

The Professional Leadership on the Professional Development of University Teachers in Jilin Province

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Abstract

The objectives of this research were: (1) to explore the components of professional leadership and the professional development of university teachers in Jilin Province. (2) to study effects of the professional leadership on the professional development of university teachers in Jilin Province.

The research method was a mixed method, including qualitative research and quantitative research. The sample was 297 administrators and teachers, with stratified random sampling method. The 9 key informants are mainly included administrators (3), professors (3), and teachers (3) who come from different universities in Jilin Province 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, Exploratory Factor Analysis (EFA), content analysis and Multiple Regression Analysis was employed. Research findings were: (1) there were 4 components of professional leadership and 6 components of the professional development of university teachers in Jilin 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 behavior, 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) The professional development were positive significant effects of professional leadership.

Keywords: The Professional Leadership; The Professional Development; Universities; Jilin Province

Introduction

This paper aims to investigate the impact of professional leadership on the professional development of university teachers in Jilin Province. Professional leadership is an emerging leadership approach that emphasizes shared responsibility, collaborative decision-making, and the active involvement of multiple stakeholders in leadership roles. Understanding how professional leadership and teacher professional development is crucial for enhancing teaching quality and ultimately improving student outcomes in Jilin Province.

There are several explanations of leadership. Generally, leadership is a process and an ability to inspire followers or group of people to accomplish common goals (Northouse,

2018), and already set organizational goals (Atsebeha, 2016). Awelu (2012) described that school leaders are involved in the following functions to uplift their leadership effectiveness in the schools.

In a sense, a strong principal makes it a strong school. In particular, the key elements of strategic education leadership, such as the vision, structure, path, balance and sustainability of the university president, play a pivotal role in the strategic development of the school (Jiang Yuanyuan, 2015: 39-42).

The dynamic process of the sustainable development of the individual professional ability of the "dual -teacher" teacher is guided by lifelong learning as the concept, absorbing new theoretical knowledge, and continuously improving professional practical ability through professional practice, that is, With dual capabilities (professional theoretical education and teaching ability and professional practical ability), the process of continuously improving development (Wang Shuang, 2019).

Timperley, H. (2013) in the research *Realizing the power of professional learning*. Maidenhead: Open University Press, found effective approaches and strategies for teacher development. They can inform the research on the professional development of art teachers in Jilin Province, guiding the exploration of best practices, program design, and the evaluation of the impact of professional development initiatives for art teachers in public colleges and universities.

As the educational landscape evolves, there is increasing recognition of the importance of effective leadership in promoting teacher professional development. In the context of Jilin Province in my country, where public colleges and universities are relatively prominent, it is necessary to examine the impact of professional leadership on the professional development of art teachers. This study aims to contribute to the improvement of art education and the overall professional well-being of art teachers in Jilin Province.

Research Objectives

1. To explore the components of professional leadership and the professional development of university teachers in Jilin Province.
2. To study effects of the professional leadership on the professional development of university teachers in Jilin Province.

Research Hypothesis

Research whether components of professional leadership has a significant positive impact on components of the professional development of university teachers in Jilin Province, the following hypothesis is put forward:

H1: The professional development were positive significant effects of professional leadership.

H2: Moral cultivation has a significant positive effect on Management ability.

H3: Moral cultivation has a significant positive effect on teacher development.

H4: Implementation capacity has a significant positive effect on Management ability.

H5: Implementation capacity has a significant positive effect on teaching development.

H6: Implementation capacity has a significant positive effect on Academic development.

H7: Visionary motivation has a significant positive effect on teacher development.

H8: Visionary motivation has a significant positive effect on academic development.

H9: Resource integration has a significant positive effect on teaching development.

H10: Resource integration has a significant positive effect on academic development.

Research Methodology

The research method was a mixed method, including qualitative research and quantitative research.

Step 1: Examining the concepts and variables of professional leadership and the professional development of university teachers in Jilin Province.

Step 2: Exploring the concepts and variables of professional leadership and the professional development of university teachers in Jilin Province.

Step 3: Studying the Effects of professional leadership on the the professional development of university teachers in Jilin Province.

1.Population and Sample/Key informants

Step 1 Semi-structured interview:9 Key Informants: semi-structured interview,The 9 key informants are mainly university administrators (3), professors(3), and teachers(3), who have more than 10 years teaching experience and rich management experience from 17 public universities

Step 2 Questionnaire:Population consisted of 1391 who were administrators, Professor and teachers. They come from 17 universities in Jilin Province.

There are 297 samples.The samples are determined by the tables of Krejcie and Morgan (1970). They are from 17 universities in Jilin Province.

Step 3 Questionnaire:Population and samples in the step are the same as the second step.

2. Research Instruments

Step 1 Semi-structured interviews: The interview includes 3 parts: (1):Basic information of key information providers. (2):Regarding the components of professional leadership and the professional development of university teachers in Jilin Province. (3) :Open suggestions and opinions.

Step 2 Questionnaire:Researchers adopted a questionnaire consisting of 3 parts; (1): general information ; (2): professional development of university teachers variable (100 items), (3): Suggestions and additional opinions.

Step 3 Questionnaire:The instrument in this step is the same as the second step.

3. Data analysis

1.To extract keywords through literature review and in-depth interview by content analysis.

2. A descriptive analysis of the results of the questionnaire survey,to find out the concepts and variables of professional leadership and the professional development of university teachers in Jilin Province.

3. The researchers organized experts to conduct focus,discussion Studying the Effects of professional leadership on the the professional development of university teachers in Jilin Province.

Research Results

From the outline of variables from review of literature and related research, for professional leadership, there were 4 main components, and 42 sub-variables. The researchers identified 15 relevant studies by famous scholars for analysis. Select variables with a probability greater than 50% as effective elements, among which there are 42 variables with a probability greater than 50%. After the expert IOC certification, variables with a score of less than 0.5 were removed. Finally, with 10 dimensions and 78 variables, and 78 variables will be used for questionnaire distribution. And prepared a research instrument as a five-point evaluation subscale questionnaire. The Item-Objective Concordance that had scores between 0.60-1.00 were reserved.

Result of Result of Data Analysis for Research Objective 1

Section 1: In order to complete section one, the scientist reviewed literature found 65 sub variables about professional leadership and 75 sub variables about professional development of university teachers, there have been 45 variables from the interview of key informants. The scientist was to combined the content analysis of the literature review and therefore the analysis of semi-structured interview with consultants, a complete of 80 variables are obtained and screened.

Section 2:

Part I: Result of Data Analysis for Research Objective 1. To explore the components of professional leadership and the professional development of university teachers in Jilin Province.

The proportion of males and females is basically the same. There are 154 female, accounting for 51.9% of the total, slightly higher than male. In terms of age, the frequency of more than 55 years was 79, or 26.6 %. Among the professional, lecturers had a frequency of 90, or 30.3%, Among the education, bachelor frequency is 102, with a percentage of 34.3 %; Master frequency is 102, with a percentage of 34.3 %; Among the respondents, the maximum number of working age of 10-15 years was 105 people, accounting for 35.4 %, among the respondents, the maximum number of position of teachers was 153 people, accounting for 51.5%.

Part II Result of Data Analysis on Questionnaire: Descriptive statistics

Scores for the 120 questions ranged from 3.21-3.65, indicating that respondents had their own opinions on the value of the variable at this level. The arithmetic mean was medium to high with a standard deviation of 1.067-1.353, indicating relatively equal acceptance of the project by all study participants.

Based on exploratory factor analysis (EFA), by analyzing the most likely conditions (maximum likelihood) to extract key component variables, it seems that 4 components of professional leadership and 6 components of teacher development in colleges and universities in Jilin Province were obtained.

Part III Result of Data Analysis on Questionnaire: Exploratory Factor Analysis and Confirmatory Factor Analysis

KMO was 0.932, which was greater than 0.6, satisfying the prerequisite requirements for factor analysis, indicating that the data can be used for factor analysis research. The data passed the Bartlett's test of sphericity ($p < 0.05$), indicating that the data of the independent variables in this study are suitable for factor analysis.

Table 1 The KMO test and the Bartlett's test of dependent variables

KMO and Bartlett test		
KMO		0.942
Bartlett test	Approx. Chi-Square	14120.280
	<i>df</i>	3003
	<i>p</i> value	0.000

Table1 that the KMO was 0.932, which was greater than 0.6, satisfying the prerequisite requirements for factor analysis, indicating that the data can be used for factor analysis research. The data passed the Bartlett's test of sphericity ($p < 0.05$), indicating that the data of the dependent variable in this study is suitable for factor analysis.

Table 2 Variance interpretation rate of dependent variables

Factor	Eigen values			% of variance (Initial)			% of variance (Rotated)		
	Eigen	% of Variance	Cum. % of Variance	Eigen	% of Variance	Cum. % of Variance	Eigen	% of Variance	Cum. % of Variance
1	21.902	28.080	28.080	21.902	28.080	28.080	8.068	10.343	10.343
2	5.369	6.884	34.963	5.369	6.884	34.963	7.814	10.018	20.361
3	4.619	5.922	40.885	4.619	5.922	40.885	7.467	9.573	29.934
4	4.340	5.563	46.448	4.340	5.563	46.448	7.406	9.494	39.428
5	3.695	4.737	51.185	3.695	4.737	51.185	6.827	8.752	48.180
6	3.297	4.227	55.412	3.297	4.227	55.412	5.402	6.926	55.106
7	1.159	1.486	56.897	1.159	1.486	56.897	1.397	1.791	56.897
8	0.996	1.277	58.175						
9	0.936	1.200	59.375						
10	0.923	1.183	60.557						
11	0.909	1.165	61.722						
12	0.893	1.144	62.867						
13	0.861	1.104	63.970						
14	0.835	1.070	65.041						
15	0.831	1.065	66.106						
16	0.818	1.048	67.154						
17	0.793	1.016	68.171						
18	0.775	0.993	69.164						
19	0.753	0.966	70.129						

From Table 2, it can be seen that: a total of seven factors were extracted from the factor analysis with eigenroot values greater than 1. These seven factors had variance explained by 28.080%, 6.884%, 5.922%, 5.563%, 4.737%, 4.227%, and 1.486%, respectively, and the cumulative variance explained by 56.897% after rotating them.

It can be seen that: a total of six factors were extracted from the factor analysis with eigenroot values greater than 1. These six factors had 27.039%, 7.171%, 6.339%, 5.965%, 5.047%, 4.444% of variance explained by the rotated variance and had a cumulative variance explained by the rotated variance of 56.005%.

Conclusion

(1)Result of Data Analysis for Research Objective 1. To explore the components of professional leadership and the professional development of university teachers in Jilin Province.

Based on the Exploratory Factor Analysis to extract variables to key component variables by analyzing the most likely conditions (maximum likelihood) to obtain important variables, which appeared to have acquired 4 components of professional leadership and 6 components of the professional development of university teachers in Jilin Province.

components of professional leadership:

- Components 1: Moral Cultivation
- Components 2: Implementation Capacity
- Components 3: Visionary Motivation
- Components 4: Resource Integration

components of the professional development of university teachers in Jilin Province:

- Components 1: Setting an example by virtue and behaviour
- Components 2: Management Ability
- Components 3: Teacher Development
- Components 4: Teaching development
- Components 5: Ability to participate in social activities
- Components 6: Academic development

Table 5 Components of the professional leadership of University Teachers in Jilin Province

NO.	Components	Nominate	Number of variables	Factor loading
1	Component 1	RI	11	0.656-0.758
2	Component 2	IC	9	0.722-0.802
3	Component 3	VM	8	0.717-0.802
4	Component 4	MC	8	0.704-0.795
	Total		36	0.700-0.789

From Table 5, it can be seen that the independent variables have the following four eligible components: component 1 contains 11 variables with factor loading ranging from 0.656 to 0.758; component 2 contains 9 variables with factor loading ranging from 0.722 to 0.802; component 3 contains 8 variables with factor loading ranging from 0.717 to 0.802; component 4 contains 8 variables with factor loading between 0.704 and 0.795. The total number of variables describing these 4 variables is 36 variables with factor loading ranging from 0.656 to 0.802.

On the basis of exploratory factor analysis (EFA), the relevant variables were extracted and their key component variables were analysed to derive the four effective components of the management influencing factors. Then the correspondence between variables and components was analysed by the values of factor loading coefficients, and the components were named according to the correspondence between variables and components.

Table 6 Components of the professional development of university teachers in Jilin Province

NO.	Components	Nominate	Number of variables	Factor loading
1	Component 1	MA	14	0.619-0.748
2	Component 2	SEB	13	0.610-0.819
3	Component 3	AD	13	0.631-0.767
4	Component 4	TID	12	0.659-0.768
5	Component 5	TED	11	0.639-0.784
6	Component 6	APA	9	0.658-0.713
	Total		72	

From Table 6, it can be seen that the dependent variable has the following six eligible components: component 1 contains 14 variables with factor loadings between 0.619 and 0.748; component 2 contains 13 variables with factor loadings between 0.610 and 0.819; component 3 contains 13 variables with factor loadings between 0.631 and 0.767; component 4 contains 12 variables with factor loadings between 0.659 and 0.768; component 5 contains 11 variables with factor loadings between 0.639 and 0.784; and component 6 contains 9 variables with factor loadings between 0.658 and 0.713. The total number of variables describing these 6 variables is 72 variables with factor loadings ranging from 0.610 to 0.819.

On the basis of exploratory factor analysis (EFA), the relevant variables were extracted and their key component variables were analysed to derive the six effective components of the management influence factors. Then the correspondence between variables and components was analysed through the values of factor loading coefficients, and the components were named according to the correspondence between variables and components.

(2) Result of Data Analysis for Research Objective 2. Hypothesis testing.

Based on the Exploratory Factor Analysis to extract variables to key component variables by analyzing the most likely conditions (maximum likelihood) to obtain important variables, which appeared to have acquired 4 components of professional leadership and 6

components of the professional development of university teachers in Jilin Province.

Table 9 Standardized regression analysis

Variables	SEB		MA		TED		TID		APA		AD	
	Model 1		Model 2		Model 3		Model 4		Model 5		Model 6	
	Unst. B-value	St. β -value	Unst. B-value	St. β -value	Unst. B-value	St. β -value	Unst. B-value	St. β -value	Unst. B-value	St. β -value	Unst. B-value	St. β -value
Constant term	1.196**		0.840**		0.937**		0.959**		0.956**		1.071**	
MC	0.122*	0.129	0.286**	0.290	0.231**	0.228	0.253**	0.258	0.143**	0.150	0.056	0.059
IC	0.287**	0.316	0.089	0.095	0.144**	0.149	0.178**	0.190	0.242**	0.265	0.245**	0.271
VM	0.046	0.050	0.152**	0.161	0.263**	0.271	0.061	0.065	0.115*	0.126	0.196**	0.218
RI	0.200**	0.199	0.228**	0.219	0.092	0.086	0.226**	0.217	0.233**	0.230	0.195**	0.195
F	24.14**		27.876**		24.582**		25.357**		28.253**		26.587**	
R ²	0.249		0.276		0.252		0.258		0.279		0.267	
R ² adj.	0.238		0.266		0.242		0.248		0.269		0.257	

$$\hat{Y} = 0.129*MC + 0.316*IC + 0.199*RI.$$

As can be seen from the figure, MC, IC, VM and RI significantly affect Y, Specifically, MC positively affects Y, IC significantly positively affects Y, VM positively affects SED, and RI positively affects Y.

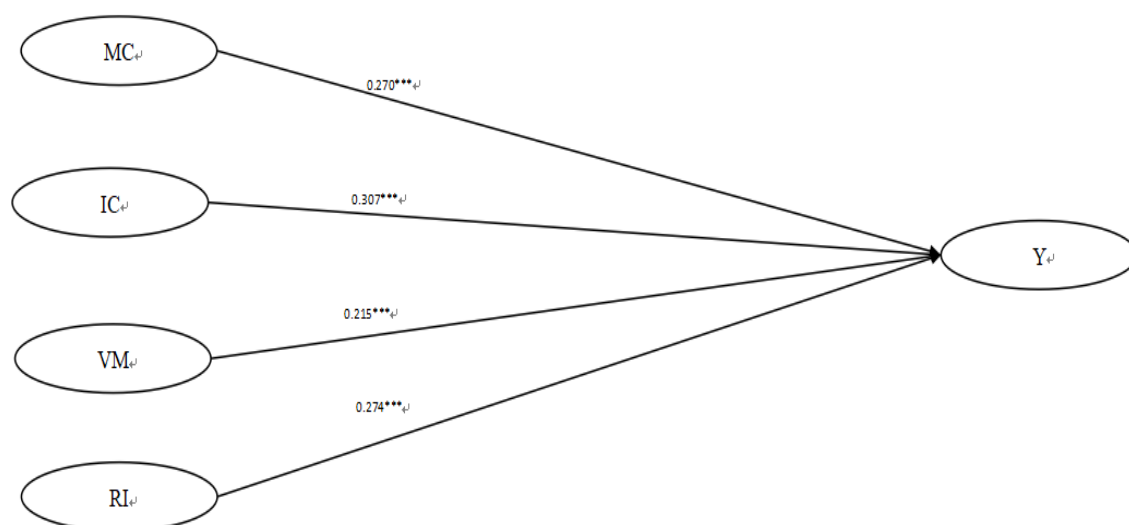


Figure 4-1 Multiple Regression Model

$$\hat{SEB} = 0.129*MC + 0.316*IC + 0.199*RI.$$

As can be seen from the figure, MC, IC, and RI significantly affect SEB, and VM has no significant effect on SEB. Specifically, MC positively affects SED, IC significantly positively affects SED, VM insignificantly affects SED, and RI positively affects SED.

$$\hat{MA} = 0.290*MC + 0.161*VM + 0.219*RI.$$

As shown in the figure, MC, VM, and RI significantly affect MA (H1), and IC has a no significant effect on MA (H3). Specifically, MC positively affects MA; IC insignificantly affects MA; VM significantly positively affects MA and RI positively affects MA.

$$\hat{TED} = 0.228*MC + 0.149*IC + 0.271*VM.$$

From the figure, MC, IC, and VM significantly affect TED (H2), and RI has no

significant effect on TED (H8). Specifically, MC positively affects TED ; IC significantly positively affects TED; (H6) VM positively affects TED; and RI has a non-significant effect on TED.

$$\hat{TID} = 0.258*MC + 0.190*IC + 0.217*RI.$$

As shown in the figure, MC, IC, and RI significantly affected TID (H4), and VM had a non-significant effect on TID. Specifically, MC positively affected TID, IC significantly positively affected TID, VM insignificantly affected TID, and RI positively affected TID.

$$\hat{APA} = 0.150*MC + 0.265*IC + 0.126*VM + 0.230*RI.$$

From the figure, it can be seen that MC, IC, VM, and RI significantly affect APA. specifically, MC positively affects APA, IC significantly positively affects APA, and VM positively affects APA, and RI had a positive effect on APA.

$$\hat{AD} = 0.271*IC + 0.218*VM + 0.195*RI.$$

As shown in the figure, MC, IC, VM, and RI significantly affected AD (H5, H7 & H9). specifically, MC had a non-significant effect on AD, IC had a significant positive effect on AD, VM had a positive effect on AD, and RI had a positive effect on AD.

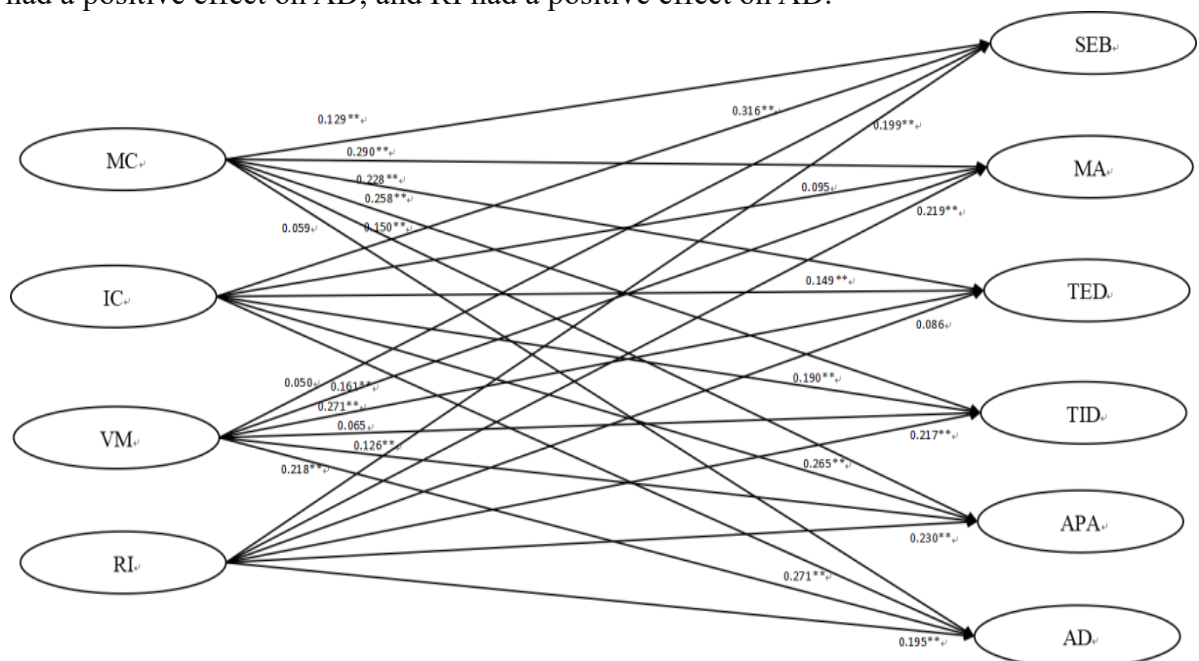


Figure 4-2 Multiple Regression Model

Discussion

Discussion about major findings of objective 1

There were four components of professional leadership of university teachers in Jilin Province which consisted of moral cultivation, implementation capacity, visionary motivation, resource integration .

Component 1:Resource Integration

The major findings “resource integration” were revealed as such because resource integration in professional leadership is not merely an administrative task. In a complex, interconnected world, the ability to integrate resources effectively becomes a cornerstone of impactful leadership. This research finding was in accordance with the theories or research of Xu, (2016 : 87-90), which found that Efficient resource integration ensures that all assets are utilized to their fullest potential, thereby reducing wastage and redundancies.

Component 2:Implementation Capacity

The major findings “implementation capacity” were revealed as such because while having a compelling vision is vital for any leader, it's the ability to turn that vision into actionable steps and then execute those steps that determines success. This research finding were in the same direction with Tang, (2020, 69) finding that When team members see plans being executed and results being achieved, it acts as a positive reinforcement. Effective implementation involves foreseeing potential challenges, mitigating risks, and being prepared with contingency plans. Leaders with strong implementation capacity are proactive in addressing potential obstacles. While short-term wins are important, it's the consistent ability to implement and achieve long-term objectives that ensures sustainability and ongoing success for an organization.

Component 3:Visionary Motivation

The major findings “visionary motivation” were revealed as such because visionary motivation is not just a leadership trait; it's a catalyst that transforms potential into reality, ideas into impact, and organizations into legends. This research finding was in accordance with the theories or research of Hao& Guo, (2023 : 46-52), which found that A visionary leader crafts a vision that serves as a North Star—a clear and compelling focal point that provides direction. A vision challenges the current state and creates a gap between "what is" and "what could be." Also, the findings were in the same direction withJiang, (2023 : 39-42) finding that Visionary motivation promotes a shared sense of purpose. When everyone is motivated by a common vision, individual efforts coalesce into a unified force. A motivating vision becomes a driving force for change, encouraging teams and individuals to evolve, grow, and embrace new paradigms, all in pursuit of the envisioned future.

Component 4:Moral Cultivation

The major findings “moral cultivation” were revealed as such because Leaders who display moral integrity and consistently make ethical decisions earn the trust and respect of their team members, peers, and other stakeholders. This research finding was in accordance with the theories or research of Tim, (2023 : 163-178) which found that Leadership often involves making complex decisions with significant consequences. A cultivated moral compass can guide leaders in making decisions that are not only effective but also ethically sound, balancing both organizational and societal interests.By emphasizing moral values and ethical behavior, leaders can create a positive work environment where employees feel valued, respected.

There were six components of the professional development of university teachers in Jilin Province which consisted of setting example by virtue and behavior, management ability, teacher development, teaching development, ability to participate in social activities and academic development, respectively.

Component 1: Management Ability

The major findings "Management Ability" were as such because the development of effective management abilities among university teachers is foundational for fostering a conducive academic environment, enhancing teaching quality, and facilitating continuous improvement. This research finding was in accordance with the theories or research of Zhao & Qiu, (2023 : 71-75), which found Teachers must develop the ability to plan curriculum, assess student needs, and implement strategies for optimal learning outcomes. The professional development programs should target these managerial skills, offering training sessions, workshops, and resources that empower educators to become adept managers of their academic responsibilities.

Component 2: Setting an example by virtue and behaviour

The major findings "setting example by virtue and behavior" were revealed as such because "setting an example by virtue and behavior" is not merely a didactic tool. This research finding was in accordance with the theories or research of Feng, He, Song, R. (2012, 18-24), which found that university teachers aren't just instructors. By upholding high standards of virtue and behavior, they offer a tangible example of the values and principles they advocate, fostering a culture of integrity, diligence, and respect. Also, the findings were in the same direction with Zhao & Qiu, (2023 : 71-75) finding that Adherence to virtuous conduct and positive behavior often opens doors for academic collaboration, research opportunities, and professional networking. The reputation garnered through exemplary behavior can significantly enhance a teacher's career trajectory. Teachers indirectly shape the ethos of their students, ensuring they graduate as responsible, ethical, and constructive members of society.

Component 3: Academic development

The major findings "academic development" were revealed as such because it is the lifeblood of a university teacher's professional journey. By committing to continuous academic development, university teachers ensure that they remain pillars of knowledge, inspiration, and innovation in the ever-evolving landscape of higher education. This research finding was in accordance with the theories or research of Jiang & Zhang, (2023 : 5-9), Hu, (2019 : 1), which found that at the university level, the depth of subject knowledge is paramount. As fields continually evolve and expand, academic development ensures that educators remain at the forefront, offering students the most current and comprehensive insights. Academic development nurtures the research prowess of educators, enabling them to contribute original insights to their disciplines, mentor students in research endeavors, and secure grants or funding.

Component 4: Teaching development

The major findings "teaching development" were revealed as such because it is the bedrock upon which academic excellence stands. For university teachers, it ensures that they are not merely subject experts but also masterful educators who can impart knowledge effectively, inspire critical thinking, and foster a passion for learning among their students.

This research finding was in accordance with the theories or research of Jiang, (2015 : 39-42), Hu, (2019 : 1), which found that the methods and strategies of teaching are continually evolving. Through teaching development, university teachers can stay updated with the latest pedagogical tools and techniques. Teaching development equips educators with strategies to address this diversity, ensuring inclusive and effective teaching. Continuous teaching development allows teachers to utilize these tools efficiently, enhancing student engagement and learning outcomes.

Component 5: Teacher Development

The major findings “teacher development” were revealed as such because it isn't just a supplementary aspect of a university teacher's career—it's integral to it. It serves as the backbone of academic excellence, ensuring that educators are not just subject matter experts but are also skilled, empathetic, and innovative disseminators of knowledge. This research finding was in accordance with the theories or research of Xu & Hu (2013 : 11-17), which found that The world of academia is in perpetual flux with evolving knowledge bases, emerging research methodologies, and advancing technological tools. Teacher development ensures that university teachers remain up-to-date with current academic trends, methodologies, and technologies. Also, the findings were in the same direction with Zhao, (2020 : 114-115) finding that A well-developed teacher is better equipped to foster positive academic outcomes. Enhanced teaching methods, classroom management skills, and assessment techniques all contribute to a richer learning experience for students. By engaging in ongoing professional development, university teachers model this ethos for their students, instilling a passion for continuous growth and exploration. Teacher development programs often incorporate modules on emotional intelligence, conflict resolution, and effective feedback, equipping educators to manage diverse classrooms and student personalities.

Component 6: Ability to participate in social activities

The major findings “ability to participate in social activities” were revealed as such because it is not a peripheral aspect of a university teacher's professional development. By embedding themselves in varied social matrices, educators not only elevate their academic pursuits but also evolve as well-rounded individuals, capable of imparting knowledge and values that resonate both within the classroom and in the broader world. This research finding was in accordance with the theories or research of Hao & Guo (2023 : 46-52), Tang (2020 : 69), Hu (2014 : 54-57), which found that The methods and strategies of teaching are continually evolving. The integration of technology into the classroom, from learning management systems to virtual reality tools, has transformed the teaching process. Continuous teaching development allows teachers to utilize these tools efficiently, enhancing student engagement and learning outcomes.

Discussion about major findings of objective 2

H1: The professional development were positive significant effects of professional leadership.

H2: Moral cultivation has a significant positive effect on Management ability.

H2 was in accordance with the theories or research of Chen & Sun (2029 : 157-178), which found that moral cultivation plays a crucial role in ethical decision-making. Moral cultivation can enhance a manager's ability to resolve conflicts in a fair and ethical manner, taking into account the interests and values of all parties involved. Also, it was in the same direction with Hong & Heng (2017: 8) finding that morally cultivated managers tend to create

a positive and inclusive work environment. Managers have a significant influence on the culture of their organizations.

H3: Moral cultivation has a significant positive effect on teacher development.

H3 was in accordance with the theories or research of Zhao & Qiu (2023 : 71-75), which found that moral cultivation and teacher development in universities are closely intertwined. When teachers prioritize ethical values and principles, it can lead to a more ethical and inclusive educational environment, positively influence students, and contribute to the overall mission of higher education to foster responsible and ethical citizens. This sets a positive example for students to follow and helps instill ethical values in the learning environment. Also, it was in the same direction with Wang (2023 : 109-115) finding that In addition to teaching, university faculty are often engaged in research and scholarly activities. Ultimately, the relationship between moral cultivation and teacher development in universities can impact students' character development and moral growth.

H4: Implementation capacity has no significant positive effect on Management ability. Because successful management usually requires the comprehensive use of multiple abilities, including execution ability. If managers only focus on execution and ignore other important factors, it may result in no significant positive impact on management capabilities.

H5: Implementation capacity has a significant positive effect on teaching development.

H5 was in accordance with the theories or research of Hu & Yang (2023 : 51-56), which found that University administrators are responsible for allocating resources, including funding, technology, and classroom facilities. Policies that encourage and support ongoing teacher improvement, such as tenure and promotion criteria that consider teaching effectiveness, can motivate teachers to invest in their teaching development.. Also, it was in the same direction with Sun (2021 : 122-133) finding that Administrators have the capacity to provide support and feedback to teachers in their quest for teaching excellence. This includes constructive feedback on teaching evaluations, mentorship programs, and guidance on effective teaching practices.

H6: Implementation capacity has a significant positive effect on Academic development.

H6 was in accordance with the theories or research of Zhang (2018 : 250-251), which found that University administrators are responsible for allocating resources, including funding, research facilities, and access to academic journals and databases. Academic development programs can help teachers enhance their research skills, stay updated on current trends in their fields, and engage in scholarly activities. Policies that encourage and support research, publication, and scholarly collaboration can motivate teachers to invest in their academic development.

H7: Visionary motivation has a significant positive effect on teacher development.

H7 was in accordance with the theories or research of Yao & Zhang. (2022 : 41-49), which found that visionary administrators often have a long-term vision for the university's growth and success. They communicate a sense of purpose and aspiration that motivates teachers to invest in their own development, embrace innovation, and strive for excellence in their teaching.

H8: Visionary motivation has a significant positive effect on academic development.

H8 was in accordance with the theories or research of Yan (2019 : 75-85), which found that visionary leaders inspire and provide a clear sense of direction for university

teachers. A visionary leader's motivation is often closely aligned with the institution's academic development goals.

H9: Resource integration has no significant positive effect on teaching development. Because factors such as unreasonable resource selection, insufficient teacher preparation, technical support, student feedback and participation, lack of effective evaluation mechanisms, over-reliance on technology, and unsuitable educational culture all affect the positive impact of resource integration on teaching development.

H10: Resource integration has a significant positive effect on academic development.

H10 was in accordance with the theories or research of Xu (2016 : 87-90), which found that Administrators, including university leaders and department heads, are responsible for allocating resources such as budgets, research facilities, technology, and staff support. Resource integration can encompass funding and support for professional development programs. Adequate resources for research activities are crucial for academic development. When teachers have access to research funding, libraries, laboratories, and research facilities, it enables them to engage in scholarly activities, stay current in their fields, and contribute to academic knowledge.

Recommendations

The dissertation underscores a critical connection between effective professional leadership and the growth of university teachers. Based on the insights provided in the paper, several valuable policy recommendations can be proposed to enhance the professional development of university teachers in Jilin Province. (1) Develop organized leadership development plans for university teachers. (2) Implement the mentor program. (3) Modify the performance evaluation criteria. (4) Encourage collaborative research among university teachers. (5) Introducing structured pathways for career advancement aligned with leadership roles can be instrumental. (6) Create opportunities for university teachers inside and outside the province to network, and interact with experts. (7) Provide financial support for teachers to participate in skill upgrading. (8) Provide teachers with specialized training in research project management, grant writing, and collaborative research practice. (9) Smooth feedback and communication channels. (10) Establish and improve a comprehensive and long-term teacher development strategy

Recommendation for practical application

The dissertation offers valuable insights that can be practically applied to enhance the professional development of university teachers in the region. To translate these insights into actionable steps, the following recommendations can be considered:

(1) Organize regular workshops focused on leadership development. (2) Establish a mentorship program that pairs experienced faculty members with junior teachers. (3) Integrate leadership modules into the training curriculum for university teachers. (4) Develop a repository of leadership resources, This digital library can serve as a self-paced learning platform. (5) Foster collaborative projects that require university teachers to work together across disciplines. (6) Recognize and celebrate instances where university teachers exhibit leadership qualities. (7) Organize networking events where university teachers can connect with professionals from academia, industry, and other sectors. (8) Offer financial support or study leave for university teachers to pursue advanced degrees or attend leadership-focused courses. (9) Encourage and support university teachers to lead research projects. Provide funding, administrative assistance, and mentorship to guide them through the process of

project management, data analysis, and dissemination.(10) Establish regular feedback loops where university teachers can share their experiences and suggest improvements for leadership development initiatives. (11) Facilitate collaborations between universities within Jilin Province, provide a platform for sharing best practices.(12) Develop a comprehensive, long-term strategy for the implementation of these practical recommendations. This strategy should outline clear goals, allocate resources, and define milestones for assessing the impact of the initiatives.

Recommendation for Further Research

(1) Research and observe the long-term impact of professional leadership on the professional development of university teachers.

(2) Research and compare the impact of professional leadership on university teacher development in different provinces or regions in China,

(3) Research and quantitative data such as surveys and performance indicators are combined with qualitative insights gained from interviews.

(4) Research and investigate how gender dynamics intersect with professional leadership and the resulting impact on the professional development of university faculty.

(5) Research and investigate the indirect effects of professional leadership on student learning outcomes.

In conclusion, "The Influence of Professional Leadership on the Professional Development of University Teachers in Jilin Province" opens the door to a myriad of research possibilities. By exploring these recommendations, scholars can contribute to a deeper understanding of the complex dynamics between leadership and the growth of university teachers, providing valuable insights for the enhancement of educational practices and policies.

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