

# A Study on the Relationships between Teachers' Professional Learning Community, Organizational Commitment and Teachers' Teaching Effectiveness

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## Abstract

*This study aimed to understand the relationships between teachers' professional learning communities, organizational commitment and teachers' teaching effectiveness. In this study, 686 primary school teachers were asked to fill in the questionnaire. The findings were as follows. There are significant differences between teachers' teaching effectiveness in age, education level, years of working and position. Through typical factors, the variation of "teacher learning community" has 89.8% and 3.3% correlation with the variation of "teachers' organizational commitment"; it has 89.1% and 3.6% correlations with the variation of "teacher teaching effectiveness". Through typical factors, the variance of "teacher organizational commitment" has a 92.7% and 2.6% correlation with the variance of "teacher teaching effectiveness". Teachers' professional learning community and organizational commitment have 93.7% positive predicting ability to teachers' teaching effectiveness.*

**Keywords:** *organizational commitment, teachers' professional learning community, teachers' teaching effectiveness*

## 1. Introduction

### 1.1. Research Motives

Traditionally, school teachers make efforts to carry out class teaching under a conservative campus atmosphere and with the expectation of fighting alone. However, with rapid changes in recent years, traditional educational thinking and teaching methods can no longer meet the challenges of a complex and uncertain social environment. A school is an organization that emphasizes social and psychological interaction, whose members interact frequently at all ordinary times. Therefore, building a professional learning community in school is an effective way to improve teachers' personal teaching and learning. In the community, teachers can carry out collaborative teaching through mutual discussion, dialogue, and knowledge sharing in a supportive atmosphere, so as to promote an overall improvement of teaching work and teaching quality (Qiang, 2018). In terms of teaching effectiveness, a school with which can usually promote teachers' professional development with the power of cooperation. Only in the context of analysis, discussion, and dialogue with colleagues with an open mind can teachers be possible and willing to really improve their teaching methods (Wilson & Daviss, 1996). Therefore, the establishment of a school learning community is very important for teachers' professional development. Understanding the current situation of primary school teachers' professional learning community, and whether there are differences between Teachers' professional learning communities under different backgrounds, is the first motive of this study.

Organizational commitment is a kind of emotional loyalty of an individual to a specific organization, and a kind of attitude and performance of dedication to his work (Qingshan & Qingshan, 2005). Teachers' organizational commitment has a great impact on school effectiveness, so effectively improving teachers' organizational commitment and centripetal has become one of the current educational study topics. Understanding the current situation of primary school teachers' organizational commitment, and whether there are differences between Teachers' organizational commitments under different backgrounds, is the second motive of this study.

"What kind of teachers, makes what kind of students". The performance of students' learning behavior in teaching activities is deeply influenced by their teachers (Qingshan, 1998). Teachers are the first-line executors, undertaking the responsibility of preaching, teaching, and dispelling doubts. Therefore, students' learning effectiveness depends on teachers' teaching quality. Understanding the current situation of primary school teachers' teaching effectiveness, and whether there are differences between Teachers' teaching effectiveness under different backgrounds, is the third motive of this study.

Education must run forward before social development, so as to play an influential role to guide social progress (Haoming & Jing, 2018). Therefore, taking community as the starting point to explore teachers' organizational commitment and teaching effectiveness is not only new thinking of school education innovation but also one of the good strategies for the organization and school innovation (Louise, 2006). A study by Defeng and Zijian (2018) shows that elementary school teachers feel well about the professional learning community, have a high degree of organizational commitment, and perform well in teaching effectiveness. In addition, teachers' professional learning community has a positive impact on teachers' teaching effectiveness and teachers' organizational commitment. At the same time, a teacher's professional learning community and organizational commitment can also together affect a teacher's teaching effectiveness. Gang and Wusan (2019) pointed out that there is an obvious positive relationship between teachers' professional learning community, organizational commitment, and teachers' teaching effectiveness. In addition, Yiching and Chunte (2021) research on the relationship between teachers' professional learning community and teachers' teaching effectiveness shows that teachers' professional learning community has a 54.4% positive predicting ability of teachers' teaching effectiveness. Therefore, understanding the relationship between teachers' professional learning community, organizational commitment, and teachers' teaching effectiveness, and how teachers' professional learning community and organizational commitment can predict teachers' teaching effectiveness, is the fourth motive of this study.

## **1.2. Research Objective**

To explore the current situation of teachers' professional learning community, organizational commitment and teaching effectiveness, and differences among them.

To explore the relationship between teachers' professional learning community, organizational commitment, and teaching effectiveness

To explore the predicting ability of teachers' professional learning community and organizational commitment to teachers' teaching effectiveness.

## **2. Literature Review**

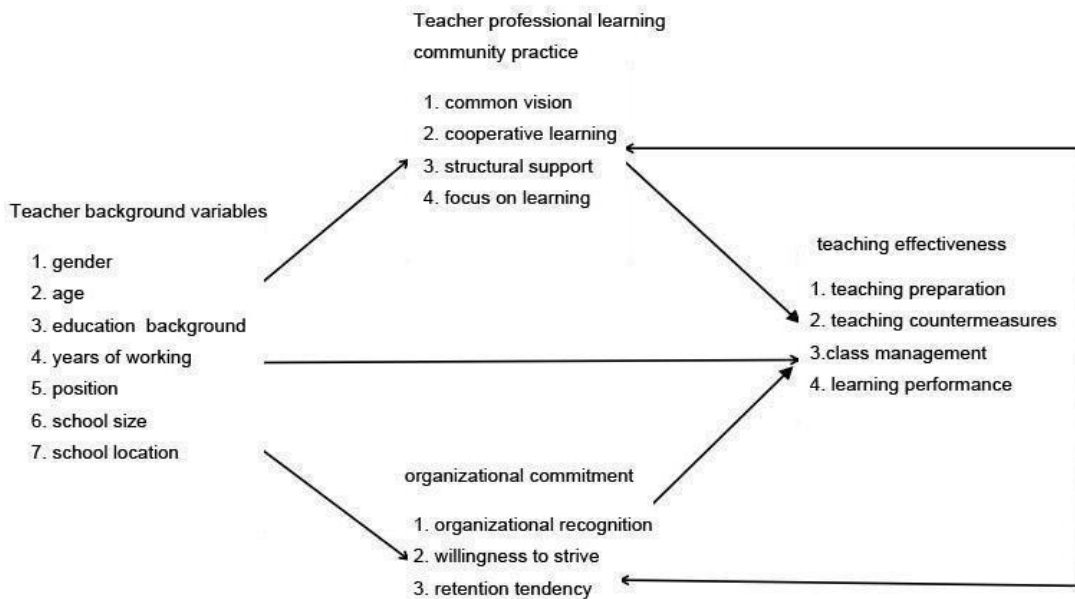
Teachers' professional learning community is a group of like-minded school teachers, based on common beliefs, teaching needs, and vision, through professional dialogue, experience sharing, teaching observation, and file sharing, promoting teachers' professional growth and improving students' learning effectiveness (Qiugui, 2020).

Buchanan (1974) pointed out, "commitment" is an individual's emotional attachment to organizational goals and values, which includes the following three components: (1) Identity, internalizing organizational goals and pride in the organization; (2) Involvement, actively participating in organizational activities; (3) Loyalty, sharing weal and woe with organization, trying his best to practice obligations and responsibilities. Chunxing (1983) advocated an excellent teacher should have three subjective conditions: "able to teach", "good at teaching" and "willing to teach". A teacher who can concentrate on the knowledge to be taught is "able to teach". A teacher who has the ability of professional education is called "able to teach". A teacher who has the spirit of professional education is called "willing to teach". Among the three, the most important is "willing to teach". "Willingness to teach" is the determination of being willing to engage in a teaching career (Zhengjie, 1993).

### 3. Research Method

#### The conceptual framework for the research

Research Framework



#### 1.3. Research Object

This study takes the formal teachers of primary schools in Jiangsu Province in the past 110 years, as the study object, and the sample selection method is stratified proportional sampling.

#### 1.4. Research Tool

This study takes "teachers' professional learning community", "teachers' organizational commitment" and "teachers' teaching effectiveness" as questionnaires.

#### 1.5. Data Processing

The questionnaire data were collected and statistically analyzed by mean, t-test standard, one-way ANOVA, canonical correlation, and stepwise.

### 2. ANALYSIS AND DISCUSSION

#### 2.1. Teachers' professional learning community

##### 2.1.1. Analysis of the current situation of teachers' professional learning community, organizational commitment and teaching effectiveness

This study takes descriptive statistics to mean to analyze the current situation of teachers' professional learning community, organizational commitment, and teaching effectiveness. The result shows that the mean of teachers' professional learning community is 3.91 points (Table 4-1), the mean of teachers' organizational commitment is 3.99 points (Table 4-2), and the mean of teachers' teaching effectiveness is 3.96 points (Table 4-3), ranking in the "upper-middle" level in the 5-point Likert

scale.

**2.1.2. Analysis of a distinction in teachers' professional learning community due to different teachers' gender**

Table 4-1 shows that the study takes a t-test analysis on an independent sample of teachers of different genders in the teachers' professional learning community. The result shows that the t-values on teachers' gender in the whole teachers' professional learning community do not reach a significant level.

Table 4-1

The t-test summary table of professional learning communities for elementary school teachers of different genders

Dimension	Gender	Number	Mean	Standard Deviation	t
shared vision	Male	361	3.88	1.05376	.071
	Female	325	3.87	1.00067	
cooperative learning	Male	361	3.93	1.03631	.256
	Female	325	3.91	1.02340	
structural support	Male	361	3.96	.99943	1.054
	Female	325	3.88	1.06258	
focus on learning	Male	361	3.94	1.01351	.830
	Female	325	3.88	1.07498	
Overall	Male	361	3.93	.99680	.573
	Female	325	3.89	.99940	

**2.1.3. Analysis of the distinction in teachers' professional learning community due to different teachers' age**

This study takes one-way ANOVA to analyze teachers of different ages in the teachers' professional learning community. The results show that teachers under the age of 30 get the lowest level in the teachers' professional learning community.

**2.1.4. Analysis of a distinction in teachers' professional learning community due to different teachers' education background**

This study takes one-way ANOVA to analyze teachers of different educational backgrounds in teachers' professional learning communities. The results show that with "common vision", "cooperative learning", and "structural support" aspect, the professional learning community of

specialist teachers is higher level than that of teachers with "undergraduate" and "master" degrees.

**2.1.5. Analysis of the distinction in teachers' professional learning community due to different teachers' working years**

This study takes one-way ANOVA to analyze teachers of different working years in the teachers' professional learning community. The results show that the professional learning community of teachers of 11-20 working years and more than 21 years, is higher level than that of teachers with less than 5 years and 6-10 years, while the professional learning community of teachers with less than 5 working years gets the lowest level.

**2.1.6. Analysis of a distinction in teachers' professional learning community due to different teachers' position**

This study takes one-way ANOVA to analyze teachers of different positions in teachers' professional learning community. The results show that the professional learning community of teachers and also tutors is higher level than that of professional teachers.

**2.1.7. Analysis of the distinction in teachers' professional learning community due to different school sizes and school location**

This study takes one-way ANOVA to analyze teachers of different school sizes and school locations in teachers' professional learning communities. The result shows that the t-values on teachers' school size and school location in the whole teachers' professional learning community do not reach a significant level.

**2.2. Teachers' organizational commitment**

**2.2.1. Analysis of the distinction in teachers' organizational commitment due to different teachers' gender**

Table 4-2 shows that the study takes a t-test analysis on an independent sample of teachers of different genders in teachers' organizational commitment. The result shows that the t-values on teachers' gender in the whole teachers' organizational commitment do not reach a significant level.

Table 4-2

The t-test summary table of organizational commitment of elementary school teachers of different genders

Dimension	Gender	Number	Mean	Standard Deviation	t
organizational identity	Male	361	3.98	1.01993	.229
	Female	325	3.96	1.09464	
willingness to work	Male	361	3.95	1.05193	-.656
	Female	325	4.00	1.06062	

stay in school	Male	361	4.03	1.02260	.716
	Female	325	3.98	1.07227	
Overall	Male	361	3.99	1.00370	.097
	Female	325	3.98	1.04305	

### **2.2.2. Analysis on the distinction in teachers' organizational commitment due to different teachers' age**

This study takes one-way ANOVA to analyze teachers of different ages in teachers' organizational commitment. The results show that teachers under the age of 30 get the lowest level in teachers organizational commitment.

### **2.2.3. Analysis on the distinction in teachers' organizational commitment due to different teachers' education background**

This study takes one-way ANOVA to analyze teachers of different educational backgrounds in teachers' organizational commitment. The results show that the organizational commitment of specialist teachers is higher level than that of teachers with "undergraduate" and "master" degrees.

### **2.2.4. Analysis on the distinction in teachers' organizational commitment due to different teachers' working years**

This study takes one-way ANOVA to analyze teachers of different working years in teachers' organizational commitment. The results show that the organizational commitment of teachers of 11-20 working years and more than 21 years, is higher level than that of teachers with less than 5 years and 6-10 years, while the organizational commitment of teachers with less than 5 working years gets the lowest level.

### **2.2.5. Analysis of the distinction in teachers' organizational commitment due to different teachers' position**

This study takes one-way ANOVA to analyze teachers of different positions in teachers' organizational commitment. The results show that the organizational commitment of teachers and also tutors are higher level than that of professional teachers.

### **2.2.6. Analysis of the distinction in teachers' organizational commitment due to different school size and school location**

This study takes one-way ANOVA to analyze teachers of different school size and school locations in teachers' organizational commitment. The result shows that there is no distinction in teachers' organizational commitment due to different school sizes and school locations.

## **2.3. Teachers' teaching effectiveness**

### **2.3.1. Analysis of the distinction in teachers' teaching effectiveness due to different teachers' gender**

Table 4-3 shows that the study takes a t-test analysis on an independent sample of teachers of different genders in teachers' teaching effectiveness. The result shows that the t-values on teachers' gender in the whole teachers' teaching effectiveness do not reach a significant level. This indicates that there is no obvious difference between male and female primary school teachers in teachers' teaching effectiveness.

Table 4-3

The t-test summary table of teaching effectiveness of elementary school teachers of different genders

Dimension	Gender	Number	Mean	Standard Deviation	t
teaching preparation	Male	361	3.9701	1.03880	.181
	Female	325	3.9557	1.04362	
teaching strategies	Male	361	3.95	1.03912	-.378
	Female	325	3.98	1.05193	
class management	Male	361	3.97	1.03611	-.464
	Female	325	4.01	1.04074	
learning performance	Male	361	3.91	1.04648	-.150
	Female	325	3.92	.98838	
Overall	Male	361	3.95	1.00263	-.211
	Female	325	3.96	.98848	

### **2.3.2. Analysis of the distinction in teachers' teaching effectiveness due to different teachers' age**

This study takes one-way ANOVA to analyze teachers of different ages in teachers' teaching effectiveness. The results show that teachers under the age of 30 get the lowest level in teachers teaching effectiveness.

### **2.3.3. Analysis of the distinction in teachers' teaching effectiveness due to different teachers' education background**

This study takes one-way ANOVA to analyze teachers of different educational backgrounds in teachers' teaching effectiveness. The results show that the teaching effectiveness of specialist teachers is higher level than that of teachers with "undergraduate", "master's" and "doctor" degrees.

### **2.3.4. Analysis of the distinction in teachers' teaching effectiveness due to different teachers' working years**

This study takes one-way ANOVA to analyze teachers of different working years in teachers' teaching effectiveness. The results show that the teaching effectiveness of teachers of 11-20 working years and more than 21 years, is higher level than that of teachers with less than 5 years and 6-10 years, while the teaching effectiveness of teachers with less than 5 working years gets the lowest level.

### **2.3.5. Analysis of the distinction in teachers' teaching effectiveness due to different**

## teachers' position

This study takes one-way ANOVA to analyze teachers of different positions in teachers' teaching effectiveness. The results show that the teaching effectiveness of teachers and also tutors is higher level than that of professional teachers. Analysis on the distinction in teachers' teaching effectiveness due to a different school size and school location

This study takes one-way ANOVA to analyze teachers of different school sizes and school locations in teachers' teaching effectiveness. The result shows there is no distinction in teachers' teaching effectiveness due to different school sizes and school locations.

### 2.4. Canonical correlation analysis among teachers' professional learning community, organizational commitment and teaching effectiveness

In this study, teachers' professional learning community can predict 89.80% of the total variation of teachers' organizational commitment through the first group of typical factors. The 4 predicting variables have predicting ability for 3 criterion variables, among which "structural support" and "focus on learning" have the most predictive ability. In the second group of typical factors, through which the predicting variable can predict 3.3% of the total variation of the criterion variable. The predicting variable of "common vision" has the most predicting ability on "willingness to strive".

**Table 4-4**

The Canonical correlation between teachers' professional learning community and organizational commitment

Control variable (X variable)	Canonical variable		criterion variable (Y variable)	Canonical variable	
	X1	X2		$\eta_1$	$\eta_2$
Common vision .285	-.941#	-	Organizational recognition	-.974#	.180
Cooperative learning	-.968#	-.114	Willingness to strive	-.965#	-.248
Structural support	-.972#	.145	Retention tendency	-.973#	-.026
Focus on learning	-.981#	.069			
Extraction variation	.930	.030	Extraction variation	.942	.031
Overlap coefficient	.835	.001	Overlap coefficient	.846	.001
			Canonical correlation	.948	.182

$p^2$	.898	0.33
$\chi^2$	1581.799***	27.807***

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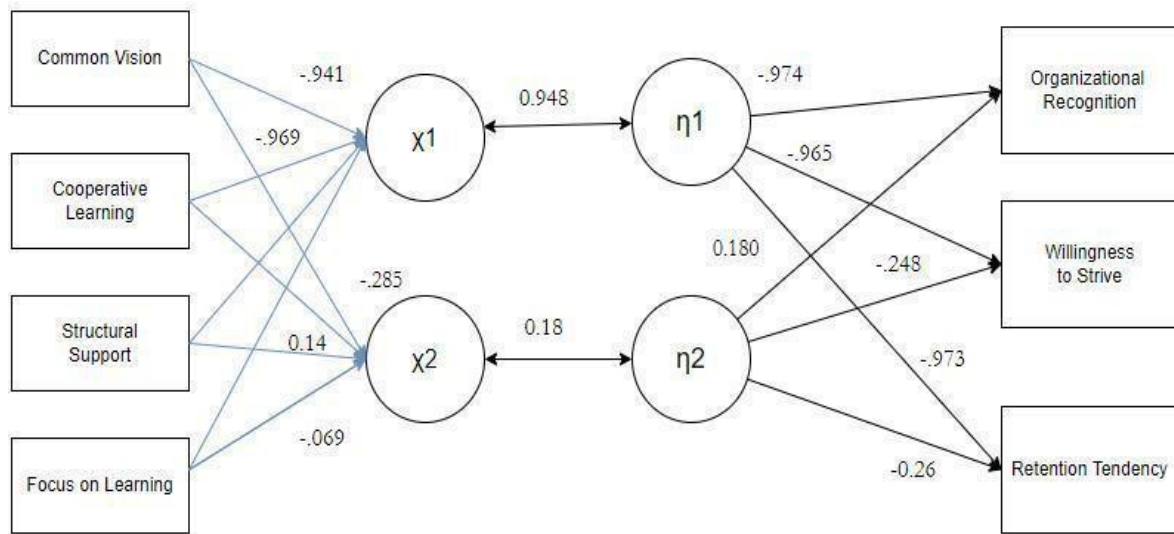
\*\*\* $p < 0.001$

**Figure 4-1**

The Canonical correlation between teachers' professional learning community and organizational commitment

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\*\*\* $p < 0.001$



### 2.5. Canonical correlation between teachers' professional learning community and teaching effectiveness

Teachers' professional learning community can predict 89.10% of the total variation of teachers' teaching effectiveness through the first group of typical factors. The 4 predicting variables have predicting ability for 4 criterion variables, among which "cooperative learning" has the most predictive ability. In the second group of typical factors, through which the predicting variable can predict 3.6% of the total variation of the criterion variable. The "focus on learning" has the most predicting ability on "teaching strategies".

**Table 4-5**

The Canonical correlation between teachers' professional learning community and teaching effectiveness

Control variable	Canonical variable		— criterion	Canonical variable	
( X variable )	X1	X2	( Y variable )	η1	η2
Common vision	-0.958#	-0.042	Teaching preparation	-0.959#	-0.132
Cooperative learning	-0.972#	-0.157	Teaching countermeasures	-0.969#	0.220
Structural Support	-0.963#	-0.129	Class management	-0.958#	0.063
Focus on Learning	-0.969#	0.206#	Learning performance	-0.956#	0.127
Extraction	0.932	0.021	Extraction variation	0.923#	0.021
Overlap	0.830	0.001	Overlap coefficient	0.822	0.001

support

variation  
coefficient

$p^2$

$\chi^2$

0.891

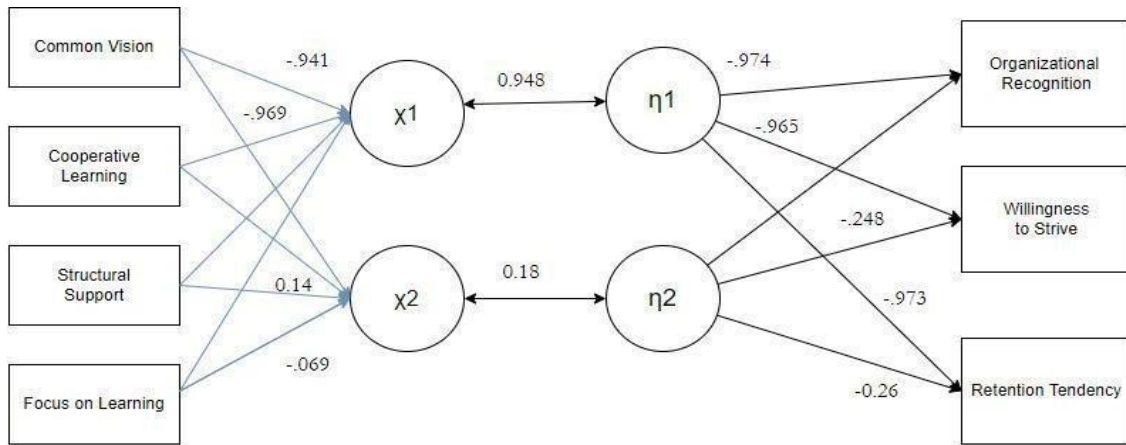
1543.664\*\*\*

0.036

35.155\*\*\*

**Figure 4-2**

The Canonical correlation between teachers' professional learning community and teaching effectiveness



**2.6. Canonical correlation between teachers' organizational commitment and teaching effectiveness**

Teachers' organizational commitment can predict 92.7% of the total variation of teachers' teaching effectiveness through the first group of typical factors. The 3 predicting variables have predicting ability for 4 criterion variables, among which "willingness to strive" has the most predictive ability. In the second group of typical factors, through which the predicting variable can predict 2.6% of the total variation of the criterion variable. The predicting variable of "organizational recognition" has the most predicting ability on "learning performance".

**Table 4-6**

The Canonical correlation between teachers' organizational commitment and teaching effectiveness

Control variable (X variable)	Canonical variable		criterion variable (Y variable)	Canonical variable	
	X1	X2		η1	η2
Organizational recognition	-0.962#	0.145	Teaching preparation	-0.962#	-0.116
Willingness to strive	-0.975#	0.105	Teaching countermeasures	-0.965#	0.091
Retention	-0.219	-0.014	Class management	-0.978#	0.134
			Learning performance	-0.935#	-0.258
Extraction	0.943	0.027	Extraction variation	0.922	0.027
Overlap					

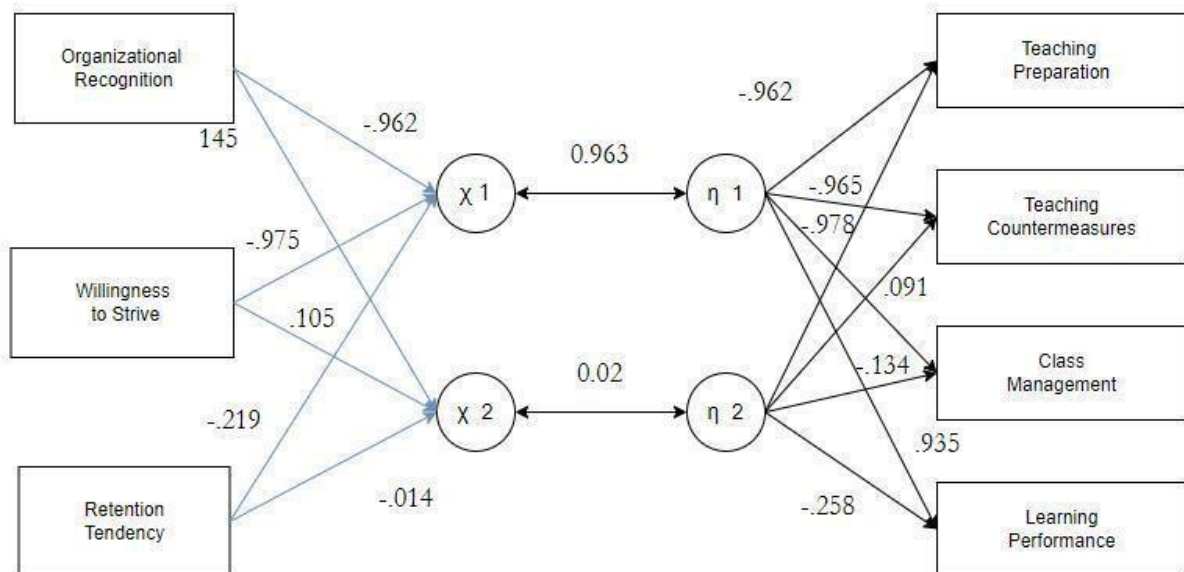
tendency

variation  
coefficient

$p^2$	0.927	0.026
$\chi^2$	1814.496***	26.530***

**Figure 4-3**

The Canonical correlation between teachers' organizational commitment and teaching effectiveness



**2.7. Multiple regression analysis on teachers' professional learning community and organizational commitment to teaching effectiveness**

In table 4-7, "structural support", "cooperation", "common vision", "shared practice", "organizational recognition", "focus on learning", "retention tendency", this 8 predicting variables of teachers' professional learning community, predict teachers' teaching effectiveness (criterion variables). There are 6 indicating variables entering the regression equation, and the Combined explanatory variable is 93.7%, that is, the 6 variables in Tables 4-7 can jointly predict 93.7% of teachers' teaching effectiveness. In terms of the explanatory quantity of individual variables, the predicting ability of "retention tendency" is the

highest, with an explanatory variable of 88.3%, and the second high is "common vision", with an explanatory variable of 3.2%.

**Table 4-7**

The Multiple regression analysis of teachers' professional learning community and organizational commitment to teaching effectiveness

Input sequence of Predicting variables	R	R <sup>2</sup>	ΔR <sup>2</sup>	Beta	F
Retention tendency	0.940	0.883	0.883	0.940	5169.058***
Common vision	0.957	0.915	0.032	0.358	3684.032***
Willingness to strive	0.964	0.929	0.014	0.333	2965.897***
Organizational recognition	0.967	0.935	0.006	0.217	2454.805***
Focus on learning	0.968	0.937	0.002	0.115	2018.451***
Cooperative learning	0.968	0.937	0.000	0.071	1693.521*

\*  $p < .05$  \*\*  $p < .01$  \*\*\*  $p < .001$

### 3. CONCLUSIONS AND SUGGESTIONS

The purpose of this study is to explore the relationship among teachers' professional learning community, organizational commitment and teaching effectiveness. Through the questionnaire survey of 686 primary school teachers, we come to conclusions as follows:

#### 3.1. Conclusions

**5.1.1** There are significant differences between teachers' teaching effectiveness in age,

education level, years of working, and position.

**5.1.2** There is no significant difference between teachers' teaching effectiveness in teachers' gender, school size, and school location.

**5.1.3** The canonical correlation canonical factor analysis shows that there is a high correlation between the variables of "Teacher Learning Community" and "Teacher Organizational Commitment".

**5.1.4** The canonical correlation canonical factor analysis shows that there is a high correlation between the variables of "Teacher Learning Community" and "Teacher Teaching

Effectiveness".

**5.1.5** The canonical correlation canonical factor analysis shows that there is a high correlation between the variables of “teachers’ organizational commitment” and “teachers’ teaching effectiveness”.

**5.1.6** The variables of “Teacher Learning Community” and “Teacher Organizational Commitment” have positive and high predictive ability for the variable “Teacher Teaching Effectiveness”.

### **3.2. Suggestions**

#### **3.2.1. Create high-quality community culture, stimulate teachers' professional Commitment**

In this study, the mean of primary school teachers' professional learning community is 3.91, ranking in the "upper-middle" level on the 5-point Likert scale, which shows that primary school teachers attach importance to the learning community. Since the construction and development of teacher community require teachers' enthusiasm, school administration should encourage teachers to form various learning communities so that teachers can change from individually "I" teaching to "we" community, so as to enhance teachers' professional commitment and inject innovative power into school organizations.

#### **3.2.2. Improve teachers' teaching effectiveness by applying community function**

The community is providing "care" to its members rather than general "services". In this study, we found that there is not only a positive relationship between primary school teachers' learning community and teachers' teaching effectiveness but also the total variation of teachers' teaching effectiveness predicted by teachers' learning community is 89.10%. So school teachers' professional learning community is beneficial to teachers' teaching effectiveness. Therefore, it is suggested that school administrative leaders should actively encourage teachers to construct and participate in various professional learning communities, so as to improve teachers' teaching effectiveness through the energy distributed by teachers' professional communities.

#### **3.2.3. Encourage teachers to cooperate and pay attention to students' learning Results**

In this study, the mean of primary school teachers’ teaching effectiveness is 3.96, ranking in the "upper-middle" level in the 5-point Likert scale, but primary school teachers' teaching effectiveness still needs improving.

Because teachers' teaching is mainly for students’ learning results, therefore, it is suggested that teachers should not only constantly enrich their professional knowledge, but also focus on students' learning performance through experience exchange and cooperation with other teachers in the community, so as to improve teachers' teaching quality and effectively achieve their education ideal.

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