



Mediating Role of Instructional Leadership Evaluation in Enhancing Teachers' Instructional Leadership in Qingdao Secondary Schools

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ABSTRACT: Amid growing expectations for teachers to lead instructional improvement, the role of instructional leadership evaluation remains underexplored in the Chinese secondary school context. This study aims to examine whether instructional leadership evaluation mediates the effects of instructional leadership cognition and learning goal planning on teachers' instructional leadership practices. A total of 495 teachers from Qingdao, China, were selected via stratified random sampling and completed a validated questionnaire. Data were analyzed using SPSS and structural equation modeling (AMOS). Results showed that both cognition ($\beta = 0.35, p < .001$) and goal planning ($\beta = 0.29, p < .001$) significantly predicted leadership practices, and instructional leadership evaluation partially mediated both relationships. The final model demonstrated good fit ($\chi^2/df = 2.15, CFI = 0.93, TLI = 0.91, RMSEA = 0.048$). These findings refine the instructional leadership framework and offer practical implications for teacher development and leadership evaluation policies in urban Chinese schools.

KEYWORDS: instructional leadership, cognition, learning goal planning, evaluation, mediation, secondary schools, Qingdao

I. INTRODUCTION

In the era of globalization and rapid technological advancement, the role of teachers has evolved far beyond the traditional boundaries of content delivery and classroom management. Teachers are now expected to act as instructional leaders, shaping not only their students' learning but also influencing their peers and contributing to the broader school improvement agenda. In China, particularly in urban centers like Qingdao, educational reforms have prioritized the cultivation of teachers' instructional leadership as a critical

strategy for achieving high-quality, equitable, and innovative education.

Qingdao, a major coastal city in Shandong Province, is recognized for its significant investment in educational modernization and its commitment to aligning with national strategies such as the "Double Reduction" policy and the "Quality Education" initiative. However, despite these policy-level advancements, many schools continue to struggle with the practical implementation of instructional leadership at the teacher level. While principals and senior administrators have long been acknowledged as key instructional leaders, there is growing recognition that teachers themselves must possess the awareness, skills, and support systems necessary to lead instructional improvement from within the classroom.

Instructional leadership refers to the ability of educators to guide teaching and learning processes in ways that improve student outcomes and promote professional growth among colleagues (Hallinger, 2005; Leithwood & Jantzi, 2008). Unlike administrative leadership, which focuses on management tasks, instructional leadership emphasizes curriculum planning, pedagogical guidance, learning goal clarity, and continuous assessment and feedback. When teachers embody instructional leadership, they help bridge the gap between policy expectations and classroom realities, acting as change agents who foster collaborative cultures and drive school development.

However, existing studies suggest that in the Chinese context, the concept of teacher instructional leadership remains underdeveloped and inconsistently implemented (Wu, 2019; Zhang & Liu, 2021). Cultural traditions, hierarchical school structures, and exam-oriented pressures often limit teachers' autonomy and motivation to assume leadership roles beyond their classroom teaching. Many teachers equate leadership with administrative authority rather than with daily pedagogical



practices that can positively impact student achievement and peer development. This disjunction between policy discourse and classroom implementation warrants further empirical investigation into the factors that can enable or constrain teachers' instructional leadership.

One critical yet underexplored factor is the role of instructional leadership evaluation. Research in Western contexts has demonstrated that meaningful evaluation systems, when designed to be formative and developmental, can clarify teachers' expectations, provide constructive feedback, and motivate professional growth (Darling-Hammond et al., 2012). In China, the Ministry of Education (MOE, 2020) has highlighted teacher evaluation as a pillar of the national teacher quality framework. Nevertheless, implementation remains uneven. Some schools employ comprehensive evaluation systems that integrate self-assessment, peer feedback, and student learning data, while others continue to rely on checklists and administrative appraisals that focus more on compliance than on developmental support (Sun et al., 2021).

Theoretically, Path-Goal Theory (House, 1971) provides a relevant framework for understanding how evaluation mechanisms can bridge the gap between teachers' cognition about instructional leadership and their actual leadership behaviors. According to this theory, leaders can enhance subordinate performance by clarifying goals, removing obstacles, and providing the necessary feedback and support to achieve those goals. Applied to the school context, instructional leadership evaluation can be seen as a "path-clarifying" tool that aligns what teachers know and plan with what they do, thereby fostering greater alignment between intended and enacted instructional leadership.

Previous research has separately examined the importance of teachers' instructional leadership cognition—meaning their awareness, beliefs, and understanding of their leadership role—and their ability to plan meaningful learning goals that guide student learning (Hattie & Timperley, 2018; Wiggins & McTighe, 2011). However, relatively few empirical studies have investigated how evaluation functions as a mediating mechanism that connects these cognitive and planning dimensions to teachers' actual instructional leadership practices, especially in the unique socio-cultural context of Chinese secondary schools.

Addressing this gap is vital for both theory and practice. For policymakers and school leaders in Qingdao and similar urban regions, understanding the pathways that strengthen teachers' instructional leadership can inform the design of more effective professional development programs, evaluation systems, and school improvement strategies. For teachers, clarifying how their cognition and planning interact with feedback mechanisms may empower them to take greater ownership of their leadership roles, ultimately benefiting students and school communities.

Therefore, the purpose of this study is to examine the mediating role of instructional leadership evaluation in the relationship between instructional leadership cognition, learning goal planning, and teachers' instructional leadership practices in secondary schools in Qingdao. Specifically, the study addresses the following research questions:

1. What is the relationship between teachers' instructional leadership cognition and their instructional leadership practices?
2. How does learning goal planning relate to teachers' instructional leadership practices?
3. Does instructional leadership evaluation mediate the relationship between instructional leadership cognition and teachers' instructional leadership?
4. Does instructional leadership evaluation mediate the relationship between learning goal planning and teachers' instructional leadership?

To answer these questions, the study adopts a quantitative research design using stratified random sampling and structural equation modeling (SEM) to test a hypothesized model based on Path-Goal Theory. The findings are expected to contribute to the theoretical understanding of instructional leadership in the Chinese context and provide practical recommendations for enhancing evaluation systems and teacher professional development.

In conclusion, the introduction frames the urgent need to shift the focus from policy discourse to practical mechanisms that empower teachers as instructional leaders. By investigating how evaluation processes can strengthen the pathways between what teachers know, how they plan, and what they ultimately do in classrooms, this study aims to bridge the persistent gap between intended reform goals and everyday instructional realities in Qingdao's secondary schools.



II. LITERATURE REVIEW

This review synthesises international and Chinese scholarship on teacher instructional leadership, with a deliberate focus on how evaluation links teachers' cognition and goal-setting to leadership practice. Adopting an integrated thematic structure avoids the fragmentation and repetition common in earlier drafts.

2.1 Evolution and Conceptualisations of Instructional Leadership

Early studies framed instructional leadership almost exclusively as a principal function (Hallinger,2005). Subsequent empirical work, however, positions teachers as frontline leaders who directly shape instructional quality and student outcomes (Leithwood & Jantzi,2008).

International evidence. In Anglo-American contexts, distributed-leadership models show that when teachers assume leadership roles—mentoring peers, lesson study, data-driven decision-making—schools register sustained achievement gains (Day et al.,2016; Bush,2014).

Chinese evidence. Chinese schools have begun to embrace teacher leadership, yet hierarchical cultures and exam pressure mean leadership is still widely perceived as an administrative prerogative (Zheng et al.,2017).

Research gap1 : Few Chinese studies unpack how teachers re-conceptualise leadership within these constraints, limiting context-sensitive theory-building.

2.2 Antecedents of Teacher Instructional Leadership

2.2.1 Cognitive Orientation

Teachers' beliefs about their leadership role—instructional leadership cognition—shape whether they enact leadership behaviours (Robinson et al.,2008). Meta-analyses in the West link strong cognition to instructional coherence and innovation (Hattie & Timperley,2018). In China, cognition remains under-developed; teachers prioritise content delivery over broader leadership functions (Wu,2019).

Research gap2 : Empirical work rarely tests interventions that elevate Chinese teachers' leadership cognition within rigid administrative structures.

2.2.2 Learning Goal Planning

SMART goal-setting anchors effective instruction and signals leadership to peers (Wiggins & McTighe,2011; Marzano,2003). Internationally, collaborative goal planning fosters professional learning communities (DuFour & Eaker,1998). Chinese teachers, navigating

exam-driven curricula, struggle to reconcile ambitious reforms with traditional assessments (Zhang et al.,2020).

Research gap3 : The interplay between goal-planning proficiency and leadership enactment under exam culture remains largely untested.

2.3 Evaluation as a Developmental Lever

Robust instructional leadership evaluation—combining formative and summative measures—provides feedback that catalyses professional growth (Smith & Jones,2021). Western systems employ multi-source data (observations, student results, peer reviews) to support continuous improvement (Darling-Hammond et al.,2012).

Chinese trajectory. National policy highlights teacher appraisal (MOE,2020), but practice varies: some schools adopt developmental models; others maintain compliance-based checklists (Sun et al.,2022). When tied to rewards or sanctions without support, evaluation can backfire (Li & Zhou,2021).

Research gap4 : There is scant evidence on development-focused evaluation frameworks in urban Chinese secondary schools such as Qingdao.

2.4 Evaluation as a Mediating Mechanism

Theoretically, evaluation can mediate the cognition-practice link by clarifying expectations and reinforcing desired behaviours (Baron & Kenny,1986). International research links feedback loops to improved teacher motivation and classroom outcomes (Leithwood & Jantzi,2008). Chinese studies are emergent: Chen & Li (2019) show evaluation narrows the knowing-doing gap, yet large-scale tests of mediation remain rare.

Research gap5 : No Qingdao-based study has statistically examined evaluation as a mediator between cognition, goal planning, and instructional leadership.

2.5 Theoretical Foundation: Path-Goal Theory

Path-Goal Theory (House,1971) posits leaders motivate followers by clarifying paths, removing obstacles, and offering feedback. Applied here, administrators can enable teacher leadership by embedding evaluation processes that align cognition and goal planning with practice. This lens accommodates both the collectivist ethos of Chinese schools and the agency of individual teachers.

2.6 Integrated Research Gap and Hypotheses

Synthesising the above, two broad gaps persist: context-specific mechanisms linking cognition and planning to leadership, and the mediating role of evaluation in Chinese secondary



schools. Addressing these gaps, the study advances four hypotheses:

H1. Instructional leadership cognition is positively related to teachers' instructional leadership.

H2. Learning goal planning is positively related to teachers' instructional leadership.

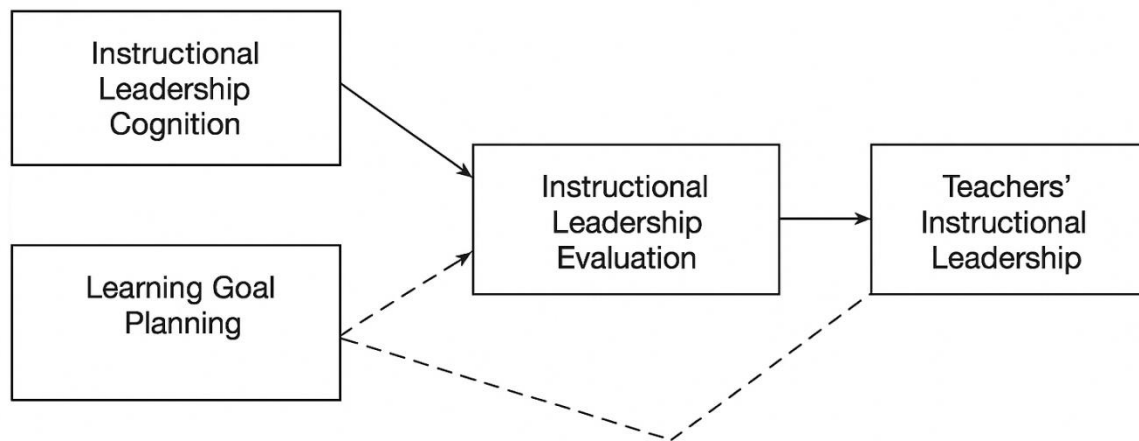
H3. Instructional leadership evaluation mediates the relationship between instructional

leadership cognition and teachers' instructional leadership.

H4. Instructional leadership evaluation mediates the relationship between learning goal planning and teachers' instructional leadership.

A visual depiction of the hypothesised model is presented in Figure 1.

Figure 1. Hypothesised Conceptual Model of the Mediating Role of Instructional Leadership Evaluation



Note. Solid arrows represent direct paths; dashed arrows (not shown in this version but implied) denote indirect effects via evaluation.

Figure 1 illustrates the hypothesised conceptual model that examines how instructional leadership cognition and learning goal planning influence teachers' instructional leadership, both directly and indirectly through the mediating role of instructional leadership evaluation.

Specifically, Direct paths: Instructional Leadership Cognition → Teachers' Instructional Leadership, Learning Goal Planning → Teachers' Instructional Leadership. Mediated paths via Instructional Leadership Evaluation:

Instructional Leadership Cognition → Instructional Leadership Evaluation → Teachers' Instructional Leadership, Learning Goal Planning → Instructional Leadership Evaluation → Teachers' Instructional Leadership.

This model is theoretically grounded in Path-Goal Theory (House, 1971), which suggests that leadership behaviors such as feedback and goal clarification help align intentions (cognition/planning) with actual performance. The

use of both solid arrows (for direct effects) and dashed arrows (for mediated paths) visually distinguishes the types of hypothesised relationships among the constructs.

2.7 Summary and Conceptual Model Justification

This review underscores the critical role of instructional leadership evaluation in translating cognition and planning into leadership behaviours. Grounded in Path-Goal Theory, the hypothesised model proposes that evaluation clarifies expectations, aligns goals with action, and provides timely feedback. These functions are particularly vital in hierarchical educational systems like China's, where evaluation often substitutes for informal peer coaching or shared leadership. As shown in Figure 1, the model reflects this logic through two mediated pathways—cognition → evaluation → leadership, and goal planning → evaluation → leadership—alongside two direct paths.



Table 1. Key Differences in Instructional Leadership Research between Western and Chinese Contexts

Dimension	Western Contexts	Chinese Contexts
Leadership Focus	Distributed leadership among principals and teachers	Leadership perceived mainly as administrative or positional
Teacher Cognition	Encouraged through reflective practices and professional autonomy	Often underdeveloped due to hierarchical norms and exam-focused culture
Goal Planning	Emphasises SMART goals and student-centered learning	Constrained by rigid curriculum and exam requirements
Evaluation Practices	Formative, multi-source feedback systems focused on growth	Often compliance-driven, with limited developmental value
Role of Evaluation	Clear mediating role in improving teacher leadership	Underutilised; rarely conceptualised as a leadership-enhancing mechanism.

III. METHODOLOGY

3.1 Research Design

Guided by the integrated framework outlined in Figure 1, this study employed a quantitative research design using a cross-sectional survey method to examine the mediating role of instructional leadership evaluation in the relationship between instructional leadership cognition, learning goal planning, and teachers' instructional leadership. The rationale for adopting a quantitative approach lies in its suitability for testing hypothesized relationships among variables using statistical analyses. This design is consistent with previous research on instructional leadership, which often employs survey-based methodologies to capture teachers' perceptions and behaviors (Hallinger & Murphy, 2013).

3.2 Population and Sampling

The target population consisted of secondary school teachers working in public schools in Qingdao, Shandong Province, China. According to the Qingdao Municipal Education Bureau, there are approximately 14,000 secondary school teachers across various districts. To ensure representativeness and reduce sampling bias, stratified random sampling was used. Schools were first stratified by location (urban, suburban, and rural) and then by school size to account for possible contextual differences.

A total of 600 questionnaires were distributed, and 495 valid responses were returned, yielding a response rate of 82.5%. This sample size exceeds the minimum requirement for structural equation modeling (SEM), which generally recommends a minimum of 200 cases (Hair et al., 2018).

3.3 Instrument Development

A structured questionnaire was developed based on established instruments and relevant literature. The questionnaire consisted of five sections:

1. Demographic Information: Gender, years of teaching experience, educational background, subject, professional title.

2. Instructional Leadership Cognition: Items adapted from previous studies (e.g., Wu, 2019) measured teachers' awareness and understanding of instructional leadership roles.

3. Learning Goal Planning: Items focused on teachers' practices of setting clear, measurable, and achievable learning objectives, adapted from Wiggins and McTighe's (2011) framework.

4. Instructional Leadership Evaluation: This section assessed the extent to which teachers receive meaningful feedback and engage in reflective evaluation practices.

5. Teachers' Instructional Leadership: Items measured self-reported leadership practices, such as mentoring peers, leading lesson study groups, and innovating classroom instruction.

All scale items used a five-point Likert scale ranging from 1 (Strongly Disagree) to 5 (Strongly Agree). The questionnaire was first drafted in English, then translated into Chinese using the back-translation method to ensure semantic equivalence.

3.4 Validity and Reliability

To establish content validity, the draft questionnaire was reviewed by three experts in instructional leadership and educational measurement. A pilot test was conducted with 50 teachers from schools not included in the final



sample. Feedback from the pilot led to minor revisions to improve clarity and readability.

Reliability was assessed using Cronbach’s alpha coefficients for each construct. All constructs achieved alpha values above 0.80, indicating high internal consistency (Nunnally & Bernstein, 1994). Confirmatory factor analysis (CFA) was subsequently conducted during data analysis to assess construct validity. Confirmatory factor analysis (CFA) was conducted using AMOS 26.0 to assess construct validity. All

standardized factor loadings (λ) were greater than 0.60 and statistically significant ($p < .001$), indicating acceptable indicator reliability. Composite reliability (CR) values for all constructs exceeded the 0.70 threshold, and average variance extracted (AVE) values were above 0.50, confirming convergent validity. Internal consistency was supported by Cronbach’s alpha values ranging from 0.81 to 0.88. The detailed results are presented in Table2 .

Table 2. Measurement Model Results

Construct	Item	λ	CR	AVE	Cronbach’s α
Instructional Leadership Cognition	CO1	0.76	0.85	0.58	0.84
	CO2	0.81			
	CO3	0.74			
Learning Goal Planning	PL1	0.72	0.83	0.56	0.82
	PL2	0.78			
	PL3	0.75			
Instructional Leadership Evaluation	EV1	0.80	0.88	0.61	0.86
	EV2	0.79			
	EV3	0.76			
Teachers’ Instructional Leadership	TL1	0.83	0.89	0.64	0.88
	TL2	0.82			
	TL3	0.77			

3.5 Data Collection Procedures

Permission for data collection was obtained from the relevant district education authorities and school principals. Participation was voluntary, and respondents were assured of anonymity and confidentiality. Surveys were administered both in paper format and online, depending on each school’s preference.

Respondents were given two weeks to complete the questionnaire. Research assistants were trained to address any queries from teachers to minimize response errors.

3.6 Data Analysis

Data were coded and analyzed using IBM SPSS Statistics 26.0 and AMOS 26.0. Descriptive statistics were used to summarize demographic information and variable distributions. Pearson correlation coefficients were computed to examine bivariate relationships among variables.

IV. FINDINGS AND DISCUSSIN

A total of 495 valid responses were analyzed. Demographic data revealed a balanced representation across gender, school level, and teaching experience. Approximately 52% of respondents were female, and the majority (75%)

Structural equation modeling (SEM) was employed to test the hypothesized model, including the mediating role of instructional leadership evaluation. Model fit was assessed using indices such as the Chi-square statistic (χ^2), the Comparative Fit Index (CFI), the Tucker-Lewis Index (TLI), and the Root Mean Square Error of Approximation (RMSEA). Mediation effects were tested using the bootstrapping method with 5,000 resamples, as recommended by Preacher and Hayes (2008).

3.7 Ethical Considerations

Ethical approval for the study was granted by the Institutional Research Ethics Committee of Kuala Lumpur University of Science and Technology. Participants were informed of their rights, including the right to withdraw at any point without any negative consequences. Data were stored securely and used solely for academic purposes.

had more than five years of teaching experience. This demographic profile reflects the diversity of secondary school teachers in Qingdao and provides a robust foundation for analyzing the hypothesized relationships.



Table 3. Respondents' Demographic Profile(N = 495)

Profile	Category	Frequency	Percentage (%)
Gender	Male	238	48.1%
	Female	259	51.9%
Years of teaching experience	0–5 years	120	24.2%
	5–10 years	165	33.3%
	10–15 years	110	22.2%
	More than 15 years	100	20.2%
Educational Qualification	Bachelor's degree	310	62.6%
	Master's degree or above	185	37.4%

The mean scores for each construct were as follows: instructional leadership cognition (M = 4.12, SD = 0.53), learning goal planning (M = 4.05, SD = 0.50), instructional leadership evaluation (M = 3.95, SD = 0.58), and teachers' instructional leadership (M =

4.10, SD = 0.55). The relatively high mean scores indicate that respondents generally perceive themselves as having strong instructional leadership cognition and practices, while also recognizing the importance of evaluation and goal planning.

Table 4. Descriptive Statistics of Main Variables

Variable	Mean	SD	Minimum	Maximum
Instructional Leadership Cognition	4.12	0.53	2.50	5.00
Learning Goal Planning	4.05	0.50	2.75	5.00
Instructional Leadership Evaluation	3.95	0.58	2.20	5.00
Teachers' Instructional Leadership	4.10	0.55	2.60	5.00

4.2 Correlation Analysis
 Pearson correlation coefficients demonstrated significant positive relationships among all variables. Instructional leadership cognition was strongly correlated with teachers' instructional leadership (r = 0.62, p < 0.001) and

with learning goal planning (r = 0.58, p < 0.001). Instructional leadership evaluation also showed moderate to strong correlations with cognition (r = 0.55, p < 0.001), goal planning (r = 0.53, p < 0.001), and instructional leadership practices (r = 0.59, p < 0.001).



Table 5. Correlation Matrix

Variable	1	2	3	4
Instructional Leadership Cognition	1			
Learning Goal Planning	0.58**	1		
Instructional Leadership Evaluation	0.55**	0.53**	1	
Teachers' Instructional Leadership	0.62**	0.59**	0.59**	1

These results suggest that teachers who have greater awareness and understanding of instructional leadership tend to plan learning goals more effectively and engage more actively in leadership behaviors. The significant correlations also support the hypothesized role of instructional leadership evaluation as an important connecting mechanism.

4.3 Structural Equation Modeling (SEM)

The hypothesised structural model was tested using AMOS 26.0. The model demonstrated an acceptable fit to the data: $\chi^2/df = 2.15$, CFI = 0.93, TLI = 0.91, RMSEA = 0.048, and SRMR = 0.041. All path coefficients were statistically significant ($p < .001$).

Direct effects indicated that instructional leadership cognition significantly predicted teachers' instructional leadership ($\beta = 0.35$, $p < .001$), and learning goal planning also showed a significant positive effect ($\beta = 0.29$, $p < .001$).

Mediation analysis was conducted using bootstrapping with 5,000 resamples. The indirect effect of instructional leadership cognition on leadership through evaluation was significant ($\beta = 0.18$, 95% CI [0.11, 0.25]), confirming partial mediation. Similarly, the indirect effect of learning goal planning via evaluation was also significant ($\beta = 0.15$, 95% CI [0.08, 0.22]), supporting the mediating role of instructional leadership evaluation in both hypothesised pathways.

Table 6. SEM Standardised Path Coefficients (N = 495, 5 000 bootstrap samples)

Pathway	Standardized β	p-value	95% CI (bootstrap)
Instructional Leadership Cognition → Instructional Leadership	0.35	<0.001	—
Learning Goal Planning → Instructional Leadership	0.29	<0.001	—
Instructional Leadership Cognition → Evaluation → Instructional Leadership	0.18 (indirect)	<0.001	[0.11, 0.25]
Learning Goal Planning → Evaluation → Instructional Leadership	0.15 (indirect)	<0.001	[0.08, 0.22]

H1: Instructional leadership cognition had a significant direct effect on teachers' instructional leadership ($\beta = 0.35$, $p < 0.001$).

H2: Learning goal planning had a significant direct effect on teachers' instructional leadership ($\beta = 0.29$, $p < 0.001$).

H3: Instructional leadership evaluation partially mediated the relationship between instructional leadership cognition and teachers' instructional leadership (indirect effect $\beta = 0.18$, $p < 0.01$).

H4: Instructional leadership evaluation also partially mediated the relationship between learning



goal planning and teachers' instructional leadership (indirect effect $\beta = 0.15$, $p < 0.01$).

Bootstrapping confirmed the significance of the indirect effects, supporting the hypothesized mediating role.

4.4 Discussion

The findings confirm that both instructional leadership cognition and learning goal planning are critical predictors of teachers' instructional leadership practices. This aligns with prior studies emphasizing that teachers must first internalize the principles of instructional leadership before they can enact them effectively in practice (Hattie & Timperley, 2018).

The significant mediating effect of instructional leadership evaluation is a key contribution of this study. The results indicate that evaluation mechanisms act as a bridge between what teachers believe and plan and what they implement in their daily teaching. This aligns with Path-Goal Theory, which suggests that leaders must clarify the paths toward goals and provide feedback to motivate desired behaviors (House, 1971).

These findings reinforce the argument that without meaningful and systematic evaluation, teachers' instructional leadership capacities may remain underdeveloped. This is consistent with Darling-Hammond et al. (2012), who found that high-quality evaluation systems drive teacher improvement when they focus on growth rather than mere compliance.

4.5 Practical Implications

The study's results have important practical implications for school leaders and policymakers. First, professional development programs should prioritize strengthening teachers' instructional leadership cognition through training, mentoring, and reflective practice. Teachers must be equipped to understand their leadership role within the classroom and the broader school context.

Second, schools should encourage systematic learning goal planning by providing frameworks, templates, and collaborative planning opportunities. Structured planning can help align individual teaching goals with school-wide academic priorities, ensuring consistency and coherence in instruction.

V. CONCLUSION

This study sought to investigate the mediating role of instructional leadership evaluation in the relationship between instructional leadership cognition, learning goal planning, and teachers' instructional leadership among secondary school

Most importantly, the study highlights the need for robust instructional leadership evaluation systems. Schools should move beyond superficial appraisal processes and develop multi-dimensional evaluations that include peer reviews, self-assessment, and constructive feedback sessions. Such systems should be designed to build trust and foster a culture of continuous improvement rather than punitive accountability.

4.6 The Qingdao Context

This research contributes valuable insights specific to Qingdao's secondary education system. The city has made significant strides in educational modernization, but disparities still exist in how instructional leadership evaluation is implemented across schools. Some schools have embraced comprehensive evaluation systems that integrate data-driven assessments, while others continue to rely on checklists and administrative reviews with limited developmental value.

By demonstrating the positive impact of meaningful evaluation, this study provides empirical support for education authorities in Qingdao to standardize and strengthen their evaluation frameworks. This will help bridge the gap between policy intent and classroom practice, ensuring that teachers receive the guidance and support necessary to grow as instructional leaders.

4.7 Relation to Previous Studies

The findings are broadly consistent with international research but also highlight unique contextual factors in China. For instance, while many Western studies focus on distributed leadership models where teachers assume shared leadership roles, Chinese schools often maintain hierarchical structures. Therefore, the role of evaluation as a mediating mechanism becomes even more critical in encouraging teachers to step beyond their traditional instructional responsibilities.

This study also adds to the limited body of research exploring how evaluation functions as a bridge between cognition and practice. Previous studies, such as Leithwood and Jantzi (2008), have demonstrated the mediating role of feedback in leadership effectiveness, but few have focused specifically on teachers' instructional leadership in the Chinese secondary context.

educators in Qingdao, China. Anchored in the Path-Goal Theory (House, 1971), the study provided empirical evidence to support the idea that teachers' beliefs and planning strategies influence their leadership behavior, and that this relationship is significantly shaped by how instructional leadership is evaluated in their school context.



The findings confirmed four central hypotheses. First, teachers with strong instructional leadership cognition were more likely to demonstrate effective leadership practices in their classrooms. Second, learning goal planning also showed a positive relationship with leadership practice, suggesting that teachers who can articulate and organize purposeful instructional goals are better positioned to guide their students and peers. Third, instructional leadership evaluation partially mediated the link between cognition and leadership practice. Lastly, evaluation similarly mediated the relationship between learning goal planning and instructional leadership. These results provide robust support for the notion that evaluation is not merely a tool for accountability, but rather a key mechanism that facilitates and reinforces teachers' instructional leadership development.

Theoretically, this research contributes to the instructional leadership literature by validating the relevance of Path-Goal Theory in an educational setting. While most applications of the theory have focused on management or organizational behavior, this study demonstrates that leaders (in this case, school administrators) can help teachers translate their cognitive readiness and planning into effective action by clarifying performance expectations, offering feedback, and reducing implementation barriers. The mediating role of evaluation operationalizes the theory's core principle: leadership effectiveness is enhanced when followers are provided with clear paths to achieve goals.

In addition to its theoretical contributions, the study holds several important implications for practice. First, teacher training and professional development programs should pay greater attention to enhancing teachers' instructional leadership cognition. This includes helping teachers understand the broader purposes of education, their role in shaping school culture, and the ways they can influence student learning beyond content delivery. Strategies such as mentoring, reflective journals, case discussions, and leadership workshops can be embedded into teacher education curricula.

Second, schools must foster a culture of deliberate and strategic learning goal planning. The study showed that goal setting was not merely an administrative task but a foundation for leadership. Teachers who set clear, student-centered goals are more likely to develop consistent instructional practices and collaborate with colleagues. Schools can support this by allocating time for collaborative planning, providing access to student performance data, and integrating goal-setting tools into instructional routines.

Third, and perhaps most importantly, school leaders and policymakers must prioritize the design and implementation of meaningful instructional leadership evaluation systems. These systems should be more than performance checklists; they should include opportunities for self-assessment, peer feedback, student voice, and supervisor observation, all framed within a growth-oriented context. Evaluation should not be feared but embraced as a guide for personal and professional improvement.

From a policy perspective, the Qingdao educational authorities may consider creating city-wide frameworks that support consistency and equity in instructional leadership evaluation. While some schools may already have advanced systems in place, others may lack the resources or expertise to implement them effectively. Centralized support, such as evaluator training, standardized instruments, and data management systems, can reduce variability and ensure all teachers have access to developmental feedback.

Despite its strengths, the study is not without limitations. The cross-sectional design restricts the ability to infer causality among variables. Longitudinal studies would provide deeper insights into how teachers' cognition, planning, and leadership behaviors evolve over time, especially in response to sustained evaluation efforts. Future research could also explore how contextual factors—such as school size, student demographics, or leadership styles of administrators—moderate the pathways identified in this study.

Another limitation lies in the reliance on self-reported data. Although the study used validated instruments and ensured anonymity to reduce bias, teachers may still provide socially desirable responses, particularly regarding sensitive topics like evaluation. Triangulating survey data with classroom observations, document analysis, or student learning outcomes would strengthen the validity of future research findings.

In addition, while the study focused on secondary schools in Qingdao, it is unclear to what extent the results are generalizable to other regions or educational levels. China's educational landscape is diverse, and rural schools, for instance, may face very different challenges related to leadership, planning, and evaluation. Comparative studies across cities or provinces could shed light on regional variations and identify best practices that are adaptable to different contexts.

Further research may also delve into the interactions between different elements of the



evaluation process. For example, what types of feedback are most effective in enhancing instructional leadership? How do teachers perceive fairness and usefulness in the evaluation system? Do peer evaluations foster more authentic leadership behaviors than administrator-led assessments? Addressing these questions would deepen our understanding of the psychological and organizational mechanisms that underpin evaluation's mediating role.

In conclusion, this study affirms that instructional leadership evaluation plays a vital mediating role in

transforming teachers' beliefs and planning into actual leadership behaviors. The results highlight the importance of building teacher capacity in both cognition and planning, and, crucially, of institutionalizing robust evaluation mechanisms that empower rather than constrain teacher leadership. As educational systems worldwide continue to seek ways to improve teaching and learning, investing in teacher-led instructional leadership—supported by purposeful evaluation—offers a powerful strategy for sustainable school improvement.

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