

THE PRINCIPAL'S TRANSFORMATIONAL LEADERSHIP INDICATORS DEVELOPMENT MODEL IN BILINGUAL KINDERGARTEN IN ZHUHAI, GUANGDONG

Dou Zhongyang

Pornthep Muangman

Peerapong Tipanark

Leadership in Educational Administration,

Faculty of Education, Bangkokthonburi University

Email: yangdoudouwy@163.com

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ABSTRACT

The objectives of this research were:(1) to determine the components and indicators of principal's transformational leadership. (2) to develop the model of principal's transformational leadership bilingual kindergarten in ZhuHai, GuangDong, The People's Republic of China.(3) to propose the guideline for improving principal's leadership of bilingual kindergarten in ZhuHai, GuangDong, The People's Republic of China.

The research was a mixed methodology, including qualitative and quantitative research. The population of the research consisted of 1457 who were teachers of bilingual kindergarten in ZhuHai, Guangdong. A proportional stratified random sampling method was used to sample, totaling 306 persons. The instruments used for data collection were semi-structured interview and a five-level rating scale questionnaire. The statistics used for data analysis were descriptive statistics and Confirmative Factor Analysis.

The research findings revealed that: (1) there were 4 components and 15 indicators of transformational leadership required by principals of bilingual kindergarten in ZhuHai, Guangdong, which consisted of Individualized consideration, Moralemolding, Visionary vision, Charisma; and (2) the developed transformational leadership model for principals of bilingual kindergarten in ZhuHai, Guangdong was consistent with the empirical data. (3) propose the guideline for improving principal's leadership of bilingual kindergarten in ZhuHai, Guangdong, The People's Republic of China.The value of Relative Chi-square (χ^2/df) = 1.874, Degree of

Freedom (df) = 80, Goodness of Fit Index (GFI) = 0.905, Tucker-Lewis Index (TLI) = 0.973, and Root Mean Square Error of Approximation (RMSEA) = 0.050, all in line with specified criteria. And the key components had the weight between 0.835-0.927 higher than 0.70.

Keywords: Transformational Leadership Model, Principal, bilingual kindergarten, ZhuHai GuangZhou

1. Introduction

Article 17 of the Education Law of the People's Republic of China stipulates that the state implements a school education system consisting of kindergarten education, primary education, secondary education, and higher education. In the existing research on education leadership, scholars prefer to focus on higher education research; The research results published in recent years have gradually shifted towards secondary and primary education. However, the leadership of kindergarten principals in the kindergarten education stage is relatively limited, and there is still a gap in such research. The actual situation in each education stage is different, especially in the kindergarten education stage. The personal characteristics of the principal group, the work characteristics of kindergarten teachers, and the management system of kindergartens are all significantly different from other education stages, so the leadership in the kindergarten education stage has a certain degree of specificity.

With the gradual introduction of the concept and theory of school leadership style into China, it has had an increasingly profound impact on the educational practice of Chinese schools. A common conclusion has been drawn in research on school performance abroad that successful principal leadership is an important condition that affects teacher performance. Related studies have shown that the impact of principal leadership on teacher performance may be direct, indirect, or interactive. In view of this, it is imperative to explore the impact of principal leadership style in the context of China through empirical data, in order to provide more scientific basis for improving principal leadership and improving the quality of bilingual kindergarten education.

Transformational leadership advocates new concepts and practices, and is an important leadership model for promoting school reform. The important role of school leaders in student academic performance, teacher development, and school improvement is widely recognized by scholars. However, research on principal leadership in China started relatively late, and there is little research on principal leadership. At the same time, there is a lack of empirical research to support relevant research conclusions. Each stage of education has its

own educational characteristics, especially the bilingual kindergarten education stage, which is mainly aimed at bilingual kindergarten children and has significant differences from other stages of education. Conduct in-depth research attempts to explore the transformational leadership style of bilingual kindergarten principals in the context of China's educational modernization reform, starting with transformational leadership with humanistic development characteristics, through empirical research, in order to further improve and enrich the theory of educational leadership.

Provide possible paths for improving the transformational leadership style of the principal. Conduct in-depth research on the transformational leadership style of bilingual kindergarten principals and elucidate the inherent impact of variables. It helps to understand the current situation of bilingual kindergarten principal's transformational leadership style, clarify the impact and role of transformational leadership style in bilingual kindergarten leadership, promote the better effectiveness of bilingual kindergarten principal's transformational leadership in practice, provide scientific basis for bilingual kindergarten principal's training, and help bilingual kindergarten principals better adapt to increasingly profound educational changes, enhancing their motivation for change in basic education reform.

Provide support for improving the quality of bilingual kindergarten education. A large number of scholars have confirmed that school leadership can affect teachers' work performance. Therefore, the corresponding research not only promotes the effective use of transformational leadership styles in bilingual kindergartens, but also provides theoretical support for improving the quality of bilingual kindergarten education to a certain extent. Bilingual kindergarten principals can enhance their transformational leadership style, stimulate the deep needs of bilingual kindergarten teachers, respond to the challenges faced by the current quality of bilingual kindergarten education, respond to the requirements of educational modernization for bilingual kindergarten education, promote the reform of kindergartens in the process of educational reform, and meet people's expectations for kindergarten education.

2. Research Questions

- (1) What are the components and indicators of principal's transformational leadership?
- (2) What should the model of principal's transformational leadership of bilingual kindergarten in ZhuHai, GuangDong, The People's Republic of China?

(3) What is the guideline for improving principal's leadership of bilingual kindergarten in ZhuHai, GuangDong, The People's Republic of China?

3. Research Objectives

(1) To determine the components and indicators of principal's transformational leadership.

(2) To develop the model of principal's transformational leadership in bilingual kindergarten in ZhuHai, GuangDong, The People's Republic of China.

(3) To propose the guideline for improving principal's leadership of bilingual kindergarten in ZhuHai, GuangDong, The People's Republic of China.

4. Research Method

4.2.1 Research Design

Used mixed method, both qualitative and quantitative, first the qualitative to determine the components and indicators of the transformational leadership through content analysis from 20 document and research related, included 9 key informants. After that quantitative method was employed to collected the empirical data from the respondent through survey questionnaire.

4.2.2 Population and Sample

The population included 1457 teachers of 22 bilingual kindergarten in Zhuhai city, Guangdong Province, with the same categories and characteristics. Therefore stratify random sampling was used. The sample size was determined by the tables of Krejcie and Morgan (1970). And the sample include teachers in bilingual kindergarten Zhuhai as the research object, 306 Teacher Investment.

4.2.3 Research Instruments

Use the Chinese website "<https://www.wenjuan.com>" to create a five-point rating scale questionnaire and manage it on a professional platform for online data collection. It consists of the following three parts.

Part I: To collect data. From the perspective of the literature review, it is mainly the data record table, as well as the data found from the Internet. Second, after analyzing the content from the literature review, the researcher will interview 9 experts to find factor of principal's transformational leadership bilingual kindergarten. The tool used in this part is semi-

structured interview. Authority and veracity will be checked and recommended in both parts of the instrument.

Part II: Questionnaires were prepared based on the in-depth interviews in the first step and then sent to the sample group either online or by the researcher. After collecting the corresponding number of questionnaires, the factors of principal's transformational leadership bilingual kindergarten was calculated using software tools.

Part III: we also need to analyze the validity of the questionnaire, after determining the validity (EFA) and (CFA) of the questionnaire reaches the standard, and formulated improvement strategy for principal's transformational leadership in bilingual kindergarten Zhuhai city, Guangdong Province.

All type of questionnaires will be Likert's rating scale with 5 choices .

All of these develop are to use the IOC and Cronbach's alpha coefficient to find the validity and reliability.

4.2.4 Validity and Reliability of the instrument

Through the questionnaire design, a total of 68 items were obtained. After the IOC of 5 experts and the data collection of 32 out-of-sample teachers and teachers from bilingual kindergarten, it was found that 42 items greater than 0.60 were retained.

Scale reliability refers to the degree to which a measuring instrument can consistently obtain similar results when measuring the same sample under similar test conditions. Cronbach's alpha coefficient will be used to measure the degree of reliability of the scale. In this study, Cronbach's α coefficient above 0.70 is acceptable. In this study, 42 items were statistically analyzed to obtain data. All items are higher than 0.80, Cronbach's alpha coefficient is 0.976, indicating that the reliability of this questionnaire is very high.

4.2.5 Data Collection

The steps for data collection will be as follow:

Step 1: Request permission to collect data for research to the BTU Educational Faculty.

Step 2: Request a letter of recommendation for the researcher from the BTU Educational Faculty.

Step 3: Selection the coordinating teachers to help assist in coordinating data collection in each institution. Those will be oriented to understand the details of the questionnaire administration and data collection.

Step 4: Carry out data collection with the selected samples by sending questionnaires to the coordinator teacher who will help for collect data with the selected samples in each bilingual kindergarten.

4.2.6 Data Analysis

Step 1: data analysis involves two steps: (1) Key word extraction and coding. To extract keywords through literature review and interview, then encode the keywords. (2) The content analysis. The content analysis of the collected laws and regulations is carried out by using the extracted keywords.

Step 2: the statistical analysis software(SPSS and AMOS) will be employed for analyses the categorical variables. Descriptive statistics, frequency, percentage, arithmetic mean, standard deviation, and confirmatory factor analysis will be used here.

Step 3: the results of the focus group discussion were analyzed using content analysis. the qualitative researcher must categorize and interpret the data got from interviews and recordings. Points and keywords will be extracted from interview transcripts to compose guideline for the bilingual kindergarten principal's leadership Promotion Program.

5. Research Results

5.1 Result of data analysis for determining the components and indicators of principal's transformational leadership

Research studies at this stage are primarily aimed at determining the components and indicators suitable of transformational leadership required by principals in ZhuHai, GuangDong The People's Republic of China. Which is to be the initial database before being developed the principal's transformational leadership model development in bilingual kindergarten in Zhuhai, according to the main aim of this research. It is based on data from two sections, the first of which is from documents and research related, as well as from experts both in China and abroad total 35 component items, the second part from the knowledge of highly experienced administrative luminaries 9 key informants. Data analysis relies on recorded, Semi-structured interview interviews, and tables showing components' relationships with references . Classified by documented sources and related research. This result comes from 20 typical documents and interview with 9 highly experienced academic management experts, asked questions about transformational leadership and gave guiding opinions. Based on the above analysis, 35 components can be identified. And researcher choosed by focus on the components which there were the frequencies of consensus 5 and above to consider and

used to interview key informants. Of those, only 4 of the 35 components as follows. They were:

Component 1: Moralemodeling

Component 2: Charisma

Component 3: Visionary Vision

Component 4: Individualized Consideration

These 4 components are considered to still be latent variables. The researchers then took to the indicators of each component, which were based on the analysis of documents and research related to the transformational leadership required by principals. As well as interviewing 9 highly experienced academic management experts. It was found to have indicators in each component of transformational leadership for principals of bilingual kindergarten in ZhuHai. It's attributed of 68 indicators.

There were 68 indicators from literature analysis and interview of key informants. The researcher has employed content analysis. As result, total of 68 indicators were found and prepared as research instrument, a five-point rating scale questionnaire. The quality of instruments has been verified by content validity and reliability.

For the content validity of the questionnaire, after revision according to the opinion of the Advisory Committee of the Doctor of Thesis, the researchers submitted a draft questionnaire to a research instrument expert to determine the content match or IOC for five experts (list of experts shown in Appendix B), finding that all indicators derived from mentioned above. They were resolved by experts with a consistent overall opinion. The Item-Objective Congruence (IOC) was used to evaluate the items of the questionnaire based on the score range from -1 to +1. The items that had scores lower than 0.6 were revised, there are 26 items that fail below 0.60, as there are many items in the questionnaire, these 26 items have been deleted and will not be modified. On the other hand the items that had scores higher than or equal to 0.8 were reserved. As a result, it was found that there were 42 items in the questionnaire.

For reliability of questionnaire is a way of assessing the quality of the measurement procedure used to collect data. The researcher has sent out 32 questionnaires to collect data from non-samples in order to consider a result of reliability. Cronbach's alpha coefficient on or above 0.70 means adequate reliability to determine the internal consistency or average correlation of items in a research instrument to measure reliability of the questionnaire. As a result, Cronbach's alpha coefficient was at 0.976 which can be used to describe the reliability

of the questionnaire. It is appropriate enough to collect data from the samples in this research. And the discriminant power (Corrected Item-Total Correlation) was between 0.30- 0.89, greater than 0.3 (Field, 2005). All values meet the standard.

The researchers took the components and indicators of principal's transformational leadership of bilingual kindergarten in ZhuHai, GuangDong, The People's Republic of China. Developed into a 5-level rating scale questionnaire to be used to inquire about a sample used in research related. Consist of part I: General information of the respondents, part II: Questionnaire about principal's transformational leadership of bilingual kindergarten in Zhuhai, and part III: Suggestions and additional comments. The respondent used in this study: Chinese teachers, foreign teachers. A total of 306 people using the questionnaire. The questionnaire asked teachers working in bilingual kindergartens in Zhuhai which transformational leadership indicators would make them more engaged in their work.

Indicators analysis of components of Transformational Leadership Model of principals as perceived by the respondents in this study. It was found that overall, there were 4 components and 42 questions the arithmetic mean (\bar{x}) was 3.41–4.17, indicating that the respondents had an perception on the level value of all the indicators by the arithmetic mean (\bar{x}) to be high to highest, standard deviation (S.D.) was between 0.7–1.04, skewness (Sk.) was between -1.49–0.13, kurtosis(Ku.) was between -0.23–2.94, and the coefficient of variation (C.V.) was between 19.90–16.05, indicating that respondents has a little different perceptions on the indicators. All the arithmetic mean (\bar{x}) were greater than 3, skewness and kurtosis were less than ± 2 or ± 3 , and 10 for kurtosis, and coefficient of variation (C.V.) were less than 20%, which meet a criterion.

5.2 Result of data analysis for developing the model of principal's transformational leadership in bilingual kindergarten in ZhuHai, GuangDong, The People's Republic of China.

From responding to the questionnaire of the target group total 306 persons in each component as follows:

Component 1: Moralemolding, this component consisted of 14 indicators namely M1 to M14.

Component 2: Charisma, this component consisted of 7 indicators namely C1 to C7.

Component 3: Visionary Vision, this component consisted of 11 indicators namely V1 to int V11.

Component 4: Individualized Consideration, this component consisted of 10

indicators namely I1 to I10.

Data analysis by using CFA (Confirmatory factor analysis) with the AMOS program, it was found that the appropriate indicators in each component.

the measurement model of Moralemolding which was analyzed by AMOS, it's found that the best indicator of this measurement model which model fit with the empirical data, the index of Chi-square=117.16, $p=0.00$, GFI=0.95, AGFI=0.92, TLI=0.974, RMSEA=0.05. It's met the specifics criteria (Hair, et al, 2019, Pulpong Sooksawang, 2021). This model consisted of the 3 indicators namely M7, M8 and M9 (factors loading = 1.00, 0.94, and 0.98 respectively). Therefore, the indicators of them were chosen as a representative of this component (Arbuckle, J.L., 2012). It's the indicator used to describe latent variable: Moralemolding.

Figure 4.2 showed that the measurement model of Charisma which was analyzed by AMOS, It's found that the best indicator of this measurement model which model fit with the empirical data, the index of Chi-square=21.55, $p=0.06$, GFI=0.98, AGFI=0.96, TLI=0.99, RMSEA=0.05. It's met the specifics criteria (Hair, et al, 2019, Pulpong Sooksawang, 2021). This model consisted of the 4 indicators namely C1, C2, C3, and C7, (factors loading = 0.98, 0.99, 1.00, and 0.97 respectively). Therefore, the indicators of them were chosen as a representative of this component (Arbuckle, J.L., 2012). It's the indicator used to describe latent variable: Charisma.

the measurement model of Visionary Vision which was analyzed by AMOS. It's found that the best indicator of this measurement model which model fit with the empirical data, the index of Chi-square=51.30, $p=0.01$, GFI=0.97, AGFI=0.94, TLI=0.98, RMSEA=0.05. It's met the specifics criteria (Hair, et al, 2019, Pulpong Sooksawang, 2021). This model consisted of the 4 indicators namely V4, V6, V7 and V8, (factors loading = 0.82, 0.88, 0.96 and 1.00 respectively). Therefore, the indicators of them were chosen as a representative of this component (Arbuckle, J.L., 2012). It's the indicator used to describe latent variable: Visionary Vision.

the measurement model of Individualized Consideration and support which was analyzed by AMOS. It's found that the best indicator of this measurement model which model fit with the empirical data, the index of Chi-square=39.40, $p=0.07$, GFI=0.97, AGFI=0.95, TLI=0.99, RMSEA=0.04. It's met the specifics criteria (Hair, et al, 2019, Pulpong Sooksawang, 2021). This model consisted of the 4 indicators namely I2, I5, I6 and I8, (factors loading =1.00, 0.83, 0.88 and 0.89 respectively). Therefore, the indicators of them were chosen as a

representative of this component (Arbuckle, J.L., 2012). It's the indicator used to describe latent variable: Individualized Consideration.

Before analysis of the second order of confirmatory factor analysis, researcher was studied the correlation between the 15 indicators scales to determine the appropriateness of the correlation matrix to be analyzed.

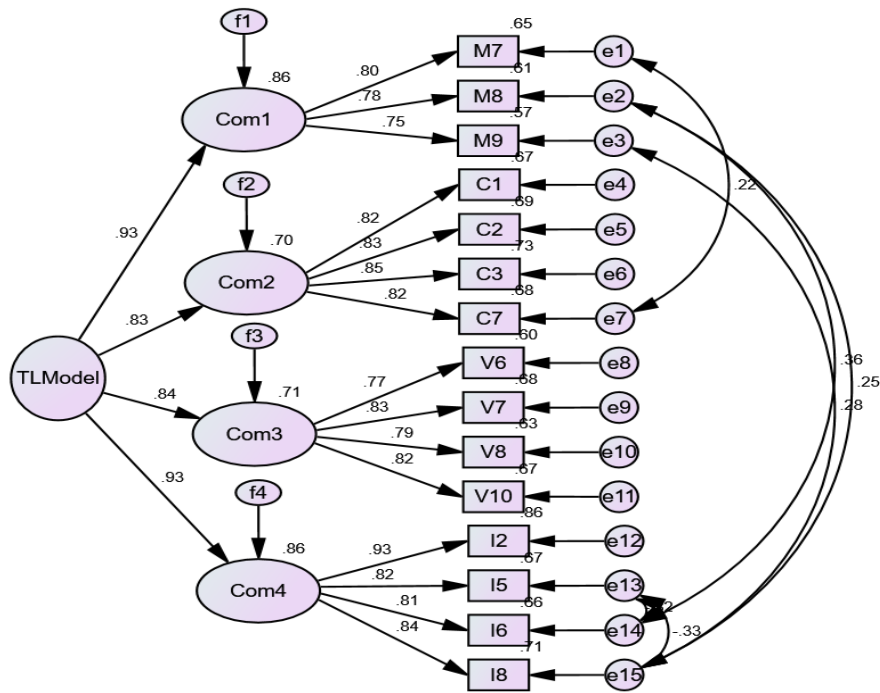
whether these 15 indicators were observed whether or not a correlation can be classified as a factor and whether it is appropriate, based on statistical values, namely the Bartlett test and the KMO or Kaiser-Mayer-Olkin Measurers of Sampling Adequacy: MSA. The analysis results as shown in Table 1 as follow:

Table 1 The statistic of Bartlett and KMO index of principal's transformational leadership of bilingual kindergarten in ZhuHai, GuangDong

KMO		0.941
Bartlett's Test of Sphericity	Chi-Square	3417.589
	df	105
	Sig.	0

Hair et al., (1998, p. 99) reported KMO / MSA should be > 0.5 . The Bartlett Test of Sphericity value is equal to 3417.589 and the KMO value is 0.941, with a value greater than 0.80, which Kim & Mueller (1978: 76) have written in their book on title "Factor Analysis: Statistical Methods and Practical Issues (Quantitative Applications in the Social Sciences) that the KMO will be examines the suitability of a sample to develop the model. The value of the KMO should be greater than 0.5 and for Bartlett's Test, it examines the population correlation matrix as an identity matrix, which is determined by its statistical significance to be less than 0.05 ($p < .05$). Therefore, the results of this preliminary analysis of the data for verification before develop the model with CFA (Confirmative Factor Analysis) were considered to be good.

Figure 1 Show the second order of principal's transformational leadership model that was consistent with the empirical data



Chi-square =149.922, Relative Chi-square =1.874, Df =80, p =.000, GFI =.937, AGFI =.905 TLI =.973, RMR =.030, RMSEA =.050

Table 2 Show statistical value of principal's transformational leadership model of of bilingual kindergarten in ZhuHai, GuangDong

	Latent and observable	Standardized Estimate	S.E.	CR	AVE	P	R ²
Transformational Leadership	Morale modeling	0.926		0.822	0.607	***	0.857
	M7	0.805					
	M8	0.779	0.062				
	M9	0.754	0.067				
	Charisma	0.835	0.070	0.898	0.689	***	0.697
	C1	0.816	0.057				
	C2	0.829	0.055				
	C3	0.854					
	C7	0.823	0.056				
	Visionary Vision	0.843	0.077	0.877	0.642	***	0.711
	V6	0.772	0.062				
	V7	0.826	0.060				
	V8	0.791	0.064				
	V10	0.817					
	Individualized Consideration	0.927	0.075	0.912	0.723	***	0.858
I2	0.926	0.044					
I5	0.816	0.063					
I6	0.815	0.056					
I8	0.840						

From Figure 1 and Table 2 above the results of the second order by CFA With the AMOS program, the following confirmative index values were obtained: Relative Chi-square (χ^2/df)=1.874, Degree of Freedom (df)= 80, $p = 0.000$, Goodness of Fit Index (GFI) = 0.937, Adjust goodness of Fit Index (AGFI) = 0.905, Tucker-Lewis Index (TLI) = 0.9735, Root Mean Square Error of Approximation (RMSEA) =0.050. By this evaluate index meet the specified criteria, Relative Chi-square (χ^2/df) < 3(Diamantopoulos, A. et al.,2000; Schumacker, R. E. and Lomax, R. G.,2010), $p > 0.05$, GFI, AGFI, TLI ≥ 0.9 and RMSEA ≤ 0.05 (Jöreskog and Sörbom,1996; Diamantopoulos, A. et al., 2000; Fan and Sivo, 2009; Hair et al, 2010, Poonpong Suksawang, 2020).

Therefore, based on the results of this analysis, it can be concluded that the transformational leadership model for principals from theory and research related and empirical data was consistent. It was based on research assumptions. It can be concluded that the principal' s transformational leadership that have 4 components, there are (1) Moralemolding, (2) Charisma, (3) Visionary Vision, (4) Individualized Consideration.

Table 3 Show the rank order of Squared Multiple Correlations

Components	Squared Multiple Correlations R^2	Rank order	% Explain
Component 4:Individualized Consideration	0.858	1	85.80%
Component 1:Moralemolding	0.857	2	85.70%
Component 3:Visionary Vision	0.711	3	71.10%
Component 2:Charisma	0.697	4	69.70%

From Table 3 in these components that important listed in the following rank order were the component 4: Individualized Consideration, the component 1: Moralemolding, the component 3: Visionary Vision, the component 2: Charisma. And the standardized regression weights or factor loading are 0.858, 0.857, 0.711 and 0.697 respectively.

5.3 Result of data analysis for proposeing the guideline for improving principal's leadership of bilingual kindergarten in ZhuHai, GuangDong

The statistics describe and testing involved of the latent and observed variables were calculated, and 10 experts from China who have been engaged in preschool education or kindergarten management for over 10 years were selected to validate the data results. It was concluded that transformational leadership model for principals from theory and research related and empirical data was consistent. It was based on research assumptions.

The model showed that there were 4 components and 15 indicators of principal's transformational leadership model of of bilingual kindergarten in ZhuHai, GuangDong. By rank order from high to low, respectively. They were:

Component 1: Individualized Consideration, it's the latent variable that consisted of 4 indicators:

I2: The principals of the kindergarten is willing to help teachers solve problems in life and family.

I5: Principals can think from the perspective of teachers.

I6: The principals of the kindergarten can patiently guide the techers to work and answer questions.

I8: The principals of the kindergarten pays attention to creating conditions for teachers and letting them play their own specialties.

Component 2: Moralemolding, it's the latent variable that consisted of 3 indicators: Principals adhere to the original intention of serving kindergartens and teachers.

M8: The principals is honest and upright, and does not seek personal gain.

M9: The principals does not care about personal gains and losses, and goes all out to work.

Component 3: Visionary Vision, it's the latent variable that consisted of 4 indicators:

V6: Principals have a clear understanding of kindergarten development.

V7: The Principals knows the development concept of the kindergarten and is willing to share it with the teachers.

V8: Principals will guide teachers in designing their own work goals.

V10: Principals support and promote creativity to reach the ultimate goal.

Component 4: Charisma, it's the latent variable that consisted of 4 indicators:

C1: The principals is open-minded and has a strong sense of innovation.

C2: Principals have a healthy and positive attitude, strong and optimistic spirit.

C3: The professional ability of the principals is excellent.

C7: The principals dares to grasp and manage, and is good at handling difficult problems

6. Discussion

Based on the research objectives, the discussion will be presented as follows:

(1) Discussion about major findings of objective 1

There were 4 components and 15 indicators of Transformational Leadership required by principals of bilingual kindergarten in ZhuHai, GuangDong which consisted of: (1) Individualized Consideration, (2) Moralemolding, (3) Visionary Vision, (4)Charisma. The major findings were revealed as such because these components and indicators can improve the transformational leadership for principals of bilingual kindergarten in ZhuHai, GuangDong. principal's transformational leadership can give full play to the initiative and enthusiasm of everyone in the organization and improve the organization's self-regulation and adaptability, which has become the development trend of management research in present day. This research finding was in accordance with the theories or related research of: Ji meng (2014), Li Chaoping & Shi kan(2005), Feng Cailing, Liu Lanhua, Zhang Lihua (2016) ,Meng Hui, Song Ji, Sun Zhiqiang, Wang Wei (2011) .

(2)Discussion about major findings of objective 2

The Transformational Leadership Model for principals of bilingual kindergarten in ZhuHai, GuangDong from theory and research related was consistent with the empirical data. This study developed a transformational leadership questionnaire based on the cultural background of the Zhuhai region in China. The preliminary exploratory factor analysis results showed that transformational leadership is a four-dimensional structure, including (1)Individualized Consideration, (2)Moralemolding, (3) Visionary Vision, (4) Charisma. The reliability of each dimension of the questionnaire exceeds the required 0.70 in measurement. Further project analysis shows that the correlation between the total scores of the 15 Indicators and the corresponding dimensions is relatively high, and deleting any of the 15 Indicators in each dimension will not cause an increase in reliability, indicating that the transformational leadership model developed in this study is reasonable. The results of confirmatory factor analysis indicate that the four dimensional structural model of transformational leadership is significantly superior to the single dimensional structural model, and the load of observed variables on latent variables and error load are relatively reasonable, once again proving that transformational leadership is a four dimensional structure.This

research finding was in accordance with the theories or related research of : Lin Lin & Shi Kan (2008). Mao Jinping, Zhou Zhuozhao & Wu Yifei (2017). Li Shengnan(2019). Song Qiqi (2022). Zhang Siyu(2020).

(3) Discussion about major findings of objective 3

Through the analysis of the factors that affecting the principal's transformational leadership of bilingual kindergarten in ZhuHai, GuangDong Province, formulate guidelines for improving the principal's transformational leadership in ZhuHai, GuangDong, The People's Republic of China. The guideline includes four aspects: (1)Individualized Consideration, (2) Moralemodeling, (3)Visionary Vision, (4) Charisma. Each aspect contains 4 guiding opinions, a total of 15 guiding opinions, the content of which is consistent with the transformational leadership model obtained in this study. This research finding was in accordance with the theories or related research of : Lin Lin & Shi Kan (2008). AlsaeediF, MaleT (2013). Tan Meijin (2015).Mao Jinping, Zhou Zhuozhao & Wu Yifei (2017). Li Shengnan(2019). Song Qiqi (2022). Zhang Siyu(2020).

7. Recommendations

7.1 Recommendations based on research findings and policy formulation

(1) Based on the results of this study, education management departments and bilingual kindergarten operators in Zhuhai, Guangdong can use change leadership indicators to train bilingual kindergarten principals in leadership skills. Enable bilingual kindergarten managers to develop into professional managers with transformational leadership skills in line with the new era.

(2) Based on the results of this study, the Zhuhai Ministry of Education and the Office of the Education Commission can use this research to include leadership skills indicators for transformational principals as a management policy, cultivating school managers to understand and understand the value of leadership. Especially the specific operation of the 15 indicators of transformational leadership has important help in bilingual kindergarten management.

(3) Based on the results of this study, investors in bilingual kindergartens can use the results of the research on transformational leadership indicators as a standard for promoting employees. For talents who meet the criteria for transformational leadership, they can be promoted to become the teaching department head, logistics director, manager,

deputy principal, and principal of the kindergarten. If it fails to meet the corresponding transformational leadership indicators, it will not be promoted.

7.2 Suggestions for utilization

Leaders can refer to this model to consider their ways of managing and responding to crises, and improve themselves based on the transformational leadership model, making their leadership more good. It has practical application and promotion significance for kindergarten management. Transformational leadership the key components should be given priority by promoting and developing the key components of Individualized Consideration first, followed by Moralemolding, Visionary Vision, Charisma, respectively. Specific principals should achieve the following: as the core leadership of the kindergarten, the behavior of principals plays an important role in the development of kindergarten teachers and even the entire kindergarten. Therefore, first of all, principals should strengthen their own character cultivation. The character of principals is a model for teachers, and principals are fair and just, consistent in words and deeds, and have noble moral character, which is setting a benchmark for teachers in a subtle way. Secondly, the professional role of principals is as educators and leaders who understand management and leadership theory. Being able to solve practical problems for teachers will generate strong psychological magnetism towards them, enhance their admiration for principals, and enhance their non authoritative influence. Therefore, it is necessary to love learning, be humble and cautious, have a strong knowledge reserve and constantly update the knowledge system, flexibly use it, and continuously improve work ability in the process of practice, reflection, re practice, and re reflection. In addition, a sense of responsibility and mission is the driving force for progress. principals have a sense of responsibility and are serious and responsible in their work, which can infect teachers and play a driving role. The work attitude of principals can affect the attitude of teachers towards work. Therefore, principals should take their work seriously and responsibly, maintain a strong work enthusiasm, have a strong enterprising spirit, and infect teachers around them with their own spirit, inspiring everyone to explore and innovate. Finally, in order for principals to gain the trust of teachers, they must fully express their trust and understanding towards them, humbly accept their reasonable suggestions, and be able to frequently self criticize. Kindergarten principals should develop management strategies based on the actual situation of the kindergarten, combining advanced management theories with practice.

7.3 Suggestions for further research

This article obtains a transformational leadership model with theoretical and practical significance through systematic and continuous research. The aim is to develop action guidelines for building high-quality kindergartens and pursuing sustainable development. In order to further promote the understanding and application of transformational leadership in Guangzhou and Zhuhai, China, the following are some suggestions for future research:

Longitudinal study: Conduct a longitudinal study to examine the long-term impact of kindergarten principals on the work engagement of kindergarten managers, teachers, and employees. This can provide valuable insights into the sustainability and effectiveness of transformational leadership practices over the long term.

Cross cultural research: Exploring the impact of cultural factors on the performance and effectiveness of transformational leadership in bilingual kindergartens. Compare and compare the experiences of transformational leadership in different cultures, including Eastern and Western perspectives, to determine the cultural nuances required for successful implementation.

Transformational leadership in different administrative roles: Explore the application of transformational leadership principles in specific administrative roles of bilingual kindergartens, such as principal, deputy principal, financial supervisor, education supervisor, and logistics supervisor. Investigate how to customize and apply transformational leadership to address the challenges and responsibilities of these roles.

Transformational Leadership Measurement Tool: Develop and validate a measurement tool for transformational leadership in the context of bilingual kindergartens. Create reliable and effective tools to capture the unique aspects and challenges of transformational leadership in these educational institutions, enabling more accurate evaluation and comparison of transformational leadership practices.

Comparative research: Conduct comparative research to compare the transformational leadership practices of bilingual kindergartens with other types of educational institutions or industries. Analyze the similarities and differences in the implementation, outcomes, and challenges of transformational leadership to gain a broader understanding of the effectiveness and transferability of transformational leadership principles.

Through these research suggestions, scholars and practitioners can deepen their understanding of transformational leadership among principals in ZhuHai, GuangZhou, The People's Republic of China. In the future, researchers hope to conduct more in-depth research,

And make new contributions to the future knowledge base of transformational leadership theory.

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