LEX LOCALIS-JOURNAL OF LOCAL SELF-GOVERNMENT
ISSN:1581-5374 E-ISSN:1855-363X
VOL. 23, NO. S4(2025)

DEVELOPMENT OF AN INSTRUCTIONAL LEADERSHIP TRAINING MODEL FOR ENHANCING TEACHERS' SELF-EFFICACY AT PRIVATE SECONDARY SCHOOLS IN ULANQAB, INNER MONGOLIA, CHINA

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Abstract: This study examined the relationship between instructional leadership (IL) and teachers' self-efficacy (TSE) while developing and implementing an instructional leadership training model to enhance teacher growth in private secondary schools in Ulanqab City, Inner Mongolia, China. Using a mixed-methods approach with survey data from 685 in-service teachers, the research employed descriptive statistics, two-way ANOVA, regression and model prediction to analyze the data. Results showed limited effects of demographic factors but significant predictive associations between instructional leadership practices and teachers' self-efficacy. Mentoring & Coaching emerged as a distinctive predictor of efficacy, highlighting the importance of personalized professional support. The newly developed instructional training model, was proposed for improvement in teachers' self-efficacy, particularly in classroom management, student engagement, and leadership confidence. The training model as a practical and evidence-based approach to strengthening instructional leadership and teacher efficacy, offering concrete pathways for school improvement and professional development for the private secondary schoolsin Ulanqab, Inner Mongolia, China
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Keywords: Teachers' Instructional Leadership; Self-Efficacy; Demographic Factors, Ulanqab City, Inner Mongolia, China

Introduction

In the context of global education, the role of teachers has evolved significantly in response to the growing demands for quality education and the challenges posed by rapid technological, social, and economic changes. Instructional leadership, in particular, has emerged as a key factor in enhancing teaching effectiveness and fostering a collaborative school culture. Hallinger & Heck (1996), Leithwood & Jantzi (2000) have demonstrated that strong instructional leadership is closely associated with improved student engagement and academic performance. Furthermore, Bandura's (1997) concept of teacher self-efficacy emphasizes that teachers with higher self-efficacy are more capable of adopting innovative teaching strategies, effectively managing classrooms, and positively impacting student learning outcomes.

The global education landscape has also been shaped by significant challenges such as teacher shortages, increased teaching workloads, and the need for digital transformation in classrooms. In response to these challenges, many countries are implementing policies to enhance teacher leadership and self-efficacy as a way to improve educational outcomes. The United Nations Educational, Scientific and Cultural Organization (UNESCO) has highlighted that teacher development, particularly in leadership and self-efficacy, is crucial for achieving Sustainable Development Goal 4: "Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all" (UNESCO, 2015). This global push towards improving instructional leadership provides a foundation for examining teacher development strategies in various educational contexts, including China.

In China, improving education quality is a central focus of national reforms, particularly through policies such as the *National Plan for Medium and Long-Term Education Reform and Development (2010-2020)*, which emphasizes the need for teacher development, leadership, and professionalism. The plan specifically calls for strengthening teachers' instructional leadership to address the demands of modern classrooms and to enhance student achievement across all regions of the country. However, while significant progress has been made in urban areas, rural regions, such as Inner Mongolia, still face considerable challenges. In these areas, professional development opportunities are limited, and teachers often struggle to access leadership training programs that are crucial for improving their instructional effectiveness.

Li & He (2017) found that many teachers in rural and under-resourced regions of China, including Inner Mongolia, lack access to formal leadership training, which negatively impacts their self-efficacy and limits their ability to implement effective instructional strategies. This lack of professional development opportunities has further exacerbated the educational disparities between urban and rural schools (Li, 2020). As China continues to prioritize educational equity and quality, there is an increasing need for tailored leadership programs that address the unique challenges faced by teachers in less developed areas (Liu, 2017).

Ulanqab City, located in Inner Mongolia, represents many of the educational challenges faced by under-resourced regions in China. Private secondary schools in Ulanqab are characterized by high teacher turnover, limited professional development opportunities, and insufficient teaching resources. According to Zhang and Li (2021), teachers in Ulanqab report significantly lower levels of self-efficacy compared to their counterparts in more developed regions, largely due to the lack of structured leadership training and support. This lack of self-efficacy not only affects their instructional leadership capabilities but also undermines their ability to manage classrooms and foster student engagement.

The educational challenges in Ulanqab City's private secondary schools highlight the pressing need for interventions that improve teacher instructional leadership and self-efficacy (Lu &Zhang, 2022). Given the high teacher turnover, limited resources, and low levels of self-efficacy, there is a critical need for programs that equip teachers with the necessary leadership skills to enhance classroom management and student engagement (Li, 2020).

The development of an instructional leadership training model tailored to the specific needs of teachers in Ulanqab will address these gaps, empowering teachers to take on leadership roles and improve educational outcomes for students in this under-resourced region.By addressing the unique challenges faced by teachers in this region, the research will contribute to the broader discourse on improving educational quality and equity in China's underdeveloped areas.

Research Objectives

The following are the research objectives identified for this study:

1) To assess the level of teachers' perceptions of teachers' instructional leadership at private secondary schools in Ulanqab City, Inner Mongolia, China.
2) To assess the level of teachers' perceptions of their self-efficacy at private secondary schools in Ulanqab City, Inner Mongolia, China.
3) To analyze the differences in teachers' self-efficacy across different demographic factors and teachers' instructional leadership in private secondary schools.
4) To analyze the impact of teachers' instructional leadership on teachers' self-efficacy in private secondary schools in Ulanqab City, Inner Mongolia, China.

5) To develop a teachers' instructional leadership training modelfor enhancing their self-efficacy in private secondary schools in Ulanqab City, Inner Mongolia, China.

Literature Review

Teachers' Efficacy

Teachers' self-efficacy, a core concept introduced by Bandura (1977), refers to the belief teachers hold about their ability to influence student outcomes, manage classrooms effectively, and implement instructional strategies successfully. In the context of teaching, self-efficacy plays a critical role in determining how teachers approach their instructional responsibilities and their persistence in the face of challenges.

Bandura (1997) makes a crucial distinction between two components of self-efficacy: outcome expectancy and efficacy expectancy. Outcome expectancy refers to an individual's belief that certain actions will lead to specific outcomes. In the educational context, this means a teacher's belief that their instructional methods will produce the desired student learning outcomes. On the other hand, efficacy expectancy pertains to the teacher's belief in their ability to execute the actions necessary to achieve these outcomes.

Recent empirical research continues to highlight the profound influence of self-efficacy on teacher performance. Moreover, Tschannen-Moran and Hoy (2001) demonstrated that self-efficacy directly correlates with teachers' willingness to implement new instructional strategies and manage classroom disruptions effectively. This body of research underscores the need for interventions aimed at enhancing teacher self-efficacy, particularly in environments where resources and support systems may be lacking.

Instructional Leadership

Instructional leadership for teachers has recently emerged as a central focus in educational research, emphasizing how educators drive educational reform and enhance instructional quality through effective leadership behaviors, ultimately influencing student learning outcomes positively (Spillane, 2006). However, the concept of instructional leadership extends beyond classroom management and instructional delivery. As indicated in recent studies, teacher leadership is also evident in their collaboration with colleagues and interactions with school administration, which can shape the overall teaching culture within the institution (Neumerski, 2013). This development signified that teachers are no longer solely viewed as passive implementers of instruction but as active leaders in the educational transformation process.

Spillane's (2006) theory of instructional leadership provides a theoretical lens to understand teacher leadership by highlighting the pivotal role teachers play, not only in their instructional practices but also in influencing school-wide instructional reform through their leadership activities. In the context of global educational reform, particularly in settings with challenges like insufficient teaching resources and heavy workloads, the application of distributed leadership is instrumental in enhancing school management efficiency and instructional outcomes (Harris, 2014).

Neumerski (2013) also highlighted the evolving role of teachers, noting a shift from a traditional, principal-centered leadership model to one where teachers are increasingly assuming leadership responsibilities. This transformation reflects a broader pursuit of educational excellence and underscores the indispensable role that teachers play in fostering educational improvement.

In private schools in Inner Mongolia, applying Marzano's principles requires acknowledging the constraints posed by limited resources and the heavy workload on

teachers. While goal setting and classroom management strategies are essential, teachers in these contexts must also engage in leadership roles that involve curriculum development and instructional innovations to meet the broader challenges of educational reform (Zheng & Li, 2016).

The rapid evolution of educational technologies and globalization presents both challenges and opportunities for instructional leadership. As online learning platforms and blended education models gain traction, teachers are required to expand their leadership capabilities to navigate these digital landscapes effectively and to guide both their students and colleagues in adapting to new instructional tools. Zheng & Li (2016) note that in resource-constrained environments, teachers' leadership roles are crucial in driving curricular innovation and technology integration. They also mentioned that future research on instructional leadership for teachers should focus on developing adaptive leadership models that can accommodate diverse educational settings while balancing teaching and leadership roles effectively. Incorporating technology into these leadership frameworks will be vital in fostering educational innovation in the digital age.

Previous studies on Teachers' Self-Efficacy and Instructional Leadership

The relationship between teachers' self-efficacy and instructional leadership can be traced back to Bandura's self-efficacy theory (Bandura, 1977). Self-efficacy refers to an individual's belief in their ability to successfully perform specific tasks, directly influencing their choice of actions, level of effort, and persistence. The four primary sources of self-efficacy include mastery experiences, vicarious experiences, verbal persuasion, and emotional states. In the teaching context, leadership behaviors can enhance teachers' self-efficacy by providing feedback, support, and guidance. For example, when leaders offer direct instructional guidance or demonstrate successful teaching practices, it can increase teachers' confidence in their abilities (Bandura, 1997).

As research progressed, scholars recognized the crucial role of leadership in influencing teachers' self-efficacy. Early studies, such as Tschannen-Moran and Woolfolk Hoy's (2001) development of the Teachers' Sense of Efficacy Scale (TSES), provided a tool for empirical research. Their study demonstrated that leadership feedback, resource support, and emotional encouragement could enhance teaching efficacy by boosting teachers' confidence (Tschannen-Moran & Hoy, 2001). Additionally, Klassen and Chiu (2010) explored the relationship between teachers' self-efficacy and job stress, highlighting how leadership can alleviate stress to improve self-efficacy.

Many studies have revealed the significant impact of instructional leadership on teachers' self-efficacy. First, there is a strong positive correlation between supportive leadership and teachers' confidence in teaching and classroom management. Furthermore, Robinson's (2011) research indicated that leadership focused on teaching improvement and effective instructional guidance significantly boosts teachers' efficacy. The relationship between teachers' self-efficacy and instructional leadership exhibits significant differences across cultural contexts. In Western countries, teachers' decision-making autonomy and innovation are considered key factors in enhancing self-efficacy. Empowerment from leadership allows teachers more teaching autonomy, leading them to feel responsible for improving school teaching quality and thereby boosting their confidence (Zhao & Lin, 2023).

However, in the Chinese educational context, teachers' self-efficacy is more dependent on supportive leadership behaviors. Chinese school culture, characterized by collectivism, inclines teachers to rely on leaders' guidance and feedback to enhance their self-efficacy (Zhang, 2017). In Chinese studies, Chen (2019) found that leaders' resource support and emotional feedback play a crucial role in enhancing teachers' self-efficacy. Unlike

Western studies, Chinese teachers' self-efficacy depends more on direct interventions from leadership rather than opportunities for autonomous decision-making.

Wang (2020) further illustrated through empirical research that supportive leadership behaviors can significantly enhance teachers' self-efficacy by reducing work stress and improving their emotional state, offering evidence on the impact of leadership behaviors on teachers' self-efficacy in the Chinese context. Teachers' self-efficacy is typically measured using the Teachers' Sense of Efficacy Scale (TSES) developed by Tschannen-Moran and Woolfolk Hoy (2001), while instructional leadership is assessed through various leadership behavior scales, like Marzano's leadership model.

Existing research has highlighted the close relationship between teachers' self-efficacy and instructional leadership, but studies in private schools in China, especially in the Inner Mongolia region, remain insufficient (Zhao & Lin, 2023). The relationship between leadership support and self-efficacy in private schools may differ significantly from that in public schools, with emotional support and resource provision from leadership potentially being more critical in these settings (Yang, 2015).

Challenges of Teachers at Private Secondary Schools in Ulanqab

Ulanqab's private secondary schools encounter significant obstacles, including financial limitations, difficulties in attracting and retaining qualified educators, and maintaining stable enrollment rates. Due to their lower tuition fees compared to institutions in wealthier regions, these schools struggle to offer competitive salaries, resulting in high teacher turnover and reduced instructional consistency. A survey by the Inner Mongolia Education Research Center (2022) indicated that over 60% of teachers in these schools were dissatisfied with their compensation and professional development opportunities, contributing to instability in the teaching workforce.

Additionally, Ulanqab's geographical isolation and predominantly rural economy exacerbate these challenges. Families tend to favor public schools for their perceived stability, affordability, and stronger governmental support, further hindering the growth of private secondary schools in the area (Ulanqab Municipal Education Bureau, 2023).

Nevertheless, private secondary schools in China hold unique opportunities for innovation. Their operational flexibility allows for the implementation of progressive teaching methods and the adoption of international educational standards, making them appealing to parents seeking a more globalized education for their children (Mok, 2016). Furthermore, the capacity to offer specialized programs and personalized learning pathways positions private schools as key players in China's educational reforms, which aim to cultivate critical thinking and creativity among students (Wang & Sun, 2020).

Private secondary schools in Ulanqab face a complex set of challenges due to financial constraints, geographic isolation, and societal preferences for public education. Nevertheless, these institutions hold significant potential to enhance vocational training and instructional leadership, directly aligning with regional educational and economic objectives. By focusing on teacher development and innovative educational strategies, these schools can contribute to raising teacher self-efficacy and instructional leadership in Ulanqab.

Population and Sample

The research was conducted in secondary schools in Ulanqab City, Inner Mongolia, China, with the goal of examining the current status of the teacher instructional leadership and self-efficacy, as well as to establish a training program for the schools as reference for enhancing their teacher self-efficacy in Ulanqab City, Inner Mongolia, China.

The researcher checked the total number of private secondary schools in Ulanqab City, and found there are eight private secondary schools currently in Ulanqab as the list of private secondary schools showed (MOE list of private schools, Ulanqab City, Inner Mongolia, 2024), including Hengshui Zhuoyuan Middle School, New Century Middle School, Yuying Senior High School, Jining Tianli School, Fengzhen Fenghua School, Siziwang Kuangao School, Liangcheng Risheng Middle School, and Youjia Middle School. Therefore, this study decided to choose all these eight private secondary schools as the research target. These schools are chosen also because they have a similar size and a comparable number of teachers, as well as for representing a balanced mix of urban and rural schools. The diversity ensured that the study could assess instructional leadership and self-efficacy across different educational environments.Since there are total of 685 full-time teachers who are working at these 8 private secondary schools in Ulanqab, all these teachers were used as the target group for this study.

Table1 illustrates the total number of teachers from each school, as explained, this study used the total population of these 8 private secondary schools in Ulanqab, Inner Mongolia, China.

Table 1 Population of the Eight Private Secondary School Teachers in Ulanqab

No.	Private Secondary School	Full-time Teachers
1	Hengshui Zhuoyuan Middle School	99
2	New Century Middle School	90
3	Yuying Senior High School	62
4	Jining Tianli School	103
5	Fengzhen Fenghua	42
6	Siziwang Kuangao School	113
7	Liangcheng Risheng Middle School	103
8	Youjia Middle School	73
Total		685

Questionnaire Design

Based on a comprehensive review of relevant literature and expert consultation, the questionnaire used in this study was designed to evaluate instructional leadership and teacher self-efficacy in private secondary schools in Ulanqab City, Inner Mongolia, China. The questionnaire employed in this research adhered to the 5-point Likert scale model (Likert, 1932). This scale spanned from 1 to 5, with each number corresponding to a different level of agreement: 1 indicated “strongly disagree” or “very low”, 2 indicated “disagree” or “low”, 3 indicated “neutral” or “moderate”, 4 indicated “agree” or “high”, and 5 indicated “strongly agree” or “very high”. Respondents were asked to rate how much they agree or disagree with the questions, which showed their attitudes toward the issues raised.

The research questionnaire included three parts, among them, part II and II are adapted from previous researchers, and the details are explained as follows:

Part I surveyed teachers' demographic factors that may influence instructional leadership and teacher self-efficacy. These factors included age, gender, teaching experience, ethnic background, and education level.

Part II assessed teachers’ instructional leadership. Based on Shatzer, Caldarella, Hallam&Brown. (2014), Six dimensions were identified as key to evaluating instructional leadership among teachers, including: *Modeling Effective Teaching, Mentoring and Coaching, Collaboration and Teamwork, Professional Development, Data-Driven Decision Making,*

Curriculum Innovation and Alignment. Each dimension consisted of five items, with a total of 30 questions.

Part III evaluated teachers' self-efficacy across five dimensions, based on Cheung's study (2008), the five dimensions include: *Instructional Strategies, Classroom Management, Student Engagement, Managing Diverse Learners, Adaptability*. Each dimension consisted of four items, for a total of 25 questions.

Data Collection

This researcher distributed the questionnaires from the beginning of December 2024 and may finish data collection by the end of January 2025. The researcher finally collected a total 650 valid questionnaires; the valid return rate has reached 95%. All the collected data of the questionnaire was revised, exported, and checked carefully, and then imported for data analysis and processing. The questionnaire, along with an informed consent form, was administered electronically via Microsoft Forms and sent to the principals or vice-principals of each school.

Finding and Results

This study drew upon 685 valid responses from in-service teachers working in private secondary schools across Ulanqab City, Inner Mongolia. These participants represented a diverse cross-section of the teaching workforce in terms of gender, age, teaching experience, educational attainment, and ethnic background. The demographic profile is detailed in Table 2.

Table 2.Demographic Distribution of Respondents

Variable	Group	Number	Percentage
Gender	Male	331	48.32
	Female	354	51.68
Age	26–30 years	189	27.59
	31–35 years	214	31.24
	36–40 years	151	22.04
	Above 40	131	19.12
Teaching Experience	1–5 years	263	38.39
	6–10 years	184	26.86
	11–15 years	145	21.17
	More than 15 years	93	13.58
Educational Level	Bachelor's Degree	420	61.31
	Master's Degree	263	38.39
	Other	2	0.29
Ethnicity	Han Chinese	460	67.15
	Ethnic Minority	225	32.85

For Research Objective 1

To address Research Objective 1, to assess the level of teachers' perceptions of instructional leadership at private secondary schools in Ulanqab City. This section presents descriptive statistics across six core dimensions of instructional leadership. These data were derived from the 30-item Instructional Leadership Scale administered to 685 in-service teachers. The six dimensions as the mean scores showed, the teachers' instructional leadership at private secondary schools in Ulanqab City are regarded as "low".

Table 3. Descriptive Statistics of Teachers' Instructional Leadership

No.	Dimension	Mean	SD	Interpretation
1	Professional Development	2.44	1.09	low
2	Collaboration and Teamwork	2.41	1.05	Low
3	Mentoring and Coaching	2.41	1.07	Low
4	Curriculum Innovation and Alignment	2.39	1.02	Low
5	Modeling Effective Teaching	2.38	1.08	Low
6	Data-Driven Decision Making	2.38	1.07	Low
	Overall Instructional Leadership	2.40	1.01	Low

For Research Objective 2

To address Research Objective 2, to determine the current level of teachers' self-efficacy in private secondary schools in Ulanqab City. This section presents descriptive statistics for the five validated dimensions of teacher self-efficacy: Instructional Strategies (IS), Classroom Management (CM), Student Engagement (SE), Managing Diverse Learners (MDL), and Adaptability and Problem Solving (APS).As showed in Table 4, the mean scores showed, the teachers' self-efficacy at private secondary schools in Ulanqab City are regarded as "low" as well.

Table 4. Descriptive Statistics of Teacher Self-Efficacy Dimensions

No.	Dimension	Mean	SD	Interpretation
1	Instructional Strategies	2.11	0.91	Low
2	Classroom Management	2.18	0.85	Low
3	Student Engagement	2.10	0.92	Low
4	Managing Diverse Learners	2.19	0.83	Low
5	Adaptability and Problem Solving	2.11	0.90	Low
	Overall Self-Efficacy	2.14	0.82	Low

For Research Objective 3

To address whether teachers' self-efficacy varies across demographic characteristics, the study also examined the available outputs for years of teaching experience, educational background, and ethnicity. These three variables were included in the SPSS model specification ("year teach + edu back + ethnic"), with overall teacher self-efficacy (TSE) entered as the dependent variable. The corrected general linear model (GLM) yielded an R^2 of .015 and an adjusted R^2 of –.011, indicating that the demographic predictors collectively accounted for only 1.5% of the variance in TSE, with negligible explanatory power as showed in Table 5.

Overall, the findings indicate that demographic variables exert minimal influence on teachers' perceptions of self-efficacy in this sample. Teachers' demographic characteristics, including years of teaching experience, academic credentials, and ethnic affiliation; do not significantly differentiate teachers' self-efficacy across instructional strategies, classroom management, or student engagement domains. This outcome aligns with prior research suggesting that contextual and organizational features, such as school leadership, collegial networks, and institutional resources, are often more salient determinants of teacher efficacy than fixed personal traits.

Table 5. Two-Way ANOVA for Demographic Factors on Teacher Self-Efficacy

Model specification (factors included)	R^2	Adjusted R^2	Interpretation
Years of teaching experience, educational background, ethnicity	.015	–.011	Demographic factors collectively account for negligible variance in TSE.

Note. General linear model (GLM); TSE entered as dependent variable.

For Research Objective 4

To address Research Objective 4, to explore the impact that teachers' self-efficacy differs by instructional leadership (IL)—a multiple regression analysis was conducted. The six IL dimensions were entered simultaneously as predictors and overall TSE as the dependent variable. This method enables the assessment of both the collective explanatory power of IL and the unique contributions of individual leadership practices to teachers' efficacy beliefs.

Table 6 Multiple Regression of Instructional Leadership Dimensions Predicting Teacher Self-Efficacy

Predictor (IL Dimension)	β (Standardized)	t	p
Mentoring & Coaching (MC)	.081	1.95	.050
Professional Development (PD)	.062	0.65	.514
Modeling Effective Teaching (MET)	.057	1.74	.082
Collaboration & Teamwork (CT)	.049	1.29	.202
Data-Driven Decision-Making (DDM)	.038	0.96	.338
Curriculum Innovation & Alignment (CIA)	.031	0.80	.424

Note. Dependent variable: Teacher Self-Efficacy (TSE). Standardized coefficients (β) reported. * $p \leq .05$; ns = not significant. Model summary: $R^2 = .23$, Adjusted $R^2 = .22$.

The regression model was statistically significant, yielding an R^2 of .23 and an adjusted R^2 of .22, indicating that instructional leadership accounted for a moderate proportion of variance (22%), consistent with typical effect sizes in educational leadership studies. Table 4.5 above presents the standardized regression coefficients (β), t values, p values, and significance levels. Based on the regression finding of Table 6, a multiple regression analysis was conducted to examine whether teachers' self-efficacy (TSE) could be predicted by six dimensions of instructional leadership (IL). All predictors were entered simultaneously using the standard enter method. Assumption checks (linearity, homoscedasticity, normality, independence of residuals, and multicollinearity) were examined prior to interpretation.

The overall regression model was statistically significant, $R = .375$, $R^2 = .141$, adjusted $R^2 = .133$, $F (6, 678) = 18.523$, $p < .001$ ($N = 685$), indicating that the six IL dimensions collectively explained about 14.1% of the variance in teachers' self-efficacy. The regression indicates that instructional leadership, as a composite, is significantly associated with teachers' self-efficacy; however, the unique predictive effects of individual dimensions are limited under simultaneous entry. Only Mentoring & Coaching (MC) reached marginal significance ($p = .050$), while the other dimensions did not contribute significantly to variance in TSE.

For Research Objective 5

The following Figure 1 present the predictive specification using a constant layout that is directly comparable with the regression results in. Coefficients are standardized (β) and evaluated with two-tailed tests at α = .05 under simultaneous (enter) regression.

A left-to-right topology is used: the six instructional leadership (IL) dimensions—Modeling Effective Teaching (MET), Mentoring & Coaching (MC), Collaboration & Teamwork (CT), Professional Development (PD), Data-Driven Decision-Making (DDM), and Curriculum Innovation & Alignment (CIA)—are positioned on the left as exogenous inputs; the five TSE sub-dimensions (IS, CM, SE, MDL, APS) appear centrally as the compositional block; overall TSE (composite of IS/CM/SE/MDL/APS) is placed on the right as the outcome. Arrow direction encodes IL → TSE. Significance is coded as marginal ($p \approx .05$) or ns ($p \geq .05$).

Figure 1 showedthe Final model for enhancing teachers' self-efficacy in private secondary schools in Ulanqab City, China; was revised and modified after the expert validation and consultation.

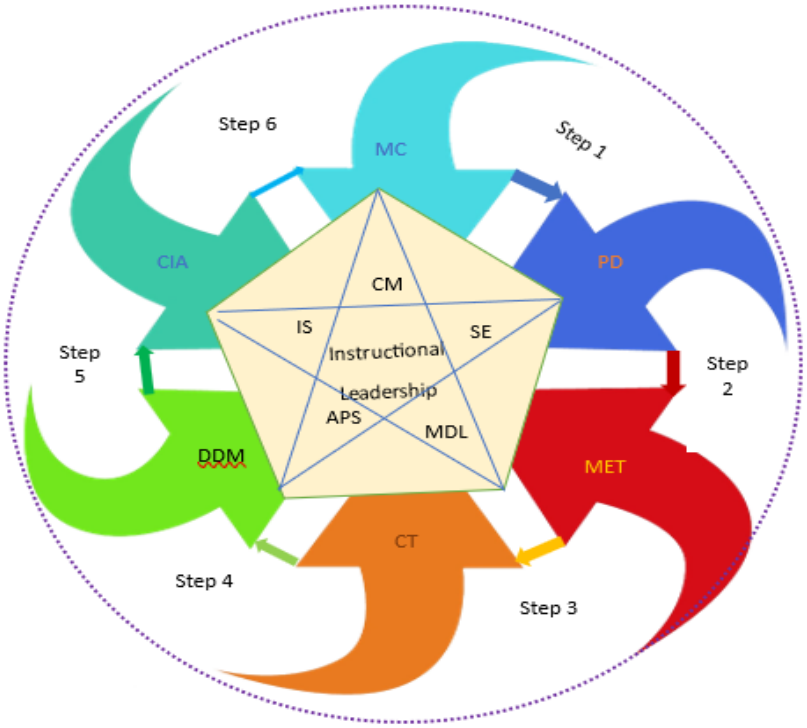

Figure 1. Final Instructional Leadership Training Model for Enhancing Teachers' Self-efficacy in Private Secondary Schools in Ulanqab City, China

Note:
MET = Modeling Effective Teaching;
MC = Mentoring & Coaching;
CT = Collaboration & Teamwork;
PD = Professional Development;
DDM = Data-Driven Decision-Making;
CIA = Curriculum Innovation & Alignment;
IS = Instructional Strategies;
CM = Classroom Management;
SE = Student Engagement;
MDL = Motivating Diverse Learners;

APS = Assessment Practices & Support;
TSE = Teachers' Self-Efficacy.

In Conclusion, the expert panel and validation process affirmed the adequacy of the model structure and its alignment with the reported regression. No conceptual changes to the figures were requested. Clarifications were confined to captions/notes (legend, reading guide, testing and standardization statements).

Discussion

The descriptive findings revealed uneven patterns across leadership and efficacy dimensions, with clear strengths and areas for improvement. This pattern resonates with earlier studies showing that teachers often report higher efficacy in instructional strategies but lower in areas such as classroom management and motivating diverse learners (Klassen & Chiu, 2010). Such imbalances suggest that while some leadership practices (e.g., collaboration, mentoring) may already be embedded in schools, others (e.g., aligning assessment with instruction, sustaining student engagement) remain underdeveloped.

The finding that demographic factors had limited explanatory power in predicting teachers' self-efficacy is consistent with prior research indicating that contextual and organizational variables often outweigh personal characteristics in shaping efficacy beliefs. For example, Klassen & Chiu (2010) found that while experience and gender sometimes correlate with efficacy, these relationships are modest and inconsistent across contexts. Instead, leadership support and school climate are more robust predictors. This aligns with Bandura's (1997) argument that self-efficacy is primarily developed through mastery experiences and social persuasion, both of which are strongly influenced by the leadership environment.

The modest effect sizes in this study suggest that demographic variations may play a role at the margins but do not fundamentally determine teachers' self-efficacy. One possible reason is the relatively homogeneous professional context of private secondary schools in Ulanqab City, where teachers share similar organizational conditions that overshadow demographic differences. This reinforces the argument advanced by Hoy and Spero (2005) that school leadership and organizational learning environments, rather than demographic attributes, are the key levers for enhancing efficacy.

Regression results showed that instructional leadership, as a composite construct, significantly predicted teachers' self-efficacy, affirming the theoretical proposition that leadership behaviors shape teacher beliefs. This finding aligns with a wide body of research demonstrating that instructional leadership is one of the strongest predictors of teacher motivation and classroom practices (Leithwood & Jantzi, 2006; Robinson et al., 2008). The fact that the model achieved a significant fit underscores the coherence of IL as an integrated pattern of practices that collectively foster teachers' confidence.

Interestingly, among the six IL dimensions, only Mentoring & Coaching (MC) approached significance when controlling for overlaps. This suggests that one-to-one or small-group mentoring relationships may exert a more direct and individualized influence on efficacy, compared to broader practices such as curriculum alignment or professional development. This finding is consistent with Elliott et al. (2016), who found that coaching had a disproportionately strong impact on teachers' confidence and willingness to implement new strategies. It may be that mentoring provides personalized mastery experiences and social persuasion—two of Bandura's key sources of efficacy—that are harder to achieve through structural reforms alone.

The final model, which clustered the six IL dimensions into four levers (MC; MET/CT; PD/CIA; and DDM), reflects both theoretical integration and practical applicability.

This design aligns with distributed leadership theory, which emphasizes leadership as a collective practice rather than the function of a single individual (Spillane, 2006). By combining related dimensions, the model reflects the ways teachers experience leadership in practice—through patterns of mentoring, modeling, professional learning, and data use—rather than as isolated activities.

Conclusions

The results delineated dimension-specific strengths and areas for development at the school level, offering concrete targets for professional learning (e.g., tightening task–assessment alignment within classroom practice, strengthening routines that support engagement and management).

Comparative tests indicated that demographic characteristics had limited explanatory power for variation in teachers' self-efficacy. Where between-group differences appeared, effect sizes were modest and did not alter the overall interpretation that organizational leadership practices, rather than fixed demographic attributes, should be the primary levers for efficacy-focused improvement.

Regression analyses showed positive associations between IL dimensions and TSE sub-dimensions, consistent with the proposition that teachers' efficacy beliefs co-vary with perceived leadership practices in teaching, collaboration, professional learning, data use, and curriculum alignment. These associations motivated a model-based examination of predictive relations, building on these findings, the study constructed and expert-validated a school-level leadership architecture (four levers: MC; MET/CT; PD/CIA; DDM) for the private secondary schools in Ulanqab City, China.

Reference

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

Cheung, H. Y. (2008). The measurement of teacher efficacy: Hong Kong primary in-service teachers. *Journal of Education for Teaching*, 32(4), 435-451.

Chen, X. (2019). The influence of leadership support on teachers' self-efficacy in Chinese schools. *Journal of Educational Research*, 65(2), 112-128.

Elliot, W., & Tomic, W. (2016). Burnout and self-efficacy: A study on teachers' beliefs when implementing an innovative educational system in the Netherlands. *British Journal of EducationalPsychology, 72*, 227–243.

Hallinger, P., & Murphy, J. (2000). Assessing the instructional management behavior of principals. *Elementary School Journal*, 86(2), 217–248.

Harris, A. (2014). Distributed leadership: Theory and practice. *Journal of Educational Administration*, 52(6), 688-702.

Leithwood, K., & Jantzi, D. (2006). *Transformational leadership*. In B. Davies (Ed.), The essentials of school leadership (pp. 31-43). SAGE Publications.

Li, H. (2020). Private education in Inner Mongolia: Challenges and opportunities. *Mongolian Studies Review*, 18(2), 65-78.

Li, X., & He, Z. (2017). Rural teachers' leadership and self-efficacy: A case study in Inner Mongolia. *Journal of Educational Research, 42*(3), 213-227.

Li, Y., & Yang, J. (2021). The role of private schools in China's education reform. *Journal of Educational Policy Studies*, 29(4), 399-416.

Liu, X. (2017). Government policy and private education in China: A historical perspective. *Asian Education and Development Studies*, 6(1), 34-49.

Lu, Q., & Zhang, Y. (2022). The future of private education in China under new regulatory frameworks. *Journal of Education Policy*, 37(2), 150-167.

Mok, K. H. (2016). Privatization, marketization, and globalization in China's higher education. *Asia Pacific Journal of Education*, 36(1), 123-139.

Neumerski, C. M. (2013). Rethinking instructional leadership, a review: What do we know about principal, teacher, and coach instructional leadership, and where should we go from here. *Educational Administration Quarterly*, 49(2), 310-347.

Spillane, J. P. (2006). Distributed leadership. Jossey-Bass.

Tschannen-Moran, M., & Hoy, A. W. (2001). Teacher efficacy: Capturing an elusive construct. *Teaching and Teacher Education*, 17(7), 783-805.

UNESCO. (2015). *Sustainable Development Goal 4: Ensure inclusive and equitable quality education*.

Wang, L., & Sun, X. (2020). Globalization and private education in China: A comparative analysis of public and private secondary schools. *Comparative Education*, 56(3), 289-310.

Wang, Y. (2020). Leadership behaviors and teacher self-efficacy: A study in Chinese private schools. *Asia Pacific Education Review*, 21(3), 321-335.

Shatzer, R. H.; Caldarella, P.; Hallam, P. R.; Brown, B. L. (2014). Comparing the effects of instructional and transformational leadership on student achievement: Implications for practice. *Educational Management Administration & Leadership*, 42(4), 445–459.

Yang, X. (2015). Teachers' Leadership: Problem and situation, *China Education Research*, 6, 45-49.

Zhang, X. (2017). The development and path for teachers' leadership in Schools. *Chinese Basic Education Management*, 18 (2), 13-20.

Zhao, J., & Lin, H. (2023). Trends in private education in China: An analysis of Ministry of Education statistics. *Education Review*, 45(2), 78-92.