

The Effects of Professional Leadership on the Performance of Teachers in the Art Universities Under Liaoning Province

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Abstract

Leadership first starts with leadership research. From the research of leadership personality traits from the end of the 19th century to the early 20th century, to the leaders of the 1940s, in terms of specific behaviors and different leadership behaviors of the 1960s, the situation related to the potential leaders of leadership behaviors of leadership Factor theory (theory theory) and leaders are attributed to the effects of theory, transactions and transformation theories, and gradually expand the impact of the interaction of the situation of the entire organization from the personality traits of leaders and personal research. This article deeply studies the basic connection between the leadership of educational managers and the effectiveness of teachers, and clarifies the way managers can give, support and stimulate the way educators stand out on their roles.

The objectives of this research were: (1) to explore the components of Professional leadership and performance of teachers in the art universities under Liaoning province. (2) to study the effects of Professional leadership on the performance of teachers in the art universities under Liaoning province.

The research method was a mixed method, including qualitative research and quantitative research. The sample was 347 administrators and teachers, with stratified random sampling method. The researcher determined sample size with Krejcie and Morgan's table (1970), and obtained by the stratified random sampling technique. The 11 key informants are mainly included in the art universities under Liaoning Province, including 2 presidents, 2 administrators and 7 teachers obtained by purposive sampling method. The instruments used for data collection were semi-structured interview form and five-point rating scale questionnaires.

The response rate of questionnaires was 100%. Statistics used for data analysis included frequency, percentage, mean, Standard Deviation, Confirmatory Factor Analysis (CFA), content analysis and Multiple Regression Analysis was employed. Research findings were: (1) there were 4 components of professional leadership and 6 components of performance of teachers in the art universities under Liaoning province, which consisted of Moral Cultivation, Implementation Capacity, Visionary Motivation, and Resource Integration for components of professional leadership and Setting an example by virtue and behaviour, Management Ability, Teacher Development, Teaching development, Ability to participate in social activities, and Academic development for components of the professional development of university teachers in Jilin Province, respectively. (2) 9 hypotheses were tested: Forward-looking has a positive impact on Plans Instruction, Implements The Lesson, Motivates Students and Set expectations and capabilities, decisive decision-making has a positive impact on Professional Growth Activities, Implements the Lesson and Professional Growth Activities,

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control ability has a positive impact on Demonstrates Knowledge Of The Curriculum, and Set expectations and capabilities.

Keywords: The Professional Leadership; performance of teachers; Universities; Liaoning Province

Introduction

School leadership is an important part of our education system. Furthermore, school leadership is the process of attracting and directing faculty, students, and parents to achieve most educational goals. Educational experts view leadership as a necessary guiding institution because it is a tool for the continuation of these institutions. The school foundation is a strong interrelationship, and individuals are not only obliged to group tasks, but in addition to effectively discovering joint attempts and responsible individual completion goals in a specific context. Teachers' work performance is the duty of teachers to achieve organizational goals in the education system of a specific period. By distinguishing teacher demands and trying to meet or satisfy them, principals can motivate their successful performance. The degree to which the principal plays these roles is most important to any education expert (Adeyemi, T.O., 2010).

It is argued that effective leadership can influence on the teachers' performance positively. (Avolio, B. J. et al., 2009) perceived that the effect of leadership styles has on both teachers' prosperity and organizational results. Throughout the long time period, the effect of administrators' leadership styles on teachers' performance has been keen interest on numerous analysts. Principals leadership styles and teachers' performance are basic factors for school execution and hierarchical objectives accomplishment. (Crum, K. S., & Sherman, W. H. 2008). expressed that principals expected to provide exceptionally esteemed bits of knowledge into their daily leadership styles that cultivate a climate which is steady for teachers' performance. Successful implementation of principals' leadership styles improves teachers' job performance, career commitment and intention to complete the syllabus contents on terms scheduled. Leadership phenomenon is captivated sequence of an action which intends to achieve befitting results through sensitization and improvement of personal, social and professional work practices.

The school principal is an administrator running the organization for its purpose, but occasionally recognizes the need of his teacher to modify his task and place the necessary changes to his organization to make it effective. Performance is the property of behavior, or the normal value of an individual doing it at work (Nancy, O. I. et al., 2019). (Yaya, A.U., et.al., 2016) then define job performance as work activities undertaken by employees to achieve organizational goals.

Yue, L. & Jin, J. S. (2021) in the study Practising Professional Leadership in Subject Teaching and Research for Teachers and Researchers found that Problems in professional leadership are due to the limitations of one's own "six powers". Coordinating these "six powers" and cultivating them at a higher level can make the situation of teaching and research clearer and even solve the problems. Teacher-researchers, by exercising their professional leadership in subject teaching and research and by innovating strategies and methods of cultivation, can better and more deeply realize the new era of core literacy.

Anderson, J. & Lee, S. (2021). Professional Leadership and Organizational Success: A Global Survey. Anderson and Lee's global survey spanned five continents, encompassing over 2,000 organizations. Their research unveiled a strong correlation between robust leadership development programs and organizational outcomes. Organizations invested in leadership development reported a 15% spike in employee satisfaction and a 25% surge in profitability. The research also revealed that such organizations experienced lower turnover rates, leading to considerable savings in recruitment and training expenses.

In fact, performance is the most important foundation of the work. Therefore, principals need to motivate them to find gratifications and challenges in their work to improve teacher competence.

This article delves into the essential connection between education administrators' leadership and teacher effectiveness, shedding light on the ways administrators can empower, support, and inspire educators to excel in their roles.

Research Objectives

1. To explore the components of Professional leadership and performance of teachers in the art universities under Liaoning province.
2. To study the Effects of Professional leadership on the performance of teachers in the art universities under Liaoning province.

Research Hypothesis

H1: Look-forward of administrators has a positive impact on Plans Instruction
H2: Look-forward of administrators has a positive impact on Implements The Lesson
H3: Look-forward of administrators has a positive impact on Motivates Students
H4: Control ability has a positive impact on Demonstrates Knowledge Of The Curriculum
H5: Look-forward of administrators has a positive impact on Set expectations and capabilities
H6: Decisive decision-making has a positive impact on Professional Growth Activities
H7: Control ability has a positive impact on Set expectations and capabilities
H8: Decisive decision-making has a positive impact on Implements The Lesson
H9: Decisive decision-making has a positive impact on Professional Growth Activities

Literature Review

Leadership refers to the ability to make full use of human and objective conditions within the jurisdiction to improve the efficiency of the whole group at minimal cost. Leadership theory attempts to clarify the factors involved in the emergence of leadership, the nature of leadership and its aftereffects (Bass, 1990). There are different types of leadership theory, early leadership theory and contemporary leadership theory. The early leadership theory included trait theory, charm and heroic leadership theory, style and behavior theory, situation theory, contingency theory, path-goal theory, change theory and transaction theory. Zhang, X. J. (2005) pointed that according to American scholar Bennis, leadership is the ability to translate vision into reality. Some domestic scholars also agree with the ability theory. Zhang, X. J. (2015) believes that leadership includes noble charisma, accurate foresight and judgment, superb communication ability, endless innovation, and continuous extension ability. Gao, X. G.

(2012) western leadership guru John Maxwell pointed out distinctly that leadership is a form of influence. To the skills, characteristics, and behavior of the leader Multiple analyses of values for, style, motivation, and values are found in the popular literature. One of the five lists of Responsibilities for Effective Leaders suggests that leaders set standards of excellence and set examples for others (lead by example); ideal the organization strives for (inspire a common vision); find innovative ways to improve the organization (challenge process); promote collaboration and strive to create an atmosphere of trust for everyone to feel competent (Let others act); and recognize individual contributions (Inspiring)

Research Methodology

1. Participants and setting

Population were 3,500 university administrators and teachers from 20 art universities under Liaoning Province. The sample was 347 administrators and teachers administrators (165) and teachers (182) with stratified random sampling method. The key informants consisted of 11 persons, were in the art universities under Liaoning Province, including 2 presidents, 2 administrators and 7 teachers. They were administrators and teachers with more than 10 years of working experience and rich management experience.

2. Research instrument

Used three research tools to examine the objective of this paper.(1):Semi-structured interview form and documentary study form. (2) A five-point rating scale questionnaire.(3) A five-point rating scale questionnaire.

2.1 Semi-structured interview

Firstly, by reviewing literature and relying on existing literature on professional leadership and performance of teachers the researchers will study the current situation, concepts, principles, and theories of it, then the components and variables of the research will be verified. The literature of this study mainly comes from CNKI, Google Scholar, SCIE(Science Citation Index Extension) and the world-renowned natural science citation index database established through libraries and the Internet. Secondly, the researchers conducted semi-structured interviews with eleven key informants. The process of semi-structured interviews emphasizes communication and understanding between the researcher and key informants to understand the views and experiences of key informants., With adequate preparation, flexible adjustment.

2.2 Questionnaire

The instrument starts from step (1) as a questionnaire. Content validity and reliability were used to evaluate the quality of the questionnaire. For content validity, the questionnaire was checked by the advisor and then it was checked by 5 experts and analyzed using Index Objective Congruence (IOC).

Questionnaire validity: The content validity of this research questionnaire was relatively tested by 5 experts to test the correctness and suitability of language, content coverage and content relevance in each dimension of this research. Instrument projects are passively checked, validated, and finally analyzed using Index Objective Congruence (IOC).

Questionnaire reliability: Variables on professional leadership and performance of teachers in art universities under Liaoning Province were surveyed. These questionnaires did not include studies of population and samples, and the samples were verified by Cronbach Alpha for reliability. The acceptable reliability value for this study was 0.80, and an overall

reliability check was performed on the questionnaires used in this project before distribution was initiated at the study site.

Table 1 Variable statistics after expert IOC selection

No.	Variables
Component 1 Plans Instruction	
1	Follows prescribed curriculum
2	Make rational use of resources
3	Teaching students in accordance with their aptitude
4	Flexible planning
5	Make long-term plans
Component 2 Implements The Lesson	
6	Inform course objectives
7	Linking new and old courses
8	Monitors student learning continuously
9	Provide practice opportunities
10	Ability to establish rules and procedures
11	Ability to communicate effectively
12	Feedback mechanisms
13	Continuous professional learning
Component 3 Motivates Students	
14	Shows concern for students
15	Establishes feeling/tone
16	Encouraging teaching
17	Uses extrinsic/intrinsic rewards
18	Teaching accuracy
19	Learning content and objectives
20	Present class content logically
21	Experiment and practice
Component 5 Set expectations and capabilities	
22	Express expectation
23	Objective expectation
24	Evaluative feedback teaching ability
25	All students are encouraged to participate
Component 6 Professional Growth Activities	
26	involved in professional associations
27	Participates on district/state committees
28	Participates in professional workshops
29	Attends professional meetings
30	Reflection and self-assessment
31	Academic Integrity

32	Expanding academic horizons internationally
33	Engages in continuing education

The researchers used a three-part questionnaire; Part 1: Demographic variables, general information , and Part 2: Variables on professional leadership of administrators and performance of teachers in art universities under Liaoning Province (five-point subscale). Part III: Recommendations and Additional Comments.

At the same time, the researcher asked respondents to fill in the degree of agreement for each model to improve the efficiency and quality of academic administration in Liaoning province. Each factor is measured on a 5 point liker's scale. as shown in the table 2.

Table 2 Measurement scale of professional leadership

Satisfied level	Perception level
Strongly Agree	5
Agree	4
Moderate	3
Disagree	2
Strongly Disagree	1

According to the Cronbach reliability analysis, the Cronbach's alpha coefficient is 0.938, which showed sufficient reliability.

Table 3 Cronbach reliability analysis

Cronbach Reliability Analysis		
No.	Items	Cronbach α
30	70	0.938

2.3 Focus Group Discussion

Through focus group discussion,exploring the components of Professional leadership and performance of teachers in the art universities under Liaoning province.11 Key informants for semi-structured interviews are in the art universities under Liaoning Province, including 2 presidents, 2 administrators and 7 teachers.

3. Data analysis

In the first step, data from the Semi-Structured Interview of the 11 key informants was analyzed by content analysis.In the second step, The data of demographic variables were analyzed by descriptive statistics; frequency, and percentage. The components and variables of Academic Administrator were analyzed by descriptive statistics; mean, Standard Deviation (S.D.). The components of professional leadership administrators and performance of teachers in art universities under Liaoning Province were analyzed by Confirmatory Factor Analysis (CFA) and regression estimated to evaluate the reliability and validity of the measurement model.

In the third step, In order to further verify the research hypothesis, this article uses multiple regression analysis (MRA) to verify the impact of the professional leadership of managers of art colleges in Liaoning Province on teachers' work performance.

Research Conceptual Framework

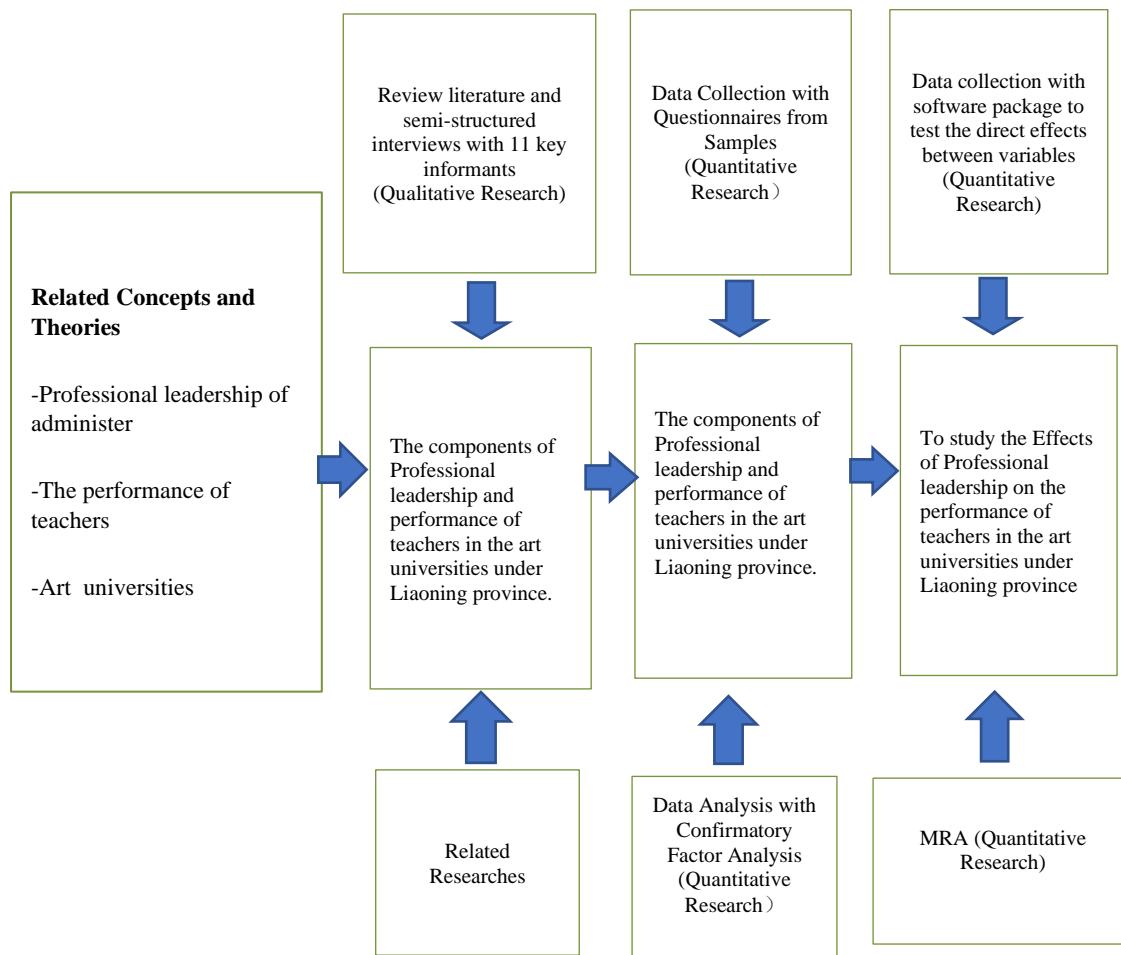


Figure 1 Conceptual framework

Research Results

Result of Data Analysis for Research Objective 1. To explore the components of professional leadership of administrators and performance of teachers of university teachers in Liaoning Province

Part I: Result of Data Analysis on Questionnaire: Demographic Information

This study has a total of 347 effective samples, and these sample sizes were classified and counted according to the six attributes of gender, age, professional education, working-age and position.

(1) In Gender, the frequency of Female is 176, accounting for 50.7%; the frequency of Male is 171, accounting for 49.3%; (2) In Age, the frequency of 22-34 years is 86, accounting for 24.8%; the frequency of 35-44 years is 84, accounting for 24.2%; the frequency of 45-54 years is 81, accounting for 23.3%; the frequency of More than 55 is 96, accounting for 27.7%; (3) Among Professionals, the frequency of Teaching assistant is 100, accounting for 28.8%; the frequency of Lecturer is 104, accounting for 30%; the frequency of Associate Professor is 80, accounting for 23.1%; the frequency of Professor is 63, accounting for 18.2%; (4) In Education, the frequency of Bachelor is 122, accounting for 35.2%; the frequency of Master is 114, accounting for 32.9%; the frequency of Doctor is 111, accounting for 32%; (5) In Working age, the frequency of Less than 10 years is 121, accounting for 34.9%; the frequency of 10-15 years is 121, accounting for 34.9%; the frequency of More than 15 is 105, accounting for 30.3%; (6) Among Positions, the frequency of Administrators is 169, accounting for 48.7%; the frequency of Teachers is 178, accounting for 51.3%;

Part II Result of Data Analysis on Questionnaire: Confirmatory Factor Analysis

Firstly, Reliability analysis. The data of the dependent variable of the questionnaire scale was selected for reliability analysis, and the Cronbach Alpha was first used to analyse the reliability of the data. In the reliability analysis, the Cronbach's α coefficient value of the final questionnaire was evaluated. As can be seen in the table below, the dimensions of the questionnaire in this study and the total Cronbach's Alpha coefficient are all greater than 0.7, which indicates that the questionnaire has a high degree of reliability as a whole.

Table 4a Reliability analysis of dependent variables

Items	Cronbach's α
PI	0.930
ITL	0.926
MCL	0.934

Table 4b Reliability analysis of independent variables

Items	Cronbach's α
DKC	0.927
SCT	0.938
IMM	0.925
PUA	0.929
AD	0.928
Total	0.962

Next, the researchers analyzed the arithmetic mean (mean) and standard deviation (S.D) and compared the derived arithmetic mean with the criterion based on the best criterion. The results show that the arithmetic mean, standard deviation and level of each observed variable are components of professional leadership and teacher professional development.

The sample size is 347 teachers. The mean values of the observed variables range from 3.24 to 3.54, and all variables are within the "agreement" criterion. Its standard dispersion range is between 1.116 and 1.357. Their skewness ranges from -0.516 to -0.096, all less than 2 and greater than -2, indicating that they meet statistical requirements. In addition, the kurtosis of these observed variables ranges from -1.140 to -0.624, and are all greater than -10 and all are less than 10. Therefore, this peak also meets the statistical quality criteria

Table5: Descriptive statistics

Items	n	Mean	s.d.	Skew	se	Kurtosis	se	Leble
ITL3	347	3.54	1.259	-0.401	0.131	-0.904	0.261	High
ITL4	347	3.54	1.221	-0.463	0.131	-0.786	0.261	High
DKO2	347	3.53	1.238	-0.419	0.131	-0.882	0.261	High
PI3	347	3.52	1.257	-0.425	0.131	-0.907	0.261	High
DKO3	347	3.52	1.309	-0.442	0.131	-0.966	0.261	High
PGA2	347	3.52	1.284	-0.508	0.131	-0.852	0.261	High
PGA5	347	3.52	1.252	-0.427	0.131	-0.784	0.261	High
PGA7	347	3.52	1.245	-0.438	0.131	-0.84	0.261	High
MS4	347	3.51	1.333	-0.493	0.131	-0.956	0.261	High
SAC1	347	3.51	1.268	-0.429	0.131	-0.89	0.261	High
DDM ₆	347	3.5	1.268	-0.322	0.131	-1.008	0.261	High
CA8	347	3.5	1.213	-0.191	0.131	-1.004	0.261	High
PGA4	347	3.5	1.282	-0.516	0.131	-0.784	0.261	High
CA5	347	3.49	1.342	-0.355	0.131	-1.063	0.261	High
SAC3	347	3.49	1.25	-0.455	0.131	-0.811	0.261	High
DDM ₄	347	3.48	1.203	-0.328	0.131	-0.752	0.261	High
PI2	347	3.49	1.198	-0.38	0.131	-0.831	0.261	High
PI5	347	3.49	1.205	-0.328	0.131	-0.86	0.261	High
PI4	347	3.48	1.22	-0.357	0.131	-0.861	0.261	High
ITL1	347	3.48	1.259	-0.388	0.131	-0.885	0.261	High
ITL2	347	3.48	1.277	-0.397	0.131	-0.886	0.261	High
ITL5	347	3.48	1.289	-0.376	0.131	-1.013	0.261	High
ITL6	347	3.48	1.261	-0.318	0.131	-1.012	0.261	High
ITL9	347	3.48	1.257	-0.416	0.131	-0.856	0.261	High
DKO1	347	3.48	1.257	-0.449	0.131	-0.882	0.261	High
DKO4	347	3.48	1.282	-0.386	0.131	-0.961	0.261	High

SAC4	347	3.48	1.286	-0.367	0.131	-0.981	0.261	High
PGA6	347	3.48	1.275	-0.467	0.131	-0.862	0.261	High
CA2	347	3.47	1.257	-0.386	0.131	-0.777	0.261	High
FL4	347	3.46	1.228	-0.27	0.131	-0.922	0.261	High
FL5	347	3.46	1.25	-0.298	0.131	-0.976	0.261	High
SAC2	347	3.46	1.268	-0.417	0.131	-0.856	0.261	High
PGA3	347	3.46	1.297	-0.384	0.131	-1.016	0.261	High
ITL8	347	3.45	1.279	-0.404	0.131	-0.886	0.261	High
MS3	347	3.44	1.357	-0.35	0.131	-1.14	0.261	High
PGA1	347	3.44	1.294	-0.346	0.131	-0.977	0.261	High
PI1	347	3.43	1.22	-0.349	0.131	-0.876	0.261	High
MS1	347	3.43	1.352	-0.4	0.131	-1.023	0.261	High
DDM 5	347	3.42	1.176	-0.286	0.131	-0.736	0.261	Mode rate
ITL7	347	3.42	1.304	-0.315	0.131	-1.095	0.261	Mode rate
MS2	347	3.42	1.35	-0.366	0.131	-1.078	0.261	Mode rate
CA6	347	3.39	1.181	-0.362	0.131	-0.624	0.261	Mode rate
CA7	347	3.38	1.239	-0.29	0.131	-0.816	0.261	Mode rate
FL7	347	3.37	1.198	-0.289	0.131	-0.792	0.261	Mode rate
DDM 3	347	3.34	1.209	-0.355	0.131	-0.67	0.261	Mode rate
FL2	347	3.33	1.116	-0.212	0.131	-0.663	0.261	Mode rate
CA1	347	3.33	1.139	-0.176	0.131	-0.636	0.261	Mode rate
CA3	347	3.33	1.201	-0.228	0.131	-0.701	0.261	Mode rate
CA4	347	3.31	1.193	-0.209	0.131	-0.719	0.261	Mode rate
FL8	347	3.3	1.225	-0.256	0.131	-0.869	0.261	Mode rate
DDM 1	347	3.3	1.218	-0.191	0.131	-0.851	0.261	Mode rate
DDM 2	347	3.29	1.206	-0.217	0.131	-0.767	0.261	Mode rate
FL1	347	3.28	1.162	-0.188	0.131	-0.755	0.261	Mode rate
FL3	347	3.25	1.131	-0.198	0.131	-0.653	0.261	Mode rate

FL6	347	3.24	1.153	-0.096	0.131	-0.736	0.261	Mode rate
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Third, analyze the mutual correlation of factors in the model. The correlation matrix of all variables in the analysis results in Table 3 shows that the correlation coefficient is between 0.261 and 0.635, indicating that there is a strong correlation between variables (Patrick School, et al., 2018).

Table 6 Table of the correlation analysis among the latent variables

	FL	DDM	CA	PI	ITL	MS	DKO	SAC	PGA
FL	1								
DDM	0.635**	1							
CA	0.574**	0.576**	1						
PI	0.407**	0.386**	0.351**	1					
ITL	0.481**	0.430**	0.463**	0.378**	1				
MS	0.420**	0.371**	0.360**	0.298**	0.261**	1			
DKO	0.346**	0.364**	0.360**	0.302**	0.333**	0.359**	1		
SAC	0.448**	0.386**	0.410**	0.347**	0.405**	0.414**	0.398**	1	
PGA	0.391**	0.404**	0.384**	0.360**	0.310**	0.346**	0.323**	0.408**	1

Finally, quality of the measurement model. Reliability and validity are mainly determined by CR, MaxR (H) and MSV. In general, the CR value of each variable should be greater than 0.7, the MaxR (H) value of each variable should be greater than its CR value, and the MSV value of each variable should be less than its AVE value.

Table 7 Differential validity table

	CR	AVE	MSV	MaxR(H)	ITL	PGA	CA	FL	PI	DDM	MS	DKO	SAC
ITL	0.951	0.684	0.272	0.952	0.827								
PGA	0.941	0.694	0.201	0.941	0.329***	0.833							
CA	0.905	0.545	0.42	0.907	0.501***	0.419***	0.738						
FL	0.899	0.526	0.508	0.899	0.521***	0.425***	0.641***	0.725					
PI	0.901	0.646	0.201	0.902	0.406***	0.389***	0.385***	0.449***	0.804				
DDM	0.884	0.560	0.508	0.885	0.471***	0.439***	0.648***	0.713***	0.428***	0.749			
MS	0.920	0.741	0.213	0.920	0.282***	0.372***	0.394***	0.462***	0.326***	0.411***	0.861		
DKO	0.906	0.706	0.198	0.906	0.361***	0.351***	0.399***	0.382***	0.336***	0.406***	0.394***	0.840	
SAC	0.892	0.674	0.254	0.892	0.442***	0.448***	0.460***	0.504***	0.386***	0.434***	0.455***	0.445**	0.821

convergent validity of AVE 0.50, the square root of the latent variable must be greater than its correlation with other latent variables via Fornell & Larcker (1981, pp. 39-51). ***<0.01

Reliability

In this model, the researchers used the combined reliability to evaluate the reliability of the measurement model, with a critical criterion of 0.70 (Hair, 2017). The analysis of the data in Table 6 shows that the CR values were 0.951, 0.941, 0.905, 0.899, 0.901, 0.884, 0.920, 0.906 and 0.892, respectively, all greater than 0.7, indicating the good reliability of the model.

Convergent validity

Convergent validity refers to the degree of convergence between variables and their composition indicators, determined by the combined reliability (CR) and mean extraction variance (AVE) (Hair Jr, Hult, Ringle, & Sarstedt, 2021, p. 307). As can be seen from the table above, the AVE values were 0.684, 0.694, 0.545, 0.526, 0.646, 0.560, 0.741, 0.706, 0.674, respectively, with all values greater than 0.5, indicating good internal convergence validity for each variable of the model (Hair Jr, Hult, Ringle, & Sarstedt, 2021, p. 307).

Discriminant validity

Differentiating validity can be assessed by several ways. The first approach is to use the maximum shared variance (MSV), because the AVE value for each potential structure should be greater than the corresponding maximum shared variance (MSV) (Adedeji, Abdulkabir N. et al., 2017). The analysis of the data in Table 5 showed that the AVE for ITL, PGA, CA, FL, PI, DDM, MS, DKO, and SAC were 0.684, 0.694, 0.5455, 0.526, 0.646, 0.560, 0.741, 0.706, 0.674, respectively, all larger than their corresponding MSV. The second method was evaluated using the Fornell and Lack criteria (Adedeji, Abdulkabir N. et al., 2017), using the AVE square root of each potential structure, greater than the highest correlation between the structure and the other structures in the model. The data analysis presented in Table 6 shows that, The AVE square root of ITL, PGA, CA, FL, PI, DDM, MS, DKO, SAC factors, were 0.827, 0.833, 0.738, 0.725, 0.804, 0.749, 0.861, 0.840, 0.821, respectively. Each value was greater than the correlation between the variables, Namely: $0.827 > 0.329 > 0.501 > 0.521 > 0.406 > 0.471 > 0.282 > 0.361 > 0.442; 0.833 > 0.329 > 0.419 > 0.425 > 0.389 > 0.439 > 0.372 > 0.351 > 0.448; 0.738 > 0.501 > 0.419 > 0.641 > 0.385 > 0.648 > 0.394 > 0.399 > 0.460; 0.725 > 0.521 > 0.425 > 0.641 > 0.449 > 0.713 > 0.462 > 0.382 > 0.504; 0.804 > 0.406 > 0.389 > 0.385 > 0.449 > 0.428 > 0.326 > 0.336 > 0.386; 0.749 > 0.471 > 0.439 > 0.648 > 0.713 > 0.428 > 0.411 > 0.406 > 0.434; 0.861 > 0.282 > 0.372 > 0.394 > 0.462 > 0.326 > 0.411 > 0.394 > 0.455; 0.840 > 0.361 > 0.351 > 0.399 > 0.382 > 0.336 > 0.406 > 0.394 > 0.445; 0.821 > 0.442 > 0.448 > 0.460 > 0.504 > 0.386 > 0.434 > 0.455 > 0.445$ between the correlation coefficient analysis results showed that, The variables in this study had good discriminatory validity

Result of Data Analysis for Research Objective 2. Hypothesis testing through MRA .

Regression analysis

With PI as dependent variable, FL, DDM, CA as independent variables, establish model 1; ITL as dependent variable, FL, DDM, CA as independent variables, establish model 2; MS as dependent variable, FL, DDM, CA as independent variables, establish model 3; DKO as dependent variable, FL, DDM, CA as independent variables, establish model 4; SAC as dependent variable, FL, DDM, CA as independent variables, establish model 5; PGA as dependent variable, FL, DDM, CA as independent variables, establish model 6; results are shown as follows:

Table 8 Standardized regression analysis

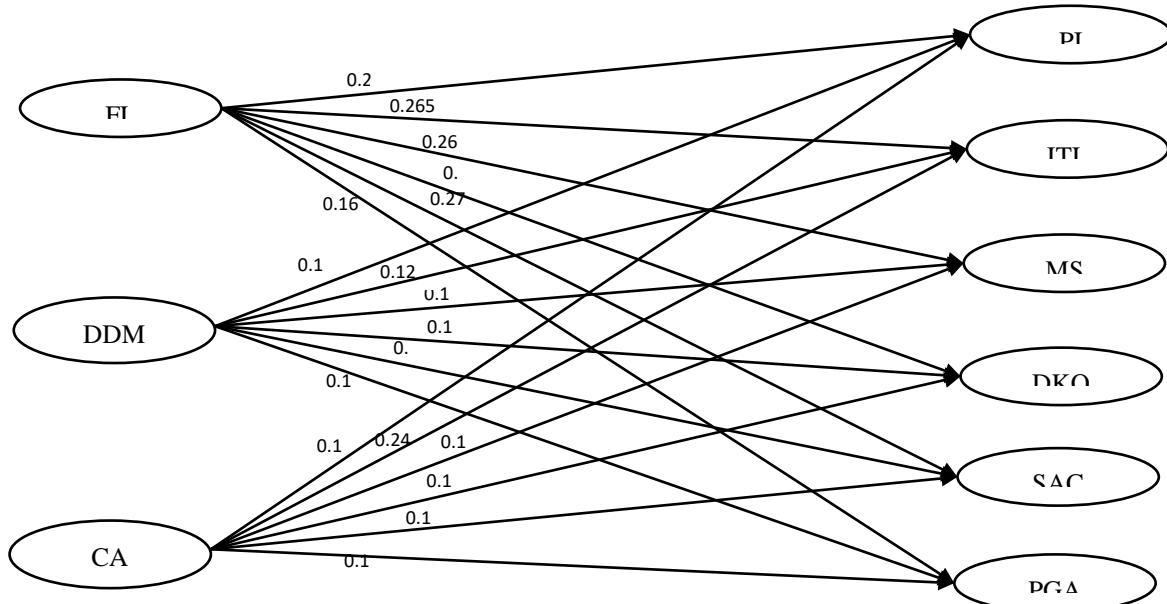
Variables	PI		ITL		MS		DKO		SAC		PGA	
	Model 1		Model 2		Model 3		Model 4		Model 5		Model 6	
	Unst. B-value	St. β-value										
Constant term	1.196**		0.840*		0.937*		0.959**		0.956*		1.071**	
FL	1.544**		1.043*		1.152		1.53		1.213		1.375*	
DD	0.260**	0.2	0.315*	0.2	0.349	0.2	0.15	0.128	0.331	0.272	0.200*	0.16
M	*	28	**	65	***	61	8	***	0.272	0.200*	5	
CA	0.184**	0.1	0.137*	0.1	0.158	0.1	0.20	0.175	0.115	0.100	0.225*	0.19
F值	0.132	0.1	0.272*	0.2	0.175	0.1	0.22	0.186	0.229	0.197	0.202*	0.17
R ²	28.869***		47.032***		29.678***		24.244***		36.356***		30.705***	
R ² adj	0.202		0.291		0.206		0.175		0.241		0.212	
FL	0.195		0.285		0.199		0.168		0.235		0.205	

*:P<0.05; **: P<0.01; ***: P<0.001

Model 1, FL and DDM significantly affected PI, and CA did not affect PI. Specifically, FL had a positive effect on PI ($\beta=0.228$, $P=0.001 < 0.05$), DDM had a significant positive effect on PI ($\beta=0.172$, $P=0.010 < 0.05$), and CA had no significant effect on PI ($\beta=0.121$, $P=0.054 > 0.05$). Model 2, FL, DDM, and CA significantly affected the ITL. Specifically, FL had a positive effect on ITL ($\beta=0.265$, $P=0.000 < 0.05$), DDM had a significant positive effect on ITL ($\beta=0.123$, $P=0.049 < 0.05$), and CA had a significant positive effect on ITL ($\beta=0.240$, $P=0.000 < 0.05$). Model 3, FL and CA significantly affected MS, while DDM did not significantly affect MS. Specifically, FL had a positive effect on MS ($\beta=0.261$, $P=0.000 < 0.05$), DDM had no significant effect on MS ($\beta=0.127$, $P=0.056 > 0.05$), and CA had a significant positive effect on MS ($\beta=0.137$, $P=0.029 < 0.05$). Model 4, we showed that DDM and CA significantly affected DKO, and FL did not significantly affect DKO. Specifically, FL had no significant effect on DKO ($\beta=0.128$, $P=0.059 > 0.05$), DDM had a significant positive effect on DKO ($\beta=0.175$, $P=0.010 < 0.05$), and CA had a significant positive effect on DKO ($\beta=0.186$, $P=0.004 < 0.05$). Model 5, FL and CA significantly affected SAC, and DDM did not significantly affect SAC. Specifically, FL had a positive effect on SAC ($\beta=0.272$, $P=0.000 < 0.05$), DDM had no significant effect on SAC ($\beta=0.100$, $P=0.121 > 0.05$), and CA had a significant positive effect on SAC ($\beta=0.197$, $P=0.001 < 0.05$). Model 6, FL, DDM, and CA significantly affected PGA. Specifically, FL had a positive effect on PGA ($\beta=0.165$, $P=0.012 < 0.05$), DDM had a significant positive effect on PGA ($\beta=0.198$, $P=0.003 < 0.05$), and CA had a significant positive effect on PGA ($\beta=0.174$, $P=0.005 < 0.05$).

Multiple Regression

Figure 1 Multiple Regression Model



$$PI=0.228*FL+0.172*DDM$$

From the figure, FL, DDM had a significant effect on PI, while CA had no significant effect on PI. Where FL positively affected PI, DDM significantly positively affected PI, and CA did not significantly affect PI.

$$ITL=0.265*FL+0.123*DDM+0.240*CA$$

As shown from the figure, FL, DDM, and CA had significant effects on ITL. Specifically, FL positively affected ITL, DDM significantly positively affected ITL, and CA significantly positively affected ITL.

$$MS=0.261*FL+0.137*CA$$

From the figure, FL, CA had a significant effect on MS, while DDM did not significantly affect MS. Specifically, FL positively affected MS, DDM did not significantly affect MS, and CA significantly positively affected MS.

$$DKO=0.175*DDM+0.186*CA$$

From the figure, DDM, CA had significant effects on DKO, while FL had no significant effect on DKO. Among them, FL did not significantly affect DKO, DDM significantly positively affected DKO, and CA significantly positively affected DKO.

$$SAC=0.272*FL+0.197*CA$$

According to the figure, FL, CA had a significant effect on SAC, while DDM had no significant effect on SAC. Among them, FL positively affected SAC, DDM did not significantly affect SAC, and CA significantly positively affected SAC.

$$PGA=0.165*FL+0.198*DDM+0.174*CA$$

From the figure, FL, DDM, and CA had significant effects on PGA. Where FL positively affected PGA, DDM significantly positively affected PGA, and CA significantly positively affected PG

Discussion

Discussion about major findings of objective 1

There were 3 components of professional leadership in the art universities under Liaoning Province which consisted of Forward-looking, decisive decision-making, control ability. According to Vescio, V., Ross, D., & Adams, A. (2013), Sun, L. (2023), and Sun, L. (2023), Forward-looking, decisive decision-making, control ability are so important because farsighted leadership involves long-term strategic planning that aligns with the vision and goals of the institution. By setting clear, forward-looking objectives, leaders can guide their faculty towards achieving higher standards of teaching and learning. This strategic direction not only motivates teachers but also provides a clear framework within which they can innovate and excel. Effective decision-making power allows leaders to allocate resources strategically to areas where they are most needed, directly impacting teachers' ability to perform at their best. This includes not just financial resources but also access to technology, teaching aids, professional development opportunities, and support staff. Leaders who can make timely and informed decisions about resource distribution ensure that teachers have the tools and support necessary to excel in their roles. Effective leadership involves providing teachers with guidance and direction, helping them align their teaching methods and objectives with the broader goals of the institution. This aspect of control ensures that all educational activities are coherent and purposeful, contributing to a unified educational strategy that enhances student learning outcomes.

Discussion about major findings of objective 2

Show in total and why with theory and support, reason, from chapter 2

H1: Forward-looking has a positive impact on Plans Instruction

H1 was in accordance with the research of Zhang (2018, 250-251), which found that Forward-looking leadership, characterized by the ability to anticipate future trends, challenges, and opportunities, has a profoundly positive impact on the planning of instruction within the context of professional leadership's management of teacher performance, especially in regions like Liaoning. This approach not only aligns with the dynamic nature of educational environments but also ensures that teaching strategies remain relevant and effective in preparing students for the future.

H2:control ability has a positive impact on Implements The Lesson

H2 was in accordance with the research of Chen Haonan (2022), which found that Forward-looking in the context of professional leadership, especially within the educational sector of Liaoning Province, significantly impacts the effective implementation of lessons. This leadership quality refers to the capacity to guide, manage, and influence the educational process and environment to ensure that teaching and learning activities are conducted efficiently and effectively.

H3:Forward-looking has a positive impact on Motivates Students

H3 was in accordance with the research of Wei, Y. (2013), which found that Forward-looking leadership, characterized by a focus on future goals, innovation, and the anticipation of trends, has a significant positive impact on motivating students within the context of Liaoning's professional leadership and management of teacher performance. This approach to leadership not only shapes the educational environment but also directly influences how students perceive their learning journey.

Recommendation

1. Recommendation for policy formulation

The dissertation explores the pivotal role of leadership in shaping the educational outcomes and performance of teachers in the context of higher education institutions specializing in the arts. Based on the findings and insights derived from this study, several policy recommendations can be formulated to enhance the effectiveness of professional leadership, thereby improving teachers' performance and, ultimately, student outcomes in art colleges and universities.

(1) Policy formulation should encourage the adoption of collaborative governance models that involve faculty members in decision-making processes. This approach can enhance the sense of ownership and commitment among teachers, leading to improved performance.

(2) Recognizing the dynamic nature of art and education, policies should ensure that teachers have access to ongoing professional development opportunities. This could include workshops, seminars, and exchange programs focused on emerging teaching methodologies, technological advancements, and contemporary art trends. Supporting teachers' growth and adaptation to changing educational landscapes can enhance their performance and enrich the learning experience for students.

(3) Finally, acknowledging the significant impact of well-being on performance, policies should prioritize the establishment of comprehensive support systems for teachers. This includes mental health resources, work-life balance initiatives, and a supportive community culture. By addressing the holistic needs of educators, institutions can cultivate a positive and productive educational environment.

2. Recommendation for practical application

The dissertation provides valuable insights into how leadership practices can significantly influence the performance of educators in the arts sector. Drawing from the study's findings, several practical applications can be recommended to enhance the effectiveness of professional leadership, thereby improving the educational outcomes within these institutions.

(1) Implementing mentoring programs where experienced leaders share their knowledge and expertise with emerging leaders can be a practical approach to enhancing leadership skills within art colleges and universities.

(2) Establishing faculty-led committees to oversee various aspects of academic and extracurricular activities can empower teachers and foster a sense of ownership and engagement with the institution's mission.

(3) Encouraging a culture of peer observation and feedback can be a practical way to improve teaching performance. By observing each other's teaching methods and providing constructive feedback, teachers can learn from one another, adopt best practices, and identify areas for improvement.

(4) Organizing regular professional development workshops that address

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