motivation contains 18 variables, self-concept contained 12 variables, emotional Competencies contains 18 variables, basic competency contains 15 variables, teaching competence contains 21 variables, and professional competence contains 15 variables; and (2) the guideline for improving teacher's competency development model of fine arts in universities under Liaoning province. There were 27 guiding principles for improving teacher's competency development model of fine arts in universities under Liaoning province.

Keywords: Competency Model, Teacher Competency, Fine Arts Teachers, Universities under Liaoning Province

Introduction

In 1973, American psychologist and Harvard University professor McClelland put forward the concept in the article "Testing for competence rather than for intelligence". After the competency theory was put forward, it attracted wide attention in the academic circle, but no consensus was reached on the connotation of competency. American scholars Mr. And Mrs. Spencer proposed, Competency includes motives, traits, self-concept characteristics, knowledge, and skills, and self-concept is divided into attitudes, values, and self-image (Spencerl.M & Spencers.M, 2003).

In 1967, in order to reform the teaching content of American teachers at that time, the Research Bureau of the Federal Education Administration of the United States began to vigorously advocate "competency-based teacher education", which became a major feature of American education at that time, and teacher competency evaluation has also become the main method and means of teacher evaluation (Liu & Li, 2010).

With the implementation of China's reform and opening up policy and the influx of some excellent foreign cultures, China's higher art education system has also been continuously developed and improved.

At present, scholars at home and abroad have basically the same understanding of teacher competence. For example, Donald M. Medley (1980) believes that teacher competence includes three contents: professional knowledge, professional skills or abilities, and professional attitudes or values, among which professional skills can be divided into three categories: perceptual or information gathering skills, decision-making skills, and execution or implementation skills. The focus of the disagreement is on the content of attitude or values. Some scholars believe that personality traits should belong to competency characteristics, while some scholars believe that personal values, that is, personal morality and professional ethics, represent competency. According to the research of David McClland (1973), the structure of teacher competence can be divided into two main contents: benchmark competence and discriminative competence. Benchmark competence includes professional knowledge and professional skills, which is the requirement of the basic quality of successful candidates and is the explicit part; Discriminative competence includes professional attitude or values, which is the key factor to distinguish the high performance from the average performance, and is the implicit part.

Teacher competency refers to the synthesis of teachers' personality characteristics, knowledge, teaching skills and teaching attitudes needed in different teaching backgrounds. It is a kind of professional knowledge, professional skills and professional attitudes or values that teachers possess and are related to the implementation of successful teaching. Teacher competency, which belongs to the individual characteristics of teachers, is the necessary condition for teachers to engage in successful teaching and the main training goal of teacher education institutions.

In China, the research on teacher competency characteristics has been carried out for more than 30 years. The previous research mainly focused on the model construction of teacher competency characteristics, especially the model of teacher general competency from a static perspective. With the reform and development of teacher education in China, especially in the new curriculum reform of basic education today, the requirements for teacher professional development are getting higher and higher. How to cultivate excellent teacher competency and develop new teacher competency assessment techniques have become an important research topic of teacher professional development, which will attract more and more researchers' attention (Ye, Zhao, & Miao, 2010).

Therefore, it is of great theoretical and practical significance to study teacher's competency development model of fine arts in universities under Liaoning province from the perspective of personnel training and education management. Its theoretical significance is as follows: first, the competency of fine arts teachers is the key to improve fine arts education activities, and the scientific and reasonable competency of fine arts teachers is an effective guarantee to ensure the continuous improvement of fine arts education; Secondly, the research on the influencing factors of fine arts teachers' competency plays a positive role in improving

fine arts teachers' competency. The third is the research on teacher's competency development model of fine arts in universities under Liaoning province, which is conducive to innovating the concept and theory of fine arts education management, deepening the cognition and practical support of the theory of fine arts education and management in colleges and universities in Liaoning Province, and promoting the scientific management of fine arts education. Its practical significance: To study teachers' competency and provide management theory and practice basis for fine arts education in colleges and universities of Liaoning Province, so as to improve the competency of fine arts teachers and cultivate high-quality fine arts talents.

Fine arts teachers are the practitioners who work in the front line of teaching and play a very important role in the smooth progress of the course. How to choose the right fine arts teacher and improve the competency of the fine arts teacher is of great significance to the selection, appointment and development of the fine arts teacher. It is of great significance to guide the development of fine arts teachers with the theory of competence to solve the shortcomings of recruitment, training, evaluation and self-development of art teachers. It can be said that the competency research of fine arts teachers is the inherent requirement of the development of fine arts teachers in universities.

Research Questions

1. What are the components of teacher's competency development model of fine arts in universities under Liaoning province?
2. What is the guideline to improving teacher's competency development model of fine arts in universities under Liaoning province?

Research Objectives

1. To study the components and indicators of teacher's competency development model of fine arts in universities under Liaoning province.
2. To propose the guideline for improving teacher's competency development of fine arts in universities under Liaoning province.

Research Methodology

1. Population and Sample and key informants

Step 1: Content analysis and In-depth interview to explore the variables of teacher's competency development model of fine arts in universities under Liaoning province.

7 key informants: In-depth interviews

Key informants were composed of 7 key informants, including 2 deans of Fine Arts College in Universities under Liaoning Province (with associate professor titles or above, with more than 5 years of management experience), 2 head of the department of fine Arts (with more than 5 years of art teaching and management experience), and 3 art teachers (with more than 3 years of art teaching experience). The selecting by purposive sampling.

Step 2: Questionnaire survey to study the components of teacher's competency development model of fine arts in universities under Liaoning province.

The scope of the questionnaire survey is mainly for art teachers in 18 universities under Liaoning province. Among them, 153 professors, 193 associate professors, and 294 lecturers are distributed in 18 universities, with a total of 640 people.

Sample size was determined by the table of Krejcie and Morgan (1970:07-610). A stratified sampling method was used to 242 fine arts teachers in universities.

Step 3: Focus group discussion to propose the guideline for improving teacher's competency development of fine arts in universities under Liaoning province.

7 key informants: Focus group discussion

The main information providers of the focus group discussion were from 7 fine arts teaching experts, including 2 professors with more than 15 years of art teaching experience, 3 fine arts teachers with more than 10 years of fine arts teaching experience, and 2 administrators of fine arts in universities.

Scope of time Semester Academic years 2023.

2. Research instruments

Three research instruments were used to three research tools to examine the objectives of this paper.(1) In-depth interview, (2) A five-point rating scale questionnaire (3) Focus Group discussion form.

2.1 In-depth interview form

Through the In-depth interview table, mainly by discovering the main factors, the In-depth interview is preliminarily completed. The interview was mainly conducted in a non-face-to-face way. A total of 7 key informants were sent by mail and online.

2.2 Five-Point Rating Scale Questionnaire. The researchers used a three-part questionnaire; Part I: Demographic variables (Checklist), General information of the respondents, totaling 5 items, Part II: Variables teacher's competency development model of fine arts in universities under Liaoning province. (Five-point rating scale), totaling 114 items, and Part III: Suggestions and additional comments (Open Ended). Each factor is measured on a 5-point Likert's scale.

2.3 Focus Group discussion form 7 key informants to develop the to put forward the guiding ideology of teacher's competency development model of fine arts in universities under Liaoning province. Key informants are different, not the same person, but they may have the same qualification.

3. Data collection

(1) Researchers contacted key informants and sent interview questionnaires by email, telephone. (2) This part of the questionnaire can be distributed on site or collected through online links. 242 questionnaires need to be completed in about 2 weeks. The sample has been directly informed of content scope and research objectives, and received a formal permission letter from the university to the teachers, allowing to conduct and collect data from faculty in accordance with a letter of approval issued by the relevant authority. And (3) Focus Group Discussion can be conducted, with researchers leading participants and open-ended discussions. the researcher acts as a facilitator.

4. Data analysis

(1) Conduct content analysis on the results of review literature and in-dept interview. Data for demographic variables were analyzed using descriptive statistical methods; frequencies and percentages. (2) Variables and components of of teacher's competency development model of fine arts in universities under Liaoning province were analyzed using descriptive statistics; mean, standard deviation (S.D.), exploratory Factor Analysis (EFA). To

conduct content analysis on the results of Focus Group Discussion to obtain the results of objective 2.

Research Framework

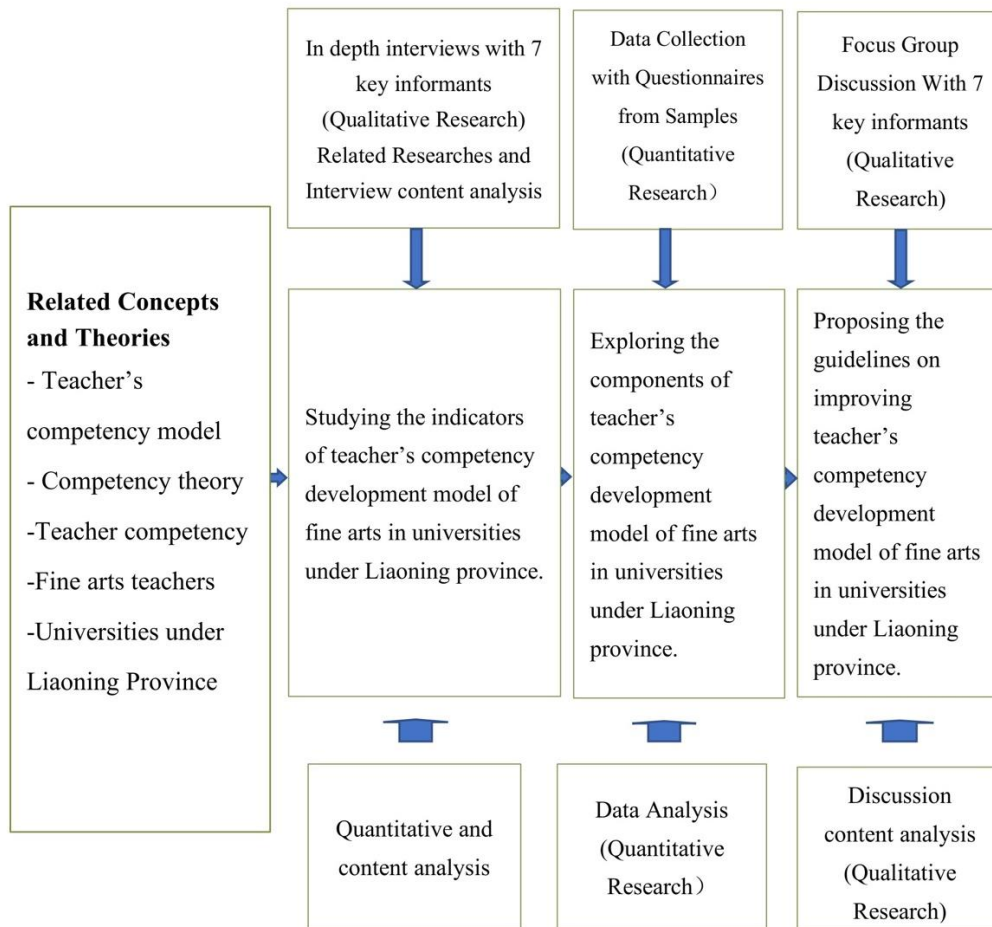


Figure 1 Research Framework

Research Result

Findings of the questionnaire can get research objectives 1, that is the components and indicators of teacher's competency development model of fine arts in universities under Liaoning province.

1. Demographic information

In this study, a total of 242 questionnaires were distributed to teachers and 242 questionnaires were returned, with a recovery rate of 100%. Among them, 242 questionnaires were valid, with a validity rate of 100%. The distribution and recovery of the questionnaires are as follows: in terms of Gender distribution, most samples are "Male", accounting for 51.7%. And from the Age distribution, most samples are "22~34", with a proportion of 39.3%. The Professional Title distribution, most samples are "Lecturer", with a proportion of 45.9%. The Education Background distribution, most samples are "Postgraduate", with a proportion of 71.1%. The Teaching (Experience) Years distribution, most samples are "5~10 Years", with a proportion of 32.6%.

(1) KMO-Meyer-Olkin and Bartlett's Table

Table 1 KMO and Bartlett tests of questionnaires

KMO and Bartlett test		
KMO		0.930
Bartlett test	Approx. Chi-Square χ^2	26123.073
	<i>df</i>	6441
	<i>p</i> value	0.000

(2) Data Analysis Result on Questionnaire: Eigenvalues, Percentage of Variance, Percentage of Cumulative Variance.

2. Scale variable validity analysis

Table 2 Shows Data Analysis Result on Questionnaire: Eigenvalues, Percentage of Variance, Percentage of Cumulative Variance

Component	Initial Eigenvalues			Extraction Rotation Sums of Squared Loading			Rotation Sums of Squared Loading		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	36.688	32.182	32.182	36.688	32.182	32.182	13.922	12.212	12.212
2	9.769	8.569	40.751	9.769	8.569	40.751	12.597	11.050	23.262
3	7.881	6.913	47.664	7.881	6.913	47.664	12.177	10.682	33.944
4	7.423	6.512	54.176	7.423	6.512	54.176	11.299	9.912	43.856
5	6.538	5.735	59.911	6.538	5.735	59.911	11.000	9.649	53.505
6	5.069	4.446	64.357	5.069	4.446	64.357	8.004	7.021	60.526

Component	Initial Eigenvalues			Extraction Rotation Sums of Squared Loading			Rotation Sums of Squared Loading		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
7	3.277	2.875	67.232	3.277	2.875	67.232	7.645	6.706	67.232
8	0.965	0.847	68.079						
9	0.945	0.829	68.908						
10	0.888	0.779	69.687						

The above table analyses the situation of factor extraction and the information amount of factor extraction. It can be seen from the above table: A total of 6 factors were extracted from factor analysis, and the variance interpretation rates of these 7 factors after rotation were 32.182%, 40.751%, 47.664%, 54.176%, 59.911%, 64.357%, 67.232%, respectively. The interpretation rate of cumulative variance before rotation is 67.232%.

Table 3 The components of teacher's competency development model of fine arts in universities under Liaoning province

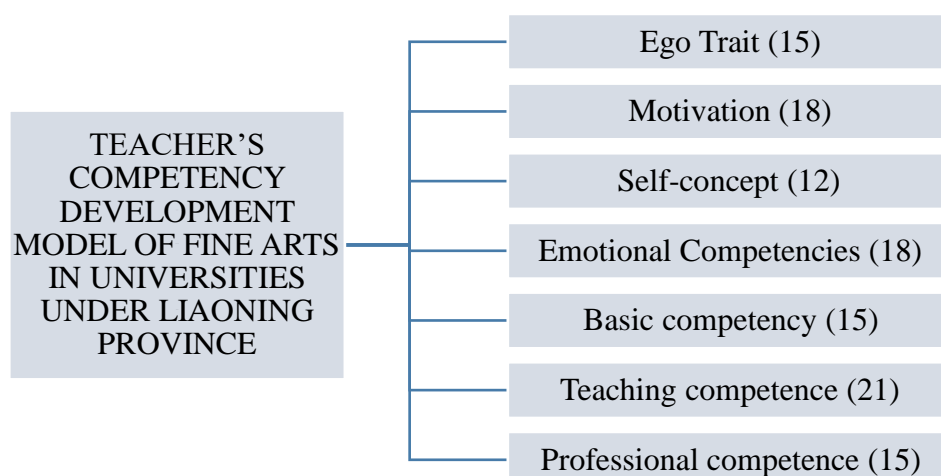
Order	Assembly	Number of variables	Factor loading
1	Component1	15	0.767-0.826
2	Component2	18	0.698-0.808
3	Component3	12	0.705-0.784
4	Component4	18	0.708-0.790
5	Component5	15	0.731-0.823
6	Component6	21	0.711-0.800
7	Component7	15	0.561-0.721
	All	114	

The questionnaire data were subjected to exploratory factor analysis through SPSS, The data in this study were rotated using the maximum variance rotation method (varimax) in order to find out the corresponding relationship between factors and study items. Using principal component analysis to classify the 114 question items into seven principal components, which were named as Ego Trait, Motivation, Self-concept, Emotional competence, Basic competency, Teaching competence and Professional competence.

Based on the Exploratory Factor Analysis to extract variables to key component variables by Analyze the most likely conditions. The researcher summarized the 7 components.

Exploratory factor analysis was used for management. It can be summarized as follows:

Figure 2 The components of teacher's competency development model of fine arts in universities under Liaoning province



From Figure 2 explained that the competency model development of fine arts teachers in universities under Liaoning. Consisted of 7 components:

Component 1 Ego trait consisted of 15 variables, Component 2 Motivation consisted of 18 variables, Component 3 Self-concept consisted of 12 variables, Component 4 Emotional Competencies consisted of 18 variables, Component 5 Basic competency consisted of 15 variables, Component 6 Teaching competence consisted of 21 variables, Component 7 Professional competence consisted of 15 variables.

Focus Group Conduct and Results

Focus group conduct and results can get research objectives 2, that is the guideline for improving teacher's competency development of fine arts in universities under Liaoning province.

Focus groups made recommendations on issues related to teacher's competency development model of fine arts in universities under Liaoning province, and the recommendations of the five for experts focused on the following aspects:

(1) In terms of character, temperament, etc., with attractive power, proactive, patient, responsible, reliable.

(2) Have unique psychological characteristics, have the ability to go deep into things or problems.

(3) Be willing to participate in group activities, and be able to show adaptability and consideration for others in different environments.

(4) Be able to obey the arrangement in the organization, conscientiously implement, and develop good working habits.

- (5) Learning throughout life.
- (6) Strive to do the best in the work and satisfy their own desires.
 - (7) Be recognized in society.
 - (8) Take the initiative to establish or maintain friendly relationships.
 - (9) Have a feasible plan for the future and can identify opportunities.
 - (10) Have a clear understanding of themselves and understand their own judgments or choices.
- (11) Do not care about the negative evaluation of the outside world, can be adjusted in a reasonable way.
- (12) Accept cultural differences and achieve cultural adaptation.
- (13) There are principles and ethics in the work.
- (14) Adopt appropriate expression and communication methods.
- (15) Regulate emotions independently, with the ability to understand, motivate, encourage and influence others.
- (16) Use novel ways of thinking to propose new ideas and solutions.
- (17) Identify and select resources from different sources, different levels, different structures and different contents, and investigate them from multiple perspectives using various forms of thinking.
- (18) Take the initiative to pay attention to the new developments in the field of subject teaching, actively learn the achievements, experiences and lessons of others' teaching and management, and promote the update of their own knowledge and ability.
- (19) Be able to lead, be responsible, provide advice and guidance, effectively manage students, manage classes, and provide students with clear direction and ability, enthusiasm and motivation.
- (20) Be able to study the relevant content of the field in academic research.
- (21) Implement teaching content according to teaching objectives and provide norms for classroom teaching in a specific teaching environment.
- (22) Understand and master the latest teaching design methods, and design their own classrooms according to this method, use specific standards and indicators to evaluate students' behaviors and achievements, and use the evaluation results to provide positive guidance to students.
- (23) Guide students' emotions and learning enthusiasm, integrate moral education into teaching, pay attention to the penetration of moral education into disciplines, and comprehensively train people
- (24) To arrange the knowledge, skills and behavioral experiences of students according to the educational administration or school plan for teaching purposes, and to be able to integrate and apply knowledge and skills from different disciplines.
- (25) Master the cognitive laws of students and the basic principles and methods of educational psychology, with psychological guidance ability.
- (26) In teaching, you will be able to demonstrate the work and guide the students to complete the work.
- (27) Be able to integrate and apply knowledge and skills from different disciplines.

Discussion

1. Major Findings of Objective 1

There were seven components of teacher's competency development model of fine arts in universities under Liaoning province which consisted of ego trait, motivation, self-concept, emotional competencies, basic competency, teaching competence, and professional competence.

In terms of ego trait, this research finding was in accordance with the theories of Gordon Willard Allport (1931) and Raymond Bernard Cattell (1966). Also, the findings were in the same direction with Wu Min(2022), Li Hong (2021), and He Qizong (2015). In terms of motivation, this research finding was in accordance with the theories of Maslow, A. H. (1943). Also, the findings were in the same direction with Tang Ling(2017), and Burgoyne (1993). In terms of self-concept, this research finding was in accordance with the theories of P. Lecky and C. Rogers. In terms of emotional competencies, this research finding was in accordance with the theories of William James (1884 : 1-26) . In terms of basic competency, this research finding was in accordance with the research of CaoZHifeng (2018) which was found that teacher competence includes four dimensions, one of which is basic competence. In terms of teaching competence, this research finding was in accordance with the research of Lu Hui(2013). Also, the findings were in the same direction with T Bariu, Etc (2022) and Kiymet SELVI (2010). In terms of professional competence, this research finding was in accordance with the research of Ahmad Karim etc.(2021) and Martina Blašková etc. (2014).

2. Major Findings of Objective 2

The major findings were the guideline for improving teacher's competency development model of fine arts in universities under Liaoning province. There are 27 guiding principles for to improve teacher's competency development model of fine arts in universities under Liaoning province, including 4 guiding principles for ego trait component, 5 guidelines for motivation component, 4 guidelines for self-concept component, 3 guidelines for emotional competencies component, 4 guidelines for basic competency component, 3 guidelines for teaching competence component, and 4 guidelines for professional competence component.

In Component 1, it is mainly formulated for the needs of personality traits, in line with trait theory. The most important in component 1 is in terms of character, temperament, etc., with attractive power, proactive, patient, responsible, reliable. In Component 2, it is mainly formulated for behavioral motivation, which is consistent with motivation theory. The most important in component 2 is learning throughout life and striving to do the best in the work and satisfy their own desires. In Component 3, it is mainly formulated for self-knowledge, which is consistent with self-concept. The most important in component 3 is having a clear understanding of themselves and understand their own judgments or choices, doing not care about the negative evaluation of the outside world, can be adjusted in a reasonable way. In Component 4, it is mainly formulated for the emotional aspects of art teachers, which is consistent with Daniel Goleman's emotional intelligence theory. The most important in component 4 is adopting appropriate expression and communication methods, regulating emotions independently, with the ability to understand, motivate, encourage and influence others. In Component 5, it is mainly formulated for the individual level, which is consistent with Salomon's (1926) theory. The most important in component 5 is identifying and selecting resources from different sources, different levels, different structures and different contents, and investigating them from multiple perspectives using various forms of thinking; Taking the initiative to pay attention to the new developments in the field of subject teaching, actively

learn the achievements, experiences and lessons of others' teaching and management, and promote the update of their own knowledge and ability. In Component 6, it is mainly formulated for the teaching level. The most important in component 6 is implement teaching content according to teaching objectives and provide norms for classroom teaching in a specific teaching environment. In Component 7, it is mainly formulated for Profession. The most important in component 7 is arranging the knowledge, skills and behavioral experiences of students according to the educational administration or school plan for teaching purposes, and being able to integrate and apply knowledge and skills from different disciplines; Master the cognitive laws of students and the basic principles and methods of educational psychology, with psychological guidance ability.

Conclusion

The research procedures consisted of three steps. Step (1) Studying variables of teacher's competency development model of fine arts in universities under Liaoning province; Step (2) Exploring the components of teacher's competency development model of fine arts in universities under Liaoning province; and Step (3) Developing the guidelines on improving teacher's competency development model of fine arts in universities under Liaoning province.

From the research objectives, the main findings are as follows:

1. Teacher's competency development model of fine arts in universities under Liaoning province consisted of 7 components
2. The 27 guidelines for improving teacher's competency development model of fine arts in universities under Liaoning province.

Recommendations

1. Recommendation for Policies Formulation

(1) The government should guide the fine arts teachers to think about the significance of the discipline, help the fine arts teachers to be confident in education, recommend the discipline confidence to strengthen the fine arts teachers' confidence in teaching, and jointly promote the improvement of the fine arts teachers' social communication ability and leadership.

(2) The society should enhance the professional reputation of fine arts teachers, rebuild the sense of professional identity and honor, and the high recognition of the teacher profession is the starting point to enhance the drive.

(3) Colleges and universities should establish a talent training system that meets the needs of fine arts education teachers, the teaching post needs of fine arts teachers in colleges and universities, and the professional certification goals of fine arts teachers.

(4) Fine arts teachers should exert their subjective initiative, expand their knowledge and broaden their educational horizon. Self-development is the characteristic of a good teacher.

2. Recommendation for Practical Application

(1) In terms of character, temperament, etc., with attractive power, proactive, patient, responsible, reliable. Have unique psychological characteristics, have the ability to go deep into things or problems. Be willing to participate in group activities, and be able to show adaptability and consideration for others in different environments. Be able to obey the arrangement in the organization, conscientiously implement, and develop good working habits.

(2) Learning throughout life. Strive to do the best in the work and satisfy their own desires. Be recognized in society. Take the initiative to establish or maintain friendly relationships. Have a feasible plan for the future and can identify opportunities.

(3) Have a clear understanding of themselves and understand their own judgments or choices. Do not care about the negative evaluation of the outside world, can be adjusted in a reasonable way. Accept cultural differences and achieve cultural adaptation. There are principles and ethics in the work.

(4) Adopt appropriate expression and communication methods. Regulate emotions independently, with the ability to understand, motivate, encourage and influence others. Use novel ways of thinking to propose new ideas and solutions.

(5) Identify and select resources from different sources, different levels, different structures and different contents, and investigate them from multiple perspectives using various forms of thinking. Take the initiative to pay attention to the new developments in the field of subject teaching, actively learn the achievements, experiences and lessons of others' teaching and management, and promote the update of their own knowledge and ability. Be able to lead, be responsible, provide advice and guidance, effectively manage students, manage classes, and provide students with clear direction and ability, enthusiasm and motivation. You will be able to study the relevant content of the field in academic research.

(6) Implement teaching content according to teaching objectives and provide norms for classroom teaching in a specific teaching environment. Understand and master the latest teaching design methods, and design their own classrooms according to this method, use specific standards and indicators to evaluate students' behaviors and achievements, and use the evaluation results to provide positive guidance to students. Guide students' emotions and learning enthusiasm, integrate moral education into teaching, pay attention to the penetration of moral education into disciplines, and comprehensively train people.

(7) To arrange the knowledge, skills and behavioral experiences of students according to the educational administration or school plan for teaching purposes, and to be able to integrate and apply knowledge and skills from different disciplines. You master the cognitive laws of students and the basic principles and methods of educational psychology, with psychological guidance ability. In teaching, you will be able to demonstrate the work and guide the students to complete the work. Be able to integrate and apply knowledge and skills from different disciplines.

3. Recommendation for Further Research

This research findings were the guideline for improving teacher's competency development model of fine arts in universities under Liaoning province. While this research provides valuable insights, there are several avenues that could be further investigated to deepen our understanding and implementation of this competency model development. This recommendation Outlines key areas for future research based on the findings of this research.

(1) Construction and analysis of competency assessment model for fine arts teachers in universities

(2) A practical research on the development of fine arts teachers training courses based on competency

(3) Construction of interdisciplinary teaching competence model for fine arts teachers in universities

(4) The competency model construction of college art teachers for smart classroom

(5) The competency of college art teachers from the perspective of digital empowerment

(6) Research on competency evaluation system and optimization path of art teachers in colleges and universities

In conclusion, while this study has laid a solid foundation, there are several promising avenues for further research. By delving into areas such as teacher competency assessment, competency evaluation models, teacher competency training courses, interdisciplinary teaching capabilities, digital teacher competency, and teacher competency evaluation systems, researchers can deepen their understanding of the model's potential and improve its implementation to achieve greater success.

References

- David, M. (1973). Testing for competence rather than for intelligence. *American psychologist*. 28 (1), 1-14.
- James, W. (1884). On some omissions of introspective psychology. *Mind*. 9 (33), 1-26.
- Krejcie, R. V., & Morgan, D. W. (1970). Determining sample size for research activities. *Educational and psychological measurement*. 30 (3), 607-610.
- Liu, Y., & Li, X. (2010, 3). Construction of the evaluation index system of competence of teachers in Chinese colleges and universities. *Journal of Educational Science, Hunan Normal University*, 89-94.
- Medley, D. M., & Crook, P. R. (1980). Research in teacher competency and teaching tasks. *Theory into practice*. 19 (4), 294-301.
- Spencer L. M., & Spencer M. (2003). *Talent Evaluation Method: Building Superior Performance models [M]*. Wei Meijin, trans. Shantou: Shantou University Press.
- Ye, H., Zhao, S., & Miao, Y. (2010, 4 15). Cultivate Teachers' Competence and Promote Teachers' Professional Development. Jiangxi Education, p. 5. *online*. Retrieved 06 2023, from Cultivate teachers' competence and promote teachers' professional development: <https://wenku.baidu.com/view/4bbcd80248fe04a1b0717fd5360cba1aa9118c8e.html>