

ORIGINAL RESEARCH

The Impact of Chinese Primary School Teachers' Sense of Work Meaningfulness on Organizational Commitment: A Chain Mediation Model

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Purpose: This present study aims to explore the effects of work meaningfulness on primary school teachers' self-reflection, selfefficacy and organizational commitment and their mechanisms of action.

Methods: This study used a meaningfulness, self-reflection, self-efficacy, and organizational commitment measures. A total of 417 teachers from urban, rural, and mountainous elementary schools were recruited to complete the survey including the measures of work meaningfulness, self-reflection, self-efficacy, and organizational commitment. In this study, descriptive statistics were run using SPSS 26.0 and the relationship model between variables was tested with the SPSS macro program PROCESS.

Results: The study found that work meaningfulness and self-efficacy independently predicted primary school teachers' organizational commitment, but self-reflection did not significantly predict organizational commitment. It was found that there was a significant positive correlation between the four studied variables of work meaningfulness, self-efficacy, self-reflection, and organizational commitment with correlation coefficients ranging from 0.24 to 0.57. The study also found that work meaningfulness can directly predict elementary school teachers' organizational commitment, and work meaningfulness can also indirectly predict elementary school teachers' organizational commitment through self-efficacy and self-reflection.

Conclusion: The results of this study are useful for understanding the value of enhancing the organizational commitment of primary school teachers from a social cognitive perspective, and have implications for how to build a stable, high-quality and dynamic primary school teaching force.

Keywords: work meaningfulness, organizational commitment, self-reflection, self-efficacy, primary school teachers

Introduction

Currently, building a high-quality, stable and sufficient workforce of teachers remains an important prerequisite for promoting the high-level development of basic education in China. However, with the gradual deepening of reforms and the increasing demands on teachers' professionalism—the workload of primary school teachers has increased, the detection rate of burnout and mental health problems have increased, and the tendency to leave the profession is on the rise. The competitive advantages of traditional career characteristics such as "paid holidays", "a stable salary", and "low stress" are gradually diminishing. At the same time, a large number of "post-80s" and "post-90s" teachers, who strive to obtain a sense of meaning, purpose, and value in their work, have gradually become the majority of the teaching force. This shift has prompted new academic interest in exploring the professional development and life experience of primary school teachers—from the perspective of making meaning in work. 'Work meaningfulness' is an individual's perception of work value and sense of mission and is a subjective experience of work value. In recent years, people spend more and more time at work, and one's job has become an important avenue for achieving life goals.² The increase

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in education of employees has also grown—and assuming one's pursuit of further education is one of passion—it begs the question whether greater education (which would result in more specialized work) reflects greater work meaningfulness.³ Research in related fields have found that money contributes little at increasing subjective well-being after basic needs for survival have been met.⁴ In contrast, work meaningfulness fundamentally motivates individuals and promotes higher levels of commitment, satisfaction and performance than pay, rewards, and promotions and so on.⁵ A recent study also showed that work meaningfulness plays an intermediary role between teachers' sense of mission and their teaching; and can improve one's sense of mission for both primary and secondary school teachers by enhancing the significance of their work and providing reasonable organizational support.⁶ A study of special education school teachers also found that finding meaning in work significantly reduced their propensity to leave.⁷ However, compared to its importance, there is a lack of research on work meaningfulness for primary school teachers, and there is insufficient understanding of its mechanisms of action; and the results of current research are still divergent in terms of the effects of work meaningfulness.⁸

Organizational commitment is the psychological phenomenon of employees wanting to stay with the organization as they become committed to it and is a psychological binding force that motivates employees to stay on. 9 Organizational commitment reflects employees' sense of belonging to and recognition of the organization, and is therefore often used as a predictor variable of the propensity to leave. The main findings include that organizational commitment is affected by individual characteristics (eg., age, educational background, achievement needs, personality traits), job characteristics (eg., job interest, challenge), and organizational characteristics and employee work experiences (eg., job satisfaction, team relationships, organizational climate, and leadership style). 10 The outcome variables, on the other hand, mainly include attendance, job performance, 11 propensity to leave, and others. 10 In a recent study focusing on teachers, scholars discussed the relationship between organizational communication, 12 work-life balance and workload, 13 and teacher organization commitment. A study designed to alleviate burnout in primary school teachers also found a positive impact of organizational commitment on burnout through emotional labor. 14 These studies enrich people's understanding of the dependent variables before organizational commitment, but they stay more at the external level, and do not pay attention to the role of teachers' deep cognitive factors such as professional beliefs, values, and sense of meaning in establishing and improving organizational commitment. This is obviously not enough for the teachers who have always paid attention to social responsibility and spiritual wealth. It is also true that research has shown that increasing work meaningfulness has a positive impact on maintaining employees' organizational commitment. 15 However, there is no uniform answer to the question of "how" to do this and how work meaningfulness affects an individual's organizational commitment and thus reduces their willingness to leave.

Self-reflection is the examination and evaluation of an individual's perceptions, behaviour, outcomes and emotions, leading to a clear understanding of self and effective improvement. Through self-reflection, individuals are able to review and examine important life experiences, thus summarizing experiences, self-regulating, increasing ideas and methods of problem solving, and improving self-efficacy. And one study pointed out that work meaningfulness was significantly and positively related to self-reported competence, and teachers' self-efficacy affects their goal setting, enhancing their effort and positive emotions at work. These factors are likely to lead to better educational behaviour and effectiveness, greater identification with the organization's development goals and values and, in turn, higher levels of commitment to the school. Therefore, in order to further explore how a sense of meaningful work affects Chinese primary school teachers' commitment to the school organization and reduces primary school teachers' tendency to leave, this study includes self-reflection and self-efficacy as important mediating variables in the research framework to provide the necessary empirical support and theoretical foundation to help improve the efficiency of the school organization.

Theoretical Basis and Research Hypothesis

The Impact of Work Meaningfulness on Organizational Commitment

The job demands-resources model (JD-R) states that the characteristics of any job include two aspects: "negative factors" that require individual effort or cost and consume individual energy, and "positive factors" that reduce costs and promote goal achievement and personal development.²⁰ That is, work can either trigger burnout due to excessive costs and lack of

resources, which in turn reduces performance and organizational commitment, or it can trigger a motivational process due to an abundance of work resources, which increases employee engagement, organizational commitment, and performance.

The long working hours, complicated work requirements and trivial work content of primary school teachers easily lead to physical and mental wear and tear and increase burnout. On the other hand, as "soul engineers" who are responsible for laying the foundation for children's comprehensive development and healthy growth, primary school teachers enjoy a high professional reputation and status in the hearts of parents and students as the guides who "teach and solve problems". In the Chinese cultural atmosphere, which emphasizes the inheritance of the teacher's way and "taking the world as one's duty", primary school teachers have a good psychosocial security atmosphere. It is easier for them to obtain the interaction between their inner needs and the meaning of their work, so that they can experience the happiness from their profession, inject meaning into their lives, and realize their self-worth. Therefore, according to JD-R theory, in today's world of gradually improving material living standards, work meaningfulness has become one of the most important inner work resources,²¹ with positive emotional mobilization and motivational functions, which improve individuals' tendency to stay in their work. It has also been found that work meaningfulness is a predictor variable for a number of outcomes such as employee engagement, job satisfaction and organizational commitment;²² it can promote individual engagement and discourage exit behaviour.²³ A study examining the relationships between family-friendly culture, job characteristics, supervisory support and work meaningfulness, organizational commitment and intergenerational differences, among female managers also found that work meaningfulness was significantly and positively related to organizational commitment.²⁴ Accordingly, the present study hypothesizes that work meaningfulness could positively predict primary teachers' organizational commitment (H1).

Mediation of Self-Reflection

Self-reflection is an active, persistent, and careful reflection on the beliefs and knowledge held by the individual based on their own/outside confusion and is a dynamic mental process that determines the performance of one's abilities and attitudes based on the relationship between the self and the outside. Social information processing theory states that in organizational management situations, individuals capture situational information from the work environment, task characteristics, and are more likely to perceive, interpret and process, and then adjust subsequent attitudes and behavioral tendencies as a result of this cognitive integration.

The self-reference effect suggests that information related to the self has a strong attentional capture effect, which individuals prioritize for processing, which also interferes with the next task or attentional learning process.²⁷ From the context of work meaningfulness, the current definition is mainly based on three orientations: work characteristics, values/attitudes, and feelings/experiences; work meaningfulness fits each orientation as a work characteristic, ²⁸ belief in work, and the inner state of the individual, respectively.²⁹ It can be seen that whether defined from the perspective of a work characteristic, work belief, or individual subjective feelings or experiences, the emotions, attitudes, values and behavioral cues released by work meaningfulness may cause self-reflection at the cognitive level. This can lead individuals to reanalyze and reevaluate their own work attitude, work ability and professional achievement, and then recognize and summarize their inner relationship with their career and adjust their subsequent professional behavior. However, through self-reflection, if teachers believe that their meaning-seeking and value-realization do not match the organizational goals of the school, or they are not competent to do the school's work, they may leave the school.

It can be seen then that work meaningfulness is both an important contextual stimulus and piece of self-relevant information that may influence individuals' self-reflection and, in turn, their identification with and commitment to organizational goals and value propositions. Accordingly, this study proposes that work meaningfulness may have an indirect effect on primary school teachers' organizational commitment through the mediating role of self-reflection (H2).

The Mediating Role of Self-Efficacy

Self-efficacy is an individual's psychological feelings and subjective beliefs about one's ability to accomplish desired goals through a range of activities. It has long been recognized that self-efficacy is closely related to an individual's performance³⁰ and is the driving force behind motivation, well-being and personal performance;³¹ and therefore, has

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been seen as a key variable in positive psychology and organizational behavior research. According to Self-Determination Theory (SDT), individuals are proactive, self-reflective and self-regulating beings whose behaviour is not completely shaped by environmental forces or subconscious drives. As active participants who determine their own development and outcomes, it is only when psychological needs are met that intrinsic motivation for growth is stimulated, providing the energy to enhance the individual's well-being.³² Based on this theory, Sheldon and Elliot³³ developed the concept of "Goal Self-Concordance" to describe the extent to which an individual's goals are integrated with their internal interests and values. Self-alignment of goals refers to the degree of integration of individual goals with one's inner interests and values. The higher the degree of congruence, the more it indicates that the goals set by individuals originate from their own interests, hobbies and values as well as a heartful identification with one's goals. The more strongly attached one's goals are to their values, the more likely they are to personally identify with them, be autonomously motivated to achieve them, and apply more effort and persistence to overcome difficulties and setbacks. This theory, which establishes self-efficacy as a mediator between the external organizational environment and the intrinsic motivation of individuals, provides a suitable perspective for understanding the motivation, attitude, and behavior toward work for primary school teachers.

Work meaningfulness is a subjective experience of teachers' sense of work value and mission, which is an important internal psychological resource. In comparison, individuals with higher work meaningfulness are more able to experience and identify with the value, achievement and happiness brought by work, form higher goal self-consistency, and define the professional attitudes and behaviors required by schools. These aforementioned self-determined values are compatible with self-fulfillment, thus increasing work engagement, improving work performance, gaining positive psychological experiences and self-evaluation as well as enhance self-efficacy. It has also been found that work meaningfulness is significantly and positively related to self-reported competence. Self-efficacy has also been shown to be an important factor for headmasters at increasing teachers' level of organizational commitment. Therefore, the present study predicts that a sense of work meaningfulness may have an impact on primary school teachers' organizational commitment through the mediating role of self-efficacy (H3).

In addition, as an important cognitive improvement method, studies have also confirmed that self-reflection has a significant correlation with individuals' self-esteem level, self-acceptance, and self-evaluation.³⁵ It has also been shown to play an important role in improving individuals' thinking flexibility, broadening problem perspectives, accumulating knowledge and experience, and stimulating novel ideas.³⁶ These factors, all of which may affect the efficiency of individual problem solving and enhance self-efficacy. Therefore, this study concludes that there is a correlation between self-reflection and self-efficacy, and that work meaningfulness may play an important role through the self-reflection, self-efficacy mediating effect on primary teachers' organizational commitment (H4). In summary, the theoretical model proposed in this study is shown in Figure 1.

Methods

Research Participants

Based on the principle of convenient sampling, 438 primary school teachers were randomly selected as the study participants, taking into account the school background characteristics of urban, rural, and mountainous elementary

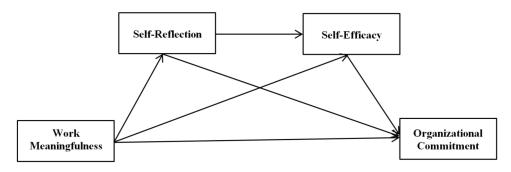


Figure I Hypothetical model.

schools. The participants were given group tests of work meaningfulness, self-reflection, self-efficacy, and organizational commitment. For the serial mediation effect, the minimum required sample size was 261 to 266 for lower to moderate effect size (0.20-0.30) with 80% power.³⁷ The participants completed all questionnaires within 15 minutes after the detailed explanation of the study guidelines by a team member was given. There were 417 valid questionnaires (95.21%) obtained after the recovery and collation. Among them, the mean age was 41 years old (SD = 9.16) and the mean teaching experience was 19 years (SD = 10.47); 200 were classroom teachers (47.96%) and 217 (52.04%) were individuals who did not take on classroom teacher duties. The demographic information of the participants are presented in Table 1.

Research Procedure

First, the four scales used were translated and revised in Chinese by a PhD in psychology, a PhD in education, and a professor in education in accordance with the study's purpose. After, a small pilot test was conducted with 12 primary school teachers to finalize the Chinese version of the scales used in the research.

Second, based on the principle of randomization, 438 primary school teachers in urban and rural areas were selected for the study. After the study purpose and methods were explained to the respondents, they confirmed their agreement to participate in the study. The survey was administered anonymously in groups by trained project team members. After eliminating invalid questionnaires such as those not fully answered and those that were not answered regularly, the remaining 417 valid questionnaires were collected for follow-up, with an effective rate of 95.21%.

Finally, the data was analyzed using SPSS 26.0, including running descriptive statistics and a common method deviation test. The relationship model between variables was tested by the SPSS macro program PROCESS, Model 6 (consistent with the theoretical hypothesis model of this study) developed by Hayes³⁸ was used for the regression analysis to test the mediating effect of self-reflection and self-efficacy between work meaningfulness and organizational commitment.

Measures

Work Meaningfulness Scale

Using the Work Meaningfulness Scale made by Steger et al.¹ The scale uses a 5-level scale from 1 (*strongly agree*) to 5 (*strongly disagree*). The scale has three dimensions: positive meaning, using work to create meaning, and better motivation, with typical items such as "I know that my work has a positive impact on the world". The scale has been used extensively since its development;³⁹ the internal consistency coefficient in this study was 0.82.

Organizational Commitment Scale

The Organizational Commitment Scale is a 15-item measure using a 5-point Likert-type scale from 1 (*strongly agree*) to 5 (*strongly disagree*). ⁴⁰ The scale is divided into three commitments: to value, to effort, and to stay. An example item would be "I would like to continue to work in this unit". This questionnaire is accepted and adopted by many scholars in China, ³⁴ and the internal consistency coefficient in this study was 0.96.

 Variables
 Groups
 Percentage (%)

 Gender
 Female Male
 306 (73.38%)

 III (26.62%)
 III (26.62%)

 Discipline
 Language teachers Mathematics teachers
 199 (47.72%)

 Mathematics teachers Teachers of other subjects
 67 (16.07%)

Table I Demographic Information of the Participants

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Self-Reflection Scale

The 12-item Self-reflection and Insight Scale was used. ¹⁶ It is a 6-point scale, from 1 (*strongly agree*) to 6 (*strongly disagree*). An example scale item is "I often examine my own ideas". The scale has been widely used since its development, ⁴¹ and the internal consistency coefficient in this study was 0.76.

Self-Efficacy Scale

A Chinese translated scale from the General Self-Efficacy Scale was used.⁴² The 10 questions were scored on a 5-point scale, from 1 (*strongly agree*) to 5 (*strongly disagree*). An example item is "If I try my best, I can always solve the problem". The internal consistency coefficient in this study was 0.92.

Results

Data Processing and the Common Method Deviation Test

It is very frequent in the social sciences to handle and analyze the self-reported data. Because all items in a self-report study are being measured using a single method (namely, a single survey instrument), their observed values may share variance above and beyond the true covariation among them. This change in the covariation among items, and thereby among substantive constructs in the study, is referred to as CMV. In order to predict possible common methodological bias (CMB) problems in studies using a single source. In addition to reverse scoring and subject training in the study procedure, the data should also be tested. This study used a self-assessment scale, which may result in common method bias (CMB). Therefore, the privacy of the subjects was protected during the testing process, some items were controlled by reverse scoring, and the CMB in data processing was examined using Harman's one-way analysis of variance. The results showed that a total of 11 factors with eigenvalues greater than 1 explained 66.41% of the variance, and the variance explained by the first factor was 27.47%, which was below the critical value of 40%, indicating that the effect of common method bias was not significant.

Descriptive Statistical Analysis

Table 2 presents the descriptive statistics of the study variables. Kim⁴⁶ suggests that the data are non-normal when the skewness value is greater than or equal to 2 and the kurtosis value is greater than or equal to 7. In this study, the data skewness of the variables ranged from 0.19 to 1.45, while the kurtosis ranged from -0.51 to 3.8, all of which were below the recommended critical values for evaluating normality. There was also a positive and significant correlation between the variables (p < 0.01).

A Test of the Mediating Role of Self-Reflection and Self-Efficacy

The PROCESS Model 6 (consistent with the theoretical hypothesis model of this study) in SPSS macro developed by Hayes³⁸ was used for the regression analysis to test the mediating effect of self-reflection and self-efficacy between work meaningfulness and organizational commitment. In the analysis, the bias-corrected percentile Bootstrap method is used to test for mediation effects, and a Bootstrap 95% confidence interval without 0 indicates a significant mediation effect. The mediating model test requires estimation of the parameters of the two regression equations. First, the direct effect of the independent variable (work meaningfulness) on the dependent variable (organizational commitment); and second, to test

Table 2 Descriptive Statistics of Study Variables (n = 417)

Variables	М	SD	Skewness	Kurtosis	I	2	3
I. Work Meaningfulness	1.50	0.48	0.19	−0.5 I	1		
2. Self-reflection	2.53	0.49	1.42	3.80	0.31**	1	
3. Self-efficacy	1.98	0.62	1.45	1.40	0.35**	0.24**	I
4. Organizational commitment	1.40	0.50	0.43	0.40	0.57**	0.26**	0.38**

Note: **p < 0.01.

Abbreviations: M, mean; SD, standard deviation.

the mediating effects (indirect effects) of the mediating variables (self-reflection, self-efficacy) on the dependent variable (organizational commitment).

If the model satisfies the following conditions, the mediating effect is indicated by: (1) the predictive effect of work meaningfulness on organizational commitment is significant; (2) the predictive effect of work meaningfulness on self-reflection and self-efficacy is significant; (3) the predictive effect of self-reflection and self-efficacy on organizational commitment is significant; (4) the predictive effect of self-reflection on self-efficacy is significant. The results of the regression analysis are shown in Table 3. Work meaningfulness and self-efficacy can independently predict organizational commitment; however, the prediction effect of self-reflection on organizational commitment is not significant. Specifically, work meaningfulness positively predicted self-efficacy ($\beta = 0.32$, p < 0.001); work meaningfulness positively predicted self-efficacy ($\beta = 0.51$, p < 0.001). Self-reflection positively predicted self-efficacy ($\beta = 0.20$, p < 0.01); self-efficacy positively predicted organizational commitment ($\beta = 0.15$, p < 0.001). Thus, there is a chain mediating effect of self-reflection and self-efficacy in the effect of work meaningfulness on organizational commitment (see Table 3 and Figure 2). Based on these results, hypotheses 1, 3, and 4 were supported. However, the predictive effect of self-reflection on organizational commitment was not significant ($\beta = 0.07$, p = 0.12), so hypothesis 2 was not supported.

In order to obtain reliable results for the mediating effect test, the bias-corrected nonparametric percentage Bootstrap was further used to test the mediating effect, and a Bootstrap 95% confidence interval without 0 indicates a significant mediating effect. The results are shown in Table 4, the value of the direct effect of work meaningfulness on organizational commitment is 0.51, which accounts for 85% of the total effect, and the 95% confidence interval [0.42, 0.59] without zero, indicating a significant direct effect. Self-reflection and self-efficacy in work meaningfulness on organizational commitment produced a total indirect effect value of 0.09, accounting for 15% of the total effect, with a 95% confidence interval [0.04, 0.14] without zero, indicating a significant mediating effect. This mediating effect consists of two indirect effect paths (see Table 4): first, the indirect effect consisting of work meaningfulness \rightarrow self-efficacy \rightarrow organizational commitment is 0.06, accounting for 10% of the total effect; second, the indirect effect consisting of work meaningfulness \rightarrow self-reflection \rightarrow self-efficacy \rightarrow organizational commitment constituted a chain mediation effect of 0.01, accounting for 2% of the total effect.

Discussion

Based on the results of previous studies, this study constructs a model with self-reflection and self-efficacy as mediating variables to further clarify how work meaningfulness "influences" the organizational commitment of primary school teachers. The study found that work meaningfulness is a significant factor in the organizational commitment of primary school teachers. It was found that work meaningfulness not only directly predicts the organizational commitment of primary school teachers, but also indirectly through the mediating role of self-efficacy and the chain mediating role of self-reflection and self-efficacy. This result deepens the understanding of the relationship between work meaningfulness

Variables Model I Model 2 Model 3 Self-Reflection **Self-Efficacy Organizational Commitment** Coeff SE Coeff SE Coeff SE t t t Work Meaningfulness 0.32 0.05 6.60*** 0.40 0.06 6.38*** 0.51 0.04 11.27*** Self-reflection 0.06 3.15** 0.07 0.04 0.20 1.55 Self-efficacy 0.03 4.48*** 0.15 R^2 0.10 0.14 0.37

34.81***

Table 3 Intermediary Effects Model Test (n = 417)

Note: **p < 0.01, ***p < 0.001.

Abbreviations: Coeff, coefficient; SE, standard error.

43.59***

79.66***

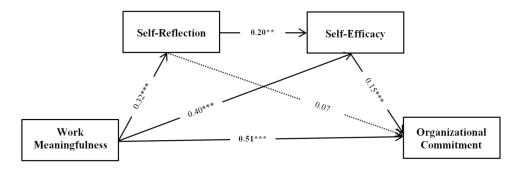


Figure 2 Model of the relationship between work meaningfulness, self-reflection, self-efficacy, and organizational commitment. Note: **p < 0.01, ***p < 0.001.

and teachers' organizational commitment, and has implications for how to build a stable, high-quality, and dynamic primary school teachers team. These results also clarify the importance of self-reflection in cognitive improvement, demonstrate its relevance as a new organizational commitment precursor variable, fits within self-determination theory and work requirement-resource model emphasizes individual cognitive processing, and highlights the specific role it can have in promoting the construction of a more perfect research model for organizational commitment.

The Role of Work Meaningfulness in Primary School Teachers' Organizational Commitment

Work meaningfulness is an individual's perception of the value of work and the importance of tasks, which is not only a work characteristic but also an internal work resource. Additionally, it's an important part of an individual's values and belief system and has a profound impact on teachers' professional behavior. This study showed that work meaningfulness can positively predict primary school teachers' organizational commitment—the higher the level of work meaningfulness, the higher the level of organizational commitment. This is consistent with the results of previous studies. For example, Fairlie²² and other researchers found a positive relationship between work meaningfulness and organizational commitment using a study of 574 employees in North America. Based on workplace spirituality, research has found that work meaningfulness and a sense of team connection have a significant positive predictive effect on organizational commitment.⁴⁷ Within the current context, workplace environment and career ecology of primary school teachers are changing, and how to attract and retain quality teachers and enhance their endogenous motivation has become an urgent concern. The results of this study suggest that further carrying forward the cultural tradition of respecting teachers in China and fundamentally improving the sense of value and meaning of primary school teachers' work are important. By doing so, it can help motivate them to give full play to their subjective motivation, ameliorate organizational commitment, as well as reduce burnout and desires to leave.

Table 4 Bootstrap Analysis of Significance Test for Intermediate Effects (n = 417)

Path	Effect	Effect Size (%)	Boot LL CI	Boot UL CI
A→B→D*	0.02	3%	-0.01	0.05
$A \rightarrow C \rightarrow D$	0.06	10%	0.03	0.10
$A \rightarrow B \rightarrow C \rightarrow D$	0.01	2%	0.00	0.02
Indirect effect	0.09	15%	0.04	0.14
Direct effect (A→D)	0.51	85%	0.42	0.59
Total effect	0.60	100%	0.51	0.68

Notes: A = Work meaningfulness; B = Self-reflection; C = Self-efficacy; D = Organizational commitment. *Indicates that the path is not significant.

Abbreviations: LL, lower level; Cl, confidence interval; UL, upper level.

The Mediating Role of Self-Efficacy and Self-Reflection

Self-efficacy has a significant impact on individuals' motivation and behavior and plays a key role in the self-regulatory system. Exploring the mediating role of self-efficacy between primary school teachers' work meaningfulness and organizational commitment helps to analyze the social cognitive perspective through which factors work meaningfulness brings positive effects on primary. It also helps school administrators to understand the psychological mechanisms that enhance teachers' organizational commitment. This study found that work meaningfulness can predict primary school teachers' organizational commitment through the mediating role of self-efficacy. This not only confirmed the existence of a positive effect of work meaningfulness on self-efficacy, but also validates the predictive effect of self-efficacy on teachers' organizational commitment in previous studies. This result also supports the view of previous studies that self-efficacy is an intrinsic driver of individuals' motivation to work, and that the level of self-efficacy determines how persistent individuals will be when faced with difficult tasks. Compared with individuals who doubt their own abilities, primary school teachers with higher levels of self-efficacy are more likely to feel the meaning and value of their work, and are more willing to believe in their ability to have optimistic career prospects when facing career difficulties; thus, having higher levels of organizational commitment. With this, they are more persistent in performing their work tasks under unfavorable conditions and are less likely to leave their jobs.

The study also found that when both self-reflection and self-efficacy were included, the chain of "work meaningfulness \rightarrow self-reflection \rightarrow self-efficacy \rightarrow organizational commitment" was a significant mediating path. Teachers with more of a sense of meaning in their work were more likely to want to develop clear self-judgments through self-reflection so that they can improve subsequent cognitions and behaviour through targeted feedback. This process, in turn, significantly grows primary school teachers' self-efficacy and raises their level of organizational commitment. This not only adds to the study of factors influencing organizational commitment from a cognitive improvement perspective, but also confirms social cognitive theory regarding the importance of self-reflection in the process of individual attitude and behaviour change. Self-reflection and self-efficacy are significantly and positively correlated, such that primary school teachers with high levels of self-reflection were more likely to also have high levels of self-efficacy. However, this result has not been given sufficient attention in previous research.

In addition, Hypothesis 2 of this study was not supported. Self-reflection could influence primary school teachers' organizational commitment through self-efficacy, but the direct predictive effect on organizational commitment was not significant. Therefore, work meaningfulness cannot indirectly influence primary school teachers' organizational commitment through self-reflection. Of course, this result may also be related to the small sample size and the self-reflection questionnaire used in this study. As a core variable of cognitive regulation, self-reflection is an effective means of professional development and self-growth for teachers, and the mechanisms underlying the role of self-reflection in teachers' work meaningfulness and related professional behaviour should be further discussed.

In conclusion, the above findings help us to gain insight into the mechanisms by which work meaningfulness influences organizational commitment. In order to increase primary school teachers' level of commitment to their schools and their proactive and wholehearted involvement in primary school teaching, stimulating their work meaningfulness is an important path, but not the only one. Encouraging teachers to engage in positive self-reflection through a variety of strategies and methods, enhancing teachers' self-efficacy at work, and gaining positive work experiences are also effective ways to increase primary school teachers' organizational commitment.

Limitations of the Study

First, the sample in this study was small and focused mainly on the southwest region of China, with insufficient attention paid to primary school teachers in other regions. Future research should further expand the sample to focus on primary school teachers, from regions with different levels of economic and cultural development. Second, this study used cross-sectional data to measure primary school teachers' work meaningfulness, self-reflection, self-efficacy, and organizational commitment, making it impossible to make causal inferences about the results. Subsequent studies could reduce homophily bias in the data by collecting data from multiple time points; or use aggregated cross-sectional designs and multi-layer linear models to explore the pathways of influence of work meaningfulness on primary school teachers'

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organizational commitment more deeply. Furthermore, this study involved a wide variation in the age and teaching experience of the subjects, both new teachers, of whom 43 (10.31%) had been in the profession for less than three years, and retiring teachers, of whom 69 (16.55%) had been teaching for more than 30 years. Considering that the new generation of teachers have higher demands for a sense of value and meaning and have a higher turnover rate, while traditional teachers may place more emphasis career stability, "providing for the family" through their work, earning better livelihood security for themselves and their families; future research may further subdivide the study participants to further explore these generational differences. Future research could also further subdivide the study population to explore the antecedents of primary school teachers' work meaningfulness at different ages and to analyze in detail the mechanisms of their influence on organizational commitment.

Conclusion

This study aimed to explore the organizational commitment of primary school teachers and their psychological mechanisms. We found that work meaningfulness is a significant factor in predicting the organizational commitment of primary school teachers. It was also found that work meaningfulness not only directly predicts the organizational commitment of primary school teachers, but also indirectly predicts it through the mediating role of self-efficacy and the chain mediating role of self-reflection and self-efficacy. The following conclusions were drawn from this study: (1) work meaningfulness and self-efficacy independently predicted primary school teachers' organizational commitment, but selfreflection was not significant in predicting organizational commitment; (2) in the relationship between work meaningfulness and organizational commitment, self-efficacy had a mediating role, and work meaningfulness helped to improve primary school teachers' sense of self-efficacy and subsequently their organizational commitment to the school; (3) in work meaningfulness on organizational commitment, there is also a chain mediating effect of self-reflection, selfefficacy, where work meaningfulness can influence both of these self-outcomes for primary school teachers'; (4) selfreflection can positively predict self-efficacy, and primary school teachers with high self-reflection scores have higher self-efficacy. The results clarify the importance of self-reflection in this cognitive improvement process, providing support for its future use as a new organizational commitment precursor variable. Overall, the findings of this fit within self-determination theory and work requirements resource model; future research should continue to explore individuals cognitive processing more intentionally so that the construction of a more perfect organizational commitment research model can evolve.

Data Sharing Statement

The data presented in this study are available on request from the corresponding author Xiangli Guan (guanxiangli@yxnu.edu.cn).

Ethical Approval

The study was also approved by the Ethics Committee of Yuxi Normal University, China (ERB No. 2022007, date: November 14, 2022).

Informed Consent Statement

Given that the participants were human subjects, the study followed the modified Declaration of Helsinki, informed all participants of the study's purpose, requirements, time required, and principles of data confidentiality, as well as obtained informed consent from all before participating.

Acknowledgments

We would like to express our sincere gratitude to all the staff involved in the revision and translation of the research instrument, whose work ensured the validity of the research instrument and the successful completion of the study.

Funding

This study was funded by the 2021 Yunnan Provincial Education Science Planning Project (BFJC21016).

Disclosure

The authors declare no conflicts of interest in this work.

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