# Development of A Strategy for Enhancing Teacher Job Satisfaction in Junior High Schools of Guizhou Province, China

Xiang Zhou[a*]
Xiaoyao Yue[b]

[a*] *Doctor of Education Program in Educational Administration, Graduate school, Stamford International University of Thailand, E-mail:2012220006@students.stamford.edu*
[b] *Lecturer, Graduate school, Stamford International University of Thailand*

Article Info
Received 21 September 2024
Revised 6 December 2024
Accepted 19 December 2024
Available online 29 December 2024

## Abstract

This study explored the effect of work engagement, professional learning community, social support, and principal instructional leadership on teacher job satisfaction, with teacher self-efficacy as a mediating variable, in junior high schools in Guizhou Province. Aiming to propose an effective strategy to enhance teacher job satisfaction, the study used a mixed-methods approach. Data were collected from 1,106 full-time teachers via questionnaires (1,226 distributed) and analyzed using descriptive analysis, correlation analysis, and structural equation modeling with smart PLS. The RAISE strategy (Raise leadership, Amplify engagement, Inspire learning community, Strengthen social support, and Empower self-efficacy) was developed using SWOT analysis and validated by 11 experts.

The findings showed that: 1) Teacher job satisfaction was moderate (M=2.3, SD=0.83), particularly in areas such as self-efficacy, work engagement, social support, and professional learning communities. This indicates that teachers face insufficient support in meeting their professional needs. 2) Key factors influencing teacher job satisfaction included principal instructional leadership, professional learning communities, work engagement, and social support, with teacher self-efficacy mediating these effects. 3) The RAISE strategy significantly enhanced teacher job satisfaction, indicating a significant improvement in teacher job satisfaction, with the mean score rising from 1.74 (SD = 0.11) to 3.52 (SD = 0.34) ($p<0.01$) after implementing the RAISE strategy.

**Keywords:** Principal Instructional Leadership, Professional Learning Community, Work Engagement, Social Support, Teacher Self-Efficacy, Teacher Job Satisfaction, Junior High Schools in Guizhou Province

## Introduction

With the rapid development of global education, the expectations placed on teachers in the 21st century have significantly increased. Teacher job satisfaction (TJS) is a critical factor influencing student learning outcomes and educational innovation. Job satisfaction refers to an individual's attitude toward their job and work environment, which can influence enthusiasm, efficiency, and work quality, thus serving as an important psychological indicator of organizational performance (Fu et al., 2013). Studies have shown that higher teacher job satisfaction results in better job performance and productivity, as well as lower turnover rates, which is crucial for maintaining high-quality education (Harrison et al., 2006).

Teacher job satisfaction is influenced by various factors. Firstly, self-efficacy (TSE) is a key factor, proposed by Bandura's social learning theory, which refers to a teacher's confidence in completing teaching tasks and positively influencing student performance (Bandura, 1997). Teachers with high self-efficacy tend to exhibit higher job satisfaction and professional commitment (Canrinus et al., 2012; Aloe et al., 2014; Huang, 2020). Secondly, principal instructional leadership (PIL) plays a significant role in enhancing teaching quality and teacher satisfaction (Hallinger, 2011; Liu & Hallinger, 2018). Supportive leadership styles, collaborative learning environments, and robust social support networks can significantly improve teachers' self-efficacy and job satisfaction (Stoll et al., 2006; Vangrieken et al., 2015). Additionally, professional learning communities (PLC) provide opportunities for collaborative learning and professional development, which contribute to higher job satisfaction (Zheng et al., 2018). Similarly, work engagement (WE), defined as the psychological involvement and participation of teachers in their work, is closely related to job satisfaction and teaching quality (Høigaard et al., 2012). Finally, social support (SS) from colleagues, administrators, and the broader community can significantly alleviate work-related stress and enhance job satisfaction (Shen, 2009; Skaalvik & Skaalvik, 2011).

This study specifically aims to examine the interplay of principal instructional leadership, professional learning communities, work engagement, and social support on teacher job satisfaction, with a focus on self-efficacy as a mediating variable, and to develop a localized strategy to enhance teacher job satisfaction in Guizhou Province.

Guizhou Province, located in inland China, faces unique challenges due to its relatively low economic development and diverse cultural background. Despite recent reforms and investments in education, the province still lags behind economically developed regions in educational resources. At the junior high school level, teacher job satisfaction not only affects teachers' professional performance but also directly impacts students' academic outcomes and mental health. Junior high school teachers face greater complexity in their work, as they need to teach a wide range of subjects and manage a diverse student population, compared to elementary and high school teachers.

In this context, this study focuses on understanding how principal instructional leadership, professional learning communities, work engagement, and social support interact to influence the self-efficacy and job satisfaction of junior high school teachers in Guizhou Province. This research aims to contribute to the development of effective strategies and policy recommendations for improving teacher satisfaction and overall educational quality, particularly in underdeveloped regions.

# Literature Review

### 1. Research Background

Teacher job satisfaction (TJS) is crucial for education quality and student achievement. Satisfied teachers are more likely to stay in the profession, exhibit higher motivation, and positively influence student learning. In the context of underdeveloped regions like Guizhou Province, understanding factors influencing TJS is essential for addressing educational challenges and promoting quality education. This study examines how principal instructional leadership (PIL), professional learning community (PLC), work engagement (WE), and social support (SS) influence junior high school teachers' job satisfaction in Guizhou Province, China, with teacher self-efficacy (TSE) as a mediating factor. The findings will provide insights into how these factors interact to enhance teachers' overall job satisfaction.

### 2. Theoretical Framework

This study is based on three major theories:

Social Learning Theory: Bandura (1997) emphasizes observational learning, triadic reciprocal determinism, and self-efficacy. In the context of education, self-efficacy is defined as teachers' belief in their ability to effectively perform teaching tasks and positively influence student learning. As a central concept in this study, self-efficacy is linked to teachers' ability to overcome challenges and maintain professional motivation. Bandura's framework suggests that enhancing self-efficacy through supportive teaching environments, such as effective leadership and collaborative professional learning communities, can lead to improved teacher job satisfaction.

Teacher Professional Development Theory: Teacher professional development involves not only managing teachers but also fostering their growth. Guskey (2000) states that teacher professional development aims to enhance teachers' professional knowledge, skills, and values. Fullan and Hargreaves (1996) highlight that it includes specific teaching improvements and overall progress, involving goals, skills, and collaboration. Day et al. (2011) defines it as organic and organized learning experiences promoting individual, group, and school advancement, emphasizing the importance of continuous learning and community engagement in improving teaching effectiveness.

Principal Instructional Leadership Theory: Hallinger and Murphy (1985) propose that principals play a crucial role in setting educational goals, motivating staff, and enhancing student learning. Modern instructional leadership involves not only direct teaching guidance but also creating a supportive environment and providing professional development opportunities. Hallinger (2003) outlines that PIL includes establishing high standards and innovation, coordinating a shared vision, implementing effective motivational strategies, enhancing teacher knowledge and professional growth opportunities, and improving teaching methods. In this study, PIL is central to fostering a positive teaching environment, which directly impacts teachers' professional development and job satisfaction.

The theoretical framework establishes the foundation for understanding how these variables interact to influence TJS, guiding the research hypotheses and conceptual framework.

**3. Factors Influencing Teacher Job Satisfaction**

Teacher Self-Efficacy (TSE): Based on Bandura's work, TSE refers to teachers' belief in their ability to impact student learning, positively correlating with higher TJS and professional commitment (Bandura, 1997; Canrinus et al., 2012). Teachers with high self-efficacy are more likely to use effective teaching strategies, manage classrooms, and motivate students, thereby improving teaching effectiveness and student achievement. Additionally, TSE enhances teachers' sense of professional accomplishment and job satisfaction, reducing work stress and burnout. This positive relationship is reinforced by supportive leadership and strong professional development programs, which enhance teachers' confidence and satisfaction.

Principal Instructional Leadership (PIL): Effective leadership enhances teaching quality and teacher satisfaction (Hallinger, 2011; Stoll et al., 2006). PIL involves not only direct teaching guidance but also indirectly influencing teachers' behavior and attitudes through establishing a supportive school culture and providing professional development opportunities. Research shows that supportive leadership styles, collaborative learning environments, positive work attitudes, and strong social support networks can enhance teachers' self-efficacy and job satisfaction (Vangrieken et al., 2015; Vanblaere and Devos, 2016). This supports the hypothesis that PIL plays a key role in shaping teacher satisfaction.

Professional Learning Community (PLC): Collaborative professional development opportunities improve TSE and TJS (Zheng et al., 2018; Li,2022; Zhang, Huang, & Xu, 2022). PLCs facilitate continuous improvement of teaching practices through cooperation, sharing, and reflection among teachers, leading to better teaching effectiveness and student achievement. Teachers participating in PLCs often exhibit higher job satisfaction and professional commitment due to the support and recognition from colleagues and opportunities for professional growth (Stoll et al., 2006). This collaboration within the PLC framework enhances teachers' self-efficacy, which in turn positively affects their job satisfaction.

Work Engagement (WE): Psychological investment in work is closely related to TJS and teaching effectiveness (Høigaard et al., 2012). Teachers with high work engagement typically show higher job satisfaction and teaching effectiveness as they invest more energy and enthusiasm in their work and better handle work challenges and stress. Research indicates that work engagement not only enhances teachers' sense of professional accomplishment and job satisfaction but also reduces work stress and burnout by increasing professional identity and belonging (Schaufeli & Bakker, 2010). Work engagement, driven by effective leadership and supportive school culture, leads to better teacher retention and improved educational outcomes.

Social Support (SS): Support from colleagues, administrators, and the community alleviates work stress and enhances TJS (Shen, 2009). SS provides emotional, informational, and instrumental support, helping teachers cope better with work challenges and stress, thus improving their job satisfaction and professional accomplishment. Research shows that SS not only directly enhances TJS but also indirectly influences teachers' professional development and job performance by increasing self-efficacy and professional identity

(Tardy, 1985; House, 1981). As such, SS is a critical factor in mitigating the negative effects of work stress and enhancing teacher job satisfaction

**4. Research Purpose**

This study aims to fill the gap in understanding how PIL, PLC, WE, and SS influence TJS, with TSE as a mediating variable. By focusing on Guizhou Province, this study contributes to bridging the knowledge gap in underdeveloped regions, offering actionable insights for educational improvement. The study provides evidence on how enhancing these factors can lead to greater teacher job satisfaction and improved educational outcomes in economically disadvantaged areas.

**5. Research Hypotheses**

Based on the review of the related literature, the current study proposed the following hypotheses:

H1: Teacher self-efficacy has a positive effect on job satisfaction.

H2: Work engagement has a positive effect on job satisfaction.

H3: Social support has a positive effect on job satisfaction.

H4: Work engagement has a positive effect on teacher self-efficacy.

H5: Social support has a positive effect on teacher self-efficacy.

H6: Professional learning community has a positive effect on teacher self-efficacy.

H7: Principal instructional leadership has positive effects on professional learning community.

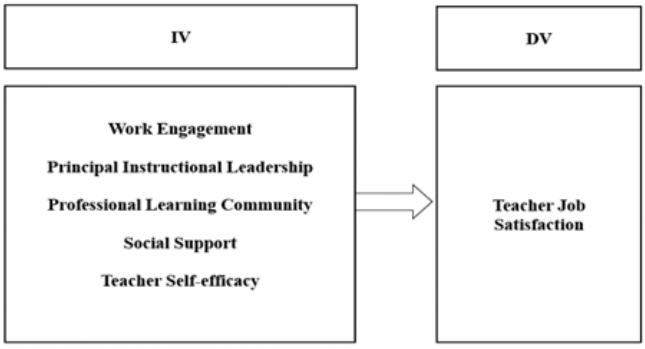


**Figure 1:** Conceptual Framework

## Research Methodology

**1. Research Design and Measurement**

This study utilizes a mixed-methods approach to investigate the effects of principal instructional leadership (PIL), professional learning community (PLC), work engagement (WE), social support (SS), and teacher self-efficacy (TSE) on teacher job satisfaction (TJS) in Guizhou Province. Quantitative methods, including descriptive statistics, correlation analysis, and structural equation modeling (SEM) with smartPLS, are employed. The validated scales used in the study include Brayfield and Rothe's Job Satisfaction Scale, Schwarzer and Jerusalem's General Self-Efficacy Scale, the Utrecht Work Engagement Scale (UWES), Leithwood et al.'s PLC questionnaire, Zimet et al.'s Perceived Social Support Scale, and Liu and Hallinger's Principal Instructional Management Rating Scale (PRIMS). Preliminary tests confirm strong internal consistency (Cronbach's $\alpha > 0.7$) for all scales.

Based on the quantitative analysis of the influencing factors and the established teacher job satisfaction model, the study employs qualitative research methods, including SWOT

analysis and strategy development, to formulate the RAISE strategy. This strategy aims to enhance teacher job satisfaction by addressing the identified challenges and ensuring the sustainable development of schools in Guizhou Province.

### 2. Population and Sample

The target population is full-time junior high school teachers in Guizhou Province. Using stratified sampling based on GDP indicators, the sample was drawn from Guiyang, Zunyi, and Anshun to reflect regional economic diversity. The final sample includes 1,121 teachers directly involved in instructional activities, excluding non-teaching personnel. This sampling strategy ensures that the study captures variations in teacher job satisfaction across different economic contexts and provides insights into regional disparities.

### 3. Data Collection

Data collection occurred from autumn 2023 to summer 2024 through structured questionnaires, achieving a 90% response rate (1,106 valid questionnaires). Local educational departments facilitated distribution. Structured interviews supplemented quantitative data collection to provide contextual depth, while SWOT analysis highlighted key strengths, weaknesses, opportunities, and threats within the educational system in Guizhou Province. These insights informed the development of practical strategies to enhance teacher job satisfaction.

## Research Finding

### 1. Descriptive Statistical Analysis of the Variables

Objective 1: To analyze the descriptive statistics of the variables, focusing on identifying patterns and areas for improvement in job satisfaction and related factors among junior high school teachers.

Descriptive statistics summarize and present the main characteristics of the data, offering insights into distribution, central tendency, and variability.

**Table 1:** Descriptive Statistics of the Variables (n=1106)

| Variables | | Min | Max | Mean | SD | Interpretation |
|---|---|---|---|---|---|---|
| Job Satisfaction | | 1 | 5 | 2.30 | 0.83 | Moderate |
| Teacher Self-efficacy | | 1 | 4 | 2.33 | 0.73 | Moderate |
| Professional Learning Community | ca | 1 | 5 | 2.08 | 0.82 | Moderate |
| | sp | 1 | 5 | 2.08 | 0.87 | Moderate |
| | dpr | 1 | 5 | 2.22 | 0.83 | Moderate |
| | rd | 1 | 5 | 2.06 | 0.81 | Moderate |
| Principal Instructional Leadership | | 1 | 5 | 1.98 | 0.85 | Low |
| Work Engagement | | 1 | 7 | 2.27 | 1.17 | Moderate |
| Social Support | friend | 1 | 7 | 2.49 | 1.07 | Moderate |
| | other | 1 | 7 | 2.68 | 1.16 | Moderate |
| | famlily | 1 | 7 | 2.34 | 1.11 | Moderate |

**Note:** ca=collaborative activity, sp= shared sense of purpose, dpr= deprivatized practice, and rd=reflective dialogue.

The sample size (N) for all variables is 1106, ensuring consistency. The minimum value (Min) for all variables is 1, suggesting a uniform scale start point. The maximum values vary, with TJS, PLC and PIL using a five-point scale; TSE using a four-point scale; and WE, SS using a seven-point scale. The mean (M) values range from 1.98 to 2.68, indicating moderate levels of job satisfaction (M = 2.30) and self-efficacy (M = 2.33). Principal Instructional Leadership (PIL) has the lowest mean (M = 1.98), suggesting an area for improvement. Work Engagement (WE) and Social Support variables show slightly higher means, but remain moderate overall. The notably low mean score of principal instructional leadership (M=1.98) may reflect limited access to professional development opportunities for principals or insufficient leadership training programs in underdeveloped regions like Guizhou Province. Addressing these gaps through targeted interventions could significantly enhance teacher satisfaction and performance.

The standard deviations (SD) range from 0.73 to 1.17. Lower SDs for Teacher Self-Efficacy (TSE, SD = 0.73) and PLC: Reflective Dialogue (PLCrDs, SD = 0.81) indicate less variability. Higher SDs for Work Engagement (WE, SD = 1.17) and Social Support variables (SSF, SSO, SSFam) indicate significant individual differences.

Overall, the data reveals moderate levels of job satisfaction and self-efficacy among teachers. Principal instructional leadership scores are notably low, highlighting a critical area for development. Work engagement and social support scores, though moderate, show significant individual differences, suggesting variability in teachers' perceived support and engagement.

**2. Correlation Analysis**

Objective 2: To examine the correlations among the key variables to understand their relationships and the strength of their associations.

Correlation analysis explores relationships between variables, assessing strength and direction using Pearson's and Spearman's correlation coefficients. This helps identify associations, laying groundwork for causal analysis and modeling.

**Table 2:** Correlation Matrix of Key Variables

| | **TJS** | **PIL** | **PLC** | **SS** | **TSE** | **WE** |
|---|---|---|---|---|---|---|
| TJS | 1.000 | 0.533 | 0.684 | 0.568 | 0.605 | 0.762 |
| PIL | 0.533 | 1.000 | 0.709 | 0.574 | 0.443 | 0.515 |
| PLC | 0.684 | 0.709 | 1.000 | 0.681 | 0.637 | 0.698 |
| SS | 0.568 | 0.574 | 0.681 | 1.000 | 0.522 | 0.555 |
| TSE | 0.605 | 0.443 | 0.637 | 0.522 | 1.000 | 0.652 |
| WE | 0.762 | 0.515 | 0.698 | 0.555 | 0.652 | 1.000 |
| n=1106, * p<.05, **p<.01, ***p<.005 | | | | | | |

**Note:** PIL=Principal Instructional Leadership, PLC=Professional Learning Community, WE=Work Engagement, SS=Social Support, TSE=Teacher Self-efficacy, TJS=Teacher Job Satisfaction.

Teacher Self-Efficacy and Job Satisfaction: A moderate positive correlation ($r$=0.605) indicates that higher teacher self-efficacy is associated with increased job satisfaction.

Work Engagement and Job Satisfaction: A strong positive correlation ($r$=0.762) shows that higher work engagement significantly boosts job satisfaction. The strong positive

correlation between work engagement and job satisfaction ($r$=0.762) underscores the critical role of psychological investment in enhancing teaching quality and professional satisfaction.

Social Support and Job Satisfaction: A moderate positive correlation ($r$=0.568) suggests that greater social support enhances job satisfaction.

Work Engagement and Teacher Self-Efficacy: A strong positive correlation ($r$=0.652) implies that increased work engagement significantly improves self-efficacy.

Social Support and Teacher Self-Efficacy: The moderate positive correlation between Social Support (SS) and Teacher Self-Efficacy ($r$=0.522) suggests that while social support does contribute to self-efficacy, it may not be as strongly influential as factors like work engagement or professional learning communities, possibly due to insufficient or inconsistent support systems in place.

Professional Learning Community and Teacher Self-Efficacy: A strong positive correlation ($r$=0.637) suggests that involvement in professional learning communities enhances self-efficacy.

Principal Instructional Leadership and Professional Learning Community: A strong positive correlation ($r$=0.709) shows that effective principal instructional leadership significantly supports the development of professional learning communities.

These findings highlight that improving teachers' self-efficacy, work engagement, and social support, along with enhancing principal leadership and fostering professional learning communities, can positively impact job satisfaction and teaching effectiveness.

### 3.Mediating Effect Analysis

Objective 3: To investigate the mediating effect of teacher self-efficacy on the relationship between independent variables (professional learning community, principal instructional leadership, work engagement, social support) and job satisfaction.

Mediation effect analysis aims to investigate whether a mediator variable plays a mediating role between the independent and dependent variables. The data in the Table 3 present the original sample (O), sample mean (M), standard deviation (SD), T statistics, and P values for each path. The following is a detailed analysis of the mediation effects for each path:

**Table 3:** Mediation Effect Analysis

| Path | Original Sample | Mean | SD | t | p | Interpretation |
|---|---|---|---|---|---|---|
| SS ->TSE ->TJS | 0.015 | 0.015 | 0.005 | 2.708 | 0.007 | Moderate |
| PIL -> PLC -> TSE ->TJS | 0.029 | 0.029 | 0.008 | 3.796 | 0.000 | Moderate |
| WE -> TSE -> TJS | 0.054 | 0.054 | 0.012 | 4.458 | 0.000 | Moderate |
| PLC -> TSE -> TJS | 0.041 | 0.041 | 0.011 | 3.834 | 0.000 | Moderate |
| PIL -> PLC -> TSE | 0.208 | 0.209 | 0.028 | 7.464 | 0.000 | Moderate |

**Note:** PIL=Principal Instructional Leadership,
PLC=Professional Learning Community,
WE=Work Engagement,
SS=Social Support,
TSE=Teacher Self-efficacy,
TJS=Teacher Job Satisfaction.

The path influence analysis reveals several significant indirect effects on teacher job satisfaction (TJS) through teacher self-efficacy (TSE), with detailed statistical support:

SS →TSE → TJS: Although social support significantly influences teacher satisfaction through teacher self-efficacy, the weaker indirect effect (t=2.708, p<0.05) suggests that social support may be more sporadic or less structured compared to other factors like work engagement, which may require further development in consistent support systems for teachers.

PIL → PLC → TSE → TJS: Principal instructional leadership (PIL) affects TJS through the professional learning community (PLC) and TSE ($t$=3.796, $p$<0.01), suggesting a chain effect where effective PIL enhances PLC, boosting TSE and thus TJS. The chain effect from principal instructional leadership through professional learning community and teacher self-efficacy to job satisfaction highlights the need for leadership-focused professional development programs.

WE → TSE → TJS: Work engagement (WE) has a substantial indirect effect on TJS through TSE ($t$=4.458, $p$<0.01), indicating that higher WE improves TSE, leading to better TJS.

PLC → TSE → TJS: PLC directly impacts TJS through TSE ($t$=3.834, $p$<0.01), showing that a strong PLC enhances TSE, resulting in higher TJS.

PIL → PLC → TSE: PIL influences TSE through PLC ($t$=7.464, $p$<0.01), indicating that strong instructional leadership fosters a robust PLC, which in turn boosts TSE.

These findings underscore the critical mediating role of TSE, highlighting the need to enhance TSE to improve TJS. The positive indirect effects of PIL, PLC, and SS on TJS through TSE suggest that strategic improvements in these areas can lead to higher teacher satisfaction and effectiveness.

**4.Structural Equation Modeling (SEM) analysis**

Objective 4: To validate the measurement model through Structural Equation Modeling (SEM), including Confirmatory Factor Analysis (CFA), and assess the reliability and validity of the constructs.

The Structural Equation Modeling (SEM) analysis involves three key steps:

Confirmatory Factor Analysis (CFA): Assesses internal consistency reliability using Cronbach's *a*, rho_A, and Composite Reliability (CR). Values above 0.7 indicate good reliability.

Test for Convergent Validity: Ensures different measurement methods consistently measure the same construct, primarily using Average Variance Extracted (AVE) values.

Test for Discriminant Validity: Uses the Fornell-Larcker criterion to ensure each construct is distinct. The square root of the AVE for each construct must be greater than its correlations with other constructs.

These steps ensure the reliability and validity of the measurement model, providing a solid foundation for further data analysis.

Step 1: Confirmatory Factor Analysis (CFA)

Cronbach's *a* values greater than 0.7 indicate good internal consistency reliability. The rho_A indicator supplements this verification. Composite Reliability (CR), more suitable for SEM, also requires values above 0.7. Table 4 shows that the reliability of all constructs exceeds 0.7, indicating excellent internal consistency.

**Table 4:** Reliability Statistics of Key Variables

| No. | Variable | Cronbach's *α* | rho_A | Composite Reliability | Interpretation |
|---|---|---|---|---|---|
| 1 | Principal Instructional Leadership | 0.980 | 0.980 | 0.982 | High |
| 2 | Professional Learning Community | 0.966 | 0.967 | 0.970 | High |
| 3 | Social Support | 0.960 | 0.961 | 0.965 | High |
| 4 | Teacher Self-efficacy | 0.955 | 0.956 | 0.962 | High |
| 5 | Work Engagement | 0.973 | 0.973 | 0.976 | High |
| 6 | Job Satisfaction | 0.915 | 0.919 | 0.937 | High |

Step 2: Test for Convergent Validity

Convergent validity assesses if different measurement methods consistently measure the same construct, ensuring reliability and internal consistency. By calculating indicators such as Cronbach's *a* coefficient, we validate the measurement tools.

**Table 5:** Convergent Validity Analysis of Key Variables

| No. | Variable | Average Variance Extracted (AVE) | Interpretation |
|---|---|---|---|
| 1 | Principal Instructional Leadership | 0.737 | High |
| 2 | Professional Learning Community | 0.698 | Moderate |
| 3 | Social Support | 0.696 | Moderate |
| 4 | Teacher Self-efficacy | 0.761 | High |
| 5 | Work Engagement | 0.820 | High |
| 6 | Job Satisfaction | 0.747 | High |

In Table 5, all constructs have an Average Variance Extracted (AVE) greater than 0.5, indicating good convergent validity. Specifically, Work Engagement ($AVE_{WE}$=0.820) and Teacher Self-Efficacy ($AVE_{TSE}$=0.761) show high convergent validity.

In summary, the measurement tool demonstrates high reliability and convergent validity, effectively assessing junior high school teacher job satisfaction and providing credible data for educational administration.

Step 3: Test for Discriminant Validity

Discriminant validity ensures that constructs are distinct and not overlapping. Using the Fornell-Larcker criterion, the square root of the AVE for each construct must be greater than its correlations with other constructs.

**Table 6:** Discriminant Validity Analysis of Key Variables

| | **TJS** | **PIL** | **PLC** | **SS** | **TSE** | **WE** |
|---|---|---|---|---|---|---|
| TJS | 0.864 | | | | | |
| PIL | 0.533 | 0.858 | | | | |
| PLC | 0.684 | 0.709 | 0.835 | | | |
| SS | 0.568 | 0.574 | 0.681 | 0.834 | | |
| TSE | 0.605 | 0.443 | 0.637 | 0.522 | 0.872 | |
| WE | 0.762 | 0.515 | 0.698 | 0.555 | 0.652 | 0.906 |

**Note:** PIL=Principal Instructional Leadership,
PLC=Professional Learning Community,
WE=Work Engagement,
SS=Social Support,
TSE=Teacher Self-efficacy,
TJS=Teacher Job Satisfaction.

Table 6 shows the square root of the AVE (bold diagonal values) for each construct, compared with their correlation coefficients (off-diagonal values). The results are as follows: TJS (0.864), PIL (0.858), PLC (0.835), SS (0.834), TSE (0.872), and WE (0.906). All constructs meet the criterion, indicating good discriminant validity.

The SEM model was refined through iterative adjustments to improve fit indices, ensuring robust validity for further path analysis. In SEM analysis, iterative adjustments were made to improve the model fit indices, particularly focusing on optimizing the path coefficients and factor loadings. These adjustments ensured robust model validity and enhanced the overall fit of the measurement model, as indicated by the CFI (>0.9) and RMSEA (<0.08).

## 5. Hypotheses Testing Results

Objective 5: To test the research hypotheses using SEM and determine the direct and indirect effects among the variables.

To determine if the data supports each hypothesis, path coefficients and their significance levels in the SEM were examined. Specifically, $p < 0.05$ and the direction of path coefficients were checked against the hypotheses.

Based on Table 7, the following results were observed:

TSE → TJS: $b$=0.139, $t$=5.017, $p$=0.000. The positive path coefficient and significant T statistic support Hypothesis 1, indicating that teacher self-efficacy positively affects job satisfaction.

WE → TJS: $b$=0.573, $t$=20.159, $p$=0.000. This strong positive path coefficient supports Hypothesis 2, showing that work engagement significantly enhances job satisfaction.

SS → TJS: $b$=0.177, $t$=7.211, $p$=0.000. The positive path coefficient and significant T statistic support Hypothesis 3, suggesting that social support positively impacts job satisfaction.

WE → TSE: *b*=0.388, *t*=11.253, *p*=0.000. This significant positive path coefficient supports Hypothesis 4, indicating that work engagement enhances teacher self-efficacy.

SS → TSE: *b*=0.107, *t*=3.057, *p*=0.002. The significant positive path coefficient supports Hypothesis 5, showing that social support improves teacher self-efficacy. The weaker path from social support to teacher self-efficacy suggests the need for more structured and consistent support systems, including mentorship programs and peer collaboration opportunities.

PLC → TSE: *b*=0.294, *t*=7.630, *p*=0.000. The positive path coefficient supports Hypothesis 6, indicating that participation in professional learning communities boosts teacher self-efficacy.

PIL → PLC: *b*=0.709, *t*=42.407, *p*=0.000. The strong positive path coefficient supports Hypothesis 7, demonstrating that principal instructional leadership effectively promotes professional learning communities.

**Table 7:** Path Analysis Results of Key Variables

| Path | Original Sample (O) | Sample Mean (M) | SD | t | p | Interpretation |
|---|---|---|---|---|---|---|
| PIL → PLC | 0.709 | 0.709 | 0.017 | 42.407 | 0.000 | High |
| PLC → TSE | 0.294 | 0.295 | 0.039 | 7.630 | 0.000 | Moderate |
| SS → TJS | 0.177 | 0.178 | 0.025 | 7.211 | 0.000 | Moderate |
| SS → TSE | 0.107 | 0.106 | 0.035 | 3.057 | 0.002 | Moderate |
| TSE → TJS | 0.139 | 0.140 | 0.028 | 5.017 | 0.000 | Moderate |
| WE → TJS | 0.573 | 0.572 | 0.028 | 20.159 | 0.000 | High |
| WE → TSE | 0.388 | 0.388 | 0.034 | 11.253 | 0.000 | High |

**Note:** PIL=Principal Instructional Leadership,
PLC=Professional Learning Community,
WE=Work Engagement,
SS=Social Support,
TSE=Teacher Self-efficacy,
TJS=Teacher Job Satisfaction.

These results confirm that the data supports all proposed hypotheses. Through SEM analysis, we can understand the complex relationships among variables, including direct and indirect effects.

The strong path coefficients observed in the model (e.g., WE → TJS, *b*=0.573; PIL → PLC, *b*=0.709) indicate significant individual effects and contribute to the model's overall fit indices. The high CFI (>0.9) indicates excellent overall model fit, while the low RMSEA (<0.08) suggests minimal error in approximating the population covariance matrix, confirming the robustness of the model.

The SEM analysis highlights:

High reliability and validity of the measurement tool.

Principal Instructional Leadership indirectly influences job satisfaction via Professional Learning Community and Teacher Self-Efficacy.

Social Support and Work Engagement both directly and indirectly impact job satisfaction through Teacher Self-Efficacy.

Teacher Self-Efficacy is a crucial mediator in the impact paths of various variables on job satisfaction.

Supplementary analysis shows that while all hypotheses were supported, the varying strength of effects (e.g., SS → TSE with *b*=0.107) highlights areas needing targeted intervention. Comparing the varying strengths of paths, such as the strong effect of work engagement (*b*=0.573) versus the weaker effect of social support (*b*=0.107), highlights the need to prioritize interventions in high-impact areas like engagement. Simultaneously, developing long-term strategies to enhance peer and community support is equally critical. While stronger pathways like WE → TJS should be prioritized in immediate interventions to maximize impact, weaker pathways such as SS → TSE require long-term efforts to build sustainable support systems, particularly in fostering teacher networks and peer collaboration opportunities.

Therefore, the analysis results indicate that the data supports all the proposed hypotheses. Based on the above results, the following Structural Equation Model (SEM) diagram has been constructed:

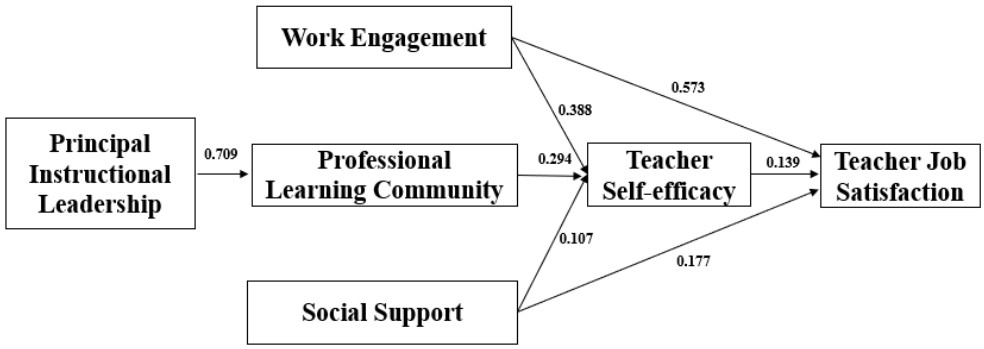


**Figure 2:** Structural Equation Model of Teacher Job Satisfaction

Figure 2 illustrates the interrelations among key variables, highlighting the central role of work engagement (WE) and professional learning communities (PLC) in enhancing teacher self-efficacy (TSE) and job satisfaction (TJS). The strong influence of principal instructional leadership (PIL) on PLC further emphasizes the need for leadership-focused interventions.

These findings could inform targeted educational policies, such as resource allocation for leadership training programs and professional development initiatives, ensuring equitable support for teachers across different socioeconomic contexts. Targeted interventions could include structured leadership training programs tailored to local educational contexts, regular professional learning community workshops to build teacher collaboration, and mentorship programs to strengthen social support among educators. These data-driven insights reinforce the need for localized interventions, particularly in under-resourced regions like Guizhou Province, where targeted leadership training and community support can address systemic gaps effectively.

**6. Develop and evaluate the strategy for enhancing teacher job satisfaction in junior high schools of Guizhou Province, China**

Step 1. Strategy Proposal

Based on the quantitative analysis of the factors influencing teacher job satisfaction and the establishment of a teacher job satisfaction model, this study adopts a mixed-methods approach to develop the RAISE strategy. The RAISE strategy aims to improve job satisfaction among junior high school teachers and principals in Guizhou Province. The strategy emphasizes reinforcing instructional leadership, fostering active professional learning communities, improving work engagement, strengthening social support, and enhancing teacher self-efficacy. The development of this strategy was informed by a combination of qualitative research methods, including SWOT analysis. A panel of 11 experts, including specialists in educational management, teacher psychology, and instructional methods, participated in discussions and reviews. Their feedback helped refine the strategy to ensure its scientific rigor and practical applicability. The RAISE strategy is designed to address the challenges identified in the teacher job satisfaction model, providing a comprehensive framework for improving the work environment for educators.

Step 2. Strategy Implementation

After the proposal of the RAISE strategy, the research team implemented a series of activities to bring the strategy to life. These activities were specifically designed to enhance the key areas of instructional leadership, teacher engagement, social support, and self-efficacy among the experimental group of teachers. The implementation included regular training sessions for school principals to strengthen their instructional leadership skills, the establishment of professional learning communities to foster collaboration among teachers, and the introduction of programs aimed at enhancing teacher work engagement through effective job design and motivation strategies. Additionally, psychological support and counseling programs were introduced to provide teachers with social support, while strategies for personal and professional development were implemented to enhance teachers' self-efficacy. These activities were conducted with the aim of improving the overall teacher experience and increasing their job satisfaction.

Step 3. Strategy Validation

To evaluate the effectiveness of the RAISE strategy, the study employed a pretest-posttest design, comparing the experimental group with a control group. Both groups consisted of 60 teachers each, with the experimental group receiving the full implementation of the RAISE strategy, while the control group did not. The study used validated measurement tools to assess six key variables: Teacher Job Satisfaction (TJS), Teacher Self-Efficacy (TSE), Work Engagement (WE), Professional Learning Communities (PLC), Social Support (SS), and Principal Instructional Leadership (PIL). Data were collected at two time points: before the intervention (pretest) and after the intervention (posttest). The pretest-posttest comparisons were analyzed using paired sample t-tests to assess the changes in each variable.

The results showed that the experimental group exhibited significant improvements across all six variables, with p-values less than 0.01, indicating that the RAISE strategy was highly effective in enhancing teacher job satisfaction, work engagement, self-efficacy, and leadership skills. In contrast, the control group showed minimal or no significant changes across these variables. The t-test results confirmed that the experimental group experienced substantial positive changes in teacher job satisfaction, work engagement, and self-efficacy,

as well as improvements in leadership and support structures, further demonstrating the success of the RAISE strategy.

**Table 8:** Comparison of Experimental Group Pretest and Control Group Posttest (T1 vs T2) and Experimental Group Posttest and Control Group Pretest (T2 vs T1)

| Variable | Experimental Group Pretest (T1, M±SD) | Control Group Posttest (T2, M±SD) | t (T1 vs T2) | p (T1 vs T2) | Experimental Group Posttest (T2, M±SD) | Control Group Pretest (T1, M±SD) | t (T2 vs T1) | p (T2 vs T1) |
|---|---|---|---|---|---|---|---|---|
| TJS | 1.74±0.11 | 1.71±0.10 | 1.218 | .228 | 3.52±0.34 | 1.73±0.11 | 51.040 | .000 |
| TSE | 2.04±0.51 | 2.14±0.51 | -1.047 | .299 | 2.52±0.60 | 2.18±0.58 | 3.338 | .001 |
| WE | 1.56±0.49 | 1.59±0.43 | -.477 | .635 | 2.69±1.02 | 1.66±0.57 | 6.861 | .000 |
| PLC | 1.74±0.48 | 1.74±0.52 | .036 | .972 | 2.34±0.80 | 1.77±0.54 | 4.252 | .000 |
| SS | 2.22±0.75 | 2.00±0.67 | 5.081 | .000 | 2.82±1.11 | 2.03±0.70 | 4.968 | .000 |
| PIL | 1.68±0.63 | 1.55±0.61 | 1.146 | .256 | 2.35±0.78 | 1.64±0.69 | 4.925 | .000 |

**Note:** PIL=Principal Instructional Leadership, PLC=Professional Learning Community, WE=Work Engagement, SS=Social Support,
TSE=Teacher Self-efficacy, TJS=Teacher Job Satisfaction.

## Discussion

The discussion section of this study reflects on the research findings by comparing them with existing theories and previous studies, identifying both consistencies and discrepancies. The study found that factors such as Teacher Self-Efficacy (TSE), Work Engagement (WE), Social Support (SS), Professional Learning Communities (PLCs), and Principal Instructional Leadership (PIL) significantly impact Teacher Job Satisfaction (TJS). However, the relatively low scores in these areas suggest challenges such as limited resources and support, which hinder the full potential of these factors. This finding aligns with Bandura's (1997) theory of self-efficacy, which suggests that TSE is strongly related to job satisfaction and performance but can be undermined by inadequate resources and insufficient professional development opportunities.

The study's findings on work engagement are consistent with Schaufeli & Baker (2002), who demonstrated that high WE is positively correlated with TJS. However, the relatively low WE scores in this study may be attributed to work pressure and the scarcity

of resources, which often affect teachers in regions like Guizhou. Schaufeli & Baker (2002) argued that job demands (such as excessive workload) can lead to burnout, while job resources (like support and professional development) are essential to sustaining work engagement. To enhance teacher work engagement, it is crucial to improve work conditions, reduce workload, and provide more resources and support.

Social support also plays a critical role in TJS and TSE, as highlighted in House's (1981) social support theory, which emphasizes the importance of emotional and instrumental support in reducing stress and improving well-being. Despite the relatively low levels of SS reported in this study, the findings underscore the importance of strengthening cooperation and communication among teachers, as well as improving support from schools, families, and the community.

The establishment of PLCs is positively correlated with TSE and TJS, in line with Hord's (1997) theory on PLCs, which posits that collaborative inquiry and professional development can improve teaching practices and TJS. However, the current development of PLCs in this study area is insufficient. Hord (1997) stressed the importance of sustained investment in PLCs to foster collaborative learning environments that support both professional growth and teacher satisfaction. To improve PLCs, more investment and institutional support are recommended.

Finally, Principal Instructional Leadership (PIL) indirectly affects TJS through PLCs and TSE. This finding aligns with Hallinger's (2005) instructional leadership theory, which argues that effective leadership is crucial for creating a positive school environment that supports teacher development and satisfaction. The low scores for PIL suggest a need for systematic leadership training and support for principals. Leithwood et al. (2006) also emphasize the vital role of school leadership in shaping school culture and fostering teacher engagement.

To address the challenges outlined above, this study proposes the RAISE strategy, a comprehensive intervention framework aimed at enhancing teacher job satisfaction. This strategy particularly focuses on improving teacher work conditions, providing systematic leadership training, enhancing teachers' social support networks, and promoting professional development through strengthened PLCs. By addressing resource scarcity, inadequate support, and excessive workloads, the RAISE strategy aims to improve TSE and WE, thereby increasing TJS.

In summary, the study emphasizes the need for targeted interventions to improve TJS, including providing more professional training and resource support, improving work conditions, enhancing SS, strengthening PLCs, and offering leadership training for principals. These comprehensive measures can significantly enhance TJS, ultimately improving overall educational quality.

## Conclusion

This research highlights significant factors affecting the job satisfaction of junior high school teachers in Guizhou Province, including Teacher Self-Efficacy (TSE), Work Engagement (WE), Social Support (SS), Professional Learning Communities (PLCs), and Principal Instructional Leadership (PIL). These findings align with existing theories and previous research but also reveal regional differences and specific challenges.

First, the study affirms that TSE plays a critical role in job satisfaction, consistent with Bandura's theory (1997). High TSE enhances both job satisfaction and teaching

effectiveness. However, the relatively low scores suggest the need for continuous professional development and better resource support.

Second, WE significantly impacts TJS. High WE leads to increased TJS, aligning with Schaufeli et al.'s work engagement theory (Schaufeli et al., 2002). The low WE scores in this study may result from work pressure and inadequate resources. Improving the work environment and conditions, reducing workload, and providing more resources and support can enhance teacher work engagement.

Social support also plays a crucial role in TJS and TSE. Despite the low levels of SS reported, its importance in enhancing psychological well-being and TJS is clear, consistent with House's social support theory (House, 1981). Strengthening cooperation and communication among teachers, and enhancing support from schools and families, can improve SS levels.

Furthermore, the establishment of PLCs positively influences TSE, promoting professional development and TJS, as per Hord's professional learning community theory (Hord, 1997). However, the current development of PLCs is insufficient. Enhancing these communities through increased investment and support is recommended.

In response to the challenges identified, the RAISE strategy has been proposed as a comprehensive intervention framework. This strategy aims to enhance TJS by improving work conditions, enhancing SS, promoting professional development, and strengthening PIL. Through a series of integrated measures, the strategy effectively addresses issues such as resource scarcity and excessive work pressure, helping teachers better manage their professional challenges and improving overall educational quality.

In summary, the study suggests several measures to improve TJS, including providing more professional training and resource support, improving work conditions, enhancing SS, strengthening PLCs, and offering leadership training for principals. RAISE strategy directly addresses these needs and aims to improve TJS and overall educational quality. By implementing these comprehensive measures, TJS can be significantly enhanced, ultimately improving overall educational quality.

## Suggestion

Based on the research findings and discussion, the following recommendations are proposed to address challenges in teacher job satisfaction and provide guidance for improvement.

1. Academic Recommendations

Further Research: Further research should explore the impact of teacher self-efficacy on job satisfaction in diverse educational contexts, with a particular focus on the disparities between economically underdeveloped and developed regions. Understanding these differences is crucial for crafting region-specific interventions.

Framework Development: Develop a comprehensive framework to assess the impact of professional learning communities and principal instructional leadership on teacher satisfaction, considering factors like mental health, teaching quality, and organizational support.

2. Policy Recommendations

Resource Allocation: Ensure stable funding for teacher training programs, particularly those aimed at enhancing self-efficacy and professional development.

Policy Support: Implement policies that encourage teachers' active participation in professional learning communities, with incentives for collaboration and knowledge-sharing.

Educational Equity: Prioritize policy support for under-resourced areas, providing teaching equipment, transportation subsidies, and psychological support services.

3. Operational Recommendations

Improving Work Conditions: Reduce non-teaching tasks and optimize administrative processes to alleviate teacher workload, while ensuring sufficient teaching resources and support services.

Leadership Training: Offer systematic leadership training for principals to enhance their ability to support teachers and foster a positive school culture.

Support Systems: Establish teacher psychological support and professional development teams, promote collaboration among colleagues, and strengthen family and community engagement to support teachers' work.

These recommendations aim to address teacher challenges from academic, policy, and operational perspectives, improving their job satisfaction and ultimately enhancing educational quality. Through collaborative efforts, these measures can create a more supportive and motivating professional environment for teachers.

## References

Aloe, A. M., Amo, L. C., & Shanahan, M. E. (2014). Classroom management self-efficacy and burnout: A multivariate meta-analysis. *Educational Psychology Review*, *26*(1), 101-126. https://doi.org/10.1007/s10648-013-9244-0

Bandura, A. (1997). *Self-efficacy: The exercise of control*. W. H. Freeman.

Canrinus, E. T., Helms-Lorenz, M., Beijaard, D., Buitink, J., & Hofman, A. (2012). Self-efficacy, job satisfaction, motivation and commitment: Exploring the relationships between indicators of teachers' professional identity. *European Journal of Psychology of Education*, *27*(1), 115-132. https://doi.org/10.1007/s10212-011-0069-2

Day, C., Sammons, P., Stobart, G., Kington, A., & Gu, Q. (2011). *Successful school leadership: Linking with learning and achievement*. Open University Press.

Evans, L. (2002). What is teacher development? *Oxford Review of Education*, *28*(1), 123-137. https://doi.org/10.1080/03054980120113670

Fu, W., Liu, Y., & Zhu, Y. (2013). The impact of job satisfaction and self-efficacy on job performance: An empirical study in China. *The Service Industries Journal*, *33*(13-14), 1373-1392. https://doi.org/10.1080/02642069.2013.815735

Fullan, M., & Hargreaves, A. (1996). *What's worth fighting for in your school?* Teachers College Press.

Guskey, T. R. (2000). *Evaluating professional development*. Corwin Press.

Hallinger, P. (2003). Leading educational change: Reflections on the practice of instructional and transformational leadership. *Cambridge Journal of education*, *33*(3), 329-352.

Hallinger, P. (2005). Instructional leadership and the school principal: A passing fancy that refuses to fade away. *Leadership and Policy in Schools*, *4*(3), 221-239.

Hallinger, P. (2011). Leadership for learning: Lessons from 40 years of empirical research. *Journal of Educational Administration*, *49*(2), 125-142. https://doi.org/10.1108/09578231111116699

Hallinger, P., & Murphy, J. (1985). Assessing the instructional management behavior of principals. *The Elementary School Journal*, *86*(2), 217-247. https://doi.org/10.1086/461445

Harrison, D. A., Newman, D. A., & Roth, P. L. (2006). How important are job attitudes? Meta-analytic comparisons of integrative behavioral outcomes and time sequences. *Academy of Management Journal*, 49(2), 305-325. https://doi.org/10.5465/amj.2006.20786077

Høigaard, R., Giske, R., & Sundsli, K. (2012). Newly qualified teachers' work engagement and teacher efficacy influences on job satisfaction, burnout, and the intention to quit. *European Journal of Teacher Education*, *35*(3), 347-357. https://doi.org/10.1080/02619768.2011.633993

Hord, S. M. (1997). *Professional learning communities: Communities of continuous inquiry and improvement*. Southwest Educational Development Laboratory.

House, J. S. (1981). *Work stress and social support*. Addison-Wesley.

Huang, S. (2020). The influence of teacher efficacy on teacher job satisfaction: A case study of middle school teachers in China. *Educational Management Administration & Lead ership*, *48*(2), 228-245. https://doi.org/10.1177/1741143218796167

Leithwood, K., Day, C., Sammons, P., Harris, A., & Hopkins, D. (2006). *Successful school le adership: What it is and how it influences student learning*. DfES.

Li, Q.T. (2022). Examine the Moderating Role of Teacher's Self-Efficacy in the Relationshi p Between the Job Satisfaction and Professional Learning Community in China. *Front iers in Psychology, 13,* 841728.

Liu, S., & Hallinger, P. (2018). Principal instructional leadership, teacher self-efficacy, and teacher professional learning in China: An exploratory study of the consequences of principal leadership. *Educational Management Administration & Leadership*, *46*(4), 576-597. https://doi.org/10.1177/1741143216659295

Schaufeli, W. B., & Bakker, A. B. (2002). Job demands, job resources, and their relationship with burnout and engagement: A multi-sample study. *Journal of Organizational Behavior*, *25*(3), 293-315. https://doi.org/10.1002/job.248

Schaufeli, W. B., & Bakker, A. B. (2010). Defining and measuring work engagement: Bringing clarity to the concept. Work engagement: A handbook of essential theory and research, *12*, 10-24.

Shen, B. S. (2009). The impact of social support on job satisfaction and work stress in public sector employees. *Journal of Public Administration, 3*, 22-30.

Skaalvik, E. M., & Skaalvik, S. (2011). Teacher job satisfaction and motivation to leave the t eaching profession: Relations with school context, feeling of belonging, and emotiona l exhaustion. *Teaching and Teacher Education*, 27(6), 1029-1038. https://doi.org/10.1 016/j.tate.2011.04.001

Stoll, L., Bolam, R., McMahon, A., Wallace, M., & Thomas, S. (2006). Professional learning communities: A review of the literature. *Journal of Educational Change, 7*(4), 221-258. https://doi.org/10.1007/s10833-006-0001-8

Tardy, C. H. (1985). Social support measurement. *American Journal of Community Psychology*, *13*(2), 187-202. https://doi.org/10.1007/BF00905728

Vangrieken, K., Dochy, F., Raes, E., & Kyndt, E. (2015). Teacher collaboration: A systematic review. Educational Research Review, *15*, 17-40. https://doi.org/10.1016/j.edurev.2015.04.002

Vangrieken, K., Meredith, C., Packer, T., & Kyndt, E. (2017). Teacher communities as a context for professional development: A systematic review. *Teaching and Teacher Education*, 61, 47-59. https://doi.org/10.1016/j.tate.2016.10.001

Vanblaere, B., & Devos, G. (2016). Exploring the link between experienced teachers' learning outcomes and individual and professional learning community characteristics. *School Effectiveness and School Improvement*, *27*(2), 205-227. https://doi.org/10.1080/09243453.2015.1056194

Zhang, J., Huang, Q., & Xu, J. (2022). The relationships among transformational leadership, professional learning communities and teachers' job satisfaction in China: What do the principals think?. *Sustainability*, *14*(4), 2362.

Zheng, Q., Zhang, Y., & Li, M. (2018). The construction of professional learning communities in Chinese schools: An empirical study. *Asia Pacific Education Review*, *19*(1), 71-82. https://doi.org/10.1007/s12564-018-9512-6