



**THE INFLUENCING FACTORS OF TEACHER WORKFORCE
DEVELOPMENT IN QINGDAO NO.58 HIGH SCHOOL UNDER
THE URBAN-RURAL EDUCATION INTEGRATION**

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**AN INDEPENDENT STUDY SUBMITTED IN PARTIAL FULFILLMENT
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This Independent Study has been Approved as a Partial Fulfillment of the
Requirements for the Degree of Master of Business Administration

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ABSTRACT

In the urban-rural education integration, teacher workforce development has an important impact on the long-term development of No.58 High School. This study took this school as a case study to analyze the factors influencing its teacher workforce development. The four research objectives of this study were: 1) To explore the impact of teacher ethics on the development of teacher workforce of No.58 High School; 2) To explore the impact of teacher management mechanisms on the development of teacher workforce of No.58 High School; 3) To explore the impact of teachers' professional quality training on the development of teacher workforce of No.58 High School, and 4) To explore the impact of occupational treatments on the development of teacher workforce of No.58 High School.

This study used the quantitative analysis method to explore the factors affecting the teacher workforce development in No.58 High School. By conducting the questionnaire survey on the school's teachers, this study collected 188 valuable and valid questionnaires. By analyzing and studying these data, the following conclusions were drawn 1) Teacher ethics has a positive impact on the development of teacher workforce at No.58 High School; 2) Teacher management mechanisms have a positive impact on the development of teacher workforce at No.58 High School; 3) Teacher's professional quality training has a positive impact on the development of teacher workforce at No.58 High School, and 4) Occupational treatments have a positive impact on the development of the teacher workforce at No.58 High School.

No.58 High School could strengthen the development of teaching workforce by improving teacher ethics, teacher management mechanism, teacher's professional quality training, and occupational treatments to better adapt to the requirements of the urban-rural education integration and to enable the school to achieve a more comprehensive, balanced and sustainable development.

Keywords: urban-rural education integration, teacher workforce development, influencing factors



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HU ZECHANG

DECLARATION

I, Zechang Hu, hereby certify that the work embodied in this independent study entitled “The Influencing Factors of Teacher Workforce Development in Qingdao No.58 High School Under the Urban-Rural Education Integration” is result of original research and has not been submitted for a higher degree to any other university or institution.

(ZECHANG HU)
May 10, 2024



CONTENTS

ABSTRACT.....	I
ACKNOWLEDGEMENT	III
DECLARATION.....	IV
CONTENTS.....	VII
LIST OF TABLES	IX
LIST OF FIGURES	IX
Chapter 1 Introduction	1
1.1 Background of the Study	1
1.2 Questions of the Study	2
1.3 Objectives of the Study	3
1.4 Scope of the Study	3
1.5 Significance of the Study	4
1.5.1 Theoretical Significance	4
1.5.2 Practical Significance.....	4
Chapter 2 Literature Review	5
2.1 Introduction.....	5
2.2 Theoretical Foundation	5
2.2.1 Theory of Urban-Rural Integration.....	5
2.3 Factors of Teacher Workforce Development	6
2.3.1 Teacher Ethics	7
2.3.2 Teacher Management Mechanisms	8
2.3.3 Teacher’s Professional Quality Training.....	10
2.3.4 Occupational Treatments	11
2.4 Introduction to No.58 High School.....	13
2.5 Conceptual Framework.....	13
Chapter 3 Research Methodology.....	15
3.1 Introduction.....	15
3.2 Research Design.....	15
3.2.1 Teacher Ethics Scale	15
3.2.2 Teacher Management Mechanisms Scale	16
3.2.3 Teacher’s Professional Quality Training Scale	17
3.2.4 Occupational Treatments Scale.....	18
3.2.5 Teacher Workforce Scale	19
3.3 Hypothesis.....	20
3.4 Population and Sampling Size	20
3.5 Data Collection	20
3.6 Data Analysis	21

3.6.1 Questionnaire Reliability Analysis	21
3.6.2 Questionnaire Validity Analysis.....	21
Chapter 4 Findings	23
4.1 Introduction.....	23
4.2 Descriptive Statistical Analysis.....	23
4.3 The Impact of Teacher Ethics on Teacher Workforce Development of No.58 High School	24
4.4 The Impact of the Teacher Management Mechanisms on Teacher Workforce Development of No.58 High School.....	25
4.5 The Impact of Teacher’s Professional Quality Training on Teacher Workforce Development of No.58 High School.....	26
4.6 The Impact of Occupational Treatments on Teacher Workforce Development of No.58 High School	27
Chapter 5 Conclusion and Recommendation.....	29
5.1 Introduction.....	29
5.2 Conclusion	29
5.2.1 Teacher Ethics Have a Positive Impact on the Development of Teacher Workforce of No.58 High School	29
5.2.2 Teacher Management Mechanisms Have a Positive Impact on the Development of Teacher Workforce of No.58 High School.....	30
5.2.3 Teacher’s Professional Quality Training Has a Positive Impact on the Development of Teacher Workforce of No.58 High School.....	31
5.2.4 Occupational Treatments Have a Positive Impact on the Development of Teacher Workforce of No.58 High School	32
5.3 Recommendation	33
References.....	34
Appendix.....	37

LIST OF TABLES

Table 3.1 Teacher Ethics Scale.....	15
Table 3.2 Teacher Management Mechanisms Scale	17
Table 3.3 Teacher’s Professional Quality Training Scale	18
Table 3.4 Occupational Treatments Scale	19
Table 3.5 Teacher Workforce Scale.....	20
Table 3.6 The Result of Questionnaire Reliability Analysis	21
Table 3.7 The Result of Questionnaire Validity Analysis	22
Table 4.1 Demography	23
Table 4.2 Results of Correlation Analysis Between Teacher Ethics and Teacher Workforce Development	24
Table 4.3 Results of Regression Analysis of Teacher Ethics and Teacher Workforce Development	24
Table 4.4 Results of Correlation Analysis Between Teacher Management Mechanisms and Teacher Workforce Development.....	25
Table 4.5 Results of Regression Analysis of Teacher Management Mechanisms and Teacher Workforce Development.....	25
Table 4.6 Results of Correlation Analysis Between Teacher’s Professional Quality Training and Teacher Workforce Development	26
Table 4.7 Results of Regression Analysis of Teacher’s Professional Quality Training and Teacher Workforce Development	27
Table 4.8 Results of Correlation Analysis Between Occupational Treatments and Teacher Workforce Development	27
Table 4.9 Results of Regression Analysis of Occupational Treatments and Teacher Workforce Development	28

LIST OF FIGURES

Figure 2.1 Conceptual Framework 14



Chapter 1 Introduction

1.1 Background of the Study

Education is the foundation and precursor of the development of the national economy as a whole. Educational equity is an inevitable requirement for the development of education itself, and it is a necessary and proper way to realize social equity. (Zhang & Xu, 2024). As a comprehensive, coordinated, and sustainable development model, urban-rural education integration plays a crucial role in promoting the balance of urban and rural education, and the state has made promoting urban-rural education integration development a long-term strategic assignment. In China, the urban-rural education gap results from a long history of accumulation, the shortage of high-quality education resources, the unbalanced development of compulsory education, and especially the unbalanced teacher qualifications are still the most prominent and realistic problems facing the education field.

For a long time, the state has attached great importance to the teacher workforce development, coordinated planning, and made institutionalized guarantees. In 2012, the report of the 18th CPC National Congress put forward that "it is necessary to equilateral the allocation of nine years of compulsory education, and vigorously promote the fairness of education, and at the same time, it is necessary to strengthen the teacher workforce development (Zhang, 2012)." At the end of 2017, the Opinions on Comprehensively Deepening the Reform of Teacher Squad Construction in the New Era was adopted, the first policy in China dedicated to the teacher workforce development. It has become a national strategy for strengthening the teacher workforce development (Chinese State Council, 2017). The Plan for Stronger Teachers in Basic Education in the New Era proposes that efforts be made to create a high-quality, specialized, and innovative elementary and secondary school teaching force in the new era and to provide a strong guarantee of teachers for the realization of the modernization of education (Chinese Ministry of Education, 2022).

Under the new situation in primary education, more urgent development requirements have been put forward for elementary and secondary school teachers regarding their comprehensive qualities and teacher qualifications. Therefore, the Qingdao Education Department has issued a series of documents to promote the professionalization of the teaching force, guide teachers to comply with the regulations and requirements related to teacher ethics in the new era and improve their abilities in education and teaching, organization, and management, communication, and

coordination, to promote the construction of a high-quality education system (Qingdao Education Department, 2023).

However, due to various realities, especially under the new situation of the "double-decrease policy," the construction of the No.58 High School's teacher workforce is facing many challenges, such as the effectiveness of teacher ethical construction, the inadequacy of the teacher management mechanism, the lack of targeted professional quality training for teachers, and the difficulty of motivating teachers with salary and wages, etc., so the development of the elementary and secondary school teaching workforce deserves more attention and improvement measures to ensure the healthy development of the education.

1.2 Questions of the Study

The development of teacher workforce is the key to promoting urban and rural education integration. Many scholars have indicated that a series of policies issued by the state has enriched the connotation of the development of the teacher workforce, covering such aspects as teacher ethics, optimizing the management mechanism such as the size and the structure of the teacher workforce, training in professional qualities, and guaranteeing the treatment of the teachers (Cheng & Zhang, 2022). The practical development of the teaching workforce will ensure a balanced distribution of educational resources and promote fair and quality educational opportunities for every child. Therefore, this study aims to investigate the factors that influence teacher workforce development in Qingdao No.58 High School and analyze the relationship between the role of each factor and teacher workforce development. Through this study, corresponding measures will be proposed for developing an excellent secondary school teaching workforce in Qingdao, which will make a meaningful exploration for improving teachers' work effectiveness and for the long-term sustainable development of students in the future. On this basis, the study proposes the following four research questions:

- 1) Do teacher ethics have a positive impact on the development of teacher workforce of No.58 High School?
- 2) Do teacher management mechanisms have a positive impact on the development of teacher workforce of No.58 High School?
- 3) Does teacher's professional quality training has a positive impact on the development of teacher workforce of No.58 High School?

- 4) Do occupational treatments have a positive impact on the development of teacher workforce of No.58 High School?

1.3 Objectives of the Study

To ensure the right of urban and rural school-age children to receive fair and high-quality education, it is necessary to carry out integrated planning in education and improve the system of developing teacher workforce to promote urban-rural education integration. Therefore, the research objectives of this study are as follows:

- 1) To explore the impact of teacher ethics on the development of teacher workforce of No.58 High School
- 2) To explore the impact of teacher management mechanisms on the development of teacher workforce of No.58 High School.
- 3) To explore the impact of teachers' professional quality training on the development of teacher workforce of No.58 High School
- 4) To explore the impact of occupational treatments on the development of teacher workforce of No.58 High School.

1.4 Scope of the Study

This study targets the teacher workforce of Qingdao No.58 High School and aims to explore the key factors affecting its workforce development. Based on the theory of urban-rural integration, this study systematically reviews 50 related literature. It revealed the key factors affecting the development of the teacher workforce by analyzing the aspects of teacher ethics, teacher management mechanisms, teachers' professional quality training, and occupational treatments in the teacher workforce. The study aims to provide guidance for Qingdao No.58 High School and other similar schools to optimize the management of teaching workforce, improve the quality of education and teachers' job satisfaction, and thus promote the fair and sustainable development of education.

1.5 Significance of the Study

1.5.1 Theoretical Significance

Regarding theoretical significance, the study supplements the integration of urban and rural education and the development of the teacher workforce. In the current research background, scholars have mainly explored the development trend, status quo, and problems encountered in urban-rural education integration but have yet to analyze the development of the teacher workforce. Discussing the influencing factors of teacher workforce development complements the policy of teacher workforce development and the integration of urban-rural education. It enriches the research connotation of related theories to a certain extent. On the other hand, it provides theoretical support for optimizing the path to accelerate the construction of the evaluation system for the quality of teacher training and the implementation of salary and other related policies to ensure the rationality and scientificity of the proposed policies.

1.5.2 Practical Significance

The study of the development process of teacher workforce development is conducive to the further balanced development of compulsory education and the realization of urban-rural education integration; only through the further implementation of specific measures for the equalization of education can ensure the integrated development of education between urban and rural areas. This study starts with the teacher workforce development, targets the teachers of Qingdao No.58 High School, analyzes the influencing factors, explores new ways to improve the development of the teacher workforce, proposes countermeasures and suggestions aligned with the current situation, and deepens the understanding of teacher workforce development. At the same time, Qingdao, as a developed coastal area, also provides experience and approaches for other cities with similar levels of development to realize the balanced allocation of teachers in the compulsory education stage and opens up new perspectives for the relevant education departments.

Chapter 2 Literature Review

2.1 Introduction

This chapter reviews the theories of urban-rural integration and summarizes academic research results on the four critical factors of teacher workforce development: teacher ethics, teacher management mechanisms, teacher professional quality training, and occupational treatments. These factors provide strong theoretical support for the teacher workforce development of Qingdao No.58 High School.

2.2 Theoretical Foundation

2.2.1 Theory of Urban-Rural Integration

The theory of integration was first applied in economics, and later, the theory of urban-rural integration was also proposed in sociology. Urban-rural integration refers to the organic combination of urban and rural areas in the political, economic, cultural, and ecological aspects within a certain area. It forms a new type of urban-rural relationship that relies on both urban and rural areas, complements each other's strengths, and develops in a coordinated manner (Pang, 2010). This process gradually eliminates the urban-rural dual structure and ultimately realizes the common prosperity of urban and rural areas.

1) Marx's Theory of Urban-Rural Integration

Urban-rural integration, which emphasized that with the disappearance of the distinction between class, the antagonism between the city and the countryside would disappear and that in a communist society, those engaged in agriculture and industry would be in the same category of people. According to Marxism, the ways to achieve urban-rural integration included the elimination of the old social division of labor, the promotion of productive education and change of jobs, the sharing of created benefits, and the integration of urban and rural areas so that the talents of all members of society could be fully developed. This theory emphasized the impact of changes in the social division of labor on urban-rural relations. It stated that changes in the relations of production trigger urban-rural integration and that urban and rural areas would become integrated with the development of productive forces and changes in the social division of labor (Marx & Engels, 1958).

2) Howard's Rural City Theory

British urbanist Howard proposed the Idyllic City theory in *Tomorrow's Idyllic City*, which advocated replacing the old urban-rural dichotomy with a new social structure that integrates urban and rural areas. He believed that the city and the countryside have advantages and disadvantages and that combining them into an urban-rural complex can avoid their shortcomings. By analyzing the strengths and weaknesses of the city and the countryside, Howard proposed the establishment of an Idyllic City, which would complement the strengths of the city and the countryside and promote the overall development of society (Howard, 2010).

As part of the theory of urban-rural integration, the integration of urban and rural education emphasizes its distinctly social nature. To achieve urban-rural integration, it is necessary to implement comprehensive planning in the field of education, update educational concepts, improve education policies and measures, and reform the education management system. The essence of urban-rural educational integration lies in leveraging the advantages of high-quality education, expanding the reach of urban educational resources to ensure universal access to their benefits, sharing and complementing educational resources between urban and rural areas, thereby fostering the development of community members and advancing community progress. Furthermore, it aims to enhance educational equity, representing the ultimate goal of urban-rural educational integration. This study introduces education into the theory of urban-rural integration to provide new ideas for the development of education in the No.58 High School and to promote the education of the No.58 High School to a higher level.

2.3 Factors of Teacher Workforce Development

The quality of teacher workforce development significantly shapes a nation's future trajectory. To achieve sustainable economic growth, prioritizing higher-quality education and corresponding teacher workforce development is essential. This entails focusing on eight key aspects that influence teacher workforce development: teacher's professional quality training, training program initiatives, improvements in occupational treatments, pathways for teacher advancement, fostering teacher ethics and conduct, among others (Liu & Wang, 2022). This study primarily discusses the impacts of the following factors on teacher workforce development:

2.3.1 Teacher Ethics

Teachers' ethics, or rather, the professional moral cultivation of teachers, are paramount. Years of practice have demonstrated that the essence of education lies in the advancement of the teacher workforce, with the cornerstone being the cultivation of teachers' morality and ethics (Qi, 2024). Since the reform and opening up, the construction of teacher morality in our country has gone through four stages: improving ideological and political quality, playing the function of political orientation, strengthening the awareness of teaching according to the law and improving the level of education quality. Strengthening the construction of teachers' ethics is a persistent strategic choice in the development of China's teacher workforce. (Yi et al., 2022). The Ministry of Education, in conjunction with the characteristics of social development in the new era, has issued more than a decade of policies and regulations on the long-term mechanism for the construction of teachers' ethics, measures for dealing with the violation of professional, ethical behaviors, the prohibition of paid tuition, and the code of conduct for the teaching profession in an attempt to improve teachers' ethics and enhance their qualities using external norms and constraints. Teacher ethics and conduct play a crucial role in building a strong teacher workforce and are one of the key influencing factors.

However, there are also problems, such as teachers' ethics being a mere formality, individual teachers' lack of quality, a weak sense of nurturing, and a severe utilitarian mindset. Liu and Wang (2020) noted that focusing solely on professional ethics education is insufficient for improving the practical level of teacher ethics, given the composition and overall structure of teacher ethics. There is a noticeable deviation between the intended meaning of the policy and its implementation process. Furthermore, there is a need to enhance the progressiveness, staging, and standardization of teacher ethics construction. Additionally, the standards for teachers are excessively detailed. This has led to a split between theoretical and practical research on teachers' reasonable rights and interests.

The behavior of teachers in their work is directly related to the healthy growth of students and the future development of the country (Zhang & Tao, 2017). In terms of their influencing factors, teachers' intrinsic personal quality, economic income, extrinsic evaluation and assessment mechanism of teacher ethics, and social public opinion atmosphere are all closely related to the effectiveness of teacher workforce (Shen, 2022). Shapira-Lishchinsky (2019) conducted a TIMSS 2015 teacher questionnaire from 45 countries and regions to quantitatively analyze the global teachers' general perceptions of professional ethics and the particular views of teachers

in certain countries. The study aimed to explore teachers' attitudes toward ethical practices and the contents of teacher ethics. The results showed that "concern for students' ability to learn," "interaction with colleagues," "respect for professional norms," "respect for professionalism," and "teacher's ability to learn" were the most important factors in the development of teacher ethics. This contributes to the development of ethical concepts in the profession and helps develop the teaching profession positively.

Godlove (2022) conducted a qualitative analysis in the form of a field survey with 18 respondents in the Tanzania region to explore in depth the extent to which teachers' misbehavior affects their professional image and ultimately came to the following conclusions: the low level of morality of certain teachers has severe negative impacts on the whole social group, including teachers, as well as weakening teachers' social position and professional honor. Therefore, schools should regulate and guide the professional behavior of the teacher workforce, improve the moral standard of teachers, promote the degree of professional happiness of all teachers, and rebuild the image of the teaching profession as a way to enhance the confidence of the whole society in the moral reputation of teachers.

In conclusion, teacher ethics help to enhance the overall quality of the teacher workforce, create a clean and positive educational environment, and promote the healthy development of the education sector. In the process of urban-rural education integration, building strong teacher ethics and conduct ensures that students, regardless of their location, receive high-quality education. Excellent teacher ethics and professional conduct can facilitate the equitable distribution of educational resources.

2.3.2 Teacher Management Mechanisms

A well-managed mechanism is a crucial factor influencing the autonomous development of those being managed, a powerful tool for improving management efficiency and mobilizing teachers, and an objective criterion for determining the value of teachers' labor, maintaining their strengths, and developing their weaknesses (Yang & Guan, 2023). The growth of a high-quality teacher workforce needs to identify the critical factors of teacher growth, construct a management mechanism suitable for teacher growth, and build a platform conducive to the growth of teachers. Specifically, it includes the internal law of teacher growth, external factors, and manifestation patterns (Sun, 2022).

Currently, most regions of the world still face a teacher shortage. According to the

PISA program, there are teacher shortages of varying degrees in France, South Korea, and Zhejiang Province, China, which are not in line with idealized teacher sizes, resulting in larger class sizes and negatively affecting student learning effectiveness (OECD, 2021). Therefore, to improve the quality of after-school services for students, it is necessary to address the shortcomings of the relevant teachers and ensure that the teaching team is of a reasonable size (Zhang & Xu, 2022).

The gender imbalance in China's elementary school teaching team is severe. The proportion of female teachers is increasing yearly, which is not in line with the policy requirements of the relevant documents to improve the gender structure of teachers, especially in the group of young teachers. The proportion of female teachers is as high as 82.9% (Han & Yu, 2019). Greany (2012) refers to this phenomenon as the "feminization" of the teaching team and proposes increasing the proportion of male teachers by strengthening teachers' treatment levels in each country. At the same time, Xue (2019) pointed out that in addition to a few regions and schools where the age structure of teachers is relatively reasonable, the age of elementary school teachers, in general, shows a trend of aging.

Denner (2008) believed that elementary school teachers at all levels of job positions are set up in countries such as the United Kingdom and Japan through the form of linking the title and salary, which effectively motivates the professional development of teachers' vitality and work enthusiasm. An (2022) believes that China's teacher title system has played a key guiding role in optimizing the scientific allocation of teacher talent through continuous improvement and development in recent decades but is constrained by the unreasonable factors of the structural setup of title positions at all levels, the phenomenon of the low proportion of senior titles still stands out in various regions. The title quota policy has inhibited teachers' motivation and demand for promotion and development, resulting in a "diamond-shaped structure" of titles, where most teachers are in the middle of the title hierarchy. Few are at the bottom and top, causing vicious competition among teachers in the title evaluation process. The fairness and scientificity of the implementation stage are urgently needed to continuously improve the title structure of the teaching force (Wu & Wu, 2020).

In conclusion, teacher management mechanisms have a significant impact on building a strong teacher workforce. Implementing scientifically sound management systems can effectively stimulate teachers' enthusiasm and creativity, ultimately enhancing the quality of education. In the context of rural-urban education integration, robust management mechanisms are crucial for equitable distribution of resources and improving overall educational standards. By adjusting incentive mechanisms,

providing necessary support, and fostering collaboration, equal opportunities for teachers and students have been created.

2.3.3 Teacher's Professional Quality Training

Professional quality refers to the expertise and skills necessary to engage in socio-occupational activities, including three main aspects: professional concepts, professional knowledge, and professional ability. The professional quality of teachers can be summarized as teachers who have mastered specific teaching skills, high academic qualifications, extensive knowledge, multi-functionality, competence in educational science and the use of modern educational technology, and comprehensive and harmonious development of their qualities (Jing, 2012). In order to improve the overall level of the teacher faculty, professional quality training for teachers is a long-term and effective training method (Kong, 2020).

One of the indicators for evaluating teachers' professional quality is the level of their academic qualifications. High academic qualifications have a significant positive impact on improving student achievement. Hence, improving the overall academic qualifications of the teaching force is an effective means of improving teachers' professional competence and student achievement (Harris & Sass, 2010). Sheng et al. (2021) explored and analyzed the distribution of teachers' qualification structure based on evidence from survey results of 1,616 full-time elementary school teachers in Shanghai, suggesting that teachers' qualifications meet the nationally required standards at a high level and that their overall qualifications are at the upper-middle level, which is conducive to the modernization of education and the steady advancement of the development of the teacher workforce.

Korthagen (2003) established a framework model for training reflection and renewal development. The results showed that teacher training activities are an essential means of training key teachers, that the principle of combining theory and practice should be grasped in the process of training, and that corresponding measures should be used to intervene and guide the development of training activities according to the actual effectiveness of the training activities when necessary. Westbury et al. (2005), based on the construction experience of the Finnish elementary school teaching team, started from the aspect of reshaping the attributes of the teaching profession, proposed that Finland focused on the dissertation requirements for primary school teachers, and considered that the research-based value orientation is an essential link in the ecology of primary schools teaching team construction, which can improve the overall professionalism and creativity level of the teaching team.

However, some scholars believe that teacher training in recent years has gradually deviated from the phenomenon of taking "learning value" as the core training goal: many teachers have cognitive bias, treating all kinds of school-based training and the national training program as a burden of pressure or an opportunity to relax, and are indifferent to the actual results of the training activities, which leads to real-life dilemmas in various forms of training, such as expert lectures, forums and distance education workshops (Liu, 2020). Based on the data from 1600 questionnaires, Weng (2020) concluded that the effect of training is ambiguous, mere formality, the level of teachers varies, the process is not interactive enough, and the degree of enhancement of teachers' competence is unclear. Overall, there is an urgent need for improvement in the form and content of teacher training effect.

Song & Zheng (2022) suggested considering the reality of China's educational development. Based on moderately borrowing from the experience of elementary school teacher training in foreign developed countries, we started from the improvement of the training policy mechanism, organization and implementation methods, and the comprehensiveness of the teachers' subject knowledge dimensions, and constructed the localized program suitable for China's national conditions, to improve the teaching ability of primary schools teachers of the whole subject.

In conclusion, professional quality training for teachers is of great importance to building a strong teacher workforce. Through systematic training, teachers can continuously enhance their professional knowledge and teaching skills, thereby improving the quality of education. In the process of urban-rural education integration, professional development training ensures that all teachers have equal opportunities for growth. Through such training, teachers can exchange experiences, learn from each other's strengths, and improve together.

2.3.4 Occupational Treatments

Teachers' professional treatment is a comprehensive reflection of the salary and material benefits given to teachers by society and is also one of the most important criteria for measuring the value of teachers' labor and their state of being. The proportionality between teachers' salaries and work pressure and the comparison between teachers' salaries and civil servants' treatment are important factors affecting teachers' job satisfaction, which also affects the effectiveness of teacher workforce development (Meng et al., 2022). Factors such as peer support, support mechanisms, interpersonal relationships, establishment status, occupational pressure, occupational

treatment, and appraisal and evaluation are all significant predictors of teacher development (Li & Gao, 2015).

Several countries have begun to implement a series of teacher salary enhancement programs, including financial incentive programs such as salary allowances and loan concessions, using teacher salaries as an effective policy tool to attract high-quality teachers. Helen (2007) used market data on primary school teachers in the United States and South Korea, Japan, and Germany to suggest that financial incentive programs such as salary allowances and loan concessions can be implemented. Hendricks (2015) analyzed the salary distribution system for elementary school teachers in the United States and suggests that lower salary levels negatively impact the teacher population, particularly failing to retain high-level teachers. The results of the data show that every one percentage point increase in the level of teachers' salary and income increases the level of attractiveness of the teaching profession by about 0.08 percent, so teachers' job satisfaction can be improved in terms of optimally adjusting the teachers' salary scale at the right time.

Using big data technology, Feng & Liu (2020) found that the income gap between primary school teachers' salaries and civil servants is gradually shrinking. However, the overall income level is still lower than that of civil servants, and teachers' salary satisfaction needs to be improved. Therefore, the special legal status of teachers as national public officials should be effectively safeguarded, the central powers and responsibilities of the administration should be clarified, and the policies on the treatment of primary school teachers should be implemented to improve the weakening of the policy regulation means and to effectively stimulate the work motivation of the teachers' groups. Zhou et al. (2019) analyzed the survey data of elementary school teachers in Jiangsu Province using the Logistic regression model to take the teachers' workload as the entry point. They concluded that the average daily workload significantly impacts the teachers' job satisfaction and occupational attractiveness, which indicates that their job satisfaction decreases with the increased workload. The significance of the impact of the job title and the age of the teaching staff is lower. Thus, it proposes strengthening school management reform, establishing a dynamic monitoring mechanism for teacher burden, and providing a benign and harmonious working environment for teachers, mainly focusing on easing the workload of urban primary school teachers to teach without fear.

In conclusion, generous occupational treatments can attract top talents to join the teaching profession. Simultaneously, providing favorable working conditions enhances teachers' sense of professional identity and motivation, thereby reducing turnover rates.

2.4 Introduction to No.58 High School

No.58 High School was established in Qingdao, China, in 2001. It is a public secondary compulsory education school. The school has more than 200 staff members, and there are more than 50 teaching classes. There are four physics laboratories and microcomputer rooms, two chemistry laboratories, biology laboratories, speech rooms and media rooms, and one staircase classroom, and each room is equipped with advanced teaching equipment.

In recent years, the school's quality education has achieved fruitful results through the hard work and unremitting efforts of all teachers and students. The school has been awarded as Qingdao Compulsory Education Standardized School, Qingdao Excellent Parent School, and Qingdao Education Bureau Civilized Unit. It won the Excellent Organization Award of Qingdao New Curriculum Reform Achievement Exhibition, the Excellent Organization Unit of Qingdao Young Teachers Training, and the Excellent Organization Award of Qingdao Primary and Secondary School Students' Winter Holiday Essay Writing, the Excellent Organization Award of Qingdao Art Festival and Science and Technology Competition, and other honors.

The school places great emphasis on the development of its teaching staff, with many teachers having undergone professional training in Australia and the UK. There are more than 30 teachers who are recognized as national, provincial, and municipal core teachers, subject leaders, teaching experts, and professionals. The school has received education honors above the municipal level 22 times and district-level honors 49 times. Additionally, 41 teachers have conducted provincial and municipal classes, and 15 teachers have won awards in municipal high-quality class competitions. The school's teaching achievements are outstanding, with many teachers mentoring 153 students in national, provincial, and municipal competitions in subjects such as mathematics, physics, English, and biology.

2.5 Conceptual Framework

By analyzing and summarizing the relevant literature on teacher workforce development, this study finds that teacher ethics, teacher management mechanisms, teacher's professional quality training, and occupational treatments influence teacher workforce development in Qingdao's No.58 High School. Therefore, the conceptual framework of this study is, as shown in Figure 2.1.

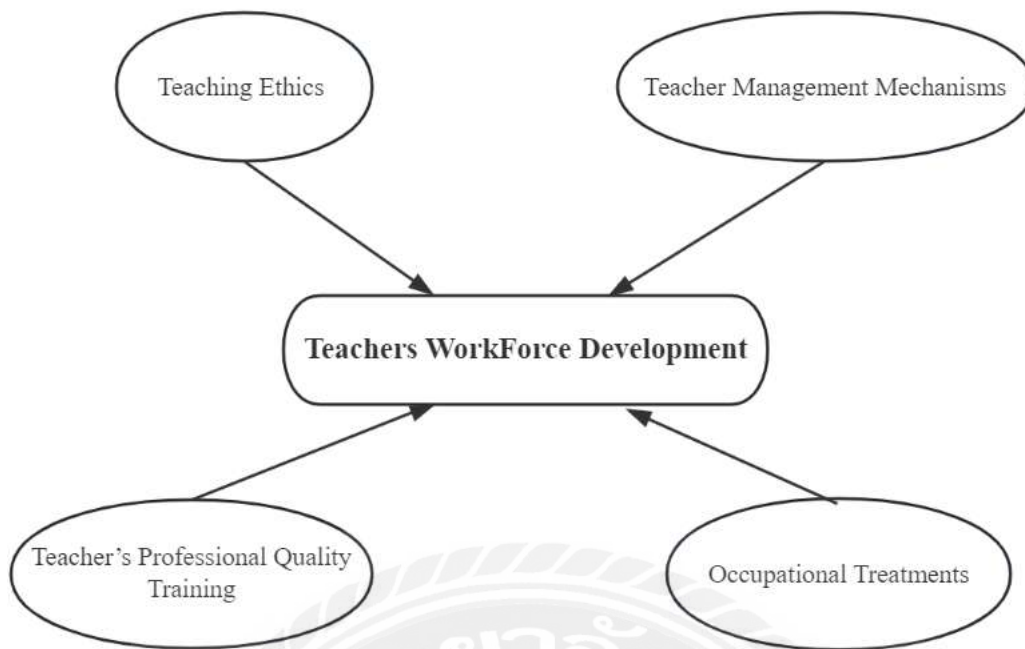
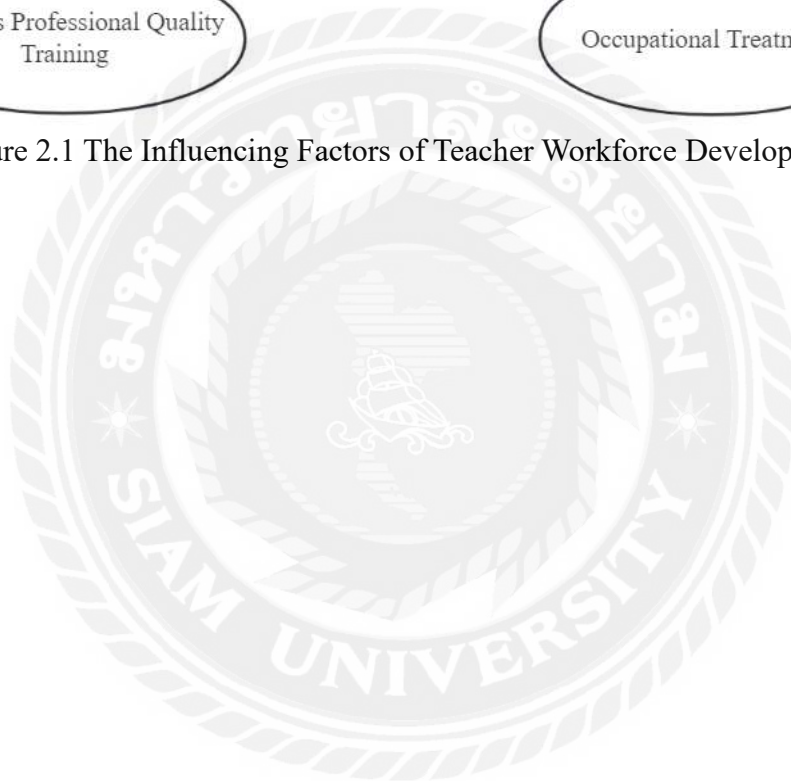


Figure 2.1 The Influencing Factors of Teacher Workforce Development



Chapter 3 Research Methodology

3.1 Introduction

To gather authentic data and information, this study conducted a questionnaire survey with the teaching staff of No.58 High School. Based on pertinent literature, a questionnaire on teacher workforce development was devised to gauge teachers' direct perceptions. The questionnaire's reliability and validity were analyzed. Furthermore, this chapter delineates the sample size and data analysis methodology employed to comprehend the foundational status of teacher workforce development at No.58 High School.

3.2 Research Design

This study designed a teacher workforce development questionnaire, which was measured using Likert's five-point scale, where five stands for very consistent, four stands for consistent, three stands for moderate, two stands for inconsistent, and one stands for very inconsistent. The content of the scale designed for this study is as follows:

3.2.1 Teacher Ethics Scale

Shen (2022) suggested that the construction of teacher morality is closely related to the effectiveness of teacher workforce development, and he believed that the improvement of the evaluation mechanism of teacher ethics would affect the effectiveness of teacher ethics construction. To a certain extent, a complete evaluation mechanism of teacher ethics is one of the external motivations to promote the teacher workforce development, so that they serve as external constraints and supervisors for the teaching staff to strictly abide by and follow the rules and regulations. Gao (2023) believed that teacher ethics education significantly impacts the development of teacher ethics and morality. Therefore, in this study, the teacher ethics scale is shown in Table 3.1:

Table 3.1 Teacher Ethics Scale

First-level Indicators	Second-level Indicators	Items
Teacher Ethics	Teacher ethics education	You often participate in teacher training organized by the school.

		You are satisfied with the actual implementation of the teacher training organized by the school.
	Evaluation mechanisms	You chose the teaching career because teaching is a noble and sacred career.
		As a teacher, you can love your job, dedicate yourself to your work, and care for the healthy growth of your students.
		You teach appropriately and do not arrive late, leave early for class, turn on communication devices, or smoke.
		You are always fully engaged in teaching, research, and other tasks, enjoy the teaching process, and have much energy.

3.2.2 Teacher Management Mechanisms Scale

Zhang et al. (2022) pointed out that teacher management mechanisms were significantly influenced by the management support provided to teachers. The limited upward space given to teachers has led to the prevalence of an unreasonably sized teaching workforce in many schools, which has prompted a tendency for teachers to fall into unhealthy competition with each other, which in turn impacts the effectiveness of the management of the teaching team. On the other hand, Denner (2008) argued that incentives for the teaching workforce also played an important role in effectively promoting positive work attitudes and performance levels among teachers, which were beneficial to the successful implementation of teacher management. Therefore, in this study, the teacher management mechanisms scale is shown in Table 3.2:

Table 3.2 Teacher Management Mechanisms Scale

First-level Indicators	Second-level Indicators	Items
Teacher Management Mechanisms	Management Support	The school provides adequate support and resources to help teachers perform their work successfully.
		The school provides adequate development opportunities for teachers.
	Incentive Mechanism	The school has established an effective teacher incentive mechanism to motivate teachers to work positively.

3.2.3 Teacher’s Professional Quality Training Scale

Wang et al. (2022) believed that the training mode would have an impact on teachers' professional quality training. They indicated that the current training activities were not targeted to teachers' professional development, and could not effectively address the various confusions and questions faced by teachers in the process of teaching practice and that the main training subject was generally taken as a one-way output from the instructor, which could not arouse teachers' enthusiasm for the training, and affected the final training effect. Cao (2022) proposed a training model that focuses on the combination of teaching practice, which improved teacher training activities' attractiveness and practical effect. Liu & Wang (2022) suggested that a training evaluation system was necessary and that if the evaluation system were programmed and mechanized to a certain extent, it would lead to an unclear effect on teacher training. Therefore, in this study, the teacher professional quality training scale is shown in Table 3.3:

Table 3.3 Teacher’s Professional Quality Training Scale

First-level Indicators	Second-level Indicators	Items
Teacher’s Professional Quality Training	Training Model	The contents of the training are closely related to the needs of your teaching and research practice.
		The needs and suggestions of your school's teachers are sought in advance for all training activities.
		You are highly motivated to participate in the various training processes.
		Various training activities will help you to improve your teaching and research skills.
	Training Evaluation System	A well-established and timely feedback and evaluation system is in place for all training activities.
		The training rating system is not formalized or relevant to the training content.

3.2.4 Occupational Treatments Scale

Salary level is one of the most important factors affecting the treatment of the teaching occupation, and material incentives could be used to increase the motivation and willingness of teachers to work. (Xu, 2022). Hendricks (2015) suggested that lower salary levels will have a negative impact on the teacher community, especially failing to retain high-level teachers. Meanwhile, Zhou et al. (2019) found that the average daily workload had a significant effect on teachers' job satisfaction and occupational treatment when they conducted empirical analyses through the use of Logistic regression models, which indicated that teachers' job satisfaction decreases as their workload increases and that schools with lower workloads generally provide teachers with good occupational treatment. Therefore, in this study, the occupational treatment scale is shown in Table 3.4:

Table 3.4 Occupational Treatments Scale

First-level Indicators	Second-level Indicators	Items
Occupational Treatments	Salary Level	You can keep abreast of the salary adjustment policy for secondary school teachers.
		Your salary is paid in full and on time, and there are no outstanding or partial outstanding payments.
		Implementing policies by the education department to improve the salary levels of teachers has been very well executed.
		Your salary level is different from your great effort.
	Workload	The school has invested heavily in improving the workload of teachers.
		You spend much time each day dealing with miscellaneous non-teaching-related tasks.
		You have a very high level of stress and mental burden at work, with a strong sense of fatigue.
		You work too many hours on average in and out of school.

3.2.5 Teacher Workforce Scale

Cheng & Zheng (2023) concluded that to improve the effectiveness of middle school curriculum implementation, it is essential to integrate the teaching staff and update the concepts, methods, and models of implementation. Therefore, in this study, the teacher workforce scale is shown in Table 3.5:

Table 3.5 Teacher Workforce Scale

First-level Indicators	Items
Teacher Workforce	The school administration maintains effective communication and interaction with teachers.
	The school values teachers' opinions and considers them in the decision-making process.
	The school provides effective support for teachers to maintain a healthy work-life balance.
	The school encourages teachers to innovate in their teaching methods and provides the necessary support.
	Collaboration and team spirit among teachers are fully encouraged and supported.

3.3 Hypothesis

H₁: Teacher ethics have a positive impact on the development of teacher workforce of No.58 high school.

H₂: Teacher management mechanisms have a positive impact on the development of teacher workforce of No.58 high school.

H₃: Teacher's professional quality training has a positive impact on the development of teacher workforce of No.58 high school.

H₄: Occupational treatments have a positive impact on the development of teacher workforce of No.58 high school.

3.4 Population and Sampling Size

Qingdao No.58 High School had a total of 200 in-service teachers. All teachers were included in the sample of the study.

3.5 Data Collection

The data collection of teacher workforce development was in the form of online questionnaires, and this study used the WJX platform to distribute 200 online questionnaires, excluding 12 invalid questionnaires, and recovered 188 valid questionnaires, with a questionnaire recovery rate of 94 percent. The collected data provided an important basis for further exploring the influencing factors of teacher workforce development.

3.6 Data Analysis

SPSS was used in this study to analyze the data collected from the questionnaire. In order to ensure the reliability and validity of the questionnaire, the designed questionnaire was first analyzed for reliability and validity. After that, the participants' basic personal information was descriptively analyzed, and finally, in order to verify the impact of teacher ethics, teacher management mechanism, teacher professional quality training, and occupational treatments on the development of teacher workforce, this study conducted correlation and regression analyses on the collected data.

3.6.1 Questionnaire Reliability Analysis

Reliability indicators are mostly expressed as correlation coefficients, and Cronbach's α is the most commonly used reliability coefficient. Generally speaking, if the reliability coefficient reaches above 0.9, the scale's reliability is excellent; between 0.7-0.9 is good, and between 0.6-0.7 is still acceptable. In this study, the reliability of the questionnaire content was analyzed using SPSS software, and the results obtained are shown in Table 3.6:

Table 3.6 The Result of Questionnaire Reliability Analysis

Factors	N	Cronbach's α
Teacher Ethics	6	0.824
Teacher Management Mechanisms	3	0.846
Teacher's Professional Quality Training	6	0.883
Occupational Treatments	8	0.813
Teacher Workforce	5	0.821

The results in Table 3.6 show that Cronbach's α values for all four factors are above 0.7, which indicates that the questionnaire has good reliability and is reliable.

3.6.2 Questionnaire Validity Analysis

In this study, KMO and Bartlett's Spherical Test are adopted to assess the validity of the questionnaire. In general, KMO is greater than 0.6, indicating that the validity of the questionnaire is good. The results of the data analysis are shown in Table 3.7:

Table 3.7 The Result of Questionnaire Validity Analysis

The KMO Values and the Bartlett's Sphericity Test		
Number of KMO Sampling Suitability Quantities		0.819
The Sphericity Test of the Bartlett	Approximate chi-square	2173.783
	df	150
	Sig.	0.000

The results in Table 3.7 show that the KMO value is 0.819, which is greater than 0.6, and the significance of the statistical value of Bartlett's Sphericity test is 0.000, which is less than 0.001, indicating that the validity of the questionnaire is good.



Chapter 4 Findings

4.1 Introduction

In this chapter, correlation and regression analyses were conducted using the data collected from the questionnaire to verify the influence of factors on the development of teacher workforce of No.58 High School. This aims to provide a robust empirical foundation for subsequent enhancements in the school's development.

4.2 Descriptive Statistical Analysis

In this study, the demographic characteristics of those who participated in completing the questionnaire included gender, age, grade, and department, as shown in Table 4.1.

Table 4.1 Demography

Items	Classification	N	Percentage (%)
Gender	Male	79	42.0
	Female	109	58.0
Age	Under 30 years old	72	38.3
	30-40 years old	54	28.7
	40-50 years old	41	21.8
	50 years or above	21	11.2
Grade	Grade 1	59	31.4
	Grade 2	62	33.0
	Grade 3	67	35.6
Department	Teacher group	124	66.0
	Executive department	52	27.7
	Leading department	12	6.3

Regarding gender, male teachers accounted for 42 percent of the participants, while female teachers were far more than male teachers, accounting for 58 percent of the total, indicating that female teachers dominate the school's teaching workforce.

Regarding age, the school's teacher workforce was mainly under 30 and 30-40 years old, 38.3 and 28.7, respectively, while only 11.2% of the teachers were over 50 years old, indicating that the school's teacher workforce was relatively young.

Regarding grade, the percentage of teachers from Grade 1 to Grade 3 is 31%-36%, indicating a more balanced teacher distribution across the three grades.

Regarding departments, the teacher workforce overwhelmingly accounted for 66 percent, indicating that the school has a large base of teachers.

4.3 The Impact of Teacher Ethics on Teacher Workforce Development of No.58 High School

Table 4.2 Results of Correlation Analysis Between Teacher Ethics and Teacher Workforce Development

Dimension	Teacher Ethics Education	Evaluation Mechanisms	Teacher Workforce Development
Teacher Ethics Education	1		
Evaluation Mechanisms	.737**	1	
Teacher Workforce Development	.782**	.718**	1

Table 4.2 shows the results of the correlation analysis between teacher ethics and teacher workforce development. The results show that both dimensions of teacher ethics (teacher ethics education and evaluation mechanisms) are positively correlated with teacher workforce development, with correlation coefficients of 0.782 and 0.718, respectively, and passed the test of significance, so teacher ethics and teacher workforce development are significantly positively correlated and strongly correlated with teacher workforce development.

Table 4.3 Results of Regression Analysis of Teacher Ethics and Teacher Workforce Development

	Non-standardize d coefficient		Standardize d coefficient	t	p	R ²	Adjusting R ²	F
	B	Standard Error	Beta					
(Constant)	.654	.021		4.521	.000			
Teacher Ethics	.787	.057	.734	14.235	.000	.522	.519	193.257

Table 4.3 shows the results of the regression analysis of teacher ethics and teacher workforce development, which shows that the R^2 of the model is 0.522. Therefore, the research variable explains 52.2 percent of the variation in satisfaction. The F-test shows that teacher ethics impact the teacher workforce development. In addition, the regression analysis results showed that $B=0.787$, $p<0.05$, which indicates that teacher ethics have a significant positive effect on teacher workforce development. Therefore, H_1 is valid.

4.4 The Impact of the Teacher Management Mechanisms on Teacher Workforce Development of No.58 High School

Table 4.4 Results of Correlation Analysis Between Teacher Management Mechanisms and Teacher Workforce Development

Dimension	Management Support Incentive Mechanism		Teacher Workforce Development
Management Support	1		
Incentive Mechanism	.812**	1	
Teacher Workforce Development	.779**	.805**	1

Table 4.4 shows the results of the correlation analysis between teacher management mechanism and teacher workforce development. The results show that both dimensions of teacher management mechanisms (management support and incentive mechanism) are positively correlated with teacher workforce development, with correlation coefficients of 0.779 and 0.805, respectively, and passed the test of significance, so teacher management mechanisms are significantly positively correlated and strongly correlated with teacher workforce development.

Table 4.5 Results of Regression Analysis of Teacher Management Mechanisms and Teacher Workforce Development

	Non-standardize		Standardize	t	p	R^2	Adjusting R^2	F
	d coefficient	Standard Error	Beta					
(Constant)	.636	.081		3.422	.000			
Teacher Management Mechanismz	.823	.032	.745	13.58	.000	.562	.558	212.439

Table 4.5 shows the regression analysis results of teacher management mechanisms and teacher workforce development, which shows that the R^2 of the model is 0.562. Therefore, the research variable explains 56.2 percent of the variation in satisfaction. The F-test indicates that the teacher management mechanisms impact teacher workforce development. In addition, the regression analysis results showed that $B=0.823$, $p<0.05$, which indicates that teacher management mechanisms have a significant positive effect on teacher workforce development. Therefore, H_2 is valid.

4.5 The Impact of Teacher’s Professional Quality Training on Teacher Workforce Development of No.58 High School

Table 4.6 Results of Correlation Analysis Between Teacher’s Professional Quality Training and Teacher Workforce Development

Dimension	Training Model	Training Evaluation System	Teacher Workforce Development
Training Model	1		
Training Evaluation System	.697**	1	
Teacher Workforce Development	.754**	.783**	1

Table 4.6 shows the results of the correlation analysis between teacher’s professional quality training and teacher workforce development. The results show that both dimensions of teacher professional quality training (training model and training evaluation system) are positively correlated with teacher workforce development, with correlation coefficients of 0.754 and 0.783, respectively, and passed the test of significance, so teacher’s professional quality training is significantly positively correlated and strongly correlated with teacher workforce development.

Table 4.7 Results of Regression Analysis of Teacher's Professional Quality Training and Teacher Workforce Development

	Non-standardize		Standardize	t	p	R ²	Adjusting R ²	F
	d coefficient	Standard Error	d coefficient					
	B		Beta					
(Constant)	.603	.075		3.287	.000			
Teacher's Professional Quality Training	.724	.042	.729	12.562	.000	.587	.591	204.298

Table 4.7 shows the regression analysis results of teacher's professional quality training and teacher workforce development, which shows that the R² of the model is 0.587. Therefore, the research variable explains 58.7 percent of the variation in satisfaction. The F-test indicates that teacher's professional quality training impacts teacher workforce development. In addition, the regression analysis results showed that B=0.724, p<0.05, which indicates that teacher's professional quality training has a significant positive effect on teacher workforce development. Therefore, H₃ is valid.

4.6 The Impact of Occupational Treatments on Teacher Workforce Development of No.58 High School

Table 4.8 Results of Correlation Analysis Between Occupational Treatments and Teacher Workforce Development

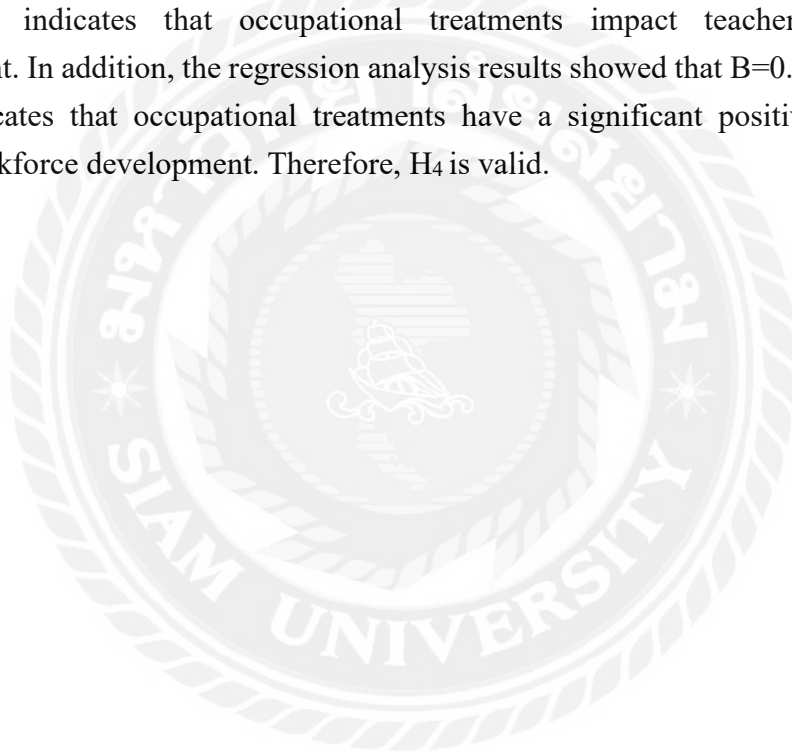
Dimension	Salary level	Workload	Teacher Workforce Development
Salary level	1		
Workload	.724**	1	
Teacher Workforce Development	.802**	.774**	1

Table 4.8 shows the results of the correlation analysis between occupational treatment and teacher workforce development. The results show that both dimensions of occupational treatment (salary level and workload) are positively correlated with teacher workforce development, with correlation coefficients of 0.802 and 0.774, respectively, and passed the test of significance, so occupational treatments are significantly positively correlated and strongly correlated with teacher workforce development.

Table 4.9 Results of Regression Analysis of Occupational Treatments and Teacher Workforce Development

	Non-standardize d coefficient	Standardize d coefficient	t	p	R ²	Adjusting R ²	F
	B	Standard Error	Beta				
(Constant)	.679	.072		4.693	.000		
Occupational Treatments	.773	.036	.717	13.781	.000	.536	.533
							187.751

Table 4.10 shows the regression analysis results of occupational treatments and teacher workforce development, which shows that the R² of the model is 0.536. Therefore, the research variable explains 53.6 percent of the variation in satisfaction. The F-test indicates that occupational treatments impact teacher workforce development. In addition, the regression analysis results showed that B=0.773, p<0.05, which indicates that occupational treatments have a significant positive effect on teacher workforce development. Therefore, H₄ is valid.



Chapter 5 Conclusion and Recommendation

5.1 Introduction

Teacher workforce development is a complex process, and this chapter proposes corresponding improvement measures and suggestions for improvement based on the relationship between each variable and teacher workforce development to improve teacher workforce development.

5.2 Conclusion

5.2.1 Teacher Ethics Have a Positive Impact on the Development of Teacher Workforce of No.58 High School

According to the results of the correlation analysis of teacher ethics and teacher workforce development in No.58 High School, both dimensions of teacher ethics (teacher ethics education and evaluation mechanism) are significantly and positively correlated with the teacher workforce development, with correlation coefficients of 0.782 and 0.718, respectively, and the correlation is strong. The regression analysis results show that the R^2 of the model is 0.522, and the research variables explain 52.2% of the variation in satisfaction. The F-test indicates that teacher ethics impact the development of teacher workforce. In addition, $B=0.787$, $P<0.05$, indicates that teacher ethics have a significant positive impact on the teacher workforce development. This implies that the more standardized and sound the teacher ethics, the more it will help the school construct the teacher workforce.

- 1) Building a general environment in which teachers are ethical, abide by ethics, and practice the ethical requirements

Teacher ethics should focus on cultivating the spirituality of teachers and based on professional ethics education for teachers, focusing on teacher ethics education at different levels and promoting the formation of teacher ethics consciousness among teachers. Only when teachers are able to discover the value and dignity of their own lives in actual practice will they be able to reflect their good nature and good morals from the bottom of their hearts. Therefore, based on the existing system and content of teacher ethics education, professional ethics education for teachers should be strengthened, and by paying attention to the characteristics of teachers' professional

careers, different teacher ethics cultivation should be carried out for teachers at different stages of their careers, with the emphasis on fully mobilizing teachers' self-awareness of teacher ethics.

In particular, there is a large group of young teachers in the school and possible deviation of values. Therefore, school leaders should be corrected on time and given positive guidance. Particular attention should be paid to the training of young teachers group teacher ethics, precise specific work content details, not only to establish the bottom line thinking but also to promote the traditional excellent teacher ethics, from a long-term perspective, scientific planning and careful organization arrangements for all kinds of teacher ethics activities to effectively carry out.

2) Clarifying the evaluation mechanism for the construction of teacher ethics

Clarify the division of authority and responsibility functions of each department of the school, define the scope of functions of each department, and build a scientific and smooth response and construction mechanism process, which requires each functional department to make precise policies and constantly strengthen communication and coordination, to ensure that each department in the implementation of the construction of teachers' ethics in a smooth and orderly manner and long-lasting effect. At the same time, the school should also pay attention to the teachers' personal feelings and suggestions to ensure that the construction of teacher ethics achieves cyclic development.

5.2.2 Teacher Management Mechanisms Have a Positive Impact on the Development of Teacher Workforce of No.58 High School

According to the results of the correlation analysis of teacher management mechanisms and teacher workforce development in No.58 High School, both dimensions of teacher management mechanisms (management support and Incentive mechanism) are significantly and positively correlated with teacher workforce development, with correlation coefficients of 0.779 and 0.805, respectively, and the correlation is strong. The regression analysis results show that the R^2 is 0.562, and the research variables explain 56.2% of the variation in satisfaction. The F-test indicates that teacher management mechanisms impacts teacher workforce development. In addition, $B=0.823$, $P<0.05$, indicates that teacher management mechanisms have a significant positive impact on teacher workforce development. This implies that the better the teacher management mechanisms, the more it will help the school to carry out teacher workforce development.

In order to stimulate the vitality of the school's teacher workforce development and provide students with better teaching services, the school should, according to the actual situation of the current stage of education planning, reasonably increase the budget for education, optimize financial expenditure, and, within a reasonable range of the appropriate to provide teachers with more opportunities for development and promotion, to provide teachers with more space for development, and to give full play to the role of incentives for the professional development of teachers. At the same time, it is necessary to give full play to the role of veteran teachers in helping new teachers improve their efficiency in terms of working methods and experience to achieve the long-term goals of responsibility and development.

5.2.3 Teacher's Professional Quality Training Has a Positive Impact on the Development of Teacher Workforce of No.58 High School

According to the results of the correlation analysis of teacher's professional quality training and teacher workforce development in No.58 High School, both dimensions of teacher professional quality training (training model and training evaluation system) are significantly and positively correlated with teacher workforce development, with correlation coefficients of 0.754 and 0.783, respectively, and the correlation is strong. The regression analysis results show that the R^2 is 0.587, and the research variables explain 58.7% of the variation in satisfaction. The F-test indicates that teacher's professional quality training impact teacher workforce development. In addition, the $B=0.823$ with $P<0.05$ indicates that teacher professional quality training has a significant positive impact on teacher workforce development. This means that the more standardized the teacher's professional quality training, the more it will help that school to carry out teacher workforce development.

- 1) Identifying the actual needs of teachers is the basis for improving the relevance of training.

Through various ways, the organizers of the training activities should deeply explore the urgent need for teachers and clarify the objectives of the training activities to strengthen the relevance of the training content. In addition, teachers can be guided to actively participate in improving the training content; on the one hand, it clarifies the central position of the participating teachers and, on the other hand, effectively optimizes the relevance and effectiveness of the training activities. Teachers are encouraged to participate in a wide range of professional development learning, training, and seminar activities at different levels and of different kinds, and teachers are regularly organized to go to higher-quality educational resources to learn, broaden their

horizons, improve their knowledge, and keep abreast of the times.

2) Establishing and improving criteria for evaluating training results

Evaluation criteria should consider the evaluation of the outcome of the training and the context of the training, as well as process evaluation, etc., to form evaluation criteria that cover multiple pathways.

5.2.4 Occupational Treatments Have a Positive Impact on the Development of Teacher Workforce of No.58 High School

The results of the correlation analysis of teacher workforce development in No.58 High School showed that both dimensions of occupational treatments (salary level and workload) are significantly and positively correlated with teacher construction, with correlation coefficients of 0.802 and 0.774, respectively, and the correlation is strong. The regression analysis results show that the R^2 is 0.536, and the research variables explain 53.6% of the variation in satisfaction. The F-test indicates that occupational treatments impact teacher workforce development. In addition, $B=0.773$, $P<0.05$, indicates that occupational treatments have a significant positive impact on teacher workforce development. This implies that the better the treatment of teachers, the more it contributes to teacher workforce development in that school.

1) Improving the salary structure of teachers and optimize the performance pay management system.

From the standpoint of ensuring the stability of the teaching team while raising basic salaries, such as post salaries, attention should be paid to the motivating effect of the incentive mechanism on the teaching team, ensuring that teachers' incomes are reasonable, guaranteeing that more teachers will be able to teach comfortably and for a more extended period, and thus eliminating burnout and improving the stability and professional attractiveness of the teaching team.

2) Optimizing teachers' work content, structure, and hours of work

They maintain the scientific and reasonable nature of work standards, effectively resolve teachers' low satisfaction with their workload, and improve the overall workload of teachers to a greater extent. Adhere to the fundamental principle of putting people first, avoiding the emergence of "nanny-type" work styles, returning time and

energy to teachers, effectively curbing aberrant teacher work patterns, and improving teachers' job satisfaction and guaranteed professional treatment.

5.3 Recommendation

In this study, the teaching team of No.58 High School was selected for conducting an empirical investigation. Through the investigation and analysis of data, the influencing factors affecting the teacher workforce were explored, and based on this, corresponding countermeasure suggestions are proposed. However, there are still limitations in this study, which could be explored in the following aspects in future research:

Firstly, this study was conducted on the No.58 High School teacher workforce. Based on the context of urban-rural education integration, future studies may consider visiting schools in different regions, at different levels of economic development, and at different levels of education for data collection to make the study findings more extensive in coverage and practicality.

Secondly, teacher workforce development is a dynamic development process, in addition to the four influencing factors mentioned in this study, namely teacher ethics, teacher management mechanism, teacher's professional quality training, and occupational treatment, the atmosphere of social public opinion, interpersonal relationships, and relevant policies may have an impact on teacher workforce development, so future research will be able to explore the impact of other factors on teacher workforce development, and better promote the teacher workforce and to promote its long-term and healthy development better.

By analyzing the impact of the structure, size, and configuration of the teacher workforce on the quality and efficiency of school education, future possibilities can be explored in terms of rational allocation of teacher resources to enhance teaching effectiveness and improve student learning outcomes.

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Appendix

Dear Teachers,

We are delighted to extend our warmest greetings to you and express our sincere appreciation for your dedication to the noble profession of teaching.

Through your participation, we aim to gain a deeper understanding of the challenges, opportunities, and needs that you encounter in your roles as educators. Your experiences, perspectives, and feedback are crucial in shaping the future of teachers team construction.

We assure you that your responses will be treated with the utmost confidentiality and used solely for research purposes. Thank you once again for your invaluable contribution to this important research.

Part I: Basic information

1. Your gender:
 - Male
 - female
2. Your age:
 - Under 30 years old
 - 30-40 years old
 - 40-50 years old
 - 50 years old or above
3. The grade level you are responsible for
 - Grade 1
 - Grade 2
 - Grade 3
4. Your department:
 - Teacher group
 - Executive department
 - Leading department

Part II: Questionnaire on Influencing Factors of teacher workforce development of No.58 High School. 5 stands for very consistent, 4 stands for consistent, 3 stands for moderate, 2 stands for inconsistent, and 1 stands for very inconsistent.

Items	5	4	3	2	1
Teacher Ethics					

1. You often participate in teacher training organized by the school.					
2. You are satisfied with the actual implementation of the teacher training organized by the school.					
3. You chose the teaching career because teaching is a noble and sacred career.					
4. As a teacher, you can love your job, dedicate yourself to your work, and care for the healthy growth of your students.					
5. You teach appropriately and do not arrive late, leave early for class, turn on communication devices, or smoke.					
6. You are always fully engaged in teaching, research, and other tasks, enjoy the teaching process, and have much energy.					
Teacher Management Mechanisms					
7. The school provides adequate support and resources to help teachers perform their work successfully.					
8. The school provides adequate development opportunities for teachers.					
9. The school has established an effective teacher incentive mechanism to motivate teachers to work positively.					
Teacher's Professional Quality Training					
10. The contents of the training are closely related to the needs of your teaching and research practice.					
11. The needs and suggestions of your school's teachers are sought in advance for all training activities.					
12. You are highly motivated to participate in the various training processes.					
Various training activities will help you to improve your teaching and research skills.					
13. A well-established and timely feedback and evaluation system is in place for all training activities.					
14. The training rating system is not formalized or relevant to the training content.					
Occupational Treatments					
15. can keep abreast of the salary adjustment policy for secondary school teachers.					
16. Your salary is paid in full and on time, and there are no outstanding or partial outstanding payments.					
17. Your salary is paid in full and on time, and there are no					

outstanding or partial outstanding payments.					
18. Implementing policies by the education department to improve the salary levels of teachers has been very well executed.					
19. Your salary level is different from your great effort.					
20. The school has invested heavily in improving the workload of teachers.					
21. You spend much time each day dealing with miscellaneous non-teaching-related tasks.					
22. You have a very high level of stress and mental burden at work, with a strong sense of fatigue.					
23. You work too many hours on average in and out of school.					
Teacher Workforce					
24. The school administration maintains effective communication and interaction with teachers.					
25. The school values teachers' opinions and considers them in the decision-making process.					
26. The school provides effective support for teachers to maintain a healthy work-life balance.					
27. The school encourages teachers to innovate in their teaching methods and provides the necessary support.					
28. Collaboration and team spirit among teachers are fully encouraged and supported.					