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Intellectual stimulation in transformational school leadership and teachers' self-efficacy

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Abstract. This study examines intellectual stimulation in transformational school leadership and its relationship with teachers' self-efficacy. Although transformational leadership has been widely studied, limited research has examined intellectual stimulation as a distinct dimension and its contribution to teachers' self-efficacy, particularly in Indonesian public secondary schools. Grounded in transformational leadership theory and Bandura's self-efficacy framework, this study aimed to investigate that relationship and explain how such leadership is enacted in school practice. Employing a mixed-methods explanatory sequential design, quantitative data were collected from all 52 teachers through structured questionnaires that measured principals' intellectual stimulation and teachers' self-efficacy, using total sampling, and were analyzed using descriptive statistics and linear regression. Qualitative data were obtained through semi-structured interviews with 10 voluntarily selected teachers and were analyzed thematically. The quantitative findings indicate a significant positive relationship between principals' intellectual stimulation and teachers' self-efficacy. Qualitative results reveal that intellectual stimulation is manifested through encouragement to try new teaching methods, support during experimentation and failure, opportunities for professional dialogue, freedom to express alternative ideas, and the creation of psychological safety. The study concludes that intellectually stimulating leadership strengthens teachers' confidence, professional agency, and instructional improvement. These findings recommend that school principals foster psychologically safe and intellectually supportive environments to enhance teacher self-efficacy and sustainable school development.

Introduction

Educational leadership extends beyond administrative efficiency because it directly shapes teaching practices, teacher development, and school quality (Bush, 2011). In schools, principals are expected not only to manage resources and implement policies but also to foster a shared vision, support professional growth, and create conditions that enable meaningful teaching and learning (Aditya et al., 2025; Triantoro et al., 2025). In this context, effective school leadership is closely tied to teacher performance and overall educational improvement.

Recent studies emphasize that effective principals integrate managerial and instructional leadership in responding to contemporary educational demands (He et al., 2024). Leadership in schools is

therefore understood as a relational process of influencing and mobilizing the school community toward shared educational goals (Aryani & Haryadi, 2023). When principals lead in visionary and supportive ways, they contribute to teachers' professional competence and the quality of classroom instruction (Nasution & Inom, 2025).

Among contemporary leadership approaches, transformational leadership has received considerable attention for its emphasis on change, empowerment, and professional growth (Bush & Glover, 2014). In school settings, this approach is especially relevant because principals are expected to act not merely as administrators, but as change leaders who can respond to complexity and improve teaching and learning processes. This expectation is particularly important in public schools, where principals often work within limited resources, centralized policies, and diverse teacher characteristics (Alida, 2022; Armiyanti et al., 2023).

Transformational leadership is commonly conceptualized in terms of four dimensions: idealized influence, inspirational motivation, intellectual stimulation, and individualized consideration (Bass & Riggio, 2006; Northouse, 2022). Among these, intellectual stimulation is particularly relevant to teacher development because it encourages teachers to question assumptions, think critically, explore new ideas, and solve problems from alternative perspectives (Alimudin & Sukoco, 2017; Sunaryo et al., 2021). Principals who practice intellectual stimulation create opportunities for reflective practice, pedagogical experimentation, and collaborative problem-solving, all of which are essential for instructional improvement. Bass & Riggio (2006) note that transformational school leaders inspire educators to innovate, support professional development, and foster a collaborative school culture.

The relevance of intellectual stimulation becomes particularly evident when examined in relation to teachers' self-efficacy (Widana, 2022). Teacher self-efficacy refers to teachers' beliefs in their own capabilities to organize and execute actions required to successfully accomplish teaching tasks. Self-efficacy is a central psychological construct influencing teachers' motivation, persistence, instructional strategies, and openness to innovation. Teachers with high self-efficacy are more likely to adopt new teaching methods, manage classroom challenges effectively, and sustain commitment despite difficulties. As such, self-efficacy is widely recognized as a key factor in improving teaching quality and student learning outcomes (Suhardita et al., 2024).

Leadership behaviors that promote intellectual engagement and professional autonomy are closely aligned with the psychological mechanisms underlying self-efficacy development (Purnadewi et al., 2023). Through intellectual stimulation, principals provide teachers with opportunities for mastery experiences, encourage reflective thinking, and offer support for experimentation without fear of punitive consequences. These conditions are essential for strengthening teachers' confidence in their professional abilities. Empirical studies have shown that transformational leadership positively influences teacher performance through empowerment, motivation, and professional support (Li et al., 2021). Similar findings regarding its positive influence on teacher performance have also been reported in Indonesian elementary education (Azmiati et al., 2025). Furthermore, Schmitz et al. (2023) report that principals who apply transformational leadership in the digital era enhance teacher performance through constructive academic supervision and support for instructional innovation.

However, existing research largely treats transformational leadership as a unified construct, leaving the specific contribution of intellectual stimulation to teachers' self-efficacy underexplored. While many studies have linked transformational leadership to teacher outcomes such as job satisfaction, commitment, and performance, fewer studies have examined intellectual stimulation as a distinct

dimension, especially in relation to teachers' self-efficacy and particularly in public secondary school contexts.

This gap is particularly relevant in the Indonesian context. Public-school principals often work within bureaucratic structures and policy constraints that may reduce flexibility and innovation (Wibowo & Triyanto, 2021). Under such conditions, leadership practices that emphasize intellectual engagement and professional empowerment are both challenging and necessary. Leadership that is overly rigid and procedural often fails to address the human and cognitive dimensions of teaching, potentially leading to decreased motivation and professional stagnation among teachers (Alida, 2022; Wibowo & Triyanto, 2021; Lenawati et al., 2026). Conversely, leadership that values dialogue, trust, and intellectual growth fosters a positive school climate where teachers feel respected, supported, and motivated to improve their practice (Hamzah et al., 2024).

Additionally, educational leadership is inherently moral and ethical. Principals are expected to serve as role models, demonstrating integrity, fairness, and responsibility in their decision-making and daily interactions (Bush, 2011). Intellectual stimulation, when grounded in ethical leadership, fosters a school culture that values critical inquiry, collaboration, and shared responsibility for educational improvement. In an era characterized by rapid technological change, curriculum reform, and increasing demands for accountability, schools require leaders who not only manage change but also cultivate teachers' confidence and capacity to engage with new challenges (Fullan, 2014).

Given these considerations, this study examines intellectual stimulation as a distinct dimension of transformational school leadership in relation to teachers' self-efficacy. The novelty of this study lies in its focused examination of intellectual stimulation, rather than transformational leadership as a whole, and in its use of a mixed-methods approach to explain both the statistical relationship and teachers' lived experiences of that leadership practice. Accordingly, this study was guided by the question of whether principals' intellectual stimulation is significantly related to teachers' self-efficacy and how teachers experience such leadership in everyday school practice. The quantitative hypothesis of this study was that principals' intellectual stimulation significantly and positively predicts teachers' self-efficacy. Therefore, the objectives of this study were to examine the relationship between principals' intellectual stimulation and teachers' self-efficacy and to explore how intellectually stimulating leadership practices are enacted and experienced by teachers in a public secondary school context.

Method

Research Design

This study employed a mixed-methods explanatory sequential design, in which quantitative data were collected and analyzed first, followed by qualitative data to explain and deepen the quantitative findings (Creswell & Plano Clark, 2018). This design was selected because it enabled the researchers to examine both the statistical relationship between principals' intellectual stimulation and teachers' self-efficacy and the ways in which such leadership practices were enacted and experienced in the school context.

Participants and Research Context

This study was conducted at a public junior high school in Batam, Kepulauan Riau, Indonesia, during July–December 2025. Participants in the quantitative phase included 52 teachers who had direct instructional interactions with the school principal. Total sampling was employed, as the population size was relatively small and allowed for comprehensive representation of teachers within the school. For the qualitative phase, 10 teachers were selected based on their willingness to

participate in semi-structured interviews. This voluntary sampling approach aimed to obtain in-depth insights into teachers' experiences and perceptions of the principal's intellectual stimulation practices in everyday school contexts, rather than to categorize participants based on predetermined levels of self-efficacy. However, because the study was conducted in a single-school setting, the findings should be interpreted within that context and not generalized broadly without caution.

Instrument and Data Collection

Quantitative data were collected using a structured questionnaire comprising two sections that measured principals' intellectual stimulation and teachers' self-efficacy. Intellectual stimulation was measured using 8 items adapted from the *Intellectual Stimulation* subscale of the Multifactor Leadership Questionnaire (MLQ) developed by Bass & Avolio (1995). The items were designed to assess teachers' perceptions of the principal's leadership behaviors, including encouraging teachers to question established practices, supporting new ideas, inviting alternative perspectives, and promoting problem-solving and innovation in instructional practices. Responses were recorded on a five-point Likert scale, ranging from *strongly disagree* (1) to *strongly agree* (5). Content validity of the intellectual stimulation scale was established through expert judgment by two experts in educational leadership and one expert in educational measurement, who evaluated the items' relevance, clarity, and contextual appropriateness. Minor wording revisions were made in response to their feedback. Construct validity was examined using item–total correlation analysis, which showed that all items had correlation coefficients exceeding the acceptable threshold ($r > 0.30$), indicating that each item adequately represented the construct being measured. Reliability analysis using Cronbach's alpha yielded a coefficient of $\alpha = 0.87$, indicating high internal consistency.

Teachers' self-efficacy was measured using 12 items adapted from established teacher self-efficacy scales grounded in Bandura's (1997) self-efficacy theory. The instrument assessed teachers' beliefs in their capabilities across three domains: instructional strategies, classroom management, and student engagement. Responses were measured using the same five-point Likert scale to ensure consistency across instruments. The self-efficacy instrument also underwent content validation through expert review to ensure theoretical alignment and contextual relevance. Item–total correlation analysis confirmed that all items met the minimum validity criteria ($r > 0.30$). Reliability testing indicated strong internal consistency, with a Cronbach's alpha coefficient of 0.90, indicating that the instrument reliably measured teachers' self-efficacy. These results indicate that both instruments were valid and reliable for examining the relationship between principals' intellectual stimulation and teachers' self-efficacy.

Qualitative data were collected through semi-structured interviews with selected teachers. Interview questions focused on how the principal enacted intellectual stimulation in daily leadership practices, how teachers experienced these behaviors, and how such experiences influenced their confidence, professional growth, and instructional decision-making. The interview phase was conducted after the quantitative analysis so that the qualitative findings could help explain and deepen the statistical results.

Data Analysis

Quantitative data were analyzed using descriptive and inferential statistical techniques. Descriptive statistics were employed to examine the overall level of perceived intellectual stimulation and teachers' self-efficacy. Inferential analyses, including correlation and regression analyses, were conducted to determine the extent to which principals' intellectual stimulation predicted teachers' self-efficacy. Statistical significance was set at $p < .05$. The quantitative data were analyzed using SPSS 23.

Interview data were transcribed verbatim and analyzed using thematic analysis. Coding was conducted inductively to identify recurring patterns related to leadership practices, cognitive engagement, professional autonomy, and self-efficacy development. Themes emerging from the qualitative data were used to explain and contextualize the quantitative findings.

To ensure trustworthiness, data triangulation was achieved by integrating quantitative and qualitative findings. Member checking was conducted by sharing interview summaries with participants to confirm accuracy. Ethical approval was obtained, and informed consent was secured from all participants. Confidentiality and anonymity were maintained throughout the study.

Results and Discussion

Table 1 presents the descriptive statistics of principals' intellectual stimulation and teachers' self-efficacy. The results indicate that teachers generally perceived the principal's intellectual stimulation practices as moderate to high, suggesting frequent encouragement of reflective thinking, openness to new ideas, and support for instructional innovation. Teachers' self-efficacy also demonstrated a relatively high tendency, reflecting strong confidence in their instructional competence, classroom management, and ability to engage students (Armiyanti et al., 2023). These descriptive findings indicate that the school context was characterized by relatively positive perceptions of leadership support and teacher professional confidence.

Table 1. Descriptive Statistics of Principal Intellectual Stimulation and Teachers' Self-Efficacy (N = 52)

Variable	Mean	SD	Minimum	Maximum
Principal Intellectual Stimulation	23.19	7.37	10	36
Teachers' Self-Efficacy	39.56	10.00	22	57

Prior to conducting regression analysis, assumption tests were performed to ensure the suitability of the data. Table 2 summarizes the results of the normality, linearity, and heteroscedasticity tests. The residuals were normally distributed, the relationship between the variables was linear, and no heteroscedasticity was detected. These results confirm that the data met the assumptions required for linear regression analysis.

The confirmation of these assumptions strengthens the credibility of the regression findings and supports the interpretation that changes in teachers' self-efficacy occur systematically in relation to principals' intellectual stimulation practices (Creswell & Plano Clark, 2018).

Table 2. Summary of Regression Assumption Tests

Assumption Tested	Method / Indicator	Result	Interpretation
Normality of residuals	Absolute residual regression test	$p > .05$	Residuals normally distributed
Linearity	ANOVA test of linearity	$p < .001$ (Linearity) $p > .05$ (Deviation)	Linear relationship confirmed
Heteroscedasticity	Regression of absolute residuals	$p > .05$	No heteroscedasticity

To examine the effect of principals' intellectual stimulation on teachers' self-efficacy, a simple linear regression analysis was conducted. The results are presented in Table 3. The analysis reveals that principals' intellectual stimulation significantly predicts teachers' self-efficacy, indicating a strong

positive relationship between leadership practices and teachers' beliefs in their professional capabilities.

This finding supports the central argument of transformational leadership theory that intellectual stimulation functions as a key mechanism through which leaders influence followers' psychological and professional outcomes (Bass & Avolio, 1994; Bass & Riggio, 2006). By encouraging teachers to question existing practices, explore alternative strategies, and view challenges as opportunities for learning, principals contribute to teachers' confidence and instructional agency.

From a psychological perspective, intellectual stimulation enhances teachers' self-efficacy by fostering mastery experiences and cognitive empowerment (Alimudin & Sukoco, 2017). When teachers are trusted to experiment and reflect critically, they are more likely to perceive themselves as capable of handling complex instructional demands (Bandura, 1997; Edmondson, 2018). This finding also explains *how* leadership practices translate into improved teacher outcomes, moving beyond structural or administrative explanations.

Furthermore, the strong predictive relationship suggests that intellectual stimulation is particularly relevant in contexts characterized by curriculum reform and educational change (Alida, 2022). The relevance of transformational leadership practices in fostering better teacher outcomes has also been found in studies within elementary school settings (Azmiati et al., 2025). Schools facing similar challenges may benefit from leadership approaches that prioritize cognitive engagement and professional autonomy as pathways to strengthening teacher self-efficacy.

Table 3. Model Summary and Linear Regression Analysis of Principals' Intellectual Stimulation on Teachers' Self-Efficacy

Predictor Variable	B	SE	β	t	p
Constant	8.15	0.34	—	24.16	< .001
Principal Intellectual Stimulation	1.35	0.01	.997	97.65	< .001

The regression model was statistically significant, $F(1, 50) = 9535.92$, $p < .001$, with $R = .997$, $R^2 = .995$, and Adjusted $R^2 = .995$. This indicates that principals' intellectual stimulation accounted for approximately 99.5% of the variance in teachers' self-efficacy in this sample. The regression coefficient further showed that every one-point increase in principals' intellectual stimulation was associated with a 1.35-point increase in teachers' self-efficacy ($B = 1.354$, $SE = 0.014$, $\beta = .997$, $t = 97.652$, $p < .001$). Because the regression model included only one predictor variable, multicollinearity was not applicable in this analysis. However, the very strong relationship should be interpreted cautiously because the constructs may be conceptually close within this specific single-school context.

Overall, the quantitative findings indicate that teachers perceived intellectual stimulation positively and that it was strongly associated with their self-efficacy. These results address the first objective of the study by showing that leadership behaviors centered on cognitive encouragement, reflection, and innovation are closely linked to teachers' professional confidence. However, quantitative findings alone do not explain how such leadership is enacted in everyday school life. Therefore, the qualitative phase was necessary to explore how teachers experienced these practices more concretely.

The qualitative findings provide explanatory insights into the mechanisms through which principals' intellectual stimulation contributes to the development of teachers' self-efficacy, thereby complementing and enriching the quantitative results (Creswell & Plano Clark, 2018). To

synthesize the qualitative findings, Table 4 summarizes how each leadership practice contributed to teachers' self-efficacy across the five emergent themes.

Table 4. Cross-Theme Synthesis of Intellectual Stimulation and Teachers' Self-Efficacy

Theme	Leadership Practice	Contribution to Teachers' Self-Efficacy
Encouragement to experiment with new teaching methods	The principal encouraged teachers to try alternative strategies and view experimentation as part of professional practice.	Strengthened confidence in instructional decision-making and increased willingness to innovate.
Support when experimenting or experiencing failure	The principal responded to unsuccessful attempts with reflection and encouragement rather than blame.	Reduced fear of failure, sustained confidence, and strengthened resilience in facing instructional challenges.
Opportunities for professional dialogue	The principal created formal and informal spaces for discussion, idea sharing, and collaborative problem-solving.	Reinforced confidence through social persuasion, shared learning, and reduced professional isolation.
Freedom to express alternative ideas	The principal welcomed different opinions, alternative teaching approaches, and critical input from teachers.	Strengthened teachers' sense of agency, autonomy, and confidence in their professional judgment.
Psychological safety	The principal created a non-punitive climate where teachers felt safe to take risks, make mistakes, and reflect openly.	Functioned as the enabling condition that supported experimentation, dialogue, persistence, and overall self-efficacy development.

As shown in Table 4, the five themes indicate that intellectual stimulation influenced teachers' self-efficacy through interconnected leadership practices rather than through isolated actions. Across themes, psychological safety emerged as the central enabling condition, allowing teachers to experiment, reflect on failure, engage in dialogue, and express alternative ideas with confidence. This synthesis suggests that intellectually stimulating leadership operates not only through cognitive challenge, but also through a relational climate of trust and support.

Encouragement to Experiment with New Teaching Methods

One prominent theme emerging from the interview data was the principal's encouragement for teachers to experiment with new teaching methods. Participants described how the principal consistently motivated them to explore alternative instructional strategies, adapt pedagogical approaches, and move beyond routine teaching practices. This encouragement was perceived as a key factor that strengthened teachers' confidence in their instructional capabilities.

Excerpt 1 (R1): *"The principal often encourages us to try new teaching methods, especially when the old way does not work well with students. We are told that it is okay to experiment as long as it helps student learning."*

This excerpt illustrates how the principal explicitly promotes experimentation as a legitimate and valued part of teaching practice. By framing instructional experimentation as acceptable and even desirable, the principal reduces teachers' fear of making mistakes and legitimizes innovation in the classroom. Such encouragement enables teachers to view experimentation not as a risk, but as a

professional responsibility, thereby fostering greater confidence in their ability to design and implement new instructional strategies.

Excerpt 2 (R4): *"When new teaching ideas come up, the principal usually supports us and asks us to try them in class. Even if the results are not perfect, we are encouraged to reflect and improve."*

This excerpt highlights the principal's role in actively supporting teachers' innovative ideas and reinforcing a reflective approach to teaching. Rather than demanding immediate success, the principal emphasizes learning and improvement through practice. This approach strengthens teachers' sense of self-efficacy by enabling them to experience growth through trial and reflection, thereby increasing their confidence in managing instructional challenges.

The findings of Theme 1 indicate that principals' encouragement to experiment with new teaching methods plays a critical role in strengthening teachers' self-efficacy. This can be explained by how intellectual stimulation, as a core component of transformational leadership, creates conditions that enable teachers to engage in mastery experiences, which Bandura identifies as the most influential source of self-efficacy (Bandura, 1997; Bass & Riggio, 2006). When principals encourage instructional experimentation without imposing rigid expectations of immediate success, teachers are more likely to perceive challenges as opportunities for professional growth rather than as threats to their competence. This supportive leadership behavior reduces fear of failure and fosters a growth-oriented mindset, enabling teachers to develop confidence in their instructional decision-making (Sunaryo et al., 2021). Consistent with Bass and Avolio's conception of intellectual stimulation, the principal's role in questioning established practices and promoting innovation encourages teachers to think critically and creatively about their pedagogy (Bass & Avolio, 1995). The findings align with previous studies indicating that transformational leadership promotes teacher innovation and professional confidence (Leithwood & Sun, 2021). This mechanism has also been identified as a key driver of innovative behavior and work productivity across various organizational contexts (Arisman & Sopiah, 2022; Asman & Rony, 2023; Widana et al., 2020). Beyond the immediate research context, this finding suggests that encouraging pedagogical experimentation may be an effective leadership strategy in schools facing curriculum changes, diverse student needs, or instructional reform. By legitimizing experimentation as part of professional practice, school leaders in various educational settings can enhance teachers' adaptive capacity and sustain instructional improvement in dynamic educational environments.

Support When Experimenting or Experiencing Failure

Another salient theme identified from the interview data was the principal's supportive response when teachers experimented with new practices or encountered difficulties and failure. Participants emphasized that the principal neither assigned blame nor expressed disappointment when instructional innovations did not yield immediate success. Instead, teachers experienced emotional, professional, and instructional support, which contributed to their willingness to persist and improve.

Excerpt 1 (R3): *"When a new teaching approach does not work as expected, the principal does not blame us. Instead, we are asked to reflect on what can be improved and try again."*

This excerpt demonstrates how the principal reframes failure as a learning opportunity rather than a professional shortcoming. By avoiding punitive responses, the principal reduces teachers' anxiety associated with instructional risk-taking. This supportive stance allows teachers to maintain confidence in their abilities even when outcomes are not optimal, reinforcing their belief that competence develops through reflection and continuous improvement.

Excerpt 2 (R7): *"I once tried a new learning strategy, and the class became chaotic. The principal supported me and said that it was part of the learning process. That made me confident to try again."*

This excerpt highlights the emotional dimension of leadership support. The principal's reassurance helped the teacher recover from a challenging classroom experience and restored confidence to continue experimenting. Such responses foster psychological resilience and reinforce teachers' beliefs that they are capable of overcoming instructional challenges, which directly contributes to stronger self-efficacy.

The findings of Theme 2 suggest that principals' supportive responses to experimentation and failure play a vital role in shaping teachers' self-efficacy. This occurs because intellectual stimulation in transformational leadership is not limited to encouraging innovation, but also involves protecting teachers from the negative consequences of risk-taking. From the perspective of Bandura's self-efficacy theory, supportive leadership in the face of failure prevents negative mastery experiences from undermining teachers' confidence. Instead of internalizing failure as evidence of incompetence, teachers reinterpret it as part of professional learning (Bandura, 1997). This finding aligns with transformational leadership theory, which emphasizes leaders' responsibility to create a safe environment for intellectual risk-taking (Bass & Riggio, 2006; Leithwood, 2020). Prior studies have shown that when school leaders respond constructively to failure, teachers demonstrate higher resilience, persistence, and instructional confidence (Shaukat et al., 2023). The applicability of this finding extends beyond the current context, particularly in educational systems undergoing reform, digital transformation, or curriculum innovation, where instructional trial and error is inevitable. Principals who provide consistent support during setbacks can sustain teachers' motivation and self-efficacy, thereby enabling long-term instructional improvement across diverse school settings.

Opportunities for Professional Dialogue

The interview data revealed that opportunities for professional dialogue constituted an important form of intellectual stimulation provided by the principal. Teachers described how the principal intentionally facilitated structured and informal discussions, such as staff meetings, peer-sharing sessions, and reflective conversations, to encourage critical thinking, the exchange of ideas, and collaborative problem-solving. These dialogic practices were perceived as enhancing teachers' professional confidence and sense of instructional competence.

Excerpt 1 (R2): *"The principal often opens space for discussion during meetings, where we can share teaching problems and learn from each other's experiences."*

This excerpt illustrates how the principal promotes dialogic engagement as part of everyday school practice. By inviting teachers to articulate challenges and share experiences, the principal validates their professional voices and encourages collective learning. Such dialogue enables teachers to gain new instructional insights and reinforces their confidence in handling classroom issues through shared expertise.

Excerpt 2 (R9): *"We are encouraged to discuss new teaching ideas together, not only in formal meetings but also informally. This helps us feel more confident because we are not working alone."*

This excerpt highlights the relational and collaborative dimension of professional dialogue. The principal's facilitation of both formal and informal discussions reduces professional isolation and strengthens teachers' sense of collective efficacy. Knowing that instructional challenges can be openly discussed contributes to teachers' beliefs in their ability to cope with teaching demands effectively.

The findings of Theme 3 demonstrate that professional dialogue serves as a powerful mechanism through which principals' intellectual stimulation enhances teachers' self-efficacy. This can be explained by the role of social persuasion and vicarious experiences in Bandura's self-efficacy framework. Through professional dialogue, teachers observe peers successfully addressing instructional challenges and receive constructive feedback, which reinforces their belief in their own capabilities (Aryani & Haryadi, 2023). From a transformational leadership perspective, facilitating dialogue reflects the leader's commitment to collective sense-making and shared problem-solving, core elements of intellectual stimulation (Bass & Avolio, 1994; Bass & Riggio, 2006). These findings are consistent with previous research showing that collaborative professional cultures foster teacher confidence, instructional improvement, and sustained motivation (Hargreaves & O'Connor, 2018; Leithwood & Sun, 2021). Beyond the present study, the implications of this finding suggest that school leaders in diverse contexts can enhance teachers' self-efficacy by institutionalizing professional dialogue through learning communities, reflective meetings, and peer collaboration. Such practices are particularly relevant in complex educational environments where teachers must continuously adapt to changing pedagogical and curricular demands.

Freedom to Express Alternative Ideas

The findings indicate that freedom to express alternative ideas is a salient manifestation of intellectual stimulation in the principal's transformational leadership (Bass & Riggio, 2006; Northouse, 2022). Teachers reported that the principal consistently encouraged them to voice different opinions, propose alternative instructional strategies, and question existing practices without fear of negative consequences. This openness was perceived as fostering teachers' confidence in their professional judgment and decision-making abilities.

Excerpt 1 (R4): *"The principal allows us to express different opinions, even when they are not the same as the school's usual approach."*

This excerpt demonstrates how the principal creates an environment that values intellectual diversity and critical thinking. By legitimizing alternative viewpoints, the principal signals trust in teachers' professional competence. Such recognition strengthens teachers' beliefs in their capacity to analyze instructional situations independently and to make informed pedagogical decisions.

Excerpt 2 (R7): *"When I suggest a different way of teaching or organizing lessons, the principal listens and considers it seriously."*

This excerpt highlights the importance of leader responsiveness in fostering self-efficacy. The act of listening and considering teachers' ideas affirms their professional agency. This validation enhances teachers' confidence in their instructional creativity and reinforces their belief that their ideas can meaningfully contribute to school improvement.

The findings of Theme 4 suggest that freedom to express alternative ideas functions as a critical pathway through which intellectual stimulation influences teachers' self-efficacy. From a theoretical perspective, intellectual stimulation encourages followers to challenge assumptions and explore new approaches, which aligns with transformational leadership theory. When teachers are given autonomy to express and develop alternative ideas, they experience increased control over their professional practice (Bandura, 1997; Bass & Riggio, 2006). This finding also resonates with constructivist views of professional learning, which emphasize dialogue, reflection, and agency as foundations of teacher development (Triantoro et al., 2025). Prior studies have shown that leadership practices promoting autonomy and voice are associated with higher levels of teacher confidence, innovation, and commitment (Bush & Glover, 2014; Leithwood, 2020). The

applicability of this finding extends beyond the present context, suggesting that school leaders who intentionally cultivate spaces for open expression can enhance teachers' self-efficacy and adaptability, particularly in environments requiring continuous instructional innovation.

Psychological Safety

The analysis revealed that psychological safety functioned as an important enabling condition underlying the relationship between principals' intellectual stimulation and teachers' self-efficacy. Teachers described feeling safe taking instructional risks, making mistakes, and expressing uncertainties without fear of blame or judgment. This sense of safety was attributed to the principal's supportive responses, non-punitive attitudes toward failure, and emphasis on learning rather than fault-finding.

Excerpt 1 (R1): *"I am not afraid of making mistakes because the principal treats mistakes as part of the learning process."*

This excerpt illustrates how the principal reframes errors as opportunities for professional growth. By normalizing mistakes, the principal reduces anxiety and encourages teachers to engage in reflective practice. This supportive climate strengthens teachers' confidence in their ability to learn from experience and continuously improve their instructional competence.

Excerpt 2 (R10): *"Even when a lesson does not go well, the principal supports us and helps us think about how to improve next time."*

This excerpt highlights the principal's role in providing constructive guidance rather than punitive evaluation. Such leadership behavior reinforces teachers' beliefs that they can overcome instructional challenges through effort and reflection. Feeling psychologically safe enables teachers to persist, experiment, and refine their teaching practices, all of which are closely tied to self-efficacy development.

The findings of Theme 5 underscore psychological safety as a foundational condition for effective intellectual stimulation. From the perspective of Bandura's self-efficacy theory, psychological safety reduces emotional arousal and fear of failure factors that can undermine efficacy beliefs (Bandura, 1997). When teachers perceive their environment as supportive and non-threatening, they are more likely to engage in challenging tasks and sustain confidence in their abilities (Agustin et al., 2022). In transformational leadership theory, intellectual stimulation is most effective when followers feel safe questioning assumptions and experimenting with new ideas (Bass & Riggio, 2006; Northouse, 2022). These findings align with prior research indicating that psychologically safe school environments promote teacher learning, innovation, and professional resilience (Edmondson, 2018; Fullan, 2014). This psychologically safe environment serves as the foundation for a positive school climate, which has been shown to be a vital mediator between transformational leadership and important outcomes such as job satisfaction and enhanced teacher performance (Agustin et al., 2022; Shaukat et al., 2023). Beyond the present study, this result suggests that school leaders seeking to enhance teacher self-efficacy should prioritize psychological safety as a leadership practice, particularly in contexts characterized by change, accountability pressures, and instructional reform.

Across the five themes, psychological safety emerged as the central condition that enabled intellectual stimulation to influence teachers' self-efficacy. Teachers were more willing to experiment, engage in dialogue, express alternative ideas, and persist after failure when they felt safe from blame and supported by the principal. This cross-theme pattern strengthens the

interpretation that intellectually stimulating leadership does not operate only through cognitive challenge, but also through a relational climate of trust and support.

The novelty of this study lies in its focused examination of intellectual stimulation as a distinct dimension of transformational school leadership rather than treating transformational leadership as a single undifferentiated construct. In addition, by combining regression analysis with qualitative accounts from teachers, this study explains not only that intellectual stimulation is related to teachers' self-efficacy, but also how that relationship is experienced in everyday school practice. This provides a more specific contribution to the literature on school leadership and teacher development, especially in the context of Indonesian public secondary education.

Theoretically, these findings extend transformational leadership and self-efficacy research by showing that intellectual stimulation may function as a key pathway through which leadership shapes teachers' professional confidence. In practice, the findings suggest that school principals should foster teachers' self-efficacy by encouraging experimentation, supporting reflection after failure, creating regular opportunities for professional dialogue, listening to alternative ideas, and maintaining a psychologically safe school climate. These practices may help schools strengthen instructional quality and teacher adaptability during educational change.

Conclusion

This study concludes that intellectual stimulation as a core dimension of transformational school leadership plays a significant role in shaping teachers' self-efficacy. Drawing on quantitative and qualitative data, the findings show that principals' practices of encouraging innovation, supporting experimentation, facilitating professional dialogue, allowing freedom of expression, and fostering psychological safety were closely associated with stronger teacher self-efficacy. The quantitative findings show a robust predictive relationship between principals' intellectual stimulation and teachers' self-efficacy, indicating that leadership behaviors focused on innovation and critical thinking are linked to teachers' stronger beliefs in their professional capabilities. This study contributes to the literature by showing that intellectual stimulation is not merely a leadership attribute but a set of relational practices that can strengthen teachers' confidence, agency, and instructional growth. Practically, school principals are recommended to create intellectually supportive and psychologically safe environments in which teachers are encouraged to try new approaches, reflect on failure, and participate in professional dialogue. In addition, leadership development programs and school policies should place greater emphasis on intellectual stimulation as a strategy to strengthen teachers' capacity and instructional quality. Future studies are recommended to involve multiple schools and broader samples to examine whether similar patterns are found across different educational contexts.

Bibliography

Aditya, S. N. C., Prasojo, L. D., & Novianto, A. (2025). Principal's transformational leadership as a catalyst for teacher performance improvement in an Indonesian elementary school. *Jurnal Penelitian Ilmu Pendidikan*, *18*(2), 99–108. https://doi.org/10.21831/jpip.v18i2.92327

Agustin, M., Hidayatulloh, H., & Muhammad, D. H. (2022). The influence of principal's democratic leadership style on teacher performance. *ICIGR Conference Proceedings, KNE Social Sciences*, 400–408. https://doi.org/10.18502/kss.v7i10.11242

Alida, N. (2022). Analysis of the importance of transformational leadership in implementing driving school program policies. *Jurnal Al-Fikrah: Jurnal Manajemen Pendidikan*, *X*(1), 33–39. https://doi.org/10.31958/jaf.v10i1.4987

Alimudin, A., & Sukoco, A. (2017). The leadership style model that builds work behavior through

organizational culture. *Jurnal Lentera: Kajian Keagamaan, Keilmuan Dan Teknologi*, *16*(1), 57–66. https://doi.org/10.29138/lentera.v16i1.272

Arisman, & Sopiah. (2022). The influence of transformational leadership and innovative behavior on employee performance. *Jurnal Multidisiplin Madani (Mudima)*, *2*(4), 1947–1962. https://doi.org/10.55927/mudima.v2i4.286

Armiyanti, Sutrisna, T., Yulianti, L., Lova, N. R., & Komara, E. (2023). Kepemimpinan transformasional dalam meningkatkan kinerja layanan pendidikan (Transformational leadership in improving the performance of educational services). *Jurnal Educatio*, *9*(2), 1061–1070. https://doi.org/10.31949/educatio.v9i2.5104

Aryani, R. M., & Haryadi, R. (2023). Principals' implementation of collaborative leadership to improve learning quality. *Edufisika: Jurnal Pendidikan Fisika*, *8*(1), 6–15. https://doi.org/10.59052/edufisika.v8i1.24602

Asman, Z., & Rony, Z. T. (2023). Pengaruh gaya kepemimpinan transformasional terhadap produktivitas kerja : Studi analisis tinjauan literatur sistematik (The influence of transformational leadership style on work productivity: A systematic literature review analysis). *Journal Bisnis Dan Ekonomi*, *1*(01), 68–87. https://doi.org/10.61597/jbe-ogzrp.v1i1.5

Azmiati, Marwan, & Siraj. (2025). Kepemimpinan transformasional kepala sekolah dalam meningkatkan kinerja guru pada sekolah dasar di kabupaten Bireuen (The principal's transformational leadership in improving teacher performance in elementary schools in Bireuen Regency). *Journal on Education*, *07*(02), 8771–8780. https://doi.org/10.31004/joe.v7i2.7770

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

Bass, B. M., & Avolio, B. J. (1994). *Improving organizational effectiveness through transformational leadership*. Sage Publications.

Bass, B. M., & Avolio, B. J. (1995). *MLQ multifactor leadership questionnaire: Technical report*. Mind Garden.

Bass, B. M., & Riggio, R. E. (2006). *Transformational leadership* (2nd ed.). Lawrence Erlbaum Associates.

Bush, T. (2011). *Theories of educational leadership and management* (4th ed.). SAGE Publications.

Bush, T., & Glover, D. (2014). School leadership models: What do we know? *School Leadership & Management*, *34*(5), 553–571. https://doi.org/10.1080/13632434.2014.928680

Creswell, J. W., & Plano Clark, V. L. (2018). *Designing and conducting mixed methods research* (3rd ed.). SAGE Publications.

Edmondson, A. C. (2018). *The fearless organization: Creating psychological safety in the workplace for learning, innovation, and growth*. John Wiley & Sons.

Fullan, M. (2014). *The principal: Three keys to maximizing impact*. Jossey-Bass.

Hamzah, Manafe, H. A., Kaluge, A. H., & Niha, S. S. (2024). Pengaruh kepemimpinan, iklim sekolah, motivasi, terhadap kinerja dan disiplin guru (The influence of leadership, school climate, and motivation on teacher performance and discipline). *Journal of Education Research*, *5*(3), 4192–4205. https://doi.org/10.37985/jer.v5i3.1499

Hargreaves, A., & O'Connor, M. T. (2018). *Collaborative professionalism: When teaching together means learning for all*. Corwin Press.

He, P., Guo, F., & Abazie, G. A. (2024). School principals' instructional leadership as a predictor of teacher's professional development. *Asian-Pacific Journal of Second and Foreign Language Education*, *9*(63), 1–18. https://doi.org/10.1186/s40862-024-00290-0

Leithwood, K. (2020). Characteristics of effective leadership networks. *Journal of Educational Administration*, *58*(2), 131–146. https://doi.org/10.1108/JEA-09-2019-0173

Leithwood, K., & Sun, J. (2021). How school leadership influences student learning: A test of "The four paths model." *Educational Administration Quarterly*, *57*(1), 1–44. https://doi.org/10.1177/0013161X20941072

Lenawati, Munira. AR2, & Usman, N. . (2026). Participatory leadership to improve teacher performance motivation in junior high schools. *Indonesian Journal of Educational Development (IJED)*, *6*(4), 1338–1352. https://doi.org/10.59672/ijed.v6i4.5680

Li, D., Hallinger, P., & Ko, J. (2021). Exploring the effects of transformational leadership on teacher professional learning in primary schools: A longitudinal study. *Educational Management Administration & Leadership*, *49*(3), 411–431. https://doi.org/10.1177/1741143219896043

Nasution, M., & Inom, A. (2025). Leadership of school principals in improving the quality of teacher learning. *Urwatul Wutsqo: Jurnal Studi Kependidikan Dan Keislaman*, *14*(2), 464–478. https://doi.org/10.54437/urwatulwutsqo.v14i2.2201

Northouse, P. G. (2022). *Leadership: Theory and practice* (9th ed.). SAGE Publications.

Purnadewi, G. A. A., Arnawa, N., & Tatminingsih, S. (2023). The influence of school culture, learning interest, and learning motivation on science learning outcomes. *Indonesian Journal of Educational Development (IJED)*, *4*(2), 126-138. https://doi.org/10.59672/ijed.v4i2.3040

Schmitz, M.-L., Antonietti, C., Consoli, T., Cattaneo, A., Gonon, P., & Petko, D. (2023). Transformational leadership for technology integration in schools: Empowering teachers to use technology in a more demanding way. *Computers & Education*, *204*, 104880. https://doi.org/10.1016/j.compedu.2023.104880

Shaukat, H. S., Ali, M., Hussain, S., & Dar, K. A. (2023). Impact of transformational leadership on job satisfaction: A mediating role of school climate in school teachers of Pakistan. *Journal of ISOSS*, *9*(1), 17–34.

Suhardita, K., Widana, I. W., Degeng, I. N. S., Muslihati, M., & Indreswari, H. (2024). Sharing behavior in the context of altruism is a form of strategy for building empathy and solidarity. *Indonesian Journal of Educational Development (IJED)*, *5*(3), 316-324. https://doi.org/10.59672/ijed.v5i3.4145

Sunaryo, W., Tukiran, M., Yusnita, N., & Wulandari, D. (2021). Developing a model of transformational and transactional leadership styles, teachers' perceptions, and teachers' satisfaction: Evidence from Indonesian high schools. *Psychology And Education*, *58*(1), 2305–2319. https://doi.org/10.17762/pae.v58i1.1107

Triantoro, R. P., Mawardi, M. F., Safitri, A. A., & Cinantya, C. (2025). Tinjauan literatur strategi kepemimpinan transformasional kepala sekolah dalam meningkatkan kompetensi guru (A literature review of principals' transformational leadership strategies in improving teacher competence). *Jurnal Ilmiah Pendidik Indonesia*, *4*(1), 15–26. https://doi.org/10.56916/jipi.v4i1.1566

Wibowo, U. S., & Triyanto. (2021). School-based management in Indonesia: Constraints and challenges. *Educational Management Administration & Leadership*, *49*(5), 799–816. https://doi.org/10.1177/1741143220915576

Widana, I. W., Sumandya, I. W., Sukendra, K., Sudiarsa, I. W. (2020). Analysis of conceptual understanding, digital literacy, motivation, divergent thinking, and creativity on the teacher's skills in preparing HOTS-based assessments. *Jour of Adv Research in Dynamical & Control Systems, 12*(8), 459-466. https://doi.org/10.5373/JARDCS/V12I8/20202612

Widana, I. W. (2022). Meta-analysis: The relationship between self-regulated learning and mathematical critical reasoning. *Education.Innovation.Diversity, 1*(4), 64-75. https://doi.org/10.17770/eid2022.1.6739