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Interplay of Principal Instructional Leadership, School Organizational Climate, and Teacher Job Satisfaction: Evidence from Secondary Schools in Northwest China

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Abstract. Principal instructional leadership is crucial for improving educational quality, shaping school climate, and influencing teacher job satisfaction. However, empirical research on its impact in underdeveloped regions of Northwest China is limited, revealing a significant gap in understanding local educational dynamics. This study examined how principal instructional leadership shapes school organizational climate and influences teacher job satisfaction in secondary schools across northwest China. Using a survey of 366 teachers from 63 schools, structural equation modeling was applied to analyze the effects of instructional leadership on school climate and teacher satisfaction. The research revealed that principals' leadership behaviors, particularly in managing instructional programs and setting a clear school mission, played a pivotal role in creating a positive school climate and enhancing teacher satisfaction. A supportive and collegial environment was found to be especially critical in boosting teachers' sense of fulfillment and professional well-being. The study offers actionable insights for educational leaders seeking to foster an environment that supports both teacher satisfaction and educational excellence, especially in underdeveloped regions.

Keywords: Education management; Instructional leadership; School organizational climate; Teacher job satisfaction; Secondary school

1. Introduction

The management of education in China is deeply shaped by the country's unique cultural, political, and social contexts, which give rise to its distinct characteristics and challenges. As one of the largest and most complex education systems in the world, China's schools operate under a centralized governance structure that emphasizes hierarchy, accountability, and strict adherence to

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national educational standards (Lin et al., 2023). While this system has led to significant achievements, such as improved literacy rates and expanded educational access, it also presents critical challenges, particularly in balancing academic performance with the well-being and professional satisfaction of teachers (Wang, 2023). Educational management in China is increasingly recognized as a crucial area for reform, especially as the country shifts its focus from quantity to quality and strives to promote innovation and creativity among students and educators (Q. Zhang et al., 2022).

Principals play a vital role in this transformation. Their leadership is key to enhancing educational quality and advancing school development (Zhang & Nirantranon, 2023). Accordingly, national and local authorities have introduced several policies, such as the New Curriculum Reform and China's Education Modernization 2035, aimed at improving educational quality, cultivating a positive school climate, and increasing teacher job satisfaction. In this context, the evolving role of principals, from administrative managers to instructional leaders, has become increasingly important, as this shift is essential for improving the school organizational climate and promoting teacher job satisfaction (J. Zhang et al., 2022). This transformation is especially critical in underdeveloped and northwestern regions, where improving educational quality remains a pressing concern.

However, principals' shortcomings in fostering a positive learning culture and enhancing teachers' job satisfaction have significantly affected teachers' sense of belonging and professional identity on campus (Zhai & Wang, 2021). Previous research in China has largely focused on principals' leadership in general, without examining specific leadership styles, such as instructional leadership, which is particularly relevant in China's educational landscape, given its centralized governance, performance-oriented evaluation systems, and the growing demand for innovation and teacher support.

Moreover, most studies have concentrated on developed countries, with limited exploration of China and other developing nations (Madhakomala & Hanafi, 2021; Xin & Tahir, 2024). Although attention to instructional leadership in China is gradually increasing (Shengnan & Hallinger, 2021; Thien et al., 2024), much of the research within the Chinese context has focused on the instructional leadership model itself (Walker & Qian, 2022) and its relationship with teacher effectiveness (Entong & Aziz, 2023; Liu et al., 2022). While existing studies have highlighted the significant impact of instructional leadership and school organizational climate on teacher job satisfaction (Ariansyah, 2021; Dutta & Sahney, 2022; Harahap & Suriansyah, 2019; Liu et al., 2021), few have examined the interrelationships among instructional leadership, school organizational climate, and teacher job satisfaction specifically within the Chinese context.

This study aims to explore how the instructional leadership of junior high schools principals affects teacher job satisfaction by influencing the school organizational climate. Specifically, it examines how various dimensions of principal instructional leadership (e.g., defining the school's mission, managing

instructional programs, developing a positive learning climate, and seeking support for instruction within and outside the school) shape the school organizational climate and how different aspects of this climate (e.g., supportive, collegial, and restrictive behaviors) affect teacher job satisfaction. This study seeks to fill a gap in the current literature and provide a scientific basis for enhancing principal leadership and improving school management practices, ultimately promoting better educational quality and supporting teachers' professional well-being.

The impact of instructional leadership is multifaceted, with growing global academic attention on its influence on school organizational climate. Instructional leadership involves principals enhancing overall teaching quality by setting instructional goals, monitoring progress, and supporting teachers' professional development (Dutta & Sahney, 2022). School organizational climate refers to the shared perceptions and attitudes of teachers and staff toward the work environment, including leadership qualities, interpersonal relationships, resource availability, and workplace culture (Don et al., 2021). Effective instructional leadership requires principals to be actively involved in curriculum coordination, teacher supervision, and the creation of a supportive teaching environment (Dutta & Sahney, 2022; Liu et al., 2021; Yuanyuan & Alias, 2025). In addition to administrative responsibilities, effective principals set clear educational goals, support instructional practices, and foster a positive school culture. J. Wang (2020) and Xiao (2021) explored the relationship between leadership and school climate in the Chinese context and found that principal instructional leadership practices enhance teacher collaboration and teaching efficacy, emphasizing the role of leadership in creating a balanced and equitable campus climate.

Another area of research focuses on the impact of instructional leadership on teacher job satisfaction, which refers to teachers' overall perceptions of their work environment, professional development opportunities, and leadership support—all of which directly influence their performance and long-term career development (Harahap & Suriansyah, 2019). Therefore, the design and implementation of principal instructional leadership strategies are pivotal in the educational domain. Liu et al. (2021), using a multilevel structural equation model to analyze international teaching survey data, found that principal instructional leadership significantly improves teaching quality, primarily through the mediating effects of teacher collaboration and job satisfaction. Similarly, Kurnia et al. (2021) indicated that effective instructional leadership significantly enhances teacher job satisfaction. However, Kouali (2017) highlighted a key nuance; although teachers often hold high expectations for principal instructional leadership, these expectations do not always translate into higher satisfaction levels, reflecting potential gaps between leadership practices and teachers' needs.

A positive school climate has been consistently associated with greater teacher satisfaction, as it fosters an environment conducive to effective teaching and learning (Noori et al., 2024). Nabella et al. (2022) and Zakariya et al. (2020)

support this view, emphasizing that both leaders and employees strive to create a more enjoyable work environment, which brings various benefits, including improved job performance and increased career satisfaction. A supportive and collaborative climate can strengthen teachers' professional identity, promote professional growth, enhance job satisfaction, and ultimately contribute to the overall development of the school (Harahap & Suriansyah, 2019; Heinla & Kuurme, 2024; Hu & Mi, 2024). Additionally, Zakariya (2020) found a direct relationship between organizational climate and job satisfaction, suggesting that schools with a positive work environment can significantly enhance teacher satisfaction. Don et al. (2021) showed that factors such as student relationships, teamwork, and participatory decision-making significantly influence the job satisfaction of Malaysian primary school teachers. Similarly, Noori et al. (2021) observed a strong positive relationship between school climate and job satisfaction among high school teachers in Afghanistan, highlighting the vital role of a supportive environment in promoting teacher well-being, even under challenging conditions.

Teacher job satisfaction is a key factor in educational quality and student development. It is influenced by multiple variables, including the school organizational climate (Otrębski, 2022; Rezaee et al., 2020), the principal's leadership style (Ambon et al., 2025; Purwanto & Sulaiman, 2023), and working conditions (Jentsch et al., 2023; Toropova et al., 2021). High levels of job satisfaction contribute to increased teaching enthusiasm and professional growth, which, in turn, improve student learning outcomes and overall school performance (Don et al., 2021; Liu et al., 2025). Juhji et al. (2023) further highlighted the impact of professional development opportunities on job satisfaction during the pandemic, showing that teachers who perceived their work environment as supportive and felt their contributions were valued reported higher levels of satisfaction.

Although principals' leadership is critical in shaping the overall school climate and influencing teachers' instructional behaviors, their authority in instructional leadership is often constrained by factors such as limited educational resources and rigid administrative systems. Amina (2022) found that some principals rely on outdated pedagogical approaches, which hinder their ability to set effective instructional goals and construct a forward-looking school vision aligned with current educational developments. In underdeveloped areas, these challenges are exacerbated by resource shortages and policy implementation gaps, resulting in particularly low levels of teacher job satisfaction (Wahab et al., 2020; Wang et al., 2022). Teacher satisfaction is influenced by various factors, including compensation, work environment, interpersonal relationships, and opportunities for professional advancement (Zebon et al., 2025). However, inequitable pay, limited promotion prospects, and excessive workloads have been shown to undermine teachers' sense of professional identity and overall satisfaction (Xiao, 2021; Yu & Liu, 2020).

The development of positive school climates in China—particularly in the northwest—remains limited. Nguyen et al. (2021) highlighted the stark contrast

between school climates in rural schools and those in more affluent regions, emphasizing the substantial need for improvement. However, research focusing on these dynamics within the Chinese context remains relatively scarce. This lack of attention to the interplay among instructional leadership, school climate, and teacher satisfaction has contributed to the persistence of an administration-heavy leadership model. Liu and Hallinger (2018) observed that principals in underdeveloped regions – especially in China’s central and western areas – often prioritize political tasks and daily management over instructional leadership, leading to insufficient support for teacher professional development. These findings underscore the urgent need for research and interventions aimed at strengthening principal instructional leadership capabilities, particularly in resource-constrained and administratively burdened environments.

Therefore, the feasibility of this research is well established. This study is grounded in Path Goal Theory and Organizational Culture Theory, which together offer a strong perspective for understanding how principal instructional leadership shapes school organizational climate and influences teacher job satisfaction.

Path Goal Theory (House, 1971) suggests that leaders enhance employee motivation and performance by clarifying goals, reducing obstacles, and offering appropriate support. In schools, principals achieve this through instructional leadership behaviors that guide, support, and empower teachers (Dou et al., 2017). Specifically, defining the school mission and managing instructional programs reflect directive leadership, helping reduce uncertainty and provide structure (Kurnia et al., 2021; Zhan et al., 2023). Developing a positive school climate aligns with supportive leadership, promoting trust and motivation (Dutta & Sahney, 2022). Seeking instructional support represents participative and supportive leadership, enabling access to internal and external resources that empower staff (Nguyen et al., 2023). These leadership actions create a school environment marked by direction, clarity, and support – conditions conducive to improved job satisfaction.

Organizational Culture Theory (Schein, 2010) complements this by explaining how shared values and norms shape teacher behavior and attitudes. School climate dimensions reflect these cultural traits. Supportive and collegial behaviors indicate a culture of trust and collaboration that enhances morale (Heinla & Kuurme, 2024). Committed behavior represents shared dedication to school goals, strengthening professional identity (Noori et al., 2024). Directive behavior aligns with hierarchical norms prevalent in Chinese schools, offering structure but requiring balance with autonomy (Ito et al., 2024). In contrast, restrictive and disengaged behaviors signal bureaucratic rigidity or separation, which may weaken satisfaction if not comforted by stronger positive climates (Madhakomala & Hanafi, 2021). These theories clarify how principals influence school climate and, through it, teacher job satisfaction. The framework supports the idea that targeted instructional leadership practices can enhance school culture, promote teacher engagement, and improve overall educational quality – particularly in the underdeveloped regions of northwest China.

This study examines the relationships among principal instructional leadership, school organizational climate, and teacher job satisfaction in junior high schools. As illustrated in Figure 1, the conceptual framework explores how principal instructional leadership relates to both school organizational climate and teacher job satisfaction, as well as how school organizational climate influences teacher job satisfaction. The analysis considers both the overall constructs and their key dimensions to understand their interconnections within the school context.

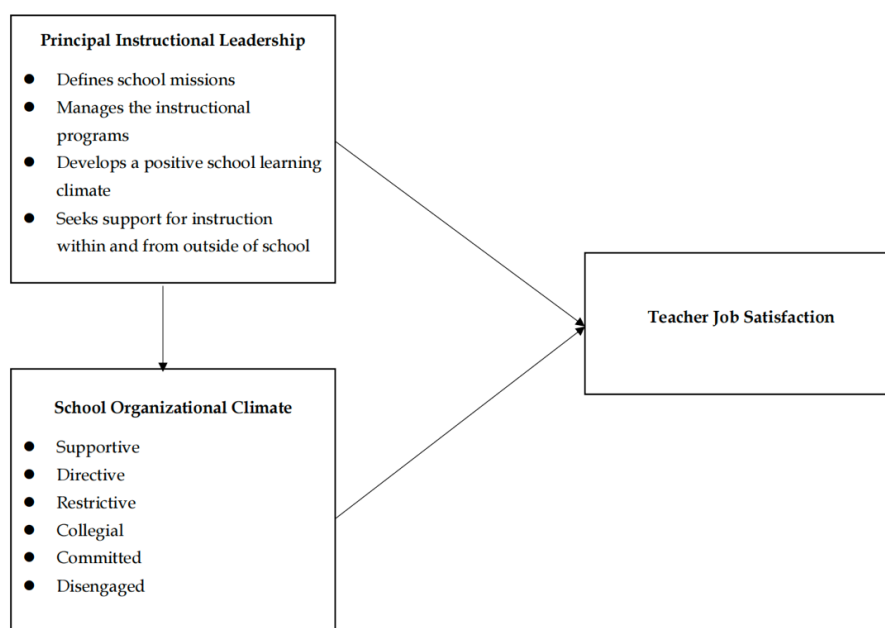


Figure 1: Conceptual Framework

Based on this framework, the study is guided by the following research questions:

1. Is there a relationship between principal instructional leadership and school organizational climate in junior high schools in China?
2. Is there a relationship between principal instructional leadership and teacher job satisfaction in junior high schools in China?
3. Is there a relationship between school organizational climate and teacher job satisfaction in junior high schools in China?
4. Which dimension of principal instructional leadership affect school organizational climate in junior high schools in China?
5. Which dimension of principal instructional leadership affect teacher job satisfaction in junior high schools in China?
6. Which dimension of school organizational climate affect teacher job satisfaction in junior high schools in China?

2. Methodology

2.1 Research Design

This study employs a quantitative research design to investigate the relationships between principal instructional leadership, school organizational climate, and teacher job satisfaction in junior high schools. A quantitative approach is most appropriate, as it allows for the measurement of leadership behaviors, climate indicators, and satisfaction metrics, facilitates statistical analysis of relationships among constructs, and supports the generalizability of findings across a broader population.

A structural equation modeling (SEM) approach using SmartPLS was applied to comprehensively explore the relationships among the variables. This method is suitable due to its ability to model complex relationships among multiple latent variables and to assess both direct and indirect effects within the proposed conceptual framework.

This research focuses on specific dimensions of principal instructional leadership, including defining school missions, managing instructional programs, developing a positive school learning climate, and seeking support for instruction within and from outside the school. These dimensions were hypothesized to have a significant impact on the various aspects of the school organizational climate, including supportive, directive, restrictive, collegial, committed, and disengaged behaviors. Furthermore, the study examines how different dimensions of school organizational climate influence teacher job satisfaction.

2.2 Research Sample

The accessible population for this study comprised 5,611 teachers from 63 junior high schools across five districts in Ningxia, a region in northwest China. The sample included both urban and rural areas, ensuring representativeness. Using Cochran's formula for sample size determination, an ideal sample size of 400 teachers was calculated to ensure adequate statistical power. To minimize selection bias and enhance representativeness, respondents were selected through a systematic random sampling method, facilitated by a random number generator. This approach enabled the selection of participants at regular intervals from a comprehensive list of eligible teachers. Additionally, reference to Krejcie and Morgan's (1970) sample size table confirmed that a minimum sample size of 366 would be statistically sufficient for the given population size, thereby supporting the adequacy of the chosen sample. The use of systematic random sampling was justified by its ability to provide a more structured and evenly distributed representation of the target population, critical for the generalizability and validity of the study's findings.

With the cooperation of school principals and supervisors, the questionnaires were distributed to the randomly selected teachers within a one-week period. A total of 366 teachers completed the questionnaires with informed consent, resulting in a response rate of 91.5%. This high response rate enhanced the reliability and representativeness of the collected data. According to Creswell

(2012), surveys in the field of education typically yield a response rate of at least 50%; therefore, the sample size in this study is considered both representative and appropriate for quantitative research.

According to Table 1, the sex distribution of sample shows that females account for 62.57%, while males account for 37.43%. Regarding educational attainment, the majority of teachers hold undergraduate or master's degrees, representing 97.54% of the total. In terms of age, most teachers fall within the 25 to 45 age range, totaling 291 individuals and accounting for 79.51% of the sample. The distribution of teaching experience is relatively balanced: teachers with 0–5 years of experience represent 29.51%, those with 6–10 years account for 20.49%, 11–15 years make up 18.85%, and those with more than 16 years comprise 31.15%.

Table 1: Demographic information of respondents

Characteristic	Measure	Teacher sample (N = 366)	
		Frequency	%
Sex	Male	137	37.43
	Female	229	62.57
Qualification	Bachelor	211	57.65
	Master	146	39.89
	PhD	9	2.46
Age	25-35	149	40.71
	36-45	142	38.80
	46-55	75	20.49
Teaching Experience	0-5	108	29.51
	6-10	75	20.49
	11-15	69	18.85
	16 and above	114	31.15

2.3 Research Instruments and its validity

This study employed a questionnaire for data collection, adapted from established and validated instruments. Principal instructional leadership was measured using the Principal Instructional Leadership (PIL) scale developed by Wei et al. (2018), which includes four dimensions: defining the school mission (PIL1), managing instructional programs (PIL2), developing a positive school learning climate (PIL3), and seeking instructional support within and outside the school (PIL4). The School Organizational Climate (SOC) scale, developed by Hoy et al. (1996), was used to assess school climate across six dimensions: supportive (SOC1), directive (SOC2), restrictive (SOC3), collegial (SOC4), committed (SOC5), and disengaged (SOC6). Teacher job satisfaction was measured using the Teacher Job Satisfaction (TJS) questionnaire developed by Lester (1987), which consists of nine dimensions: supervision, colleagues working conditions, pay, responsibility, work itself, advancement, security, and recognition.

Before the formal study, the questionnaire was reviewed by three experts in the field of educational management to ensure content validity. Following their feedback, the questionnaire was translated into Chinese and reviewed by two Chinese junior high school teachers. Some expressions and wordings were

adjusted to align with respondents' educational backgrounds and cultural context. After finalizing the instrument, an online link to the questionnaire was distributed to each respondent together with instructions on how to complete it.

According to the results in Table 2, the construct reliability test shows that the Cronbach's alpha values for PIL (Principal Instructional Leadership), SOC (School Organizational Climate), and TJS (Teacher Job Satisfaction) are all above 0.70, indicating acceptable construct reliability (Ghozali, 2014). Generally, when both composite reliability and Cronbach's alpha exceed 0.70, the construct is considered reliable. Additionally, if the average variance extracted (AVE) exceeds 0.50, the measure demonstrates adequate convergent validity (Hair et al., 2011). As shown in Table 2, the AVE values for all variables are above 0.50, further confirming that PIL, SOC, and TJS possess strong reliability and validity, with no evident measurement issues.

Table 2: Construct Reliability Test Result

	Cronbach's Alpha	rho_a	Composite Reliability	AVE
Principal Instructional Leadership (PIL)	0.748	0.765	0.840	0.568
School Organizational Climate (SOC)	0.816	0.820	0.867	0.520
Teacher Job Satisfaction (TJS)	0.886	0.888	0.908	0.523

AVE: average variance extracted

The purpose of discriminant validity is to ensure that each latent variable is conceptually distinct from the others. According to Ghozali (2014), when the square root of the AVE for each latent variable (values on the diagonal) is greater than the correlation coefficients between that variable and the other latent variables (values below the diagonal), the model is considered to have good discriminant validity. The results of the discriminant validity test using the Fornell-Larcker criterion (i.e., the square root of AVE) are presented below.

According to the results of the discriminant validity test in Table 3, the square root of the AVE for all latent variables is higher than the correlations between them. This indicates that the model meets the criteria for discriminant validity, confirming the conceptual independence of the latent variables. Specifically, the three latent variables in the model, PIL (Principal Instructional Leadership), SOC (School Organizational Climate), and TJS (Teacher Job Satisfaction), all demonstrated acceptable discriminant validity. The square root of the AVE for each latent variable exceeds its correlations with the other latent variables: the AVE square root for PIL is 0.754, which is greater than its correlations with SOC (0.423) and TJS (0.432); the AVE square root for SOC is 0.721, which is higher than its correlations with PIL (0.423) and TJS (0.496); and the AVE square root for TJS is 0.723, which exceeds its correlations with PIL (0.432) and SOC (0.496).

Table 3: Discriminant Validity

	PIL	SOC	TJS
PIL	0.754		
SOC	0.423	0.721	
TJS	0.432	0.496	0.723

2.4 Data Collection Process

Data were collected through a structured online questionnaire administered to secondary school teachers in Ningxia, a province in northwest China characterized by relatively underdeveloped socio-economic conditions. Previous research indicates that the levels of principals' instructional leadership and teacher job satisfaction in this region remain suboptimal (Q. Wang, 2020; Yang, 2022). Furthermore, a review of the literature revealed a significant gap in studies exploring the interrelationships among instructional leadership, school organizational climate, and teacher job satisfaction in this context.

2.5 Data Analysis

The data analysis for this study follows a structured approach, using partial least squares structural equation modeling (PLS-SEM) through SmartPLS. This method was selected for its capacity to handle complex models and relatively small sample sizes, which is particularly appropriate given the exploratory nature of the study. Moreover, PLS-SEM is especially advantageous for examining latent constructs, as it allows for the simultaneous assessment of measurement models (to evaluate the reliability and validity of constructs) and structural models (to analyze the relationships between constructs).

3. Results

Table 4 shows the interactions among the three variables. To address the first research question: Is there a relationship between principal instructional leadership and school organizational climate in junior high schools in China? The findings reveal a moderate and statistically significant positive relationship between principal instructional leadership and school organizational climate, with a path coefficient of 0.424. This relationship indicates that principal instructional leadership explains 18% of the variance in school organizational climate ($R^2 = 0.180$). This suggests that principals' behaviors, such as defining the school mission and fostering a positive learning climate, play a substantial role in enhancing the overall organizational climate of the school.

Table 4: Partial least squares-structural equation results on the relationship between principal instructional leadership, school organizational climate and teacher job satisfaction

	Path Coefficients	P values	R-square
PIL → SOC	0.424	0.000	0.180
PIL → TJS	0.439	0.000	0.192
SOC → TJS	0.497	0.000	0.247

Regarding the second research question: Is there a relationship between principal instructional leadership and teachers' job satisfaction in junior high

schools in China? The results show a moderate positive effect of principal instructional leadership on teacher job satisfaction, with a path coefficient of 0.439. This indicates that improvements in principal instructional leadership are associated with a moderate increase in teacher job satisfaction, with principal instructional leadership accounting for 19.2% of the variance in teacher job satisfaction ($R^2 = 0.192$). These findings underscore the importance of effective instructional leadership in shaping teacher morale and satisfaction.

For the third research question: Is there a relationship between school organizational climate and teachers' job satisfaction in junior high schools in China? The analysis demonstrates a strong and statistically significant positive relationship between school organizational climate and teacher job satisfaction. The path coefficient of 0.497 indicates that a favorable school organizational climate substantially improves teacher job satisfaction, with school organizational climate explaining 24.7% of the variance in teacher job satisfaction ($R^2 = 0.247$). This highlights the critical role of a supportive, collegial, and well-structured school environment in fostering teacher satisfaction.

The structural model assesses the impact of the principal instructional leadership dimensions on school organizational climate, as shown in Figure 1. Among the four dimensions, managing instructional programs (PIL2) had the greatest impact on school organizational climate, with a path coefficient of 0.201 ($p < .05$), highlighting the importance of effective instructional management in shaping a positive school climate. Defining the school mission (PIL1) also showed a statistically significant positive impact, with a path coefficient of 0.171 ($p < .05$), emphasizing the value of clear goal setting. Seeking instructional support (PIL4) made a moderate contribution, with a path coefficient of 0.108 ($p < .05$), indicating the relevance of both internal and external support in enhancing organizational climate. However, developing a positive school learning climate (PIL3) had a smaller and non-significant impact, with a path coefficient of 0.075 ($p = .091$).

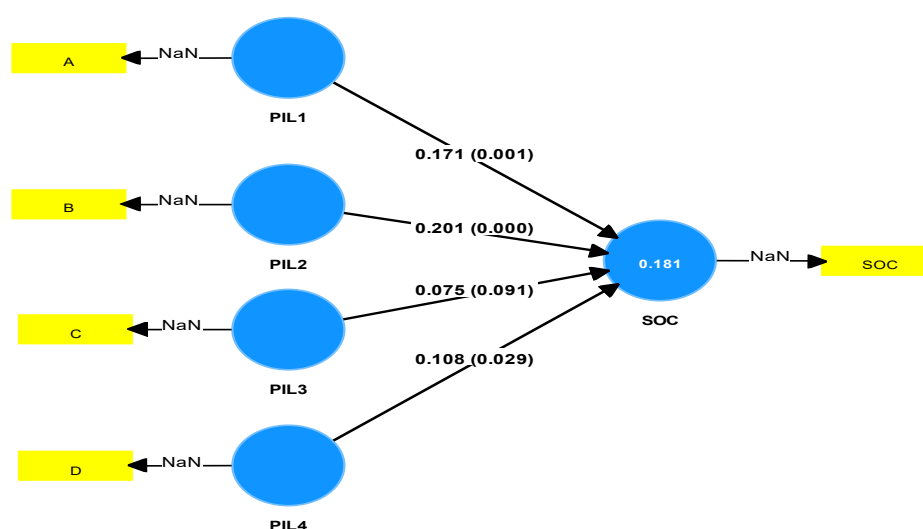


Figure 1: Structural Model of Principal Instructional Leadership and School Organizational Climate

As shown in Figure 2, among the four dimensions, managing the instructional program (PIL2) demonstrated the strongest positive effect on teacher job satisfaction, with a path coefficient of 0.264 ($p < .05$), indicating a statistically significant and substantial contribution. This highlights the key role of effective instructional management in enhancing teacher satisfaction. Defining the school mission (PIL1) and developing a positive school learning climate (PIL3) showed weak positive effects on teacher job satisfaction, with path coefficients of 0.092 ($p = .055$) and 0.099 ($p = .055$), respectively; however, these effects did not reach conventional levels of statistical significance. Seeking instructional support (PIL4) had the smallest and non-significant effect, with a path coefficient of 0.094 ($p = .078$). Although its direct impact is limited in this model, it remains a relevant dimension of leadership and may exert indirect effects through other mediating factors.

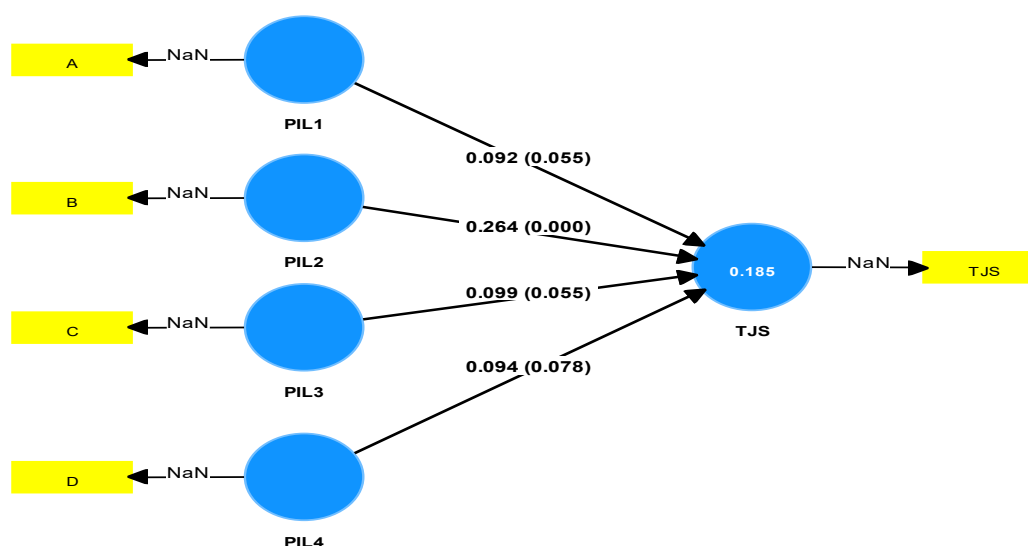


Figure 2: Structural Model of Principal Instructional Leadership and Teacher Job Satisfaction

Figure 3 illustrates the impact of each dimension of school organizational climate on teacher job satisfaction. Path coefficient analysis revealed that the supportive behavior dimension (SOC1) had the strongest and statistically significant positive effect on teacher job satisfaction, with a path coefficient of 0.216 ($p < .05$), highlighting the critical role of a supportive school environment in enhancing teacher satisfaction. Directive behavior (SOC2) also demonstrated a statistically significant positive relationship with teacher job satisfaction, although the effect was weaker, with a path coefficient of 0.122 ($p < .05$), indicating that clear leadership and guidance can improve satisfaction, albeit to a lesser extent than supportive behavior. Collegial behavior (SOC4) showed a moderate positive effect on teacher job satisfaction ($\beta = 0.104$, $p < .05$), emphasizing the importance of collaboration and mutual respect in the school climate. Similarly, committed behavior (SOC5) exhibited a moderate positive

effect ($\beta = 0.107, p < .05$), reflecting the value of collective dedication to shared school goals. In contrast, restrictive behavior (SOC3) had a small and non-significant effect on teacher job satisfaction ($\beta = 0.051, p = .326$), while disengaged behavior (SOC6) showed a non-significant negative relationship ($\beta = -0.078, p = .102$), suggesting that these dimensions may not directly influence teacher satisfaction. These findings underscore the importance of cultivating a supportive, collegial, and committed organizational climate to foster higher levels of teacher job satisfaction.

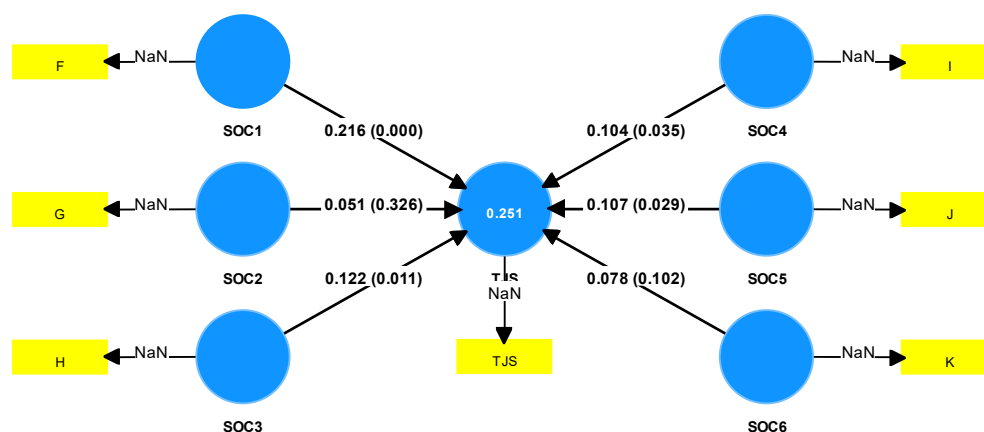


Figure 3: Structural Model of School Organizational Climate and Teacher Job Satisfaction

4. Discussion

The results show that principal instructional leadership plays an important role in shaping the school organizational climate and affects teacher job satisfaction. The findings of this study are consistent with those of Liu et al. (2021), Madhakomala and Hanafi (2021), and Noori et al. (2024). Among the dimensions of principal instructional leadership, managing the instructional programs (PIL2) was consistently the most influential predictor. It had a strong positive impact on both school organizational climate and teacher job satisfaction, highlighting the importance of structured and purposeful leadership in managing instructional programs and creating a stable, focused environment conducive to teacher and organizational well-being. This aligns with the directive leadership component of Path Goal Theory (House, 1971), where leaders reduce ambiguity by structuring tasks, clarifying expectations, and providing explicit guidance, key mechanisms through which principals' management of instructional programs enhances both climate and satisfaction. This finding also supports Hallinger et al.'s (2020) emphasis on instructional leadership as a cornerstone of school improvement.

While defining the school mission (PIL1) had a moderate positive impact on school organizational climate, it showed a weak and non-significant effect on teacher job satisfaction. This suggests that although clear goal setting can foster collective focus, it may not directly improve how teachers feel about their jobs. Path Goal Theory emphasizes that leaders who clarify goals and pathways to achievement (Dare & Saleem, 2022) foster intrinsic motivation, which explains

the role of school mission definition in improving school organizational climate by aligning collective efforts toward a shared vision. However, in hierarchical education systems like China's, top-down goal directives may limit teachers' sense of ownership, thereby reducing their motivational impact. This contrasts with findings from more participative contexts (Licki & Van Der Walt, 2021), where collaborative goal-setting has been shown to enhance satisfaction.

Similarly, seeking instructional support (PIL4) significantly influenced school organizational climate but had the weakest and a non-significant effect on teacher job satisfaction. While access to resources and external collaboration helps build a stronger climate, such efforts may not immediately affect teachers' satisfaction (Tiippana et al., 2024). Teachers may also perceive these efforts as administrative or policy-driven rather than responsive to their immediate needs, which could diminish their impact on personal satisfaction. While Path Goal Theory underscores the importance of support in removing work-related barriers (House, 1971), its short-term motivational value may be limited unless coupled with meaningful engagement and sustained follow-up.

Developing a positive school learning climate (PIL3) showed small and non-significant effects on both school organizational climate and teacher job satisfaction. This may reflect a mismatch between leadership intentions and teacher priorities. In exam-driven, high-pressure contexts, teachers often value practical support, such as manageable workloads or incentives, more than abstract culture-building efforts (Levatino et al., 2024). Additionally, if climate-related initiatives are not well communicated or aligned with teachers' needs, their impact may be limited (Noori et al., 2024). These results suggest the need for more context-sensitive leadership practices that balance cultural vision with practical support. This contrasts with studies like Don et al. (2021), which highlight climate-building as a key factor in satisfaction, though often in different national or institutional contexts. It is also possible that developing a positive climate has indirect effects not captured in this model or operates through longer-term changes that are difficult to measure in a cross-sectional study.

Likewise, this study supports existing research on the critical role that organizational climate plays in improving teacher satisfaction (Noori et al., 2024; Zakariya, 2020). The significant effect of supportive behavior on teacher job satisfaction echoes previous findings by Liu et al. (2021) and Xin and Tahir (2024) who emphasized that a supportive principal could help teachers realize their self-worth while enhancing their satisfaction and enjoyment of the work environment. This aligns with Schein's (2010) organizational culture theory, which posits that shared norm of support and recognition, artifacts of organizational culture, foster psychological safety and a sense of belonging, both key drivers of employee satisfaction. Directive behavior (SOC2) had a weaker but still positive effect on teacher satisfaction, as it provides structure and clarity. Organizational culture theory suggests that directive leadership aligns with hierarchical norms, which are valued in educational systems like China's, where top-down decision-making is common (Liu, 2024). This leadership style

enhances teachers' understanding of expectations. However, its weaker impact compared to supportive behavior underscores the need to balance structure with emotional support.

Collegial behavior (SOC4) and committed behavior (SOC5) also emerged as important predictors of teacher job satisfaction, aligning with the findings of Meredith et al. (2023), who emphasized that emotional commitment, fostered through strong interpersonal relationships and shared resources among colleagues, enhances professional growth and student achievement, thereby increasing job satisfaction. From the perspective of organizational culture theory, such behaviors reflect collaborative, goal-focused school cultures marked by shared values and teamwork, which boost teacher motivation (Don et al., 2021; Noori et al., 2024). In China's education system, where team harmony and long-term interpersonal bonds are highly valued, such cultures foster belonging and purpose. This, in turn, helps sustain teacher motivation and reduce burnout. Schools should focus not only on academic outcomes but also on nurturing strong relationships and shared values.

Restrictive and disengaged behaviors in the school climate had minimal impact on teacher job satisfaction, diverging from previous research (Otrębski, 2022), which indicated that negative climate aspects directly reduce teacher satisfaction. One possible explanation is the buffering effect of strong professional norms, such as collective commitment or peer support, which may help offset the impact of negative climate factors (Kaya et al., 2024). According to organizational culture theory, shared values can mitigate the effects of bureaucratic constraints (Schein, 2010). It is also possible that the negative impacts of these behaviors are indirect, mediated by variables such as stress or burnout, which were not included in this study.

The findings of the study have important implications for China's ongoing education reforms. School improvement efforts should focus on creating supportive, collaborative environments through practical strategies such as peer mentoring, team teaching, and recognizing teachers' contributions. In alignment with national policies such as the Double Reduction reforms and the Ministry of Education's teaching system guidelines, leadership training should prioritize instructional program management and clarifications of school missions, both of which have been shown to influence school climate and teacher satisfaction. Local governments should fund teacher learning communities and involve teachers in decision-making processes. Additionally, they should address regional disparities by establishing partnerships with urban schools, universities, and nonprofit organizations to provide training and resources, especially in under-resourced areas like Northwest China. Principals must balance providing direction with granting teachers autonomy, avoiding overly rigid control while maintaining alignment with national educational goals. Structured support for teacher collaboration, career development, and workload relief remains essential to sustain China's transition toward a more student-centered educational system.

5. Conclusion

This study highlights the critical role of principal instructional leadership and school organizational climate in shaping teacher job satisfaction. By identifying the most influential dimensions of leadership and climate, it provides actionable insights for school leaders and policymakers seeking to create supportive and satisfying environments for teachers. These findings underscore the importance of leadership behaviors that align with organizational goals, foster collaboration, provide support, and ultimately contribute to teacher well-being and student success.

The findings reveal that managing instructional programs is the most significant predictor of both school organizational climate and teacher job satisfaction, underscoring the importance of structured and purposeful leadership. Defining the school mission and seeking instructional support showed moderate impacts on school organizational climate, with limited influence on teacher job satisfaction. Conversely, developing a positive school learning climate demonstrated weak or non-significant effects, suggesting a potential disconnect between leadership strategies and teacher expectations in high-pressure educational settings.

School organizational climate exhibited a robust and statistically significant positive influence on teacher job satisfaction, with supportive and collegial behaviors being particularly effective. This highlights the importance of cultivating an environment characterized by mutual respect, collaboration, and a shared commitment to school goals. In contrast, restrictive and disengaged behaviors were found to have minimal effects, emphasizing the need to reduce such counterproductive elements.

The limitations of this study are that it focuses on the Ningxia region in Northwest China, limiting its generalizability to other regions with different cultural and economic backgrounds. The study did not look at demographic factors. Future studies should include these. The study did not cover all parts of teacher job satisfaction. Future research should look deeper into this. The study only focused on middle school teachers. The findings may not apply to elementary or high school teachers. The study used SmartPLS and PLS-SEM. These methods are good for early-stage and single-time analysis. But they cannot show cause and effect. The study only looked at three variables. It may miss other factors like teacher freedom and policy support. Future studies should include more regions and school levels. They should use long-term methods to find causes. They should add more variables. Using both numbers and detailed interviews would give a better understanding of how leadership, school climate, and teacher satisfaction connect.

6. References

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