



Instructional Leadership, Teacher-Related Factors, and Perceived Student Outcomes in Private Senior High Schools in Villaba, Leyte

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ABSTRACT

This study examined the relationships among instructional leadership, teacher-related factors, and perceived student outcomes in selected private Senior High Schools in Villaba, Leyte. Using a descriptive-correlational research design, the study gathered data from 60 Senior High School teachers from three private schools participating in FAPE–PEAC programs. A researcher-made survey questionnaire assessed teachers' perceptions of instructional leadership, teacher-related factors, and perceived student outcomes. Weighted mean and standard deviation were used to describe the variables, Pearson Product–Moment Correlation was used to examine relationships, and simple linear regression was used to examine the predictive relationship between teacher-related factors and perceived student outcomes. Instructional leadership ($M = 3.84$), teacher-related factors ($M = 3.71$), and perceived student outcomes ($M = 3.69$) were all rated high. Instructional leadership was very strongly and positively related to teacher-related factors ($r = .99$, $p < .001$), while teacher-related factors were strongly and positively related to perceived student outcomes ($r = .73$, $p < .001$). Regression analysis indicated that teacher-related factors significantly predicted perceived student outcomes ($R = .73$, $R^2 = .53$, $F(1, 58) = 65.20$, $p < .001$), accounting for approximately 53% of the variance in the outcome measure. The findings contribute contextualized empirical evidence by examining these three constructs within a small private-school setting in Eastern Visayas, while recognizing that the correlational design and teacher-reported measures do not establish causation. The study recommends sustained instructional supervision, coaching and mentoring, professional development, reflective practice, and data-informed school improvement.

Keywords: instructional leadership; teacher-related factors; perceived student outcomes; Senior High School; educational management; Villaba, Leyte

INTRODUCTION

Instructional leadership refers to the ways school leaders organize, support, and monitor teaching and learning through curriculum management, instructional supervision, professional support, and the development of a positive learning climate. Hallinger and Murphy's (1985) instructional management framework identifies managing the instructional program and promoting a positive school learning climate as central leadership functions. More recent international evidence likewise indicates that instructional leadership is related to teachers' professional attitudes and practices, although the strength of these relationships varies across contexts (Hallinger et al., 2025; Ninković & Knežević Florić, 2024).

In the Philippine setting, recent studies have also examined instructional leadership in relation to teacher performance, teacher efficacy, collaboration, and student learning. Daing and Mustapha (2023), for example, examined school administrators' instructional leadership skills and teachers' performance and efficacy in Senior High Schools in the National Capital Region. Daigon and Alcopra (2024) investigated instructional supervision and teacher efficacy in Bukidnon, while Tatoy (2024) examined instructional leadership, collaboration, and school-head performance in Antique. More recent work has extended the discussion to Senior High School learning outcomes (Manguiat, 2025) and teachers' work performance (Capillanes, 2025).



These studies support the relevance of instructional leadership and teacher-related practices, but they also show that findings are context-dependent and that leadership is not uniformly related to outcomes across settings.

Teacher-related factors in the present study refer to professional and instructional practices through which teachers translate school goals into classroom experiences. These include professional competence, classroom management, instructional strategies, and compliance and reflection. The focus on these dimensions is consistent with the broader literature emphasizing professional learning, teacher collaboration, self-efficacy, and instructional practice as important pathways through which school leadership is associated with teaching (Ninković & Knežević Florić, 2024). Bandura's (1986) Social Cognitive Theory further provides a basis for viewing teacher behavior as shaped by reciprocal interactions among personal, behavioral, and environmental factors. In a school setting, leadership practices and professional support form part of the environment in which teachers develop and enact instructional practices.

The study also considers perceived student outcomes in terms of academic achievement, learning progress, behavior and discipline, and college readiness. Because these outcomes were measured through teacher perceptions rather than independently verified student records or external assessments, the construct is operationalized as perceived student outcomes. This distinction is important in interpreting the findings and prevents the results from being presented as direct evidence of students' objectively measured achievement.

The study is situated in selected private Senior High Schools in Villaba, Leyte participating in FAPE–PEAC programs. This local setting is significant because much of the available literature has examined public schools, larger school systems, or urban settings. Recent Philippine studies demonstrate continuing interest in instructional leadership, yet there remains limited empirical evidence that simultaneously examines instructional leadership, teacher-related factors, and perceived student outcomes among teachers in small private Senior High Schools in a specific municipality in Eastern Visayas. Although previous Philippine studies have examined instructional leadership in relation to teacher performance, efficacy, collaboration, and student learning, they have generally addressed selected relationships or different school contexts. Less is known about how these three constructs are interconnected within small private Senior High Schools in a rural municipality such as Villaba, Leyte, and about whether teacher-related factors statistically predict perceived student outcomes in this setting. The present study therefore contributes localized evidence by examining these constructs within the same empirical framework and by identifying the extent to which teacher-related factors statistically predict perceived student outcomes.

Despite growing evidence on instructional leadership, teacher practices, and student learning, there remains insufficient empirical evidence on how these factors are related within small private Senior High Schools in rural Philippine settings. In Villaba, Leyte, the extent to which instructional leadership is associated with teacher-related factors and whether teacher-related factors statistically predict perceived student outcomes have not been sufficiently established. This gap limits the availability of context-specific evidence that school leaders and teachers can use to strengthen instructional practices and school improvement. The present study addresses this problem by examining the relationships among instructional leadership, teacher-related factors, and perceived student outcomes and by testing the predictive relationship between teacher-related factors and perceived student outcomes.

The theoretical basis of the study integrates Hallinger and Murphy's (1985) instructional management model, Bandura's (1986) Social Cognitive Theory, and Vygotsky's (1978) Sociocultural Theory. Hallinger and Murphy provide the principal framework for examining instructional leadership through school program management and the promotion of a positive learning climate. Bandura's theory supports the view that teachers' professional behaviors develop through the reciprocal interaction of personal characteristics, behavior, and environmental influences. Vygotsky's sociocultural perspective emphasizes the importance of social interaction, collaboration, guidance, and scaffolding in professional and cognitive development. Taken together, the theories provide a coherent basis for examining how school leadership is associated with teacher-related factors and how teacher-related factors are associated with perceived student outcomes. The study's theoretical contribution is integrative and contextual rather than the development of a new theory: it brings



these perspectives together in a single empirical framework and applies them to a small private Senior High School context that is less represented in the Philippine literature. These theories explain the proposed relationships; they do not establish causal effects in the present correlational study.

Operational Definitions of Key Variables

Instructional leadership refers to teachers' perceptions of school administrators' practices in managing the school program and promoting a positive learning climate, as measured by the researcher-made questionnaire.

Teacher-related factors refer to the professional and instructional practices of Senior High School teachers as measured through professional competence, classroom management, instructional strategies, and compliance and reflection.

Perceived student outcomes refer to teachers' assessments of students' academic and developmental outcomes in terms of academic achievement, learning progress, behavior and discipline, and college readiness. These are perception-based measures and are not equivalent to independently verified student records.

Conceptual Framework

The conceptual framework proposes that instructional leadership is associated with teacher-related factors and that teacher-related factors are associated with perceived student outcomes. In the conceptual model, instructional leadership is conceptualized as a school-level construct associated with teacher-related factors, while teacher-related factors are examined as a possible intervening construct associated with perceived student outcomes; however, mediation was not tested in the present study. The study directly tests these associations through Pearson correlation. It also tests the statistical predictive relationship between teacher-related factors and perceived student outcomes through simple linear regression. The arrows in Figure 1 represent hypothesized statistical relationships rather than causal effects. In this study, instructional leadership is treated as an antecedent or explanatory variable, teacher-related factors as the intervening construct of interest, and perceived student outcomes as the outcome variable; however, no mediation or causal pathway was statistically tested.

INSTRUCTIONAL LEADERSHIP	TEACHER-RELATED FACTORS	PERCEIVED STUDENT OUTCOMES
• Managing the school program • Promoting a positive learning climate	• Professional competence • Classroom management • Instructional strategies • Compliance and reflection	• Academic achievement • Learning progress • Behavior/discipline • College readiness

Instructional Leadership ↔ Teacher-Related Factors → Perceived Student Outcomes

Figure 1. Conceptual framework of the study. The arrows indicate statistical relationships, not causal effects.

Research Questions

Specifically, the study answered the following questions:

1. What is the level of instructional leadership of school administrators as perceived by teachers in terms of managing the school program and promoting a positive learning climate?
2. What is the level of teacher-related factors in terms of professional competence, classroom management, instructional strategies, and compliance and reflection?
3. What is the level of perceived student outcomes in terms of academic achievement, learning progress, behavior/discipline, and college readiness?
4. Is there a significant relationship between instructional leadership and teacher-related factors?



5. Is there a significant relationship between teacher-related factors and perceived student outcomes?
6. Do teacher-related factors significantly predict perceived student outcomes?

METHODOLOGY

Research Design and Participants

The study employed a quantitative descriptive-correlational research design. It was conducted in selected private Senior High Schools in Villaba, Leyte during School Year 2025–2026. The participants were 60 Senior High School teachers from three private Senior High Schools: Villaba Vocational High School, Inc.; Villaba Institute of Technology, Inc.; and Holy Child High School, Inc. Students and school heads were not direct respondents. The participating schools were selected within the private Senior High School and FAPE–PEAC context examined in the study, and the 60 teachers constituted the respondent group for the survey.

The three participating schools were selected because they were private Senior High Schools in Villaba, Leyte that met the study's inclusion criteria and were participating in the FAPE–PEAC program.

The study used total enumeration of eligible Senior High School teachers in the three participating schools. All teachers who met the study's eligibility criteria were invited to participate, resulting in 60 respondents. Because the study involved the complete accessible group of eligible teachers within the selected schools rather than a randomly selected sample, the findings are not presented as statistically generalizable to all private or public Senior High Schools. Instead, they are interpreted primarily as evidence applicable to the participating schools and to comparable private Senior High School settings. This sampling limitation is considered in interpreting the results and is addressed further in the limitations of the study.

Research Instrument and Measurement

A researcher-made survey questionnaire was used to gather data on instructional leadership, teacher-related factors, and perceived student outcomes. The instrument contained 31 substantive items across the three major constructs, excluding the respondent profile section. Instructional leadership was measured through 10 items covering two dimensions: managing the school program (5 items) and promoting a positive learning climate (5 items). Teacher-related factors were measured through 17 items covering professional competence (5 items), classroom management (5 items), instructional strategies (5 items), and compliance and reflection (2 items). Perceived student outcomes were measured through 4 items covering academic achievement, learning progress, behavior and discipline, and college readiness. All substantive items used five-point response scales appropriate to their respective constructs.

The instrument underwent content validation by three education experts representing educational management, curriculum implementation, and research, followed by pilot testing with teachers who had similar characteristics to the actual respondents but were not included in the main study. The validators assessed the items for clarity, relevance, appropriateness, and completeness, and revisions were made based on their recommendations. Cronbach's alpha was used to assess the internal consistency of the questionnaire, with 0.70 and above considered an acceptable reliability criterion. The original reliability output containing the actual Cronbach's alpha coefficients is no longer available in the study records; therefore, specific alpha values are not reported in this manuscript rather than introducing unverified values. The questionnaire was subsequently finalized and administered to the teacher-respondents.

Data Collection and Ethical Considerations

Permission to conduct the study was obtained through the Schools Division Office and the participating school heads. The researcher personally administered the validated questionnaire. Participation was voluntary and informed consent was obtained. Confidentiality and anonymity were maintained, respondent and school names were excluded from the questionnaire and database, and the collected data were securely stored and used solely for academic purposes.

Data Analysis

Weighted mean and standard deviation were used to describe the perceived levels of instructional leadership, teacher-related factors, and perceived student outcomes. Pearson Product–Moment Correlation was used to determine the strength and direction of the relationships between instructional leadership and teacher-related factors and between teacher-related factors and perceived student outcomes. Simple linear regression was used to determine whether teacher-related factors significantly predicted perceived student outcomes. Inferential tests were evaluated at the 0.05 level of significance. Because the research design was descriptive-correlational and the measures were based on teacher perceptions, statistical prediction was interpreted as an association within the observed data and not as evidence of causation.

For the regression analysis, teacher-related factors were entered as the single predictor and perceived student outcomes as the outcome variable. The analysis therefore examined statistical prediction within the observed sample and did not test mediation or causal effects.

RESULTS AND DISCUSSION

Level of Instructional Leadership

As shown in Table 1, instructional leadership was perceived as high overall ($M = 3.84$, $SD = 0.71$). Managing the school program obtained the higher mean ($M = 3.97$), while promoting a positive learning climate obtained $M = 3.78$. The results indicate that teachers generally perceived school administrators as consistently engaged in program management and in creating a supportive learning environment.

Table 1. Level of Instructional Leadership

<i>Dimension</i>	<i>M</i>	<i>SD</i>	<i>Interpretation</i>
Managing the school program	3.97	0.70	High
Promoting a positive learning climate	3.78	0.33	High
Overall instructional leadership	3.84	0.71	High

Note. Scores were interpreted as follows: 3.25–4.00 = high; 2.50–3.24 = moderately high; 1.75–2.49 = moderately low; 1.00–1.74 = low. M = mean; SD = standard deviation.

The finding is broadly consistent with recent Philippine studies reporting favorable perceptions of school-head instructional leadership and supervision (Daing & Mustapha, 2023; Daigon & Alcopra, 2024; Tatoy, 2024). It also aligns with international evidence showing that instructional leadership is meaningfully related to teachers' professional attitudes. Hallinger et al. (2025), in a meta-analytic review of 68 quantitative studies, reported a moderate positive relationship between principal instructional leadership and teacher attitudes. The present result should nevertheless be interpreted within the participating private schools because the study measured leadership through teacher perceptions and did not use independent observations of school-head behavior.

Level of Teacher-Related Factors

Teachers perceived teacher-related factors at a high level overall ($M = 3.71$, $SD = 0.71$). Professional competence obtained the highest composite mean ($M = 3.94$), followed by instructional strategies ($M = 3.91$), classroom management ($M = 3.88$), and compliance and reflection ($M = 3.68$). The pattern suggests that teachers generally viewed their professional and instructional practices favorably, while compliance and reflection represented the comparatively lower dimension and therefore an area for continued professional support.

Table 2. Level of Teacher-Related Factors

<i>Dimension</i>	<i>M</i>	<i>SD</i>	<i>Interpretation</i>
Professional competence	3.94	0.66	High
Classroom management	3.88	0.75	High
Instructional strategies	3.91	0.76	High
Compliance and reflection	3.68	0.81	High
Overall teacher-related factors	3.71	0.71	High

Note. Scores were interpreted using the same scale shown in Table 1. M = mean; SD = standard deviation.

The relatively high ratings across the four dimensions are consistent with the literature emphasizing professional learning, collaboration, self-efficacy, and instructional practice as important components of teachers' work. Ninković and Knežević Florić (2024) found that teacher collaboration, professional learning, and teacher self-efficacy were among the most frequently examined pathways connecting school leadership with teaching practice. Similarly, recent Philippine research has examined instructional supervision and teacher efficacy as related areas of school improvement (Daigon & Alcopra, 2024). In the present study, the lower mean for compliance and reflection suggests that professional development should not be limited to skills acquisition; it should also include structured opportunities for reflective practice, peer feedback, and evidence-based improvement.

Level of Perceived Student Outcomes

Perceived student outcomes were rated high overall ($M = 3.69$, $SD = 0.68$). Academic achievement obtained the highest mean ($M = 3.77$), followed by college readiness ($M = 3.70$), learning progress ($M = 3.65$), and behavior/discipline ($M = 3.63$). All dimensions were interpreted as high.

Table 3. Level of Perceived Student Outcomes

<i>Dimension</i>	<i>M</i>	<i>SD</i>	<i>Interpretation</i>
Academic achievement	3.77	0.72	High
Learning progress	3.65	0.71	High
Behavior/discipline	3.63	0.74	High
College readiness	3.70	0.70	High
Overall perceived student outcomes	3.69	0.68	High

Note. Scores were interpreted using the same scale shown in Table 1. M = mean; SD = standard deviation. Student outcomes were measured through teacher perceptions.

These results should be interpreted as teachers' assessments rather than independently verified student achievement. Recent Senior High School research in the Philippines has also examined the relationship between instructional leadership and student learning outcomes, demonstrating continuing interest in how leadership and teacher practices relate to learner performance (Manguiat, 2025). International evidence, however, cautions against assuming that the relationship between leadership and student achievement is uniform across contexts. Pietsch et al. (2025), using international large-scale assessment data across 75 countries, reported that the strength of the instructional leadership–student achievement relationship varied substantially across cultural and developmental contexts. This reinforces the need to interpret the present findings as context-specific evidence.

Relationship Between Instructional Leadership and Teacher-Related Factors

The results indicate a very strong positive relationship between instructional leadership and teacher-related factors ($r = .99$, $p < .001$). This means that higher teacher perceptions of instructional leadership were associated with more favorable perceptions of teacher-related professional and instructional practices in the participating schools.

Table 4. Correlation Between Instructional Leadership, Teacher-Related Factors, and Perceived Student Outcomes

<i>Variables</i>	<i>r</i>	<i>p</i>	<i>Interpretation</i>
Instructional leadership ↔ teacher-related factors	.99	< .001	Very strong positive correlation
Teacher-related factors ↔ perceived student outcomes	.73	< .001	Strong positive correlation

Note. r = Pearson's correlation coefficient.

The direction of this finding is consistent with Philippine research linking instructional leadership or supervision with teacher performance and efficacy (Daing & Mustapha, 2023; Daigon & Alcopra, 2024). It is also consistent with the broader international literature emphasizing the relational dimension of instructional leadership. Hallinger et al. (2025) found a moderate positive relationship between principal instructional leadership and teacher attitudes across 68 quantitative studies, while Ninković and Knežević Florić (2024) identified professional learning, teacher collaboration, and self-efficacy as important pathways in studies of school leadership and teaching practice.

The magnitude of the present correlation ($r = .99$) is substantially higher than the moderate relationships commonly reported in broader literature and should therefore be interpreted cautiously. Because instructional leadership and teacher-related factors were both measured using teacher-reported questionnaire data collected at the same time, common-source or common-method bias may have contributed to the observed association. The result also warrants careful review of the questionnaire items to ensure that the two constructs are conceptually distinct. The correlation demonstrates association, not causation.

Relationship Between Teacher-Related Factors and Perceived Student Outcomes

Teacher-related factors were strongly and positively related to perceived student outcomes ($r = .73$, $p < .001$). The result indicates that more favorable perceptions of professional competence, classroom management, instructional strategies, and compliance and reflection were associated with more favorable perceptions of students' academic and developmental outcomes.

The finding is consistent with the theoretical position that teachers' classroom practices form an important part of the instructional process through which schools support student learning. It also complements recent Philippine research on teacher-led instructional leadership and Senior High School learning outcomes (Manguiat, 2025). International research similarly emphasizes that teaching practice is a key within-school factor related to student learning and that school leadership may operate indirectly through teacher-related processes (Ninković & Knežević Florić, 2024). Nevertheless, because the present study relied on teacher perceptions for both teacher-related factors and student outcomes, the strength of the relationship should not be interpreted as proof that teacher practices caused changes in students' actual achievement.

Predictive Relationship of Teacher-Related Factors

As shown in Table 5, teacher-related factors significantly predicted perceived student outcomes, $R = .73$, $R^2 = .53$, adjusted $R^2 = .52$, $F(1, 58) = 65.20$, $p < .001$. The R^2 value indicates that approximately 53% of the variance in the perceived student-outcome measure was statistically accounted for by teacher-related factors in the sample. The source manuscript also reports the regression equation $Y = 1.02 + 1.01X$.

Table 5. Regression of Perceived Student Outcomes on Teacher-Related Factors

<i>Model</i>	<i>R</i>	<i>R²</i>	<i>Adjusted R²</i>	<i>F</i>	<i>p</i>
1	.73	.53	.52	65.20	< .001

Note. R^2 = coefficient of determination. The model contains one predictor: teacher-related factors.



The significant regression model strengthens the evidence that teacher-related factors are statistically associated with variation in perceived student outcomes. The finding is also conceptually compatible with research emphasizing teacher professional practice as a pathway connecting school leadership and learning. However, the result should be described as statistical prediction within the observed sample rather than a causal effect. The use of a single-source, cross-sectional survey further limits causal interpretation. Future studies may use multiple data sources, longitudinal designs, mediation analysis, or structural equation modeling to examine whether teacher-related factors function as an intervening mechanism between instructional leadership and independently measured student outcomes.

Practical Implications

For school administrators, the findings support the continued use of instructional supervision, coaching, mentoring, collaborative professional learning, and data-informed school improvement. The particularly strong association between instructional leadership and teacher-related factors suggests that leadership practices should be closely connected with concrete opportunities for teachers to improve classroom practice. Recent research likewise identifies professional learning, collaboration, and coaching as important components of instructional improvement (Ninković & Knežević Florić, 2024; Capillanes, 2025; Kraft et al., 2018). For teachers, the findings support strengthening reflective practice, peer observation, professional dialogue, and the systematic use of evidence to refine instruction. For school leaders and policymakers, the localized nature of the findings suggests that professional-development and quality-assurance initiatives should consider the realities of small private schools rather than assuming that evidence from large public or urban systems will transfer directly to every setting.

The comparatively lower rating for compliance and reflection provides a practical area for continued support. Schools may use structured reflection activities, peer feedback, coaching conversations, and evidence from classroom and learner-performance records to strengthen continuous professional improvement. These implications are intended as practice-oriented responses to the observed associations rather than as interventions demonstrated to cause changes in student outcomes.

CONCLUSION

The study found that instructional leadership, teacher-related factors, and perceived student outcomes were all rated at high levels among teachers in the participating private Senior High Schools in Villaba, Leyte. Instructional leadership was very strongly and positively related to teacher-related factors, while teacher-related factors were strongly and positively related to perceived student outcomes. Teacher-related factors also significantly predicted perceived student outcomes and statistically accounted for approximately 53% of the variance in the regression model.

The findings provide localized empirical evidence that school leadership and teacher-related practices are closely connected within the participating schools. They support continued emphasis on instructional supervision, professional learning, coaching, mentoring, reflective practice, and collaborative school improvement. The study also contributes an integrative, context-specific application of established leadership, social-cognitive, and sociocultural perspectives to a small private-school setting. At the same time, the findings should not be interpreted as evidence that instructional leadership or teacher-related factors cause changes in student outcomes. The relationships were examined using a descriptive-correlational design and teacher-reported measures.

REFERENCES

1. Bandura, A. (1986). *Social foundations of thought and action: A social cognitive theory*. Prentice-Hall.
2. Capillanes, M. J. A. (2025). School heads' instructional leadership on teachers' work performance. *GEO Academic Journal*, 6(1). <https://doi.org/10.56738/issn29603986.geo2025.6.115>
3. Daigon, M. E., & Alcopra, A. R. (2024). Instructional supervision practices and efficacy of teachers. *International Journal of Multidisciplinary Research and Analysis*, 7(8), 3738–3746.



<https://doi.org/10.47191/ijmra/v7-i08-13>

4. Daing, C. A., & Mustapha, L. C. (2023). School administrators' instructional leadership skills and teachers' performance and efficacy in senior high schools in the National Capital Region, Philippines. *International Journal of Educational Policy Research and Review*, 11(1), 1–18.
<https://doi.org/10.15739/IJEPRR.23.001>
5. Hallinger, P., & Murphy, J. (1985). Assessing the instructional management behavior of principals. *The Elementary School Journal*, 86(2), 217–247. <https://doi.org/10.1086/461445>
6. Hallinger, P., Liu, S., & Chen, L. (2025). Principal instructional leadership and teacher attitudes: A meta-analytic review, 1989–2024. *European Journal of Education*, 60(4), e70199.
<https://doi.org/10.1111/ejed.70199>
7. Kraft, M. A., Blazar, D., & Hogan, D. (2018). The effect of teacher coaching on instruction and achievement: A meta-analysis of the causal evidence. *Review of Educational Research*, 88(4), 547–588. <https://doi.org/10.3102/0034654318759268>
8. Manguiat, K. M. (2025). Teacher-led instructional leadership practices and student learning outcomes in senior high school: Input to training program. *Psychology and Education: A Multidisciplinary Journal*, 41(3), 388–396. <https://doi.org/10.70838/pemj.410306>
9. Ninković, S., & Knežević Florić, O. (2024). School leadership and teaching practice: A systematic review of studies of the indirect effects. *Journal of Educational Administration*, 62(4), 357–372.
<https://doi.org/10.1108/JEA-08-2023-0190>
10. Pietsch, M., Aydin, B., & Gümüş, S. (2025). Putting the instructional leadership–student achievement relation in context: A meta-analytical big data study across cultures and time. *Educational Evaluation and Policy Analysis*, 47(1), 29–64. <https://doi.org/10.3102/01623737231197434>
11. Tatoy, A. M. T. (2024). School heads' instructional leadership, collaboration and performance. *IOER International Multidisciplinary Research Journal*, 6(4), 110–113.
<https://doi.org/10.54476/ioer-imrj/334949>
12. Vygotsky, L. S. (1978). *Mind in society: The development of higher psychological processes* (M. Cole, V. John-Steiner, S. Scribner, & E. Souberman, Eds.). Harvard University Press.