Research on Psychological Capital and Job Engagement of Primary and Secondary School Teachers-- Taking Northern Guangdong as an Example

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ABSTRACT
Objective: To understand the current situation of psychological capital and job engagement of primary and secondary school teachers and the relationship between them. Methods: 514 primary and secondary school teachers in northern Guangdong were investigated with the psychological capital scale of primary and secondary school teachers and Utrecht job engagement scale in Chinese. Results: 1. The average score of psychological capital and job engagement of primary and secondary school teachers is higher than the median. 2. There are significant differences in the variables of marriage, age, professional title and teaching age in the psychological capital of primary and secondary school teachers; there are significant differences in the variables of marriage in the job engagement. 3. The psychological capital of primary and secondary school teachers is positively correlated with job engagement, which can positively predict job engagement. Conclusion: 1. The psychological capital and job engagement of primary and secondary school teachers in northern Guangdong are above the middle level; 2. We should pay attention to the promotion of psychological capital and job engagement of primary and secondary school teachers with lower professional titles, unmarried, younger age and teaching age. 3. We can increase the job engagement level by improving the psychological capital level of primary and secondary school teachers, and ultimately make primary and secondary school students and basic education benefit.
Keywords: *Primary and secondary school teachers, psychological capital, job engagement*

1. INTRODUCTION

Psychological capital is a kind of positive psychological resource, job engagement is a kind of positive state related to work, both of which can directly affect individual work performance and enhance organizational competitiveness. Teachers are the key to education and can exert a decisive influence on students. Teachers' job engagement refers to teachers' active attitude and love to their jobs.[1] With the development of the society, schools and parents improve the requirements to teachers, teachers face the work pressure has increased, which to a certain extent affects the psychological status of teachers. As front line practitioners of basic education, the psychological capital and job engagement of primary and secondary school teachers will not only affect their own work performance, but also affect students' academic performance and mental health, and then affect the reform and development of Chinaese education. Therefore, it is very necessary to pay attention to and probe into the psychological condition and working condition of teachers.

According to Luthans and others (2007) , psychological capital is a kind of positive-oriented, measurable and effectively-managed Psychological Energy, which includes four dimensions: self-confidence, optimism, hope and resilience.[2] Luthans and other viewpoints are considered to be the most comprehensive, the most clearly explained and the most operational, and its psychological capital questionnaire (PCQ-24) has been widely used by scholars at home and abroad in recent years. According to Schaufeli et Al., job engagement is a positive, fulfilling emotional and cognitive state related to work, including three dimensions: vitality, dedication, and focus. Energy means energetic, willing to go all out for the work, facing difficulties; dedication means willing to stand the test in the work, full of passion, inspiration and pride; Concentration is the ability to fully commit yourself to the task and feel happy about it, almost forgetting the passage of class time.[3] Because of the different research angles of researchers, there are many different definitions of job engagement, but most scholars agree with Schaufeli and others, and the UWES scale has been widely used by scholars at home and abroad.

The purpose of this study is to pay attention to the professional group of primary and secondary school teachers in China, and to investigate the psychological capital and job engagement of primary and secondary school teachers in the north of Guangdong Province, referring to the relevant research results and measurement tools of value at home and abroad, in order to understand the present situation of psychological capital and job

engagement of primary and secondary school teachers in the north of Guangdong Province, this paper discusses the basic characteristics of psychological capital and job engagement from the perspective of demographic variables such as gender, age, marriage, etc. , and analyze the relationship between psychological capital and job engagement. This will not only add research data to related research fields, but also help school administrators to better manage teachers, and thus provide some reference for improving the job engagement of primary and secondary school teachers.

2. SUBJECTS AND METHODS

2.1. Object of Study

The study randomly surveyed primary and secondary school teachers in the north of Guangdong Province. 524 questionnaires were given out and 514 valid questionnaires were collected. The efficiency of the questionnaires was 98% . The sample distribution is as follows: 146 male and 368 female; 97 under 26 years old, 117 between 26 and 35 years old, 177 between 36 and 45 years old, 123 over 45 years old; 130 unmarried, 384 married; 5 in secondary school, 87 in junior college, 409 in undergraduate, 13 in master's degree and above; 16 in tertiary, 85 in secondary, 259 in primary, 60 in senior, 93 in non-professional There are 136 people with teaching age less than 5 years, 64 people with teaching age of 6-10 years, 130 people with teaching age of 11-20 years and 184 people with teaching age more than 20 years.

2.2. Research Tools

This study used two scales to compile the questionnaire of psychological capital and job engagement of primary and secondary school teachers. The scale of psychological capital was compiled by Zhang Wen.[4]The psychological capital scale is composed of 19 items, including four dimensions of self-confidence, hope, optimism and resilience, which are scored by Likert 6 points (1-6) , the internal consistency reliability coefficient of each dimension was between 0.622 and 0.795, and the overall internal consistency reliability coefficient of the scale was 0.8226.

The job engagement scale was revised by Zhang Yiwen and Gan Yiqun.[5] There were 17 items in the scale, including 3 dimensions of vitality, dedication and concentration, the internal consistency reliability coefficient of each dimension was 0.735-0.767, and the overall internal consistency reliability coefficient of the scale was 0.9 or so .

2.3. Statistical Method

SPSS 22.0 was used to analyze the data in this study.

3. RESULTS

3.1. Descriptive Analysis

The results show that the mean value of psychological capital of primary and middle school teachers is 4.40, compared with the mean value of 3.5 in theory, the average value of psychological capital of primary and middle school teachers is above the average level, and the scores from high to low are: confidence > hope > resilience > optimism. The level of optimism was significantly lower than that of the other three dimensions. Compared with the mean of 3.97, the total job engagement of primary and middle school teachers was above the mean of 3. The scores from high to low were: dedication > vitality > focus.

3.2. Analysis of Significance of Difference

3.2.1. Analysis of the difference of demographic variables in psychological capital

The results showed that there was no significant difference in the gender of psychological capital and sub-dimensions, but there were significant differences in the marriage variables of the mean score of psychological capital and the mean scores of self-confidence and resilience sub-dimensions ($p<0.05$) . There were significant differences in the levels of self-confidence, optimism and resilience among primary and Secondary School Teachers ($p<0.01$) . The results show that the self-confidence level of teachers over 45 years old is significantly higher than that of teachers under 36 years old, and that the self-confidence level of teachers under 5 years old is significantly lower than that of teachers over 11 years old, teachers with more than 20 years of teaching experience have higher levels of resilience than those with other teaching experience. On the optimistic dimension, teachers with less than 26 years of age are significantly higher than those with 36-45 years of age, and teachers with less than 5 years of teaching experience are significantly higher than those with 11-20 years of teaching experience.

In the variables of professional title, there were significant differences in the overall level of psychological capital and various dimensions of primary and Secondary School Teachers ($p<0.01$) . The results show that the self-confidence level of teachers above grade I is significantly higher than that of teachers below grade I, and the hope level of teachers with senior grade is significantly higher than that of teachers with Grade II and Grade I The teachers without professional title were significantly more

optimistic than those with professional title, and the teachers above Grade 1 were significantly more resilient than those with Grade 2 The overall level of psychological capital of teachers with senior professional titles is significantly higher than that of teachers with grade three and grade two. The results are shown in Table 1.

Table 1 The test of psychological capital in demographics statistical variables

Variables	Categories	Confidence	Hope	Optimism	Resilience	Psychological capital
Marriage	**Unmarried**	4.28±0.75	4.46±0.79	4.13±0.81	4.29±0.70	4.28±0.66
	Married	4.66±0.66	4.54±0.74	4.05±0.78	4.55±0.68	4.55±0.59
	t	-5.10**	-0.98	0.92	-3.79**	-2.58*
Age	**Under 26**	4.31±0.78	4.57±0.77	4.29±0.81	4.28±0.71	4.35±0.67
	26-35	4.46±0.65	4.43±0.69	4.09±0.76	4.42±0.66	4.34±0.57
	36-45	4.64±0.72	4.49±0.82	3.92±0.79	4.50±0.73	4.38±0.65
	Over 45	4.75±0.59	4.60±0.67	4.12±0.75	4.68±0.62	4.53±0.54
	F	8.90**	1.24	4.82**	6.40**	2.45
Job title	**Level 3**	3.98±0.91	4.45±0.83	3.75±0.82	4.15±0.71	4.07±0.68
	level 2	4.38±0.69	4.39±0.70	4.05±0.73	4.31±0.64	4.27±0.56
	level 1	4.64±0.64	4.46±0.76	3.96±0.79	4.55±0.69	4.40±0.64
	advanced	4.87±0.59	4.80±0.68	4.26±0.68	4.63±0.70	4.62±0.57
	none	4.40±0.77	4.62±0.75	4.37±0.79	4.43±0.71	4.49±0.65
	F	9.88**	3.60**	6.64**	3.77**	4.25**
Teaching years	**Under 5 year**	4.33±0.74	4.54±0.77	4.25±0.82	4.34±0.69	4.35±0.65
	6-10year	4.45±0.68	4.36±0.66	4.12±0.72	4.39±0.68	3.86±0.94
	11-20year	4.64±0.75	4.50±0.82	3.88±0.82	4.43±0.75	4.34±0.68
	Over 20 year	4.72±0.59	4.58±0.71	4.08±0.74	4.66±0.64	4.50±0.54
	F	9.90**	1.42	5.15**	6.78**	2.60

Note: * p<0.05, * * P & Lt; 0.01; the same as below.

3.2.2. Differences in demographic variables of job engagement

The results showed that there were significant differences in marital variables (p<0.05) and in other variables (p<0.05) . There was no significant difference in the level of job engagement, activity and concentration (p<0.05) , but there was significant difference in the level of dedication (p<0.05) . The Tukey test shows that the level of dedication of the teachers with college degree is significantly higher than that of the teachers with bachelor degree.

Table 2 Variance test of job engagement in demographic variables

Variables	categories	energy	dedication	focus	engagement
Marriage	**Unmarried**	3.75±0.95	3.98±1.03	3.70±1.04	3.80±0.94
	Married	3.98±1.01	4.16±1.08	3.98±1.09	4.03±1.00
	t	-2.28*	-1.63	-2.60*	-2.32*

3.3. Correlation Analysis

As can be seen from table 3, the total and sub-dimensions of psychological capital of primary and secondary school teachers are positively correlated with the total and sub-dimensions of job engagement, which indicates that the higher the level of psychological capital is, the higher the correlation between psychological capital and job engagement is, the higher the level of engagement.

Table 3 The correlation between psychological capital and job engagement

	energy	dedication	focus	engagement
Confidence	0.42**	0.43**	0.41**	0.44**
Hope	0.49**	0.56**	0.47**	0.53**
Optimism	0.40**	0.43**	0.34**	0.41**
Resilience	0.46**	0.50**	0.45**	0.49**
Psychological capital	0.53**	0.57**	0.50**	0.56**

3.4. Regression Analysis

As can be seen from Table 4, since P<0.01, it shows that psychological capital has a significant effect on job engagement, which is 0.56, indicating that the effect is positive, R2 is 0.31, indicating that psychological capital in primary and secondary schools can explain 31% of the total variance of job engagement, that is, psychological capital can predict job engagement positively.

Table 4 regression analysis of psychological capital on job engagement

Dependent variables	predictive variables	R^2	Adjusted R^2	β	t
job engagement	**psychological capital**	0.31	0.31	0.56	15.20**

Taking the four dimensions of the psychological capital of primary and middle school teachers as the predictive variables and the job engagement as the dependent variables, the stepwise regression method is used to carry out the regression analysis, and the three variables of the regression model are hopeful, resilient and confident, therefore, the goodness of fit is determined by reference to the adjusted R^2. The results are shown in Table 5.As can be seen from table 5, the adjusted R^2 of the three variables of hope, resilience and confidence is 0.32, which indicates that the regression model of hope, resilience and confidence can explain 32% of the total variance of job engagement.

Table 5 regression analysis of job engagement of hope, resilience and self-confidence

Model	R	R^2	Adjusted R^2	F
1	0.53[a]	0.27	0.28	198.54**
2	0.65[b]	0.31	0.31	115.08**
3	0.56[c]	0.32	0.32	80.34**

a. prediction: hope;b. prediction: hope, resilience;c. prediction: hope, resilience, confidence.

As can be seen from table 6, the dimensions of Hope, resilience and self-confidence are 0.30,0.17 and 0.13 respectively, and they all reach the significant level of 0.01, this indicates that the dimensions of Hope, resilience and self-confidence all have a positive predictive effect on job engagement.

Table 6 Model coefficient table

Dependent variable	predictive variable	β	t	p
job engagement	**hope**	0.30	5.26**	0.00
	resilience	0.17	2.97**	0.00
	confidence	0.13	2.67**	0.01

4. ANALYSIS AND DISCUSSION

4.1. General Situation

The results show that the overall level of psychological capital of primary and secondary school teachers is above average, and the scores of all dimensions are confidence > Hope > resilience > optimism from high to low, which is similar to the research results of Zhang Wen (2010) [4]. This shows that the primary and secondary school teachers in the north of Guangdong can still maintain a positive psychological state in the busy teaching work, can confidently put in the necessary efforts to complete the challenging work, and can make persistent progress according to the predetermined goals, attribute the positive events to their own efforts, and can recover quickly in the face of difficulties and crises, And get rid of difficulties to success, so as to maintain a relatively high level of psychological capital.

The results show that the average job engagement of primary and secondary school teachers is above average, and the average scores from high to low are: Dedication >Vitality>Focus, which is similar to Zhu Bo's (2016)[6]. Compared with the rest of Guangdong, the northern part of Guangdong is not economically developed. Although teaching in the northern part of Guangdong is not at a very good economic level, most primary and secondary school teachers are able to take responsibility for their jobs and their students because they have a strong sense of mission, complete the teaching work diligently, maintains the high work to the input level. However, in general, the level of job engagement of primary and secondary school teachers in the north of Guangdong still has greater room for improvement.

4.2. Characteristics of Psychological Capital and job engagement

4.2.1. Characteristics of psychological capital

The results show that there are significant differences in the psychological capital of primary and secondary school teachers of different ages, marital status, professional title and teaching age. Married teachers' confidence, resilience and psychological capital are higher than unmarried teachers. This may be because married teachers need to deal with the relationship with their spouses and children.[7] In the course of which they have accumulated a wealth of experience, which makes them more confident, active and persistent in dealing with various teaching issues.

Younger teachers are usually new teachers who have just started their teaching career. They are lack of working

experience. They are not confident about whether they can complete all kinds of challenging teaching tasks, and their resilience level is not high. In the dimension of optimism, young teachers are full of enthusiasm for teaching work, which is easy to maintain a high level of optimism.

The higher the title, the higher the level of psychological capital and self-confidence, hope and resilience. This is similar to the research results of Jin Meng (2015). Generally speaking, teachers with higher professional titles usually have higher teaching ability and salary, which can make them show higher confidence, hope, toughness and psychological capital level. In the optimistic dimension, teachers without professional titles are usually new teachers who have just stepped into the job. They have a high enthusiasm for work and pursue personal career growth rather than salary, so they can still maintain a high level of happiness in the case of low professional titles and salary.

4.2.2. Characteristics of job engagement

The results show that there is only significant difference in the variables of marital status. Married teachers' job engagement, vitality and concentration level are significantly lower than unmarried teachers. This may be because married teachers need to spend more time and energy to deal with the relationship with their spouses, children and other family issues, so that they can invest less time and energy in teaching work, so that the work investment presents a lower level.

4.3. The Relationship Between Psychological Capital and Job Engagement

The results of correlation analysis show that there is a significant positive correlation between teachers' psychological capital and job engagement, and between all dimensions of psychological capital and job engagement, which is consistent with the research results of Zhu Bo(2016). [8] Among all dimensions of psychological capital and job engagement, hope dimension has the highest positive correlation with job engagement. This shows that primary and secondary school teachers have hope for teaching work, they can set up specific work goals, and can go all out to achieve their own goals, so that the job engagement can be greatly improved.

Through regression analysis, it is found that there is a significant regression relationship between the psychological capital and job engagement of primary and secondary school teachers in northern Guangdong. The overall psychological capital and the sub dimensions of hope, resilience and self-confidence can positively predict job engagement. This shows that the improvement of primary and secondary school teachers' psychological capital and the dimensions of hope, resilience and self-confidence plays an important role in the improvement of their job engagement level.

5. CONCLUSION

Through the above analysis and discussion, the following conclusions can be drawn:

(1) The psychological capital and job engagement of primary and secondary school teachers in the north of Guangdong Province are above the middle level. In the future, we should pay more attention to improving the psychological capital and job engagement level of primary and secondary school teachers, especially to the promotion of the psychological capital and job engagement level of primary and secondary school teachers with lower professional titles, unmarried, younger age and teaching age.

(2) Psychological capital in primary and secondary schools can positively predict the level of job engagement, so it can increase the level of job engagement by improving the level of psychological capital of primary and secondary school teachers, and ultimately make primary and secondary students and basic education benefit.

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