

# Educational Human Resource Allocation Model For Art Major In Private Universities Under Liaoning Province

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## Abstract

**Background:** Optimize resource allocation in Liaoning's private universities for art education, enhance educational quality, boost cultural industry prosperity, strengthen cultural soft power, and promote sustainable development of art education.

**Aims:** (1) to determine the components and indicators of educational human resource allocation of art major in private universities under Liaoning Province; (2) to develop the model of educational human resource allocation of art major in private universities under Liaoning Province; and (3) to put forward the guidelines for improving educational human resource allocation of art major in private universities under Liaoning Province.

**Methodology:** (1) to determine the components and indicators of educational human resource allocation of art major in private universities under Liaoning Province; (2) to develop the model of educational human resource allocation of art major in private universities under Liaoning Province; and (3) to put forward the guidelines for improving educational human resource allocation of art major in private universities under Liaoning Province.

**Results:** (1) There were five components and 20 key variables of the human resource model of art major in private universities under Liaoning Province, which consisted of Teacher Recruitment, Teacher Training, Performance Management, Compensation System, and Career Development Planning; (2) Model validation of five components were founded and model fit with empirical data for all indicators; and (3) There were 8 guidelines of educational human resource allocation of art major in private universities under Liaoning Province.

**Conclusion:** The study identified 5 components and 59 indicators of human resource allocation in art education at private universities in Liaoning through literature review and semi-structured interviews with key informants. A quantitative questionnaire revealed a valid and reliable model for human resource allocation in art education, encompassing 5 components with 20 indicators, including teacher recruitment, training, performance management, compensation, and career development. Based on findings, "Guidelines for improving Human Resource Allocation of Art Majors in Private Colleges and Universities in Liaoning Province" were compiled, outlining 8 principles for effective resource allocation, focusing on career development, compensation, performance management, and teacher recruitment and training.

**Keywords:** Educational Human Resource Allocation Model; Art Major; Private Universities under Liaoning Province.

## Introduction

China's economy is transitioning to high-quality development, emphasizing the transformation of development patterns and economic structures. This shift relies on strengthening education, science, technology, and talent cultivation. Higher education, particularly in Liaoning Province, is crucial for this transition, with a growing demand for art education. However, private universities face resource allocation challenges, including disparities in faculty strength, teaching facilities, and funding, affecting art education quality.

As of 2023, private universities in China account for about a quarter of higher education institutions. In Liaoning, these universities are key to meeting the rising demand for art education, but the imbalance in resource allocation is becoming more evident. Research on this issue is vital to optimize resource allocation, improve art education quality, and promote the cultural industry's prosperity.

This research aims to understand the faculty strength, teaching facilities, and funding in private universities' art programs, revealing current issues. It will provide guidance for optimizing resource allocation and enhancing art education quality. Government support is essential for this research, which will also promote the comprehensive development of art education, enhance Liaoning's cultural soft power, and foster sustainable art education in private universities. (References: Liu weiling, 2021; Liu jing, 2019; Shi Qiuheng, 2006; Chen Yan, 2015; Fang Yaping, 2015; Wu Daguang, 2007; Xuan Yuying, 2009; Fu Zongyin, 1994; Zhang Shijie, 2021; Qing Lianbin, 2004; Cao Shanhua, 1986)

Conclude the research problems

1.2.1 What are the components and indicators of educational human resource allocation of art major in private universities under Liaoning Province?

1.2.2 What is the model of educational human resource allocation of art major in private universities under Liaoning Province?

1.2.3 What are the guidelines of educational human resource allocation of art major in private universities under Liaoning Province?

Therefore: Educational Human Resource Allocation Model For Art Major In Private Universities Under Liaoning Province also explores five dimensions of capability variables, including career development planning, compensation system, performance management, teacher training, and teacher recruitment. Based on the analysis results of the human resource allocation model for art education in private colleges and universities in Liaoning Province, the author has created an educational human resource allocation model through the analysis results.

## Research Objectives

1. To determine the components and indicators of educational human resource allocation of art major in private universities under Liaoning Province.

2. To develop the model of educational human resource allocation of art major in private universities under Liaoning Province.

3. To put forward the guidelines for improving the educational human resource allocation of art major in private universities under Liaoning Province.

## Literature Review

This literature review extensively explores the theory and practice of higher education resource allocation. It initiates by reviewing administrative management theory, elucidating the definition, characteristics, and functions of higher education management, as well as the differences in management systems between private and public universities. Subsequently, it meticulously analyzes the theoretical foundation, current issues, allocation plans, and countermeasures of human resource allocation, along with the constituent elements of human resource allocation. Furthermore, it introduces the application of structural equation modeling (SEM) and confirmatory factor analysis (CFA) in the research of higher education resource allocation, as well as the development trends, management models, funding sources, operational levels, and challenges faced by private universities. Domestic research primarily focuses on issues such as resource allocation, optimization strategies, and the development of private higher education, while international research is more concerned with evaluating and optimizing resource allocation efficiency. Through methods such as literature analysis, case analysis, and comparative analysis, this study systematically reviews the current status and problems of higher education resource allocation in China, and proposes corresponding optimization strategies and suggestions. Future research needs to further strengthen the study of higher education resource allocation to explore more fair, efficient, and sustainable resource allocation mechanisms and contribute to the healthy development of China's higher education.

## Research Methodology

This study is structured into three distinct phases:

**Phase 1:** To determine the components administration of educational human resource allocation model for art major in private universities under Liaoning province.

**Phase 2:** To develop the model of educational human resource allocation model for art major in private universities under Liaoning province.

**Phase 3:** To propose the guidelines for improving the educational human resource allocation model for art major in private universities under Liaoning province.

The research methodology for each phase is outlined below:

**1.To determine the components and indicators of educational human resource allocation model for art major in private universities under Liaoning province.**

### 1.1 Research Design

Qualitative research: The researchers studied the concepts, principles, and theories of educational resource allocation and other related literature and related research, and conducted semi-structure interview with key informants.

### 1.2 Key informants

Documentary study and the key informants are made up of 7 key informants, all of whom are from Liaoning Private University, which has art major. Among them, there are 3 deans (professors with more than 15 years of work experience and 8 years of management experience), 3 vice deans (professors with more than 10 years of work experience and more than 5 years of management experience), and 1 administrator of discipline. Key informants were selected by purposive sampling technique.

### 1.3 Instruments

The instrument for collecting data consists of two parts.

First of all, the literature search is carried out in Chinese CNKI, PROQUEST database and Google Academic resource database, the main research content and framework are determined, the data record table is used for classification and recording, and the database and book resources used to sort out and content analysis.

Second, in the interview stage, the researchers adopted the semi-structured interview method.

1) On the basis of theory, researchers set the possible components and indicators of research by analyzing relevant academic literature, relevant educational resource allocation content analysis.

2) Prepare semi-structured interview form, mainly through some variables found in the first step, including educational resource allocation model of art major in private universities under Liaoning province, the documentary completed semi-structured interview form after forming the final content to experts.

### 1.4 Data collection

Data was collected from 7 key informants from selected documents (textbooks, articles, and researchers) and expert interviews.

1) Comprehensively search relevant literature of educational resource allocation.

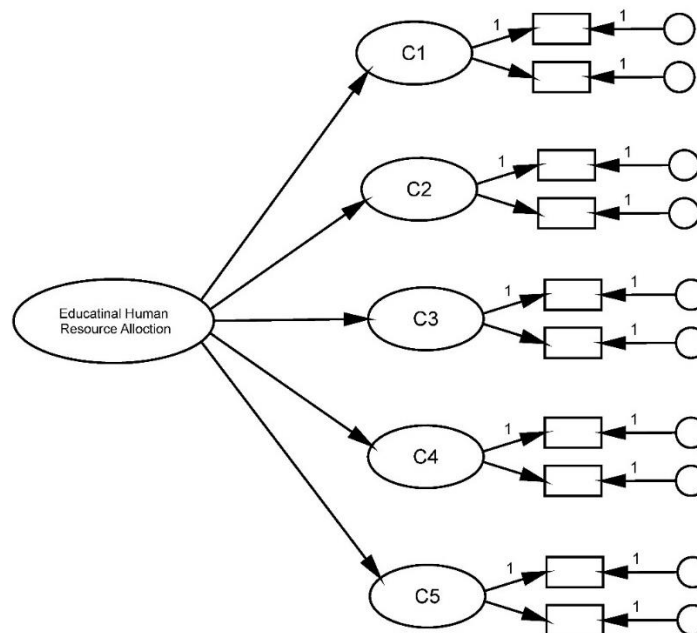
2) Get in touch with key sources and identify yourself and your intentions.

### 1.5 Data analysis

Data from the review literature was content analysis and Semi-Structured Interview of the 7 key informants was analysis by content analysis.

### 1.6 Conceptual Framework

Data from the review literature was content analysis and Semi-Structured Interview of the 7 key informants was analysis by content analysis.



**Figure 1:** The Conceptual Framework

## **2. To develop the model of educational human resource allocation model for art major in private universities under Liaoning province.**

### **2.1 Research Design**

Quantitative research: The researchers applied the educational resource allocation variables derived from step (1) to prepare questionnaires as a instrument to collected data from samples to identify and validate patterns that improve the educational resource allocation development model of art major in private universities under Liaoning Province.

### **2.2 Population and Sample**

1) The population consists of 826 people, who are 708 teachers and 118 administrators, teaching in 14 private universities with art major in Liaoning Province.

2) The sample total of 265. Consists 227 teachers and 38 administrators. Researchers use Krejcie and Morgan table to determine the sample size, and selected by stratified random sampling technique.

### **2.3 Instruments**

The researchers used a three-part questionnaire; Part 1: Demographic variables, general information, which had 5 items. Part 2: Variables on human resource allocation of art major in private universities under Liaoning Province (five-point rating scale), which had 59 items. Part 3: Recommendations and Additional Comments.

At the same time, the researcher asked respondents to fill in the degree of agreement for each topic to improve the efficiency and quality of the human resource allocation development model of art major in private universities under Liaoning Province. Each component is measured on a 5-point Likert's scale. 5 = Strongly Agree, 4 = Agree, 3 = Neutral, 2 = Disagree, and 1 = Strongly Disagree.

### **2.4 Data collection**

(1) The researcher has applied to the Faculty of Education for permission to continue research and to conduct research in accordance with the directed procedures and research plan.

(2) The sample has been directly informed of its content scope and research objectives, and has received a formal permission letter from the university to the administrators, allowing them to conduct and collect data from faculty in accordance with a letter of approval issued by the relevant authority.

(3) To distribute questionnaires online and on-site at the same time. The questionnaire was accompanied by research guidelines, criteria, participation information sheets, and research summaries for each response section.

### **2.5 Data Analysis**

The data of demographic variables were analyzed by descriptive statistics; frequency, and percentage. The variables of educational human resource allocation were analyzed by descriptive statistics; mean, Standard Deviation (S.D.). The components of educational resource allocation were analyzed by CFA. First of all, the researcher must calculate the reliability and validity of the questionnaire. Through the above data, it was proved that the questionnaire used is stable and reliable. After that, research analysis was needed to analyse each topic, and those that can well divide the test population into high and low scores are retained, and other topics that are not very distinguishable was modified or eliminated.

Mean score was between 3.00 and 4.22, indicating a high degree of recognition. Validity refers to the degree to which a scale can accurately measure the variable it was intended to measure. Validity can be roughly divided into the following categories: content validity, which refers to whether the items contained in the scale were comprehensive and whether there were any omissions; face validity, which asked experts to judge whether the scale measures the variables it wants to measure; construct validity, including convergent validity and discriminant validity. The convergent validity refers to the degree of correlation between the measurement items of a variable and the extracted common variables. High; discriminant validity refers to the specificity of the item to the variable measurement. Convergent and discriminant validity can be roughly tested by factor analysis. When using CFA to test validity, the precondition of factor analysis needs to be met first, that is, there is a strong correlation between items, which is reflected in two test indicators: 1. KMO value, 2. Bartlett spherical test value. Among them, the KMO value is used to compare the simple correlation and partial correlation coefficients between items, and the value is between 0 and 1. The criteria for suitability for factor analysis are: greater than 0.90, very suitable; 0.70-0.90 suitable; 0.60-0.70 not suitable; less than 0.60 unsuitable. The Bartlett sphericity test value is used to test whether the correlation coefficient between items is significant. If it is significant (i.e., sig.<0.05), it is suitable for factor analysis. 3. AVE (Average variance extracted) criteria, it measures the level of variance captured by a construct versus the level due to measurement error, values above 0.7 are considered very good, whereas, the level of 0.5 is acceptable. 4. Skewness. As a general rule of thumb: If skewness is less than -1 or greater than 1, the distribution is highly skewed. If skewness is between -1 and -0.5 or between 0.5 and 1, the distribution is moderately skewed. If skewness is between -0.5 and 0.5, the distribution is approximately symmetric. 5. Kurtosis - Most often, kurtosis is measured against the normal distribution. If the kurtosis is close to 0, then a normal distribution is often assumed. These are called mesokurtic distributions. If the kurtosis is less than 0, then the distribution is light tails and is called a platykurtic distribution.

**Table 1:** Index For Evaluating The Result From The Fit Model

Index	Concrete value	Excellent fitting index	Accept
Chi-square	-		
Df	-		
Chi-square/df	-	$\leq 3$	$\leq 5$
P-value	-	$> 0.05$	
GFI	-	$\geq 0.9$	$\geq 0.8$
AGFI	-	$\geq 0.9$	$\geq 0.8$
CFI	-	$\geq 0.9$	$\geq 0.8$
NFI/TLI	-	$\geq 0.9$	$\geq 0.8$

RMSEA	-	$\leq 0.05$	$\leq 0.08$
SRMR	-	$\leq 0.05$	$\leq 0.08$

### **3. To put forward the guidelines for improving the educational human resource allocation model for art major in private universities under Liaoning province.**

#### **3.1 Research Design**

Qualitative research: Using the various components of educational resource allocation in step (2) the researchers propose the guidelines for improving the educational resource allocation of art major in private universities under Liaoning Province. through focus group discussions.

#### **3.2 Key Informants**

7 key informants include deans, vice deans, professors, directors, academic leaders and head department. They come from 7 private universities with art major in Liaoning province. They have more than 20 years of working experience and 10 years of management experience. They are professionals who have educational resource allocation experience or use relevant management experience to carry out their work. They have reasonable experience or some achievement and wide recognition in educational resource allocation. The key informants were selected by purposive sampling method.

#### **3.3 Instruments**

Note taking on the Group Discussion form “the guidelines for developing the educational human resource allocation model for art major in private universities under Liaoning province” .

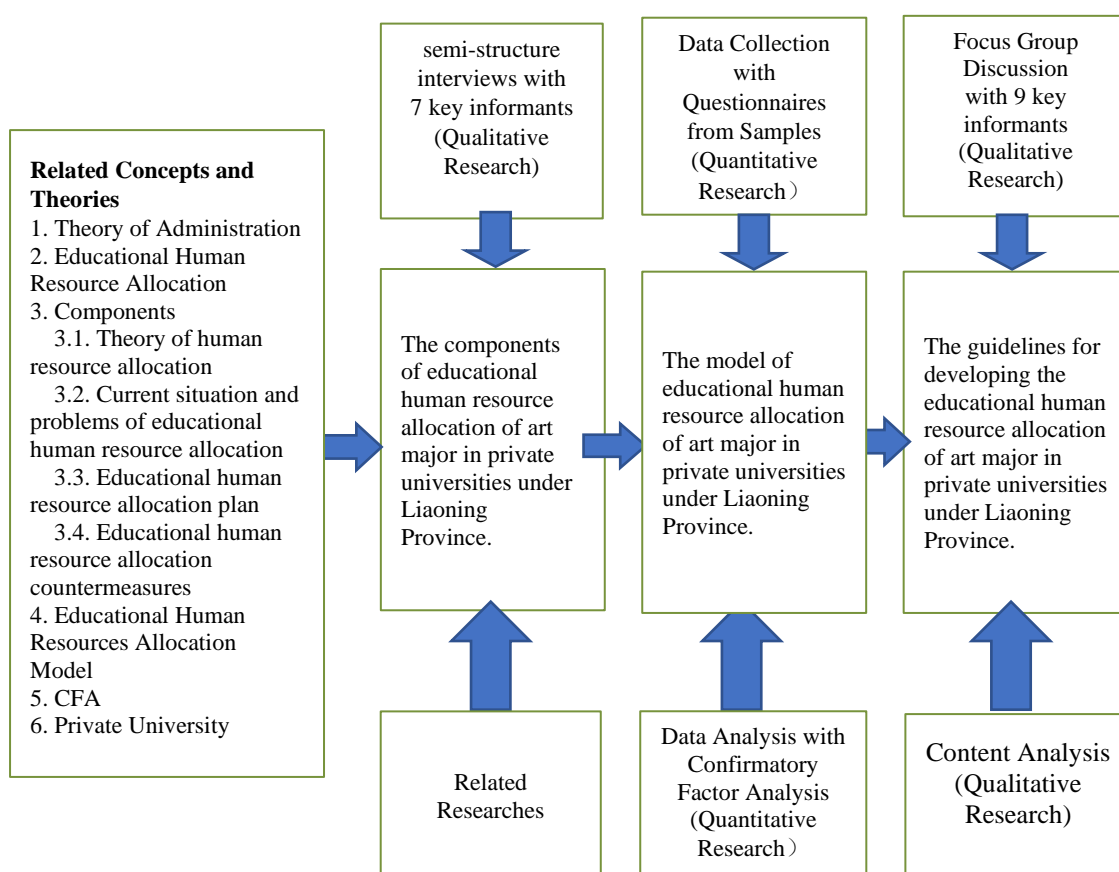
#### **3.4 Data collection**

Through focus group discussions, the researcher acts as a facilitator.

#### **3.5 Data Analysis**

A content analysis of the data from focus group discussions was performed. Based on the principle of freedom, the experts spoke freely in the discussion and explore the guideline for proposing the educational resource allocation of art major in private universities under Liaoning Province. According to the research results of research objective 2: To develop the model of educational human resource allocation of art major in private universities under Liaoning Province.

## Research Conceptual Framework



**Figure 1.** Research Conceptual Framework

## Research Results

### 1. Result of Data Analysis for Research Objective1: Determining the Components and Indicators educational human resource allocation for art major in private universities under Liaoning province

The purpose of this phase of research is to determine the components and indicators of human resource allocation for art education in private universities in Liaoning Province. This phase of research was divided into 4 steps:

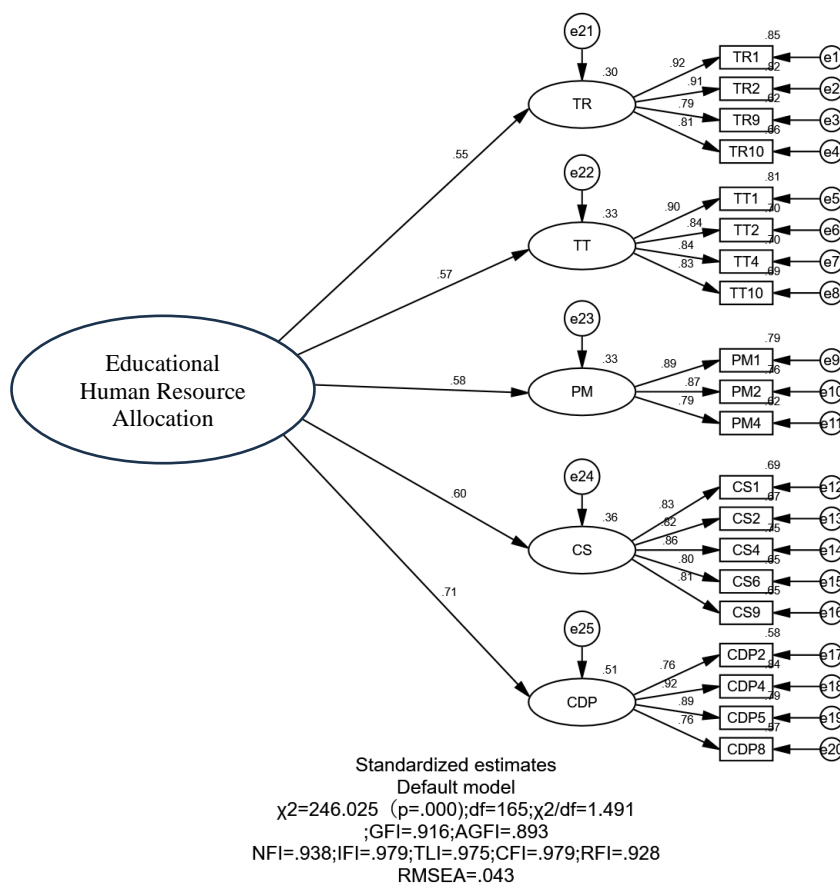
- (1) Identify the components of human resource allocation from 25 relevant papers.
- (2) Semi-structured interviews were conducted with 7 key informants who had extensive administrative experience in art majors in private universities. The results of the literature study were combined with expert opinions to identify the high-frequency components of human resource allocation in art major education in private universities in Liaoning Province.



(3) To identify the indicators of the high-frequency components based on literature review and Semi-Structured Interviews.

## 2. Result of Data Analysis for Research Objective 2: Developing the model of human resource allocation of art major in private universities under Liaoning Province

This section of the research employed a quantitative research methodology and descriptive statistical analysis to propose a human resource allocation model. Through the previous step of the research, the researcher identified 5 components: Teacher Recruitment, Teacher Training, Performance Management, Compensation Systems, and Career Development Planning, along with 46 corresponding indicators, through literature review and semi-structured interviews. Subsequently, a five-level rating questionnaire was developed. The questionnaire consisted of 3 parts: the first part collected basic demographic information from the respondents; the second part included a five-level rating questionnaire with 46 items; and the third part sought additional comments from the respondents. The respondents were 265 administrators and full-time teachers from 14 private universities under Liaoning Province. Respondents were asked to select the option that best represented their views for each description in the questionnaire. The model fit with empirical data for all sub-components. The findings are as follows:



**Figure 2:** The Second-Order CFA Model for educational human resource allocation

**Table 2:** The Statistical Value of educational human resource allocation model

<b>Variate Item</b>	<b>STD. Estimate</b>	<b>R<sup>2</sup></b>	<b>S.E.</b>	<b>C.R.</b>	<b>P</b>
TR (0.546)					
TR1	0.924	0.299			
TR2	0.906		0.043	23.210	***
TR9	0.787		0.052	17.254	***
TR10	0.815		0.048	18.474	***
TT (0.574)					
TT1	0.900	0.329			
TT2	0.838		0.056	18.270	***
TT4	0.836		0.056	18.190	***
TT10	0.831		0.052	17.988	***
PM (0.578)					
PM1	0.890	0.335			
PM2	0.871		0.057	17.289	***
PM4	0.787		0.055	15.298	***
CS (0.596)					
CS1	0.829	0.355			
CS2	0.819		0.067	15.610	***
CS4	0.863		0.066	16.859	***
CS6	0.803		0.070	15.180	***
CS9	0.806		0.068	15.263	***
CDP (0.711)					
CDP2	0.764	0.505			
CDP4	0.919		0.075	15.961	***
CDP5	0.891		0.078	15.510	***
CDP8	0.755		0.066	12.780	***

From Figure/ Table above, shown that both of 5 components and 20 sub-components had predictive power at high level (R2 between 0.299 to 0.505). These ranked in descending were the component of (1) Career Development Planning (CDP), (2) Compensation System (CS), (3) Performance Management (PM), (4) Teacher Training (TT), (5) Teacher Recruitment (TR). Educational Human Resource Allocation Model For Art Major In Private Universities Under Liaoning Province.

### **3. Data analysis results of research objective 3: Put forward the guidance improving for human resource allocation for art majors in private universities in Liaoning Province**

Through organizing focus group discussions with 7 key informants around the 5 components of the human resource allocation model, the key informants provided a total of 8 guidelines for improving human resource allocation for art majors in private universities in Liaoning Province, as follows:

From this component, the guidelines as follow:

#### **1. Career Development Planning**

- (1) Develop a personalized career development plan:
- (2) Provide diverse career paths:

#### **2. Compensation System**

- (3) Establish a fair and reasonable salary structure:
- (4) Provide incentives:

#### **3. Performance Management**

- (5) Set clear, quantifiable performance indicators:

#### **4. Teacher Training**

- (6) Regular professional development training:

#### **5. Teacher Recruitment**

- (7) Ensure the recruitment process is transparent and fair:
- (8) Comprehensively evaluate the quality of candidates:

## **Conclusion**

### **1. Conclusion of Research Objective 1**

To identify the components and indicators of human resource allocation in art education in private colleges and universities in Liaoning Province. This is a qualitative study. The researcher studied the relevant literature on the concepts, principles, theories and related research on human resources. In addition, semi-structured interviews were conducted with 7 key informants, including deans, vice deans, professors, directors, academic leaders, department heads, etc., with more than 10 years of teaching and management experience. They came from 14 private art colleges and universities in Liaoning Province. The 7 key informants were selected through purposive sampling. The researcher used a semi-structured interview form to collect the interview content and conducted content analysis on the collected data. The results showed that a total of 5 components and 59 indicators of human resources were identified through literature research and semi-structured interviews.

### **2. Conclusion of Research Objective 2**

The research on educational human resource allocation for art majors in private universities in Liaoning Province involved a quantitative analysis using a questionnaire with 46 items, which was found to be valid and reliable with high internal consistency. The study aimed to provide a model for human resource allocation in art education, surveying 826 administrative staff and teachers from 14 private universities. The questionnaire, distributed online via "Smart Star" software, consisted of three parts: respondent information, a five-point rating scale on human resource allocation, and supplementary comments. The model for empowered leadership in art education resource allocation comprised five components with 20 indicators, including teacher recruitment, training, performance management,

compensation system, and career development planning. Each component had specific indicators that were analyzed for factor loading and confirmed through confirmatory factor analysis, ensuring the model's consistency with empirical data.

### **3. Conclusion of Research Objective 3**

The “Guidelines for improving for Human Resource Allocation of Art Majors in Private Colleges and Universities in Liaoning Province” was compiled. In the guidelines for the human resource allocation model for art majors in private colleges and universities in Liaoning Province, there are a total of 8 guiding principles. The specifics are as follows:

Component 1: Career Development Planning. There were 2 managerial guidelines: Develop a personalized career development plan; Provide diverse career paths.

Component 2: Compensation System. There were 2 guidelines: Establish a fair and reasonable salary structure; Provide incentives.

Component 3: Performance Management. There was 1 guideline: Set clear, quantifiable performance indicators.

Component 4: Teacher Training. There was 1 guideline: Regular professional development training.

Component 5: Teacher Recruitment. There were 2 guidelines: Ensure the recruitment process is transparent and fair; Comprehensively evaluate the quality of candidates.

Synthesize the overall finding as the knowledge contribution

This study investigates the issue of educational human resource allocation in art programs at private universities in Liaoning Province. Utilizing a combination of literature review, interviews, and questionnaires, the research constructs a human resource allocation model and proposes improvement strategies. Key findings include the identification of five crucial factors influencing resource allocation: teacher recruitment, training, performance management, compensation system, and career development planning. The model's validity was confirmed, with career development planning found to have the greatest impact. The study also outlines eight improvement principles, encompassing transparent recruitment, comprehensive assessment, training and development, performance evaluation, fair compensation, incentive measures, personalized career planning, and diverse career paths. These findings provide a theoretical framework and practical guidance for educational human resource allocation in Liaoning's private universities, contributing to enhanced education quality and promoting the development of art education.

## **Discussion**

### **1. Major Findings of Research Objective 1**

According to a study, the human resource allocation model for art majors in private universities in Liaoning Province have five components consisted of teacher recruitment, teacher training, performance management, compensation system, and career development planning. The study, based on comprehensive literature analysis and field survey validation, found that these factors fostered a positive and collaborative environment. Teacher recruitment, aligned with Ramsden (2003), emphasized selecting teachers with strong professional knowledge and the ability to inspire creativity. Teacher training, as per Stephan (2012), was vital for updating skills and enhancing teaching quality. Performance management, consistent with Li Hong (2019), assessed teaching effectiveness and motivated professional growth. A fair compensation system, in line with Ehrenberg (2012), attracted and

retained talent. Lastly, career development planning, echoing Stephan (1996), supported teachers' personal and professional goals, contributing to a stable and dynamic teaching team and the sustainable development of art education.

## **2. Discussion about Major Findings of Objective 2**

The research findings indicated that the human resource allocation model for art majors in private universities in Liaoning Province aligned with empirical data, with confirmatory indicator values meeting specified criteria (Derek D. Wang. 2019). The model, which included components like information sharing and autonomous decision-making, was found to have significant practical implications for improving human resource allocation. Teacher recruitment, as per Wang Lei (2017), focused on selecting teachers with the right skills and adaptability. Teacher training, as proposed by Li Hong (2019), aimed to enhance teaching abilities through a "Collaboration-Focus-Inquiry" model. Performance management, in line with Evans (2018), involved setting and evaluating goals. The compensation system, as studied by Wang Lei (2017), was designed to attract and retain talent. Career development planning, as highlighted by Zhao Na (2018), helped teachers plan their futures. Together, these dimensions formed a comprehensive system crucial for the success of art education in private universities.

## **3. Discussion about Major Findings of Objective 3**

The third research objective established guidelines for educational human resource allocation in art majors at private universities in Liaoning Province. Focus group discussions with seven key informants led to the conclusion that transparency and fairness in recruitment, comprehensive assessment of applicant qualifications, regular professional development training, clear performance indicators, fair compensation, incentive measures, individualized career development plans, and diverse career paths were essential. These findings aligned with Li Na (2016) on talent cultivation model transformation, Huang Yong (2019) on innovative talent cultivation in art-oriented colleges, and Chen Liang (2019) on human resource management in private educational institutions.

## **Recommendation**

### **1. Recommendation for Policies Formulation**

Chapter 5 of the research concluded with policy suggestions to strengthen human resource allocation for art majors in private universities in Liaoning Province, including reforming job position settings to focus on work ability and performance, transforming the art and design talent training model to enhance practical abilities and dual-skilled teaching, and optimizing human resource management in the context of educational digitalization to align with applied talents and digital education skills. These recommendations aimed to promote sustainable growth and development of art education in private universities.

### **2. Recommendation for Practical Application**

The study's recommendations for practical application of human resource deployment in private universities included standardizing the hiring process for transparency and fairness, conducting regular professional development training, establishing clear performance indicators, creating a fair compensation structure, and developing personalized career plans. These measures aimed to align with the school's educational philosophy and strategic goals, enhance teaching quality, and support teacher growth, thereby improving the effectiveness of human resources and fostering an environment of excellence.

### 3. Recommendation for Further Research

The study on human resource allocation for art majors in private universities in Liaoning Province proposed three areas for further research: optimizing the faculty structure to balance professional titles, educational backgrounds, and age distribution; focusing on human resource configuration for practical teaching to improve quality and attract talent; and enhancing school-enterprise cooperation for the integration of industry, education, and research to foster practical and innovative capabilities in teachers.

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