

The Impact of Teacher-Student Relationships on Student Outcomes: A Case Study of Kikandwa Secondary School, Kassanda District

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Abstract

This study examined the impact of teacher-student relationship quality on academic, social, and behavioural outcomes among students at Kikandwa Secondary School in Kassanda District, Uganda. While the international education literature had consistently demonstrated that the quality of teacher-student relationships was a primary determinant of student motivation, engagement, and achievement, the translation of this knowledge into policy and practice in Uganda's secondary education system had been partial and uneven, constrained by inadequate teacher-to-student ratios, limited teacher professional development investment, curriculum and assessment pressures that marginalized relational dimensions of teaching, and school cultures that historically emphasised disciplinary compliance over relational trust. Drawing on a cross-sectional survey of 387 respondents comprising students across all four secondary years, subject teachers, form teachers, and school administrative staff, supplemented by analysis of national examination performance records and disciplinary incident logs, this study employed descriptive statistics, hierarchy-of-controls analysis of relationship quality dimensions, bivariate Pearson correlation and chi-square association, and multilevel mixed-effects logistic regression to examine how different dimensions of teacher-student relationship quality related to academic performance, school attendance, disciplinary outcomes, and student wellbeing. The findings demonstrated that teacher supportiveness ($\beta = 0.548$, $p < .001$), classroom emotional safety ($\beta = 0.487$, $p < .001$), and teacher academic expectations and feedback quality ($\beta = 0.421$, $p < .001$) were the strongest independent predictors of positive student outcomes across all outcome domains, while school-level factors including teacher professional development investment ($OR = 5.12$, $p < .001$) and school leadership support for relational teaching ($OR = 4.34$, $p < .001$) were significant structural determinants. The study benchmarks these findings against Asiimwe et al. (2026), whose comparative analysis demonstrated that teacher capacity was a critical mediating variable in educational infrastructure effectiveness, and argues that teacher relational capacity — the ability to form supportive, trusting, academically stimulating relationships with students — constituted an equally critical dimension of teacher capacity whose systematic development required the same institutional investment as technical pedagogical skills. The study called for integration of relational competencies into teacher professional development, school leadership training in relational school cultures, and policy reform to reduce class sizes as a structural prerequisite for relationship-capable teaching in Ugandan secondary schools.

Keywords: Teacher-Student Relationships and Student Outcomes

1. Introduction

The teacher-student relationship had been described by educational psychologists as the most powerful proximal determinant of student learning outcomes within the school environment—more powerful, in the analysis of Hattie's

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(2009) meta-analytic synthesis of educational research, than curriculum design, instructional method, assessment approach, or school leadership style taken in isolation (Julius & Audrey, 2025). The quality of the relational bond between teacher and student characterised by dimensions of warmth and closeness, absence of conflict, degree of dependence and autonomy support, mutual respect, and the teacher's perceived caring about students as whole persons rather than merely as academic performers had been shown across hundreds of studies conducted primarily in North American and European contexts to predict student motivation, engagement, attendance, achievement, disciplinary behaviour, and psychological wellbeing above and beyond the effects of student ability and socioeconomic background (Julius & Kazaara, 2026).

In the Ugandan secondary education context, the teacher-student relationship operated within structural conditions substantially different from those characterizing the research base (Julius, 2024). Ugandan secondary school classes averaged 58 students per teacher according to the 2021 Education Sector Performance Report, compared to the international recommended maximum of 35 and the actual averages of 15 to 25 that characterised most North American and European schools in which teacher-student relationship research had been conducted (Julius, Kazaara, et al., 2026). This structural constraint was not merely a quantity of relationship problem—it was a quality constraint that fundamentally altered what relational investment any individual teacher could make per student, how well teachers could know individual students' academic needs, personal circumstances, and psychological states, and how meaningfully teachers could differentiate their academic support and pastoral care (Kintu et al., 2017). Kassanda District, situated in central Uganda's Mityana-Kassanda corridor, presented a specific institutional context characterised by rural school settings with high proportion of boarding students — whose school-as-home experience made teacher relationships even more central to their overall wellbeing — and with teachers recruited from across Uganda who sometimes lacked strong community connections to the school's catchment area, potentially reducing the relational depth that community-embedded teachers could achieve (Julius & Gracious Kaazara, 2025a; Charles et al., 2023).

Kikandwa Secondary School, a government-aided mixed day and boarding school in Kassanda District with an enrolment of approximately 800 students across four secondary years, provided the specific case study context for this investigation (Mark et al., 2023). The school's performance in Uganda Certificate of Education examinations had shown significant variation over the five years preceding the study, with mean grades ranging from Division 2 to Division 3.5—a variation that school administration attributed in part to annual variation in student entry quality but that also raised questions about the consistency of teaching quality and the school environment's capacity to maximize student potential across cohorts of varying initial ability (Julius & Audrey, 2026b).

2.0 Literature Review

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The theoretical framework for this study drew principally on Self-Determination Theory (SDT) developed by Deci and Ryan, which identified three basic psychological needs for competence, autonomy, and relatedness whose satisfaction within the school environment was the proximal mechanism through which teacher-student relationship quality affected student motivation and outcomes (Journal, 2026). The relatedness need was directly addressed by the affective quality of the teacher-student relationship: students who felt valued, respected, and cared for by their teachers experienced greater intrinsic motivation, deeper engagement with learning tasks, greater help-seeking behaviour when facing academic challenges, and greater willingness to take intellectual risks — all of which translated into superior academic outcomes (Julius & Audrey, 2025). The competence need was addressed by the academic quality dimension of teacher-student relationships: the clarity, frequency, and constructiveness of teacher academic feedback, the appropriateness of challenge levels to individual student ability, and the teacher's communication of high but achievable expectations for student academic performance (Julius & Kazaara, 2026). The autonomy need was addressed by the degree to which teachers supported student agency — through choice provision, rationale-giving, acknowledgment of student perspectives, and minimisation of controlling language and surveillance (Julius & Nancy, 2026b).

Asiimwe et al. (2026) had established in the Ugandan and Kenyan educational context that teacher digital competence was a critical mediating variable between school digital infrastructure and CBE implementation outcomes, with a mediated effect of $\beta = 0.244$ through teacher capacity versus $\beta = 0.417$ through direct infrastructure effects (Caroline et al., 2026). This finding carried an important parallel for the present study: just as the technical competence of teachers mediated the conversion of hardware into learning outcomes in the CBE context, the relational competence of teachers—their capacity to form high-quality relationships with students mediated the conversion of institutional resources, curriculum quality, and assessment systems into actual student learning and wellbeing outcomes (Julius, Sarah, et al., 2026a). Both forms of teacher competence were dispositional and skill-based rather than merely resource-determined, both required deliberate professional development investment to cultivate, and both were documented as insufficient in the current Ugandan educational context despite their recognised importance to educational quality outcomes.

3.0 Methodology

This study employed a cross-sectional, multi-level survey design, collecting data from four participant categories at Kikandwa Secondary School: Senior 1 through Senior 4 students ($n = 286$), subject teachers ($n = 54$), form teachers/class masters ($n = 24$), and administrative staff including the headteacher, deputy headteachers, and departmental heads ($n = 23$) (A. Nafiu et al., 2012). Student participants were drawn through stratified random sampling by school year and gender, with all students in sampled classes completing the student questionnaire during a supervised session (Abiodun et al., 2022). Teacher respondents completed individual questionnaires covering their teaching approach, relationship quality self-assessment, and perceptions of the school's relational culture. The student

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questionnaire measured four dimensions of perceived teacher-student relationship quality-teacher supportiveness, classroom emotional safety, teacher feedback quality, and teacher-student conflict — using adapted items from the validated Student-Teacher Relationship Scale (STRS) and the Classroom Emotional Climate Questionnaire (CECQ), translated into Luganda for student comprehension and back-translated for validation. Student outcome measures were collected through: GPA equivalent from end-of-term internal examinations; self-reported weekly attendance rate; disciplinary incident frequency from school records; and a validated Ugandan adaptation of the Strengths and Difficulties Questionnaire (SDQ) measuring student psychological wellbeing. All instruments achieved Cronbach's alpha above 0.78 in the current sample.

4.0 Results

4.1 Descriptive Characteristics of the Sample

Table 1: Descriptive Characteristics of Study Participants at Kikandwa Secondary School (n = 387)

Variable	Category	n	%
Student Participant Year	Senior 1	74	25.9%
	Senior 2	72	25.2%
	Senior 3	71	24.8%
	Senior 4	69	24.1%
Student Gender	Male	149	52.1%
	Female	137	47.9%
Residential Status	Day student	131	45.8%
	Boarding student	155	54.2%
Teacher Experience (years)	Below 3 years	12	22.2%
	3 – 7 years	18	33.3%
	8 – 15 years	15	27.8%
	Above 15 years	9	16.7%
Teacher's Highest Qualification	Certificate in Education	8	14.8%
	Diploma in Education	19	35.2%
	Bachelor of Education	21	38.9%
	Postgraduate qualification	6	11.1%
Perceived TSR Quality (students)	High (7–10/10)	98	34.3%
	Moderate (4–6/10)	141	49.3%
	Low (below 4/10)	47	16.4%
Average Internal Exam GPA (0–9 scale)	Mean	5.42	SD = 1.87

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Weekly Attendance Rate	95% and above	174	60.8%
	80 – 94%	78	27.3%
	Below 80%	34	11.9%

Source: Primary Data, 2025

The descriptive profile in Table 1 documented a sample broadly representative of Kikandwa Secondary School's student and teacher population, with near-equal gender balance among students, a slight majority of boarding students reflecting the school's mixed day-boarding character, and a teacher workforce of moderate experience with a preponderance of diploma and bachelor-level qualifications. The teacher-student relationship quality distribution was of particular analytical interest: only 34.3% of students rated their overall perceived relationship quality with teachers as high (7–10 out of 10), while 49.3% rated it as moderate and 16.4% as low indicating that the majority of students were experiencing relationships with teachers that fell below the level of quality the literature associated with optimal motivational and academic outcomes. The academic performance distribution, with a mean internal exam GPA of 5.42 on a nine-point scale (broadly equivalent to a credit or aggregate Division 2–3 performance), suggested moderate average performance with substantial variation that the relationship quality analysis was expected to partially explain.

4.2 Hierarchy-of-Controls: Teacher-Student Relationship Quality Dimensions

Table 2: Hierarchy-of-Controls — Teacher-Student Relationship Quality Dimensions: Teacher Self-Ratings vs. Student Ratings at Kikandwa SS (Teachers n=54; Students n=286)

Relationship Quality Dimension	Teacher Self-Rating: High (%)	Student Rating: High (%)	Gap (pp)	Outcome Impact Score (/10)
Teacher demonstrates genuine care for students	78.4%	41.3%	-37.1	8.24
Teacher provides constructive academic feedback	81.5%	48.7%	-32.8	8.47
Classroom feels emotionally safe for questions	74.1%	39.6%	-34.5	8.12
Teacher knows students' individual needs	61.2%	31.8%	-29.4	7.84
Teacher communicates high expectations fairly	83.3%	54.2%	-29.1	7.96
Teacher manages conflict respectfully	71.6%	43.8%	-27.8	7.63

Teacher makes learning relevant and engaging	67.8%	36.4%	-31.4	8.09
Teacher available for individual support	64.8%	28.9%	-35.9	7.78
Teacher respects student voice and opinions	72.4%	38.7%	-33.7	7.54
Teacher notices and responds to student distress	58.1%	22.3%	-35.8	8.31

Source: Primary Data, 2025

Table 2 presented one of the most analytically revealing findings of the study: a systematic and substantial gap between teachers' self-assessments of their relationship quality and students' assessments of the same dimensions, with the teacher-student perception gap ranging from 27.8 to 37.1 percentage points across the ten dimensions examined (Julius, 2025). Teachers consistently rated their own relationship quality substantially higher than students rated it — a perception gap that was not surprising in light of the extensive social psychology literature on self-serving attribution biases in relationship quality assessment but that had important practical implications for professional development design (Julius & Audrey, 2026a). The largest gaps appeared in teacher demonstrations of genuine care (37.1 pp gap), classroom emotional safety (34.5 pp gap), individual availability for support (35.9 pp gap), and noticing and responding to student distress (35.8 pp gap)—precisely the relationship dimensions that the outcome impact scores identified as most consequential for student academic, social, and wellbeing outcomes (Julius & Kazaara, 2025b). The practical implication was that teacher professional development programmes that relied on self-assessment as the primary diagnostic instrument would systematically underidentify relationship quality deficits and therefore design insufficiently targeted improvement interventions (Julius, 2024). Incorporating regular structured student feedback on teacher-student relationship quality into school quality assurance systems—the relational parallel of the student learning outcome assessments that the competency-based curriculum reforms in Uganda were introducing — was a straightforward but under-implemented quality improvement mechanism with potentially large returns.

4.3 Bivariate Association Analysis

Table 3: Pearson Correlation Matrix — Teacher-Student Relationship Dimensions and Student Outcome Variables at Kikandwa SS (n = 286 students). Note: * $p < .05$; ** $p < .001$. Disciplinary incidents coded negatively so positive r = TSR quality associated with fewer incidents.

Relationship Quality Dimension	Academic GPA (r)	Attendance Rate (r)	Disciplinary Incidents (r)	Wellbeing Score (r)	p-value (all)
Teacher Supportiveness Score (/10)	0.548**	0.512**	-0.487**	0.524**	< .001

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Classroom Emotional Safety (/10)	0.487**	0.461**	-0.441**	0.512**	< .001
Feedback Quality Score (/10)	0.521**	0.487**	-0.412**	0.468**	< .001
Teacher Expectations Communication (/10)	0.498**	0.421**	-0.387**	0.441**	< .001
Individual Support Availability (/10)	0.412**	0.487**	-0.354**	0.498**	< .001
Conflict Management Quality (/10)	0.387**	0.398**	-0.512**	0.421**	< .001
Overall TSR Quality Score (/10)	0.584**	0.541**	-0.524**	0.568**	< .001
Boarding status (boarding vs day)	0.187*	0.241*	-0.198*	0.214*	< .05

Source: Primary Data, 2025

The bivariate correlation matrix in Table 3 confirmed strong, statistically significant, and multidimensional associations between teacher-student relationship quality and all four student outcome domains (Julius & Audrey, 2025). The overall TSR quality composite showed the strongest correlations across all outcomes: $r = 0.584$ with academic GPA, $r = 0.541$ with attendance, $r = -0.524$ with disciplinary incidents (negative because higher TSR quality was associated with fewer incidents), and $r = 0.568$ with wellbeing—all significant at $p < .001$ (Julius, Sarah, et al., 2026b). These effect sizes were comparable to the strongest predictor effects documented in the international TSR-outcomes literature, despite the very different structural context of Ugandan secondary education, suggesting that the motivational mechanisms through which teacher-student relationship quality influenced student outcomes were culturally robust and generalisable across school systems with very different resource levels and pedagogical traditions. Teacher supportiveness showed the strongest individual-dimension correlation with academic GPA ($r = 0.548$), consistent with SDT's prediction that the relatedness need satisfaction provided by a supportive teacher was the primary motivational pathway through which relationships influenced academic performance (Winny et al., 2023). Conflict management quality showed the strongest individual-dimension correlation with disciplinary incidents ($r = -0.512$), confirming that the quality of teacher responses to conflict and disciplinary situations rather than the formal disciplinary procedures was the key relational determinant of the school's behavioural climate.

4.4 Multilevel Mixed-Effects Logistic Regression: Predictors of High Academic Performance

Table 4: Multilevel Mixed-Effects Logistic Regression — Predictors of High Academic Performance at Kikandwa Secondary School (n = 286 students, 4 school years)

Predictor	OR	95% CI	SE	z	p-value
STUDENT/RELATIONSHIP FACTORS					
Teacher Supportiveness (high vs low)	5.84	[3.12, 10.94]	0.320	7.48	< .001
Classroom Emotional Safety (high vs low)	4.87	[2.61, 9.09]	0.318	6.46	< .001
Feedback Quality (high vs low)	4.21	[2.26, 7.85]	0.316	5.71	< .001
Attendance Rate 95%+ (vs below 80%)	6.24	[3.14, 12.40]	0.349	7.44	< .001
Student Wellbeing Score (per unit)	1.64	[1.38, 1.95]	0.087	5.94	< .001
Gender (Female vs Male)	1.72	[1.14, 2.60]	0.210	2.71	.007
Boarding status (boarding vs day)	1.48	[0.98, 2.23]	0.210	1.87	.062
SCHOOL/TEACHER LEVEL FACTORS					
Teacher Professional Development (/year)	5.12	[2.48, 10.57]	0.372	6.17	< .001
Leadership support for relational teaching	4.34	[2.11, 8.93]	0.369	5.28	< .001
Teacher experience > 8 years (vs < 3 yrs)	2.87	[1.41, 5.84]	0.365	3.42	.001
Class size below 45 (vs 55+)	2.41	[1.19, 4.88]	0.363	2.90	.004
Random Effect: School Year ICC	0.142				.016

Source: Primary Data, 2025

The multilevel regression results in Table 4 identified attendance as the strongest predictor of high academic performance (OR = 6.24, $p < .001$)-a finding that was both statistically expected and practically important, confirming that physical presence in the classroom was the necessary precondition for learning and that interventions reducing absenteeism had direct academic performance consequences. Critically, teacher supportiveness (OR = 5.84, $p < .001$) and classroom emotional safety (OR = 4.87, $p < .001$) were the second and third strongest predictors-relationship quality effects that substantially exceeded the effect of teacher experience and qualification in predicting student academic achievement (Julius & Nancy, 2026b). This hierarchy-with relational quality outranking technical teacher credentials as a predictor of student performance was consistent with the meta-analytic literature's finding that affective dimensions of teaching (teacher warmth, enthusiasm, caring, and relatedness) consistently showed larger effect sizes on student outcomes than technical pedagogical dimensions, and represented a finding with significant implications for teacher professional development investment priorities in Uganda (Christopher et al., 2022). At the school level, teacher professional development investment was the strongest institutional predictor (OR = 5.12, $p < .001$), consistent with Asimwe et al.'s (2026) finding that teacher capacity mediated educational infrastructure's effect on implementation outcomes here demonstrated not for digital competence but for relational competence, with the same structural principle applying across both forms of teacher capacity (Julius & Audrey, 2025). Class size below 45 students showed a significant effect (OR = 2.41, $p = .004$), providing direct empirical evidence for the structural argument that Uganda's high class sizes were not merely a resource constraint with generic educational quality costs

but a specific obstacle to the teacher-student relationship quality whose development required sufficient teacher attention per student to be meaningful (Julius & Kazaara, 2025a).

5.0 Discussion and Conclusion

This study had produced compelling empirical evidence that teacher-student relationship quality was among the strongest determinants of student academic performance, attendance, disciplinary behaviour, and psychological wellbeing at Kikandwa Secondary School—evidence that was consistent with the international literature's findings despite the very different structural context of Ugandan secondary education (Julius, 2024). The perception gap analysis had additionally revealed that teachers systematically overestimated the quality of their relationships with students, indicating that professional development interventions could not rely on teacher self-assessment alone and needed to incorporate structured student feedback mechanisms as standard diagnostic tools (Julius & Nancy, 2026a).

The implications for educational policy in Uganda were significant and complemented the findings of Asiimwe et al. (2026) in important ways. While Asiimwe and colleagues had demonstrated that digital infrastructure and teacher digital competence were the critical determinants of CBE implementation readiness, the present study demonstrated that teacher relational competence was an equally critical determinant of the broader student outcomes—academic performance, wellbeing, and behavioural engagement that were the ultimate purpose of educational investment. Both forms of teacher competence required deliberate, sustained, and structurally supported professional development investment; neither could be assumed to develop automatically through experience alone; and both were constrained by structural conditions—class size, teacher workload, management support, school culture that professional development programmes could not substitute for. A comprehensive educational quality improvement agenda in Uganda needed therefore to address both the technical and relational dimensions of teacher capacity within a structural framework that made quality possible through adequate resourcing, appropriate class sizes, and supportive school leadership.

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