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Differences in Retention Rates of Non-Permanent Teachers Reviewed from Intrinsic Motivation and Principal Leadership in Private Islamic Junior High Schools in Batam City

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Abstract:
Teacher retention is a strategic issue for maintaining learning continuity, particularly in private schools employing non-permanent teachers. This study examined differences in non-permanent teachers' retention scores across categories of intrinsic motivation and principal leadership in Islamic private junior high schools in Batam City. A quantitative comparative design was employed, involving the entire population of 80 non-permanent teachers from six schools through saturated sampling. Data were collected using a Likert-scale questionnaire. Intrinsic motivation and principal leadership were categorized into [specify category labels] based on their respective questionnaire scores, using [specify cutoff scores and the basis for determining them]. Data were analyzed using descriptive statistics, one-way ANOVA, Welch's test, the Kruskal–Wallis test, and Games–Howell post-hoc comparisons. Retention scores differed significantly across intrinsic-motivation categories according to one-way ANOVA ($p = 0.009$), Welch's test ($p = 0.027$), and the Kruskal–Wallis test ($p = 0.023$), although pairwise comparisons were not fully consistent across procedures. Principal leadership showed more consistent evidence of differences in retention scores, with both Welch's and Kruskal–Wallis tests yielding $p < 0.001$ and Games–Howell comparisons identifying significant differences between all category pairs. These findings highlight the relevance of both intrinsic motivation and principal leadership to non-permanent teacher retention. Practical strategies informed by these findings include recognizing teachers' contributions, providing opportunities for meaningful participation and professional development, conducting regular supportive feedback sessions, and applying transparent criteria for workload allocation and access to development opportunities. Schools should consider these practices when designing retention programs, while further research should evaluate their effectiveness in improving actual teacher retention.

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Introduction (مقدمة)

Teacher retention is an institutional asset for maintaining the continuity of learning and professional development for educators (Camelo & Ponczek, 2021; Wang & An, 2023; Bedasso & Acosta, 2025). The presence of retained teachers enables schools to maintain knowledge about students and build lasting educational relationships. (Sakwa, 2022; Menzies, 2023). In Indonesia, retaining teachers has become a particular concern for private schools as opportunities for public-sector employment encourage teachers to reconsider their employment arrangements. In the national context, the Minister of Primary and Secondary Education in April 2025 stated that around 110 thousand private teachers had passed the ASN/PPPK selection and were placed in public schools, so that private schools face a shortage of teaching staff (Damanik et al., 2022; Wahyudi, 2025). At the global level, UNESCO and the International Task Force on Teachers for Education 2030 (2024) estimated a shortage of 44 million primary and secondary education teachers by 2030 and reported that primary teacher attrition increased from 4.62% in 2015 to 9.06% in 2022. These figures highlight the importance of sustaining the existing teaching workforce alongside recruiting new teachers (Y. Anwar et al., 2023a; Ling et al., 2020).Li & Yao, (2022) placed trust, professional identification, and commitment as protective factors against turnover intentions, whereas Arthur & Bradley, (2023) This demonstrates the importance of meaningful teaching and principal recognition for teacher retention. The magnitude of this need reinforces the rationale for prioritizing retention as a key component of teaching staff management.

For non-permanent teachers in private Islamic junior high schools, retention also concerns the continuity of relationships through which schools provide instruction and foster Islamic values. A teacher's departure may require the school to redistribute teaching responsibilities, recruit a replacement, and help the incoming teacher adapt to its educational practices and religious mission. Schools therefore face the challenge of maintaining a stable teaching workforce while responding to teachers' expectations for secure employment, professional growth, and supportive working relationships. A study by Jiang et al., (2023) involving 973 teachers in rural China showed that employment-related factors, including remuneration and personnel policies, alongside motivational factors, were associated with lower turnover intentions. In private and private Islamic schools, Syapira et al., (2025) identified individual, organizational, leadership, socio-religious, and socio-economic factors associated with teachers' turnover intentions. These findings suggest that retention requires attention to both teachers' internal motivation and the organizational conditions surrounding their work.

At the private Islamic junior high schools within the scope of the study in Batam City, preliminary information indicates a retention challenge involving non-permanent teachers who leave for other employment opportunities and those who continue working in their schools. This difference in choice needs to be understood because schools require continuity of teaching staff to carry out learning and foster Islamic values. Preliminary research documentation records a statement from the Principal of Nurul Jadid Junior High School on April 15, 2026, that several non-permanent teachers had resigned after passing the civil service selection. The principal also described appreciation, moral support, communication, and competency development as efforts to maintain teacher enthusiasm. An interview with the Principal of Andalusia Junior High School on April 1, 2026, emphasized job comfort and mentoring when teachers face obstacles. The study population comprises 80 non-permanent teachers across six private Islamic junior high schools in Bengkong District, Batam City. These accounts illustrate a practical challenge: principals seek to sustain teachers' engagement while teachers consider employment opportunities that may offer greater career security. Although the preliminary information does not establish the causes or extent of teacher departures, it provides a local basis for examining intrinsic motivation and principal leadership in relation to retention scores.

The literature on teacher motivation and job sustainability shows a link between

psychological resources and organizational conditions. A meta-analysis of 94 quantitative studies by Li & Yao, (2022) identified trust, professional identification, and commitment as important protective factors against turnover intentions, while burnout was a prominent risk factor. Jiang et al., (2023) found that motivational factors, such as the work itself, achievement, and development, were more strongly associated with decreased turnover intentions than employment-related factors in the context of the rural teachers studied. Intrinsic motivation is therefore important because it concerns the interest, enjoyment, and personal satisfaction teachers experience in teaching itself. These internal reasons for teaching may help explain why teachers with similar employment arrangements differ in their attachment to their work and their willingness to remain. Täht et al., (2024) identified student progress, remuneration, and the work environment as sources of motivation among 164 mathematics teachers in Estonia, illustrating that teachers' work experiences involve both internal and external considerations, In Islamic education, Abdi et al., (2024) reported a relationship between intrinsic motivation and teacher work commitment in Islamic senior secondary schools in Medan, although commitment is conceptually distinct from retention. Arthur & Bradley, (2023), through a case study of nine schools in England, also highlighted meaningful teaching, relationships with students, collegial support, and recognition from school leaders as important elements of teacher retention. Together, these findings justify examining intrinsic motivation while maintaining a clear distinction between motivation, commitment, and retention.

The literature on leadership and retention further highlights organizational practices that support teachers' work experiences. Principal leadership is important because principals shape teachers' daily experiences through communication, recognition, mentoring, opportunities for participation, and support for professional development. These practices are particularly relevant when non-permanent teachers assess whether their current school offers a supportive setting for continued employment. Nguyen et al., (2026), based on a synthesis of 355 research publications, highlighted the potential contribution of professional autonomy, development, and teacher voice to teacher retention. Göregen et al., (2024) using survey data from 133 respondents and 12 interviews in Flanders, identified school belonging as the factor most strongly associated with beginning teacher retention in their analysis. found that teacher–school fit was associated with a lower likelihood of leaving the profession, while leadership engagement was associated with transitions toward formal leadership roles. Farahmandpour & Voelkel, (2025) identified leadership quality, teacher experience, and school characteristics as factors associated with turnover. More closely related to this research, the systematic review by Syapira et al., (2025) emphasized the relevance of leadership and organizational conditions alongside socio-religious factors in private and private Islamic schools. These studies support examining principal leadership as an organizational condition that may distinguish teachers' retention scores.

Intrinsic motivation and principal leadership provide complementary perspectives on the retention challenge. Intrinsic motivation concerns the value and satisfaction teachers find in carrying out their work, whereas principal leadership concerns the support and working conditions experienced within the school. Examining both factors is relevant to the Batam schools because the preliminary interviews describe leadership practices intended to sustain teacher enthusiasm, while the reported resignations indicate that teachers also evaluate their own career priorities. Studying these two factors can therefore provide information about differences in retention scores across teachers' motivational characteristics and their perceptions of principal leadership. This rationale does not assume that motivation and leadership fully explain retention; employment security, remuneration, and wider career opportunities remain relevant contextual considerations.

Despite these contributions, the reviewed literature leaves a specific empirical question unresolved: whether retention scores differ across intrinsic motivation categories and, separately, across principal leadership categories among non-permanent teachers in the six private Islamic

junior high schools studied in Batam City. Previous studies have examined turnover intentions, work commitment, beginning teacher retention, and professional role transitions across different educational settings (Li & Yao, 2022; Abdilla, 2024; Ekmekci et al., 2025; Syapira et al., 2025), Recent reviews strengthen the evidence for considering leadership and organizational support, but their findings do not directly establish how retention scores vary across the categories used in this study (Farahmandpour & Voelkel, 2025; Nguyen et al., 2026). Furthermore, although Syapira et al. (2025) addressed private Islamic schools, that review does not directly answer the present comparative questions for non-permanent junior high school teachers in Batam. The gap therefore concerns the combination of population, institutional context, outcome measurement, and comparative analysis. This study therefore focuses on comparing retention scores measured through questionnaires, without equating these scores with actual retention rates, which would require longitudinal tracking.

The novelty of this study lies in providing evidence from a clearly defined local population: 80 non-permanent teachers across six private Islamic junior high schools in Batam City, included through saturated sampling. It compares retention scores across low, medium, and high intrinsic motivation categories and conducts a separate comparison across principal leadership categories. This approach extends the commitment-focused analysis cited in Abdilla (2024) and the synthesis of turnover intentions presented by Syapira et al. (2025) by addressing differences in questionnaire-based retention scores within the participating schools. Its contextual contribution concerns the intersection of non-permanent employment, the educational and religious mission of private Islamic junior high schools, and the locally documented challenge of teachers leaving for public-sector employment. The contribution offered is empirical evidence in the context of managing teaching staff in private Islamic schools with temporary employment relationships (Anwar et al., 2023). The study's novelty is therefore contextual and analytical, with conclusions bounded by the participating schools and the measurement approach used.

This research is important to provide an empirical basis for the management of temporary teachers and the continuity of educational services in private Islamic junior high schools in Batam. Information about differences in retention scores can help principals and school foundations identify priorities for teacher support, mentoring, recognition, and professional development. The transfer of private teachers to public schools at the national level, pre-research information on teacher resignations, and literature evidence on organizational support indicate the need for attention to the sustainability of teaching staff (R. Anwar, 2023; A. Nguyen, 2024). By examining intrinsic motivation and principal leadership, this study seeks to provide evidence relevant to both teachers' internal work experiences and the school conditions that support them. Accordingly, this study aims to determine: (1) whether retention scores differ among non-permanent teachers with low, medium, and high intrinsic motivation; and (2) whether retention scores differ among non-permanent teachers across low, medium, and high principal leadership categories in the participating private Islamic junior high schools in Batam City.

Method (منهج)

This study employed a quantitative approach with a comparative research design. This approach was used because the study measured the research variables through numerical data obtained from a questionnaire, which were then analyzed using statistical techniques. The comparative design was used because the study aimed to determine differences in retention rates of temporary teachers based on intrinsic motivation and principal leadership. Therefore, this study was not intended to test causal relationships or influences between variables, but rather to compare retention rates of temporary teachers in specific groups based on the characteristics of the comparative variables.

The study was conducted at a private Islamic junior high school in Batam City located in the Bengkong and Batam City districts. The study population consisted of all non-permanent

teachers at private Islamic junior high schools in Batam City in 2026. Based on research data, the number of non-permanent teachers was 80 people spread across six schools. Because the population was relatively limited and all members of the population could be reached, this study used a saturated sampling technique, so that the entire population of 80 non-permanent teachers was determined as the research sample (Rosmawaty et al., 2022).

Table 1. Population Distribution and Sample of Non-Permanent Teachers of Private Islamic Middle Schools in Batam City

No.	School Institution	Location District	Number of Non-Permanent Teachers (n)	Percentage (%)
1	Fajar Illahi 2 Islamic Junior High School, Batam City	Jicama	24	30.00
2	Nurul Jadid Junior High School, Batam City	Jicama	24	30.00
3	Daruttaqwa Junior High School , Batam City	Jicama	7	8.75
4	Hang Tuah Islamic Junior High School, Batam City	Jicama	8	10.00
5	Al Madinah Junior High School, Batam City	Jicama	7	8.75
6	Andalusia Islamic Junior High School, Batam City	Batam City	10	12.50
Total			**80**	**100.00**

The research variables consist of comparative variables and dependent variables. The first comparative variable is intrinsic motivation (X1), which is the internal drive that comes from within the temporary teachers to carry out their profession as educators based on awareness, responsibility, satisfaction, and values inherent in teaching work. The second comparative variable is the principal's leadership (X2), which is the teacher's perception of the principal's ability to provide direction, support, communication, appreciation, and create a conducive work environment. The dependent variable is the retention of temporary teachers (Y), which is the level of teacher tendency to maintain their presence in the school organization as indicated by the desire to stay, commitment to the school, continuity of the teaching profession, and loyalty to the educational institution (Abdi et al., 2024b).

The research instrument used a closed-ended questionnaire with a five-level Likert scale. Each variable indicator was translated into a number of statements describing the research construct. Respondents provided answers based on their level of agreement with the statements provided. The scores were then summed to obtain a score for each research variable (Efendi et al., 2023).

Table 2. Operationalization Variables Study

Variables	Definition Operational	Indicator Measurement	Number of Items	Scale
Motivation Intrinsic (X1)	The internal motivation of non-permanent teachers in carrying out the teaching profession is based on personal awareness, satisfaction, and professional values.	1. Sincerity in carrying out duties 2. Professional responsibility 3. Love for work 4. Satisfaction in teaching 5. Internal drive to remain a teacher	In accordance instrument original	Likert 1–5

Leadership Principal (X2)	Teachers' perceptions of the principal's ability to carry out educational leadership functions.	1. Ability to provide direction 2. Support for teachers 3. Leadership communication 4. Awarding ceremony 5. Conducive work environment	In accordance instrument original	Likert 1–5
Retention of Non-Permanent Teachers (Y)	The tendency of non-permanent teachers to remain in the school organization.	1. Desire to stay in the organization 2. Commitment to school 3. Sustainability of the teaching profession 4. Loyalty to educational institutions	In accordance instrument original	Likert 1–5

Prior to the main analysis, the research instrument was tested for validity and reliability. Validity testing was conducted to determine the instrument's accuracy in measuring the research constructs, while reliability testing was used to determine the instrument's internal consistency. Validity and reliability testing were conducted before the main data analysis process. The research data were analyzed through several stages. First, descriptive statistical analysis was conducted to obtain an overview of the data characteristics through the average value (*mean*), standard deviation, frequency distribution, and score categorization. Second, the scores for intrinsic motivation and principal leadership were categorized into low, medium, and high groups based on the respondents' empirical score distribution (Syapira et al., 2025c). This categorization was used as the basis for forming groups in the comparative analysis.

Third, statistical assumption testing was conducted in the form of normality and homogeneity tests. The normality test was used to determine the distribution of data in each group, while the homogeneity test was used to determine the equality of variance between groups. If the parametric assumptions were met, hypothesis testing was conducted using One-Way ANOVA to compare the average retention scores of non-permanent teachers between the intrinsic motivation group and the principal leadership group (Wilsa et al., 2023; Sanjaya et al., 2024). If the ANOVA results showed a significant difference, the analysis was continued using a *post hoc test* to determine which group had a significant difference in retention scores. In addition to the significance value, the study also considered the effect size *to* determine the magnitude of the difference between groups.

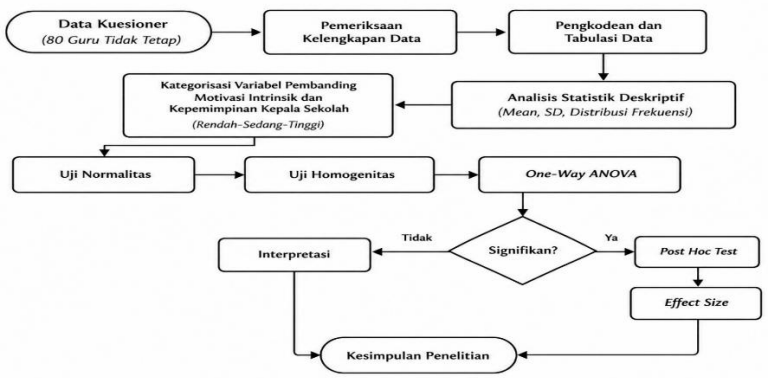

Figure 1. Research Data Analysis Flow

Result (نتائج)

An analysis of 80 part-time teachers at six private Islamic junior high schools in Bengkong District and Batam City revealed differences in retention scores across intrinsic motivation and principal leadership categories. For intrinsic motivation, the determination of different category pairs depended on a follow-up test procedure. For principal leadership, all category pairs showed significant differences using the Games-Howell test. Retention in this study refers to questionnaire scores on retention tendencies and related work experience, so the results do not directly indicate the proportion of teachers who actually remain employed in the subsequent period.

The study involved 80 temporary teachers who completed a questionnaire via Google Form, and all questionnaires were analyzed. Respondents were predominantly female teachers, teachers with one to five years of teaching experience, and undergraduate graduates. The distribution of these characteristics is presented in Table 3. Percentages were recalculated from the respondent frequencies for consistent rounding.

Table 3. Characteristics Respondents Study

Characteristics	Category	n	%
Gender	Man	27	33.75
	Woman	53	66.25
Length of teaching	Less than 1 year	20	25.00
	1 to 5 years	48	60.00
	More from 5 years	12	15.00
last education	S1	70	87.50
	S2	9	11.25
	Other	1	1.25

After identifying the respondents' characteristics, descriptive statistics were calculated from the individual scores in Appendix IV of the thesis. The mean intrinsic motivation score was 89.08 with a standard deviation of 11.09. Principal leadership had a mean score of 85.31 with a standard deviation of 13.33, while the mean retention score was 62.76 with a standard deviation of 10.58. The three scores have different ranges and number of items, so their mean values cannot be directly compared to indicate which variable is stronger or better.

Table 4. Descriptive Statistics and Internal Consistency of the Instrument

Variables	Item	Min	Max	M	Elementary School	α
Motivation intrinsic	20	35	100	89.08	11.09	0.959
Leadership head school	20	28	100	85.31	13.33	0.972
Teacher retention	16	23	75	62.76	10.58	0.964

N = 80. M = mean; SD = standard deviation; α = Cronbach's alpha. Score statistics are recalculated from Appendix IV. The number of items follows the original instrument. Alpha is copied from the thesis and has not been recalculated because response data per item is not available. The maximum value is the observed maximum, not the theoretical maximum.

Based on these scores, comparisons were reconstructed using the operational boundaries presented in the thesis. Intrinsic motivation was grouped at scores less than 78, 78 to less than 100, and at least 100; principal leadership at scores less than 72, 72 to less than 99, and at least 99. Descriptive retention groupings used the boundaries of 52 and 73. These categories reflect the score position according to the boundaries used by the study, not a diagnosis of teacher quality or normative standards for other schools.

Table 5. Distribution of Research Variable Categories

Variables	Low n (%)	Medium n (%)	Height n (%)
Motivation intrinsic	6 (7.50)	60 (75.00)	14 (17.50)
Leadership head school	7 (8.75)	59 (73.75)	14 (17.50)
Teacher retention	9 (11.25)	54 (67.50)	17 (21.25)

Source: recalculation of individual scores in Appendix IV. Retention categories are used for descriptive purposes only; comparative testing uses retention scores as the outcome variable.

The distribution of categories in Table 5 is complemented by the distribution of retention scores in Figure 2. The distribution of the low intrinsic motivation group is relatively wide, while the high leadership group shows more concentrated scores. The number of members in the low group is much smaller than in the medium group, so the accuracy of the estimates in the low group requires attention.

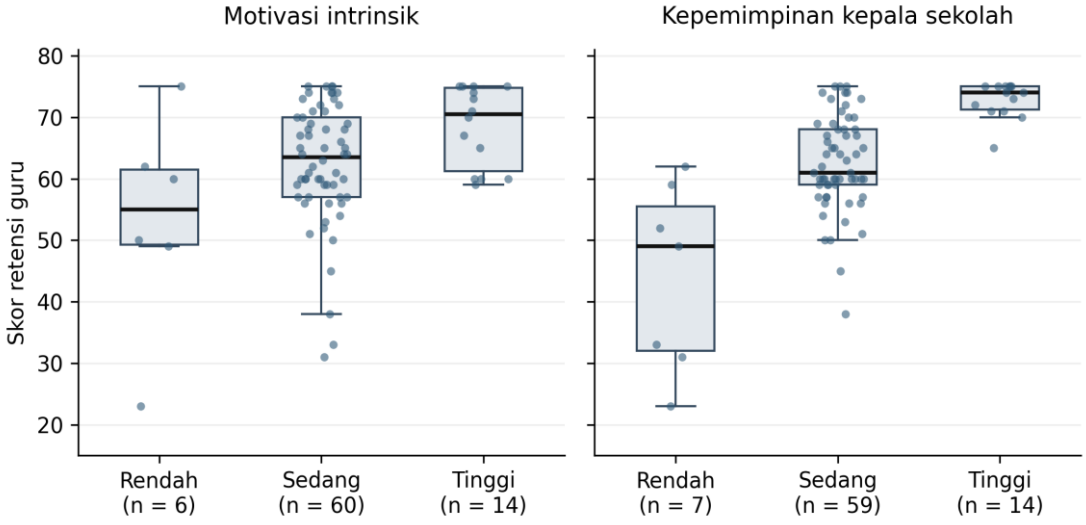

Figure 2 Distribution of Retention Scores According to Intrinsic Motivation and Principal Leadership Categories

The dots represent each respondent's score; the horizontal shift is for ease of reading. The boxes indicate the first and third quartiles, the center line indicates the median, and the whiskers follow the 1.5-interquartile range rule. Points outside the whiskers remain displayed. The graph does not display confidence intervals.

Considering the distribution and imbalance in group sizes, the normality of retention scores was examined for each group using the Shapiro-Wilk test. Deviations from normality were found in the moderate and high motivation groups, as well as the high leadership group. A Levene's test based on means showed no evidence of variance differences in the intrinsic motivation group, but indicated heterogeneity of variance in the principal leadership group. Due

to the imbalanced group sizes and some small groups, the total number of respondents was not used as the sole reason to discount deviations from the assumption.

Table 6 Normality and Homogeneity Check of Retention Scores

Grouping	low SW p	p SW is medium	high SW p	F Levene	p Levene
Motivation intrinsic	0.633	< 0.001	0.012	2,475	0.091
Leadership head school	0.461	0.054	0.002	14,259	< 0.001

The assumption checks informed a sequence of descriptive comparisons, parametric omnibus tests, rank-based sensitivity tests, and pairwise comparisons. One-way ANOVA was retained as the primary mean comparison for intrinsic motivation, with Welch ANOVA as a sensitivity analysis that does not assume equal variances. Welch ANOVA was the primary mean comparison for principal leadership because Levene's test indicated unequal variances. Neither procedure removes concerns about non-normality or dependence among teachers within schools. Kruskal–Wallis was therefore reported as a complementary non-parametric test of differences in rank distributions for both variables. It does not test the same hypothesis as ANOVA and should not be interpreted as a test of median differences unless group distributions have comparable shapes. Agreement in statistical significance across these procedures provides convergent omnibus evidence, rather than proof that their assumptions or conclusions are identical. In the intrinsic motivation grouping, the average retention scores for the low, medium, and high categories were 53.17 (SD = 17.54; n = 6), 62.38 (SD = 9.86; n = 60), and 68.50 (SD = 6.50; n = 14), respectively. A one-way ANOVA yielded $F(2, 77) = 5.030$ and $p = 0.009$. With a significance level of 0.05, these results show evidence of differences in average retention scores among the intrinsic motivation categories.

The magnitude of these differences is summarized through effect sizes based on sum-of-squares decomposition, namely $\eta^2 = 0.116$ and $\omega^2 = 0.092$. Eta-squared indicates that approximately 11.6% of the variation in retention scores in these data lies between the motivation categories used. These values are descriptive of this grouping and do not address the causal contribution of intrinsic motivation. Welch's sensitivity analysis yielded $F(2, 11.720) = 4.980$, $p = 0.027$, while Kruskal–Wallis yielded $H(2) = 7.516$, $p = 0.023$. Both tests still provide evidence of differences at the 0.05 level. The omnibus conclusion was consistent at $\alpha = 0.05$, although the p-values differed because the tests use different information and assumptions. Welch weights group means using group-specific variances and adjusts the degrees of freedom, whereas Kruskal–Wallis uses pooled ranks. Non-normality, possible dependence among respondents within schools, and categorization boundaries still limit inference.

In the principal leadership grouping, the average retention score for the low category was 44.14 (SD = 15.10; n = 7), the medium category was 62.58 (SD = 7.78; n = 59), and the high category was 72.86 (SD = 2.88; n = 14). The Welch test yielded $F(2, 14.764) = 40.283$, $p < 0.001$. These results indicate differences in average retention scores according to teacher perceptions of principal leadership. The Kruskal-Wallis test yielded $H(2) = 30.581$; $p < 0.001$, so evidence of differences was also observed through rank-based testing. As a description of group separation, η^2 calculated from the ordinary sum of squares was 0.436. This value indicates the proportion of score variation

that lies between groups in the data, and is not treated as a Welch-specific effect size or an estimate of the influence of leadership after controlling for motivation or school characteristics.

Table 7. Summary Comparison of Parametric, Non-parametric, and Post-hoc Results

Analysis	Intrinsic motivation	Principal leadership
Primary parametric omnibus test	One-way ANOVA: F(2, 77) = 5.030, p = 0.009.	Welch ANOVA: F(2, 14.764) = 40.283, p < 0.001.
Parametric sensitivity test	Welch ANOVA: F(2, 11.720) = 4.980, p = 0.027.	No additional parametric omnibus result reported.
Non-parametric omnibus test	Kruskal–Wallis: H(2) = 7.516, p = 0.023.	Kruskal–Wallis: H(2) = 30.581, p < 0.001.
Tukey–Kramer post-hoc comparisons	Medium–low: p = 0.089; high–low: p = 0.007; high–medium: p = 0.109. Only high–low significant.	Not reported; unequal-variance Games–Howell comparisons were used.
Games–Howell post-hoc comparisons	Medium–low: p = 0.467; high–low: p = 0.179; high–medium: p = 0.022. Only high–medium significant.	Medium–low: p = 0.041; high–low: p = 0.005; high–medium: p < 0.001. All three pairs significant.
Supported conclusion	Omnibus significance agrees across tests; no significant pair is reproduced across both post-hoc procedures.	Omnibus significance agrees across tests; all Games–Howell pairs are significant. No non-parametric pairwise results are available.

For intrinsic motivation, Tukey–Kramer comparisons followed the ordinary ANOVA and accommodated unequal sample sizes under a common within-group variance assumption. A non-significant Levene test (p = 0.091) does not establish equal population variances, particularly with only six respondents in the low group. The high category had a mean retention score 15.33 points greater than the low category with a 95% confidence interval of 3.58 to 27.09 and p = 0.007. The medium-low and high-medium pairs did not show significant differences. Therefore, the omnibus significance for intrinsic motivation is not interpreted as a difference across all category pairs.

Although Levene's test was not significant, the standard deviation of the low-motivation group was larger than that of the high group. Additional Games-Howell tests on motivation yielded different pairing patterns: medium versus low p = 0.467, high versus low p = 0.179, and high versus medium p = 0.022. Thus, the motivation omnibus finding is consistent, but no significant pair is reproduced across both post-hoc procedures. Tukey–Kramer uses a pooled within-group variance, whereas Games–Howell uses pair-specific variances and approximate degrees of freedom. With SDs of 17.54, 9.86, and 6.50 and sample sizes of 6, 60, and 14, respectively, comparisons involving the low group are especially imprecise under the unequal-variance procedure. This provides a plausible statistical explanation for the change in significant pairs, rather than evidence that either pair has been conclusively established. Both post-hoc procedures are parametric; their disagreement must not be described as a disagreement between parametric and non-parametric tests. Table 8 retains the primary pairwise estimates, while Table 7 compares the conclusions across procedures.

For principal leadership, the Games-Howell follow-up test revealed differences across all pairs of categories. The largest difference was observed between the high and low categories, at

28.71 points. The confidence intervals for pairs involving the low category were wider, consistent with the smaller groups and wider spread of scores. These differences and intervals provide information about the magnitude of the differences and the precision of the estimates, complementing the p-value. For leadership, consistency refers to agreement between the Welch and Kruskal–Wallis omnibus conclusions and to significance across all three Games–Howell comparisons. No rank-based pairwise post-hoc results were reported, so pairwise agreement between parametric and non-parametric procedures cannot be assessed. The medium–low comparison (p = 0.041; 95% CI [0.95, 35.92]) is less precisely estimated than the high–medium comparison and warrants particular caution.

Table 8 Comparison of Group Pairs Based on Retention Scores

Grouping	Partner	Difference M	IK 95%	p
Motivation intrinsic	Medium - low	9.22	-1.10 to 19.53	0.089
	High - low	15.33	3.58 to 27.09	0.007
	High - medium	6.12	-1.03 to 13.27	0.109
Leadership head school	Medium - low	18.43	0.95 to 35.92	0.041
	High - low	28.71	11.22 to 46.21	0.005
	High - medium	10.28	7.22 to 13.34	< 0.001

Discussion (مناقشة)

This study reveals two main patterns in understanding temporary teacher retention in private Islamic junior high schools in Batam City. First, retention scores show differences based on intrinsic motivation categories, but evidence at the paired comparison level is not entirely consistent across follow-up procedures. Second, principal leadership categories show clearer descriptive separation, significant results in both omnibus procedures, and significant Games–Howell results for all three pairs; equivalent cross-procedure pairwise consistency has not been demonstrated. These patterns suggest that temporary teacher retention cannot be understood solely through personal motivation, but needs to be situated within the relationship between teachers' psychological resources and the school's organizational conditions.

Intrinsic Motivation and Teacher Retention

The analysis results showed differences in retention scores based on intrinsic motivation categories. These omnibus differences remained visible through one-way ANOVA, Welch's, and Kruskal–Wallis tests with significance values of 0.009, 0.027, and 0.023, respectively. Descriptively, retention scores increased from low, medium, to high intrinsic motivation groups. This ordered pattern is compatible with the interpretation of intrinsic motivation as a psychological resource, but the comparison does not establish that motivation increases engagement, persistence, or retention.

Self-Determination Theory identifies autonomy, competence, and relatedness as basic psychological needs relevant to intrinsic motivation (Ryan & Deci, 2000). For teachers, teaching experiences can be sustained when the work is perceived as meaningful, provides personal satisfaction, and allows teachers to feel competent in fostering student development. The observed ordering of retention means is compatible with this framework, although it does not test a mechanism linking need satisfaction to retention. However, autonomy, competence, and connectedness in this study are interpretive concepts, not dimensions tested separately in an instrument.

The findings of this study reinforce the findings of Sundari and Zurnali (2024), who demonstrated a positive relationship between motivation and retention of practicing teachers. These findings also substantively align with those of Arthur and Bradley (2023), who explained that teacher retention in the profession is related to meaningful teaching, positive relationships with students, support from colleagues, and recognition from school leaders. However, this study presents a different nuance because it does not examine motivation as a causal predictor, but rather compares retention scores across different intrinsic motivation groups. Therefore, these findings are best understood as evidence of a pattern of differences across categories, rather than as evidence that increased intrinsic motivation directly leads to increased retention.

The distinction between motivation and remaining in a particular school is also consistent with Nguyen et al.'s (2020) meta-analysis, which synthesized teacher-turnover evidence across personal, school, and external correlates. This broader literature supports considering multiple contexts alongside individual motivation; it does not validate the particular category thresholds or unstable pairwise contrasts used here.

The results of the follow-up tests also require critical interpretation. The Tukey–Kramer test showed a significant difference between the high and low motivation groups, while the differences between the medium and low and high and medium motivation groups were not significant. Conversely, the Games–Howell test showed a significant difference between the high and medium motivation groups, while the other pairs did not show the same pattern. Specifically, Tukey–Kramer identified high versus low motivation ($p = 0.007$), whereas Games–Howell identified high versus medium motivation ($p = 0.022$). The corresponding alternative-procedure p-values were 0.179 for high versus low and 0.109 for high versus medium. Medium versus low was non-significant under both procedures ($p = 0.089$ and $p = 0.467$). Thus, significant omnibus findings do not justify selecting a preferred significant pair, claiming a stepwise category effect, or treating a non-significant comparison as evidence that two categories are equivalent.

The imbalance in group size is another factor to consider. The low motivation group consisted of only six respondents, while the medium motivation group consisted of 60 respondents and the high group 14 respondents. Furthermore, the standard deviation for the low motivation group was larger than for the high motivation group. This could lead to less stable estimates of differences in the low motivation group. Thus, the results support the existence of an overall difference, but do not provide sufficient grounds to suggest that each increase in the intrinsic motivation category is always accompanied by a significant difference in retention.

The characteristics of non-tenured teachers may also provide context that helps explain these patterns. Employment status, compensation, workload, job security, organizational support, and professional development opportunities may influence teachers' decisions to remain in a school. These factors were not directly measured in this study and therefore cannot be treated as proven empirical explanations. Conceptually, meaningful teaching and supportive working conditions may coexist with stronger intentions to stay. The present comparisons cannot determine whether working conditions strengthen, weaken, or mediate an association between intrinsic motivation and retention.

In the context of private Islamic junior high schools, intrinsic motivation can be related to the meaning of the profession as a form of devotion, trust, and worship. These values can strengthen perseverance and personal meaning in teaching. However, the value of sincerity should not be used to disregard teachers' welfare, justice, and professional rights. Religious values are better understood as an interpretive context that can help explain teachers' personal orientations, rather than as empirical variables proven through research instruments.

Principal Leadership and Teacher Retention

The results showed that principal leadership had a more consistent pattern of differences in relation to temporary teacher retention. The Welch and Kruskal–Wallis tests both showed

significance values less than 0.001. Furthermore, the Games–Howell test showed differences across all pairs of principal leadership categories. The leadership results therefore show a more consistent pattern within the reported analyses. However, agreement between omnibus tests does not establish rank-based significance for each pair, because no non-parametric pairwise results were reported.

Principal leadership in this context extends beyond administrative functions. It encompasses the principal's ability to build communication, provide support, demonstrate fairness, reward, provide mentoring, strengthen trust, involve teachers in decision-making, and create opportunities for professional development. These practices offer a theoretical context for interpreting differences in perceived support and attachment to the school. Their separate associations with retention were not estimated in this study.

Social Exchange Theory provides a relevant explanation for these findings. The relationship between teachers and schools is not only formed through formal contracts, but also through social exchanges that occur in daily interactions. Teachers provide time, energy, loyalty, and professional contributions, while schools provide support, recognition, a sense of security, and opportunities for growth. Within this theoretical account, perceived fairness and support may be accompanied by reciprocal commitment and a desire to maintain organizational membership. This is an interpretation of the observed pattern; reciprocity and organizational commitment were not measured as mechanisms in the present analysis.

Organizational commitment provides a complementary theoretical connection. Meyer and Allen (1991) distinguish affective commitment (a desire to remain), continuance commitment (a perceived need to remain), and normative commitment (a felt obligation to remain). Higher retention-tendency scores could coexist with different combinations of these forms of attachment. Consequently, a high score should not automatically be interpreted as evidence of stronger emotional commitment or satisfaction. Perceived supportive leadership is conceptually compatible with affective attachment, while limited employment alternatives or a sense of duty provide other possible interpretations of staying. Organizational commitment was not separately measured, so these explanations remain hypotheses rather than demonstrated mediating pathways.

These findings support Juwarti and Octafian (2025), who positioned school leadership as a crucial component of retention strategies through mentoring, feedback, professional development support, and career opportunities. These findings also align with Darron et al.'s (2023) systematic review, which showed that principal characteristics and leadership are related to teacher retention. Syapira et al. (2025) also emphasized that in private and Islamic schools, teacher turnover intentions are not only related to individual factors but also to leadership, organizational, socio-religious, and socio-economic conditions.

The broader pattern is also compatible with Nguyen et al. (2020), whose meta-analysis locates teacher turnover within personal, school, and external contexts. This supports situating leadership perceptions within school conditions rather than attributing retention to a single characteristic. However, the present unadjusted category comparisons cannot isolate leadership from motivation, school conditions, or other teacher characteristics.

The present findings add context-specific comparative evidence: retention scores were more distinctly separated across principal leadership categories than across intrinsic motivation categories in this sample. Descriptively, the proportion of total retention-score variation lying between categories was 43.6% for leadership and 11.6% for motivation ($\eta^2 = 0.436$ and 0.116, respectively). These are separate, unadjusted descriptions of the same outcome, not independent or additive contributions, and their difference was not formally tested. However, this comparison should not be interpreted as causal evidence that principal leadership is necessarily more important than intrinsic motivation. This study did not test a causal model, did not control for school characteristics, and did not examine the interaction between the two variables.

Temporary Teachers as a Research Context

The context of temporary teachers is crucial to understanding why principal leadership exhibits strong patterns of differentiation. Temporary teachers may face different work environments than permanent teachers, particularly in terms of status certainty, well-being, job security, career opportunities, and access to professional development. These conditions are not necessarily experienced uniformly by all temporary teachers, but they can create a greater need for communication, support, role clarity, and recognition from the principal.

In work situations with a certain degree of uncertainty, the principal is the organizational actor closest to teachers' professional experiences. The principal's decisions about assigning tasks, providing feedback, recognizing contributions, resolving conflicts, and involving teachers in school activities can shape teachers' perceptions of the sustainability of their working relationship. Principal leadership can therefore be considered an organizational resource in the theoretical interpretation. The present data do not establish that it reduces psychological uncertainty or strengthens belonging, because these processes were not tested.

An Islamic leadership perspective enriches this understanding through the values of trust, justice, deliberation, exemplary behavior, and responsibility. Principals not only perform structural functions but also have a moral responsibility to create a humane and just educational environment. These values can strengthen teacher trust when embodied in concrete leadership practices. However, the Islamic interpretation in this study remains contextual and should not be treated as directly measurable empirical findings.

Conceptually, the pattern is compatible with understanding retention at the intersection of personal and organizational resources. Intrinsic motivation concerns teachers' interest and satisfaction in teaching, whereas principal leadership concerns their perceptions of the organizational setting. Commitment to teaching as a profession should also be distinguished from commitment to a particular school. This framework is not a causal model tested in the study, but rather an interpretive synthesis to understand why the two variables exhibit different patterns in differentiating retention.

The empirical contribution of this study lies in providing comparative evidence on differences in non-permanent teacher retention based on intrinsic motivation and principal leadership. This study shows that differences across intrinsic motivation categories are evident at the omnibus level, but the identification of particular category pairs remains sensitive to the post-hoc procedure. Meanwhile, principal leadership exhibits a more consistent pattern of differences across category pairs. These findings suggest a more cautious approach than simply concluding that retention is determined solely by high levels of personal motivation.

This study's theoretical contribution lies in combining Self-Determination Theory and Social Exchange Theory as perspectives for analyzing teacher retention. Self-Determination Theory helps explain the role of intrinsic motivation as a psychological resource, while Social Exchange Theory explains how support and positive treatment from the principal can be related to teachers' desire to remain in the organization. Together with the organizational commitment framework, these theories provide complementary interpretations of the comparative pattern. The study does not empirically validate the proposed psychological or organizational pathways.

The contextual contribution of this study lies in its focus on non-permanent teachers in private Islamic junior high schools in Batam City. This context is important because the retention of non-permanent teachers occurs under organizational conditions that may differ from those of permanent teachers or teachers in public schools. The findings of this study are not intended to be generalized to all non-permanent teachers in Indonesia, but rather provide contextual evidence relevant to the management of teaching staff in private Islamic schools with similar institutional characteristics.

The findings support considering both teachers' motivational experiences and their perceptions of leadership when reviewing retention policies. The following practices are theory-

informed options for evaluation, rather than interventions whose effectiveness has been established by this study. Principals need to establish regular and transparent communication, provide constructive feedback, recognize teacher contributions, provide support when teachers encounter challenges, and involve teachers in decision-making related to their work. Professional development also needs to be realistically designed through training, mentoring, learning communities, and opportunities to share learning practices.

School and foundation administrators could also review employment-contract clarity, workload transparency, recognition practices, training access, and professional development pathways for temporary teachers. These practices are relevant to the organizational support interpretation, but the present study did not estimate their effects on retention. Strengthening the values of dedication and sincerity is still possible, but must go hand in hand with the institution's responsibility to provide a fair and supportive work environment.

This study has several limitations. First, the cross-sectional design means the data only describes respondents' conditions at a single point in time, making it unable to explain long-term changes in retention. Second, the data were obtained through a perception-based questionnaire, so respondents' answers may be influenced by subjective experiences, understanding of the statements, and tendencies to provide expected social responses. Third, variables were analyzed categorically, which may reduce some information about variations in continuous scores.

Fourth, respondents came from six schools, so observations may be correlated within schools. The reported ANOVA, Welch, and Kruskal–Wallis procedures do not adjust for this clustering, and their convergence does not remove the independence concern. In addition, the small low-category groups and unequal category sizes limit precision, particularly for the inconsistent motivation post-hoc comparisons. Fifth, the study did not examine the causal relationship or interaction between intrinsic motivation and principal leadership, or the contribution of other factors such as compensation, job satisfaction, organizational commitment, school culture, and job security. Sixth, retention in this study was measured using questionnaire scores on retention tendencies, not through longitudinal tracking of actual teacher retention or turnover.

Future research could use longitudinal designs, actual data on teacher turnover or retention, multilevel analyses, and continuous variables to obtain more precise estimates. A mixed methods approach could also be used to combine statistical evidence with teachers' subjective experiences regarding their reasons for staying or leaving school.

This study provides empirical contributions through comparative evidence on the differential patterns of retention of temporary teachers based on intrinsic motivation and principal leadership in private Islamic junior high schools in Batam City. Theoretically, this study enriches the understanding of retention by positioning intrinsic motivation as a personal resource through Self-Determination Theory and principal leadership as an organizational resource through Social Exchange Theory. Contextually, this study extends the study of teacher retention to the group of temporary teachers in private Islamic schools, by showing that principal leadership has a more consistent differential pattern on retention scores than the intrinsic motivation category, without transforming the findings into causal claims.

Conclusion (خاتمة)

This study identifies differences in retention tendency scores among temporary teachers at private Islamic junior high schools in Batam City, specifically regarding intrinsic motivation and principal leadership. For intrinsic motivation, an omnibus difference was supported by a one-way ANOVA ($p = 0.009$), Welch's ANOVA ($p = 0.027$), and the Kruskal–Wallis test ($p = 0.023$). However, the Tukey–Kramer test identified a significant high-versus-low contrast, while the Games–Howell test identified a significant high-versus-medium contrast. Thus, while there is

overall consistency across the tests, the identification of specific pairs of categories remains sensitive to the post-hoc procedure used.

Principal leadership shows a clearer and more consistent differentiation in retention scores across the reported analyses. Both the Welch and Kruskal–Wallis tests yielded $p < 0.001$, and all three category comparisons using the Games–Howell test were significant. The greater descriptive separation across leadership categories highlights the relevance of organizational conditions, alongside personal motivation. This does not prove that leadership has a greater causal effect, independently explains retention, or operates through specific leadership practices. Self-Determination Theory and Social Exchange Theory offer complementary interpretations of these patterns; however, the proposed mechanisms were not empirically tested.

For school principals, these findings suggest that—when reviewing retention policies—consideration should be given to regular and transparent communication, fair recognition, clear work expectations, teacher participation in decision-making, mentoring, and relevant professional development. These practices should be evaluated within the context of each individual school, rather than being presented as interventions proven effective by this study. School administrators and foundations should also consider job clarity, workload, and job security, in addition to efforts aimed at supporting teacher motivation. The conclusions are limited by cross-sectional, self-reported data from 80 teachers across six schools, small and unequal category sizes, and potential within-school dependencies that were not accounted for in the reported statistical tests. Retention propensity scores do not reflect actual employment continuity. Future research should combine longitudinal surveys with employment records—retaining measures of motivation and leadership where appropriate—and employ multilevel analysis with a sufficient number of schools. Incorporating factors such as recruitment, workload, job security, and organizational commitment would help determine whether the observed differences persist after accounting for other relevant characteristics.

Bibliography ((مراجع

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Abdi, WT, Wijaya, C., & Ananda, R. (2024a). The Effect of Personal Competence, Emotional Stability, and Intrinsic Motivation on Teacher Work Commitment. *Tafkir : Interdisciplinary Journal of Islamic Education* , *5* (4), 653–668. https://doi.org/10.31538/tijie.v5i4.1191

Abdi, WT, Wijaya, C., & Ananda, R. (2024b). The Effect of Personal Competence, Emotional Stability, and Intrinsic Motivation on Teacher Work Commitment. *Tafkir : Interdisciplinary Journal of Islamic Education* , *5* (4), 653–668. https://doi.org/10.31538/tijie.v5i4.1191

Abdilla, FM (2024). Use of Social Media As a Promotional Media on Objects Havana Hills Tourism , Jeruklegi, Cilacap. *Unpublished Thesis. Communication Studies Program, Islamic University of Indonesia.* , *4* (1), 9–15.

Anwar, R. (2023). *Classical Guidance of HOTS and Tpack in the Independent Curriculum: A Best Practice Approach* . books.google.com. https://books.google.com/books?hl=en&lr=&id=7UHSEAAAQBAJ&oi=fnd&pg=PP1&dq=development+of+worksheets+of+differentiated+electronic+students+based+on+project+learning+in+science&ots=D8JSZo5soD&sig=kwuP9zTOAh-2sV9euc70XF0_Z5g

Anwar, Y., Suwarno , B., & Harianti , S. (2023a). The Effect of Teacher Motivation, Compensation, and Workload on Turnover Intention Through Job Satisfaction as a Mediating Variable. *Journal of Management Applications* , *21* (4), 1109–1122. https://doi.org/10.21776/ub.jam.2023.021.04.18

Arthur, L., & Bradley, S. (2023). Teacher retention in challenging schools: please don't say goodbye! *Teachers and Teaching* , *29* (7–8), 753–771. https://doi.org/10.1080/13540602.2023.2201423

Bedasso, B., & Mendez Acosta, A. (2025). The teachers who left: Teacher attrition in Burkina Faso. *International Journal of Educational Development* , *113* , 103228. https://doi.org/10.1016/j.ijedudev.2025.103228

Camelo, R., & Ponczek, V. (2021). Teacher Turnover and Financial Incentives in Underprivileged Schools: Evidence from a Compensation Policy in a Developing Country. *Economics of Education Review* , *80* , 102067. https://doi.org/10.1016/j.econedurev.2020.102067

Damanik, NK, Ariyanto , A., & Setiawan, F. (2022). Teacher PPPK Acceptance Policy and Its Impact on Private Education. *MASALIQ* , *2* (3), 354–360. https://doi.org/10.58578/masaliq.v2i3.379

Efendi, F., Sunaryo, H., & Harijanto , D. (2023). The Effectiveness of Principals' Transformational Leadership through Work Commitment to Independent Learning Teacher Performance. *Journal of Educational Management Accountability* , *11* (2), 19–32. https://doi.org/10.21831/jamp.v11i2.60605

Ekmekci, A., Aqazade, M., McGraw, R., Rushton, G., Gibson, D.J., Cerosaletti, C., Daley, M., & Kucuk, B. (2025). Using human, social, structural, and positive psychological capital to explore science and mathematics teacher retention. *International Journal of STEM Education* , *12* (1), 14. https://doi.org/10.1186/s40594-024-00523-1

Farahmandpour , Z., & Voelkel, R. (2025). Teacher Turnover Factors and School-Level Influences: A Meta-Analysis of the Literature. *Education Sciences* , *15* (2), 219. https://doi.org/10.3390/educsci15020219

Göregen , M. S., Tanghe, E., & Schelfhout , W. (2024). What Works to Retain Beginning Teachers in the Profession? A Mixed Methods Approach to Detect Determining Factors. *Education Sciences* , *14* (12), 1319. https://doi.org/10.3390/educsci14121319

Jiang, J.-Q., Yao, J., Yu, K.-R., & Li, C.-N. (2023a). An empirical study on 'how to retain rural teachers with emphasis on hygiene or motivation factors': A case of Western China. *Frontiers in Psychology* , *14* . https://doi.org/10.3389/fpsyg.2023.1114107

Li, R., & Yao, M. (2022a). What promotes teachers' turnover intention? Evidence from a meta-analysis. *Educational Research Review* , *37* , 100477. https://doi.org/10.1016/j.edurev.2022.100477

Ling, Z., Na, J., Yan-Li, S., & Sriyanto , J. (2020). School Culture And Professional Development Of School Teachers From Urban And Rural Areas In China. *Journal Horizons of Education* , *39* (3), 609–619. https://doi.org/10.21831/cp.v39i3.31580

Menzies, L. (2023). Continuity and churn: understanding and responding to the impact of teacher turnover. *London Review of Education* , *21* (1). https://doi.org/10.14324/LRE.21.1.20

Nguyen, A. (2024). Human-AI collaboration patterns in AI-assisted academic writing. *Studies in Higher Education* , *49* (5), 847–864. https://doi.org/10.1080/03075079.2024.2323593

Rosmawaty , R., Yahya, M., Syukriani , A., & Elpisah, E. (2022). The Influence of Principal Leadership and Motivation on Junior High School Teacher Performance. *Jurnal Pajar (Education and Teaching)* , *6* (1), 187. https://doi.org/10.33578/pjr.v6i1.8670

Sakwa, S.E. (2022). Influence of Teacher Retention Management Practices on the Educational Outcome of High School Students. *East African Journal of Educational Studies* , *5* (2), 77–87. https://doi.org/10.37284/eajes.5.2.657

Sanjaya, B., Syefrinando , B., & Hidayat, W. (2024). Sequential explanatory technological pedagogical and content knowledge of madrasah teachers in Jambi. *Journal Educational Research and Evaluation* , *28* (1), 43–60. https://doi.org/10.21831/pep.v28i1.70429

Syapira, SA, Nono Hery Yoenanto , Muhamad Uyun, & Nur Ainy Fardana. (2025a). Factors Influencing Teachers' Turnover Intention in Private Schools and Islamic Private Schools: A Systematic Literature Review. *Psychics: Journal of Islamic Psychology* , *11* (1), 211–229. https://doi.org/10.19109/psikis.v11i1.26900

Täht, K., Mikkor, K., Aaviste, G., & Rozgonjuk, D. (2024). What motivates and demotivates Estonian mathematics teachers to continue teaching? The roles of self-efficacy, work satisfaction, and work experience. *Journal of Mathematics Teacher Education* , *27* (6), 961–980. https://doi.org/10.1007/s10857-023-09587-2

Wahyudi, A. (2025). *The Effectiveness of Redistribution of Government Employee Teachers with Work Agreements to Private Schools* . https://jurnaldidaktika.org

Wang, N., & An, B. G. (2023). Improving teachers' professional development through professional learning communities: Voices from secondary school teachers at Malaysian Chinese independent schools. *Heliyon* , *9* (6), e17515. https://doi.org/10.1016/j.heliyon.2023.e17515

Wilsa , AW, Rusilowati , A., Susilaningsih , E., Jaja, J., & Nurpadillah , V. (2023). Validity, reliability, and item characteristics of cell material science literacy assessment instruments. *Journal Educational Research and Evaluation* , *27* (2), 177–188. https://doi.org/10.21831/pep.v27i2.61577