

Improving Teacher-student Relationships via PBIS: A Study of First-year Teachers

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This mixed-methods study examined whether first-year teachers could improve relationships with students through Positive Behavioral Interventions and Supports (PBIS). Fifty novice teachers implemented one of three PBIS strategies: daily one-on-one conversation, verbal praise, or immediate rewards with 192 selected students over a two-week period. Teacher-student relationships were measured using the Student-Teacher Relationship Scale (STRS) before and after the intervention. Results showed significant reductions in conflict ($t(191) = 7.14$, $p < .001$, $d = 0.98$) and moderate increases in closeness ($t(191) = -7.11$, $p < .001$, $d = 0.67$). No significant differences emerged across grade levels, teacher and student gender, or PBIS strategy type. Thematic analysis of teacher reflections highlighted improvements in engagement, cooperation, emotional regulation, and relational trust. Although the study was limited by its two-week duration and reliance on teacher self-reports, the findings demonstrate that even brief PBIS interventions can yield measurable relational benefits. Implications are discussed for teacher preparation programs and school-based practice.

Keywords: teacher-student relationships, Positive Behavioral Interventions and Supports (PBIS), teacher preparation programs, first-year/novice teachers, school climate.

Introduction

The quality of the relationship between teachers and students is a critical factor in shaping classroom environments, influencing student behavior, academic outcomes, and overall school climate. Research has consistently shown that positive, learner-centered teacher-student relationships are associated with increased student engagement, improved academic performance, and decreased behavioral challenges (Cornelius-White, 2007; Hughes et al., 2008; Roorda et al., 2011; Spilt et al., 2012; Poling et al., 2022). In contrast, strained or conflictual relationships may contribute to disengagement and elevated discipline issues. First-year teachers frequently report classroom management and relationship-building as pressing challenges (Ingersoll & Strong, 2011; Pogodzinski et al., 2013). International evidence echoes these concerns. The Teaching and Learning International Survey (2018) shows nearly one-quarter of class time is devoted to managing the classroom and administrative tasks, signaling the pivotal importance of classroom management. Novice teachers also experience higher levels of stress, attrition, and difficulty in establishing effective instructional routines compared to their more experienced peers (Fantilli

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& McDougall, 2009), and early experiences with managing behavior and fostering relationships can shape their long-term instructional efficacy and career trajectories (Smith & Ingersoll, 2004). As educational institutions seek sustainable strategies to improve student outcomes, Positive Behavioral Interventions and Supports (PBIS) has emerged as a widely adopted framework aimed at promoting positive behavior and enhancing school climate (Santiago-Rosario et al., 2023). However, less is known about the specific effects of PBIS on teacher-student relationships, particularly from the perspective of first-year teachers navigating early classroom management challenges.

This paper presents findings from a 2025 research study that builds upon two prior investigations (Martinez & Wighting, 2023; Martinez et al., 2025). The study explores how PBIS implementation influences the quality of teacher-student relationships, specifically focusing on the constructs of conflict and closeness as measured by the Student-Teacher Relationship Scale (STRS), a validated instrument widely used to assess teacher perceptions of relational quality (Pianta, 2001). By examining pre- and post-survey data from 50 first-year teachers and 192 students, with each teacher selecting 3–4 students and implementing PBIS strategies over a two-week period, the study presents an analysis of how relationship-focused behavior supports can impact classroom dynamics. In addition, the research investigates whether teacher or student gender, grade level, or selected PBIS methods influence outcomes, offering nuanced insights into the complex interplay of personal and contextual factors in classroom relationships.

Review of the Literature

The Importance of Teacher-Student Relationships

Teacher-student relationships are a cornerstone of effective teaching and learning. According to Pianta (1999), the quality of these relationships can influence a student's motivation, behavior, and academic success. Positive relationships characterized by warmth, trust, and respect create an environment where students feel valued and supported, which in turn facilitates engagement and resilience (Hamre & Pianta, 2001). Conversely, relationships marked by conflict or unpredictability can hinder academic progress and increase behavioral issues, especially among students already at risk (O'Connor & McCartney, 2007).

PBIS as a Relationship-Oriented Framework

Positive Behavioral Interventions and Supports (PBIS) is a tiered, school-wide framework designed to support proactively appropriate student behaviors and to improve school climate. At its core, PBIS emphasizes clear behavioral expectations, consistent reinforcement, and data-driven decision-making (Sugai & Horner, 2002). While much of the literature on PBIS focuses on behavioral outcomes such as reduced office discipline referrals (ODRs) and school suspensions, emerging research highlights the potential of PBIS to influence relational dynamics between teachers and their students. Strategies like verbal praise, relationship-building conversations, and

behavior-specific feedback have been shown to foster student trust and cooperation (Bennett, 2020; McDonald, 2019).

Previous Research on PBIS and Teacher-Student Relationships

The 2023 study by Martinez and Wighting examined how PBIS implementation influenced teacher-student dynamics in a K–12 setting. Findings indicated that PBIS was associated with decreased reports of student misbehavior and improved perceptions of classroom culture. The authors' 2025 follow-up study built upon these results by employing the STRS to measure quantitatively teacher-reported levels of conflict and closeness before and after PBIS strategies were implemented. Results from the 2025 study showed statistically significant reductions in conflict and modest increases in closeness. Additionally, qualitative responses revealed that teachers attributed these shifts to intentional praise, structured routines, and individualized behavior supports.

Although the majority of PBIS research originates in the United States, international and cross-cultural studies also affirm the central role of teacher–student relationships in shaping outcomes. For example, Martin and Collie (2019), in an Australian high school context, demonstrated that the balance of positive and negative teacher–student relationships significantly influenced student engagement. Similarly, Wang and Eccles (2012) found that supportive teacher–student relationships in China were positively associated with adolescents' long-term academic motivation. In addition, Caldarella et al. (2015) reported that behavior-specific praise and other PBIS strategies improved teacher–student interactions in schools across multiple countries, suggesting that the relational aspects of PBIS may generalize beyond U.S. contexts. Together, these findings highlight the global relevance of relationship-centered frameworks such as PBIS and underscore the importance of examining their effects in diverse educational settings.

Current Study and Identified Gaps

Although prior studies demonstrated promising outcomes, questions remained regarding the possible impact of teacher or student gender, teaching grade level, and the comparative effects of different PBIS strategies. Moreover, first-year teachers, who often face challenges with classroom management, have been underrepresented in previous PBIS research. The current study aims to address these gaps by exclusively focusing on novice teachers and examining whether demographic and contextual variables moderate the impact of PBIS on teacher-student relationships. This study builds on previous research while offering practical insights for supporting early-career educators and refining relationship-centered behavior frameworks.

This overall body of literature underscores the importance of relationship quality in teaching, the promise of PBIS as a relational tool, and the need for targeted research to inform implementation strategies. Previous studies have provided a strong foundation incorporating additional perspectives, e.g. Gregory et al. (2016) on culturally responsive behavior support, or Reinke et al. (2013) on teacher coaching in PBIS implementation and the current study may further enhance

understanding. This research contributes to the body of knowledge by offering both empirical data and educators' perspectives on the effect of PBIS on teacher-student relationships.

Research Question

Does the implementation of Positive Behavioral Interventions and Supports (PBIS) by first-year teachers improve measured teacher-student relationships, e.g. by reducing conflict and increasing closeness, and are the outcomes influenced by teacher or student gender, grade level, or the type of PBIS strategy used?

Method

This study employed a mixed-methods design involving 50 first-year teachers from diverse K–12 educational settings across one state in the USA. Conducted at the start of an academic year, when some students' behaviors were emerging as potential discipline concerns, teachers selected 3 or 4 students in their classrooms who exhibited behavioral or relational challenges. This process resulted in a study total of 192 student-teacher relationship pairs. The intervention period lasted two weeks between measurements. The participating teachers were employed in a range of school types and communities, providing broad geographic coverage throughout the state.

Participants

All teacher participants were in their first-year of full-time teaching. Student participants ranged from kindergarten to 12th grade and were identified by their teachers based on observed behavioral or relational challenges. These students may have received at least one office referral or demonstrated behaviors inconsistent with classroom expectations. Teachers also provided demographic information, including their own gender, student gender, and student grade level. The students were unaware that their teachers had selected them for this action research.

Design and Procedure

The study used a mixed-methods design incorporating both quantitative and qualitative data to assess the impact of PBIS implementation on teacher-student relationships. Teachers completed the same Student-Teacher Relationship Scale (STRS), (Pianta, 2001), to measure their relationship with students both before and after implementing one of three selected PBIS strategies over a two-week intervention period. The STRS, shown at Appendix A, measures two key relationship constructs using a 5-point Likert scale: Closeness and Conflict.

Teachers then chose one PBIS strategy to implement with each student for two weeks. The PBIS options were:

1. Spending two minutes per day engaging in one-on-one conversation with the student,
2. Providing verbal praise for positive behavior, and
3. Giving immediate rewards (e.g., food, candy, badges) for appropriate behavior.

This study was limited to the option of three Tier 1-PBIS practices to balance the feasibility for first-year teachers with evidence and theory. Behavior-specific praise has robust empirical support that training teachers to use it reduces disruption and increases appropriate behavior (Zoder-Martell et al., 2019). Immediate rewards reflect token reinforcement procedures with demonstrated effects on classroom behavior (Soares et al. 2016). The widely used "2x10" approach involves daily one on-one conversations. This relationship-focused dyadic time is theorized to strengthen teacher student bonds (Henze et al., 2024). Constraining the choice set to three simple strategies also standardized implementation in a short two-week window. At the end of the two-week intervention, teachers completed a post-survey, measuring the relationship using the STRS to obtain quantitative data.

Prior to the intervention, teachers responded to a pre-survey that included demographic questions and open-ended prompts asking them to describe behavioral concerns and several open-ended questions for each selected student; their responses provided data for the study's qualitative section and several open-ended questions shown at Appendix B. Post-intervention prompts asked teachers to reflect on behavior changes, the influence of teacher or student gender and grade level, and outcomes observed when positive relationships were present.

Data Collection and Instruments

The STRS was the instrument used to assess teacher perceptions of their relationships with individual students. The scale provides numeric scores for Closeness (e.g., warmth, trust, openness) and Conflict (e.g., tension, disagreement, defiance). In addition, qualitative data were collected through open-ended responses regarding observed behavior changes, teacher perceptions of their own influence, and relational dynamics in the classroom.

Data Analysis

Quantitative data were analyzed using paired samples t-tests to compare pre- and post-intervention STRS scores. One-way and two-way ANOVAs were used to assess the influence of PBIS strategy, grade level, and gender on changes in Closeness and Conflict. Effect sizes (Cohen's *d*) were calculated to determine the magnitude of changes.

Qualitative responses were analyzed using thematic coding to identify patterns related to teacher perceptions of behavior change, relational improvement, and contextual influences such as grade level and gender. Themes were triangulated with quantitative findings to provide a comprehensive understanding of PBIS impact.

Results

The following section reports the results of quantitative and qualitative findings.

Analysis 1: Conflict and Closeness (Paired Samples t-Tests)

This analysis examined the effect of a two-week PBIS intervention on teacher-student relationships, as measured by the Student-Teacher Relationship Scale (STRS). Specifically, paired samples t-tests were conducted to assess pre- and post-intervention changes in two subscales: Closeness (reflecting warmth, trust, openness) and Conflict (indicating tension, disagreement, or defiance in the relationship).

Table 1. Paired Samples Statistics for Closeness and Conflict

Student-Teacher Relationships	Mean	Std. Deviation	N
Closeness (Pre)	3.3653	.80424	191
Closeness (Post)	3.7109	.78918	191
Conflict (Pre)	2.8906	1.06571	191
Conflict (Post)	2.3862	.93467	191

As shown in Table 1, teachers reported higher average closeness with students after the PBIS intervention. The pre-intervention closeness mean score increased from 3.37 (SD = 0.80) to 3.71 (SD = 0.79) post-intervention. This difference was statistically significant, $t(191) = -7.11$, $p < .001$, and reflects a moderate effect size (Cohen's $d = 0.67$), suggesting that the intervention led to meaningful improvements in perceived relational warmth, openness, and trust between teachers and their students.

Conversely, conflict scores showed a more substantial difference. Before the intervention, the mean conflict score was 2.89 (SD = 1.07), which dropped to 2.39 (SD = 0.93) following the two-week PBIS implementation. This reduction was also statistically significant, $t(191) = 7.14$, $p < .001$, with a large effect size (Cohen's $d = 0.98$), indicating a strong and practical reduction in teacher-perceived conflict with students.

Table 2. Paired Samples t-test Results for Closeness and Conflict

Student-Teacher Relationships Measure	Mean Difference	Std. Error Mean	95% CI Lower	95% CI Upper	t	df	p-value (2-tailed)
Closeness	-.345610	.048601	-.44147	-.249745	-7.111	191	< .001
Conflict	.504464	.070695	.36502	.643907	7.136	191	< .001

Table 3. Effect Sizes for Closeness and Conflict (Cohen's d)

		Standardizer	Point Estimate	95% CI Lower	95% CI Upper
Closeness	Cohen's d	.67344	-.513	-.663	-.362
	Hedges' correction	.67610	-.511	-.661	-.361
Conflict	Cohen's d	.97958	.515	.364	.665
	Hedges' correction	.98345	.513	.362	.662

These findings indicate that even brief implementation of targeted PBIS strategies can produce meaningful changes in the quality of teacher-student relationships (see Table 3). The larger effect size on conflict ($d = 0.98$) relative to closeness ($d = 0.67$) is consistent with how Tier 1 PBIS operates over short windows: praise and contingent reinforcement target observable behavior and may be particularly effective at reducing behavioral tension and negativity, as supported by the significant t-test results (see Table 2). By contrast, closeness reflects trust, warmth, and openness which are qualities that typically accumulate more gradually as positive interactions accrue. Measurement context may also have contributed: baseline conflict showed greater variability and more room to decrease (pre $M = 2.89$) than closeness has to increase (pre $M = 3.37$), and over two weeks teacher ratings may be more sensitive to visible behavior change than to relational depth. The intervention produced a pronounced reduction in conflict and a moderate but reliable gain in closeness; extending the duration or layering additional relational strategies may be necessary to strengthen rapport further.

In summary, the effect sizes indicate that PBIS strategies can lead to meaningful and substantial improvements in teacher-student relationships over a short period, with reductions in conflict and increases in closeness laying the foundation for more positive and trusting classroom relationships.

Analysis 2: PBIS Strategy Comparison (One-Way ANOVA)

To explore whether the type of PBIS strategy influenced the level of improvement in teacher-student relationships, one-way ANOVAs were conducted using post-intervention STRS scores for both closeness and conflict. Higher closeness scores reflect stronger teacher-student bonds, and lower conflict scores reflect more positive interaction. Teachers selected one of three relationships PBIS strategies:

1. Daily two-minute one-on-one conversations,
2. Verbal praised for positive behavior, or
3. Immediate rewards (e.g., stickers, candy).

The descriptive statistics for each strategy are presented in Table 4.

Table 4. Mean Post-Intervention Closeness and Conflict Scores by PBIS Method

Student Teacher Relationships	PBIS Method	Mean	Std. Deviation	N
Closeness	Converse with Student Daily	3.7071	.82224	99
	Verbal Praise for Good Behavior	3.7641	.76897	71
	Provide an Immediate Reward	3.5568	.70997	22
	Total	3.7109	.78918	192
Conflict	Converse with Student Daily	2.3694	.90834	99
	Verbal Praise for Good Behavior	2.3843	.98933	71
	Provide an Immediate Reward	2.4675	.90799	22
	Total	2.3862	.93467	192

A one-way ANOVA was conducted to determine whether the differences among the three groups were statistically significant. Results are summarized in Table 5.

Table 5. One-Way ANOVA Results for PBIS Method and Teacher-Student Relationships Outcomes

Dependent Variable	df Between	df Within	<i>F</i>	<i>p</i>
Closeness	2	189	0.579	.562
Conflict	2	189	0.098	.906

Results indicated no statistically significant differences among the three PBIS strategies (two-minute daily conversation, verbal praise, and immediate rewards) in their effects on Closeness ($F = 0.579, p > .05$) or Conflict ($F = 0.098, p > .05$). These findings suggest that all three approaches were similarly effective in supporting teacher-student relationships following the PBIS intervention.

Although average scores varied slightly, especially for closeness (with verbal praise yielding a slightly higher mean), these differences were not statistically meaningful. Educators can therefore implement any one of the three PBIS options as they appear to yield comparable outcomes in fostering better teacher-student relationships. They can feel confident to select a PBIS approach that aligns with their teaching style and the needs of individual students, as no single method emerged as superior within this sample.

Analysis 3: Grade Level and Strategy Interaction (Two-Way ANOVA)

To determine whether the effectiveness of PBIS strategies differed across grade levels, a two-way ANOVA was conducted with the PBIS strategy type (Three levels: daily conversation, verbal praise, immediate reward) and grade level (three levels: PK-5, elementary school; 6-8, middle school; and 9-12, high school) as independent variables. All teachers had the freedom to choose from among the rewards. The dependent variables were the change scores (post minus pre) for closeness and conflict scores reported by first-year teachers using STRS.

Descriptive statistics for each PBIS strategy across the three grade levels bands are provided in Table 6. While no single method appears more effective, there are modest trends, such as stronger conflict reduction in elementary grades (PK-5) and greater closeness gains in high school (9-12). These trends, however, do not indicate a consistent pattern of differential effectiveness by grade level.

Table 6. Mean Closeness and Conflict Scores by PBIS Method and Grade Level

Student Teacher Relationships	PBIS Method	Closeness/ Conflict	Mean	Std. Deviation	N
PK-5	Converse with Student Daily	Closeness	.3761	.66273	51
		Conflict	-.5798	.88164	51
	Verbal Praise for Good Behavior	Closeness	.3549	.60934	32
		Conflict	-.4941	1.11248	32
	Provide an Immediate Reward	Closeness	-.0304	.43343	10
		Conflict	-.4429	.78729	10
6-8	Converse with Student Daily	Closeness	.2847	.46692	18
		Conflict	-.4497	.97975	18
	Verbal Praise for Good Behavior	Closeness	.2086	.53266	22
		Conflict	-.4740	1.10339	22
	Provide an Immediate Reward	Closeness	.1352	.79792	7
		Conflict	-.1429	.83118	7
9-12	Converse with Student Daily	Closeness	.5756	.78667	30
		Conflict	-.6254	.96880	30
	Verbal Praise for Good Behavior	Closeness	.3540	.90657	17
		Conflict	-.4202	1.12009	17
	Provide an Immediate Reward	Closeness	.4357	.86571	5
		Conflict	-.3238	1.12959	5

A full factorial two-way ANOVA was conducted to examine:

1. The main effect of PBIS strategy on teacher-students closeness and conflict.
2. The main effect of grade level.
3. The interaction effect between PBIS strategy and grade level.

Results of the ANOVA (see Table 7) revealed no statistically significant main effects or interaction effects for either outcome variable. Specifically:

- For closeness, neither the PBIS strategy type ($F(2, 183) = 1.135, p = .324$) nor grade level ($F(2, 183) = 1.390, p = .252$), nor their interaction ($F(4, 183) = 0.408, p = .802$), produced statistically significant differences.
- For conflict, similar non-significant results were observed across all three effects (all p -values $> .05$).

It should be noted, however, that the N for several grade-level/strategy subgroups was small (e.g., immediate reward in high school, $N = 5$). These low counts may have reduced statistical power, limiting the ability to detect potential differences and suggesting caution in interpreting subgroup findings.

Table 7. Two-Way ANOVA Summary for Closeness and Conflict by Grade Level and PBIS Strategy

Dependent Variable	Source	df	F	p-value
Closeness	PBIS Strategy	2	1.135	.324
	Grade Band	2	1.390	.252
	Strategy $\times$ Grade	4	0.408	.802
	Error	183		
Conflict	PBIS Strategy	2	0.541	.583
	Grade Level	2	.260	.771
	Strategy $\times$ Grade	4	0.118	.976
	Error	183		

These null results suggest that the positive effects of PBIS strategies on teacher-student relationships were consistent across elementary, middle, and high school levels, and did not depend on the specific strategy selected. There were no main effects for grade level, nor any interaction effects between grade level and strategy

type ($p > .05$). These findings suggest that PBIS strategies yielded comparable outcomes across all grade levels included in the study (K–12).

This consistency offers valuable implications for school-based PBIS implementation. PBIS interventions, regardless of the specific method, grade level, or gender, produced similar outcomes in terms of improving relationships. Because no method outperformed the others, schools have the flexibility to focus on a uniform PBIS strategy or to enable teachers to choose methods that align with their personal teaching styles or specific classroom needs. However, given the age differences between student groups, the type or perceived value of the “reward” component may influence student engagement and responsiveness to PBIS strategies. Future research with a larger sample size or more targeted measures could potentially reveal subtle differences related to grade levels or particular methods, offering deeper insights into optimizing PBIS implementation.

Analysis 4: Qualitative Findings, Thematic Summary of Teacher Reflections

Thematic analysis of teacher responses to the post-intervention open-ended questions provided valuable insight into how first-year teachers perceived the effects of PBIS on student behavior and teacher-student relationships. From the total dataset of 191 student entries, a purposeful sample of 58 teacher reflections was selected for coding. These reflections were chosen based on clarity, completeness, and relevance to the study’s research questions. The resulting themes are closely aligned with five overarching categories: increased engagement, improved emotional regulation, reduced defiance, better peer interactions, and strengthened relational trust. These qualitative findings offer additional depth to the quantitative results by capturing how novice teachers experienced and interpreted changes in student behavior and classroom climate following the PBIS implementation.

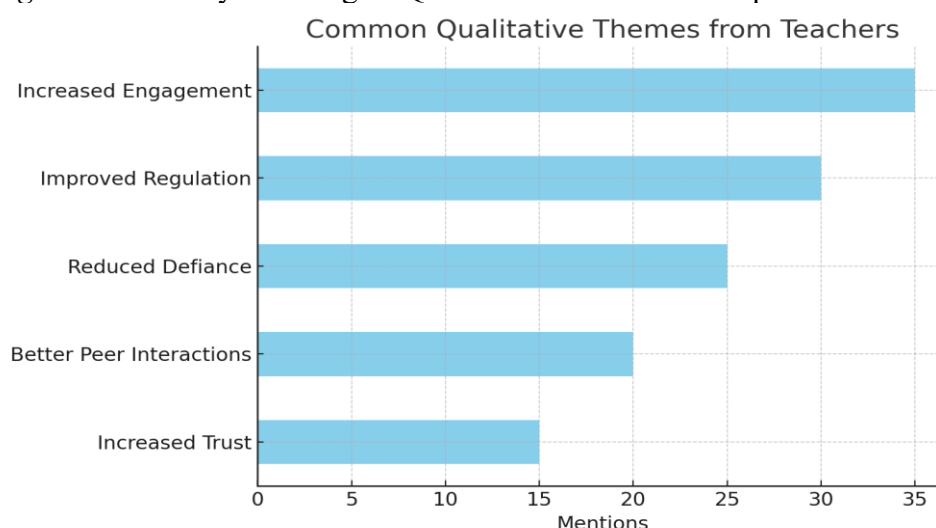
One of the most frequently cited themes was increased engagement. Teachers frequently noted that students who were previously withdrawn or showed low participation became more involved in classroom activities. When students sensed that their teacher cared about them as individuals, they became more willing to participate, take risks, and follow classroom expectations. Similarly, numerous teachers reported improved self-regulation as a common observation. Teachers described students exhibiting fewer outbursts and greater self-control. Students who were previously prone to impulsivity or frustration began to demonstrate greater control, often attributed to consistent and positive adult attention. This change was often linked to the consistent structure and positive reinforcements embedded in PBIS strategies, which can offer students a sense of predictability and emotional security.

A third theme centered on reduced defiance and opposition. Many participants described a noticeable decrease in oppositional behavior. Teachers observed that students became more cooperative and less argumentative when positive interactions replaced corrective or disciplinary exchanges. This shift was especially meaningful for the novice teachers in this study, many of whom acknowledged initial struggles in managing student resistance. In several cases, teachers emphasized that behavior changes were not dramatic but were still noticeable, suggesting that even small adjustments in relational tone and consistency had a positive impact.

In addition to behavioral shifts, several teachers highlighted improved peer relationships. Teachers shared that students began showing greater empathy, patience, and social awareness, which contributed to a more cohesive classroom climate. These social-emotional developments not only benefitted student interactions but also reinforced a sense of community.

Finally, the theme of trust as a foundation for academic success was woven throughout the reflections. Teachers noted that as trust between the teacher and student deepened, students became more receptive to feedback, more confident in their academic efforts, and more motivated to succeed. When students felt emotionally safe and understood, they not only behaved better but also displayed increased motivation and pride in their work. This trust-based connection was seen as a cornerstone of effective instruction and behavior support, particularly for students with a history of relational or behavioral challenges.

Figure 1. Summary of Emergent Qualitative Themes and Frequencies



These qualitative reflections reinforce the values of PBIS as a relationship-centered approach, especially for novice teachers navigating early classroom management. These findings align with the quantitative findings by underscoring the power of relational practices, e.g. praise, consistency, and positive attention, that can foster engagement, cooperation, emotional regulation, and trust. For many novice teachers, PBIS provided a practical framework for building meaningful connections between themselves and their students, creating a calmer learning environment and addressing behavioral challenges through consistent and supportive interactions.

Discussion

This study sought to examine the effects of PBIS on teacher-student relationships, with a specific focus on first-year teachers. Findings from both the qualitative and quantitative data suggest that brief, relationship-centered PBIS strategies can yield meaningful improvements in classroom dynamics. These improvements were especially

evident in the reduction of conflict and the development of stronger relational bonds, demonstrating the potential of PBIS to build stronger connections that support learning and classroom success.

Quantitative analysis revealed statistically significant improvements on both subscales of the STRS, with closeness increasing moderately and conflict decreasing significantly following a two-week PBIS implementation. These findings extend prior research by confirming that relational improvements are observable even within short time frames and under the direction of first-year teachers who are still developing classroom management skills. The large effect size for conflict reduction is particularly noteworthy, suggesting that PBIS may serve as a useful classroom management strategy against early-career challenges commonly associated with oppositional behavior and disciplinary challenges.

The qualitative data added value to this study by illustrating how teachers experienced these changes in real time. Teachers consistently noted improvements in student engagement, emotional regulation, cooperation, and trust among their students. These descriptions support the idea that PBIS strategies do more than reduce misbehavior – they help establish a relational classroom climate where students feel safe, seen, and motivated. Although the increase in closeness was statistically more modest, teacher reflections revealed that small relational shifts often carried significant emotional and instructional weight, particularly for students with a history of behavioral difficulties.

Notably, the study found no statistical significant difference in outcomes based on the type of PBIS strategy used, whether it was conversation, praise, or an immediate reward. Similarly, there were no meaningful differences by student grade level or gender. These null results suggest that the relational improvements associated with PBIS were consistent across diverse educational contexts. Rather than depending on a specific method or demographic fit, the success of PBIS appears to stem from its consistent, positive reinforcement of student-teacher interactions, which is an approach with broad applicability in PK-12 classrooms.

While effects appeared consistently across strategies and grade levels, interpretation should account for several limitations. The intervention window was two weeks, an intentional scope to align with novice teacher feasibility; consequently the results should be interpreted in light of this brief implementation period. A second limitation of this study is the small number of participants in some subgroups when disaggregated by both PBIS strategy and grade level. For example, the “immediate reward” condition at the high school level included only five participants. Such low N values reduce statistical power and may mask potential differences that could emerge with larger samples. While the overall results suggest consistency across strategies and grade levels, these subgroup findings should be interpreted with caution. Future research with broader participation would help clarify whether subtle differences exist in the effectiveness of PBIS strategies across developmental stages and classroom contexts. Finally, outcomes were assessed exclusively via teacher self-reports on the STRS, which can introduce single-informant bias. A more balanced approach would incorporate student perspectives on student-teacher relationship quality, classroom observations, and converging behavioral indicators such as on-task rates or office discipline referrals.

Overall, the findings of this study offer important insights for schools, teacher preparation programs, and educational leaders seeking practical ways to support relationship-building in PK-12 classrooms. PBIS, when implemented with relational intent, represents a low-cost, high impact approach that can enhance classroom culture and help teachers, especially those who are new to the profession, to establish a foundation for behavior management and student connection.

Recommendations

Based on the findings, PK-12 school leaders are encouraged to support their teachers in replicating this study as a means of measuring and strengthening teacher-student relationships. The STRS instrument is straightforward to administer, requires no parental consent, and is designed to be unobtrusive; students are unaware of the evaluation process. For both novice and experienced teachers, this reflective practice can offer valuable insights into relational dynamics in the classroom. Repeated administration of the instrument throughout the academic year may also provide useful data to guide instructional and behavioral supports.

Teacher preparation programs should consider integrating these findings into coursework on classroom management and relational pedagogy. Instruction on how to measure teacher-student relationships, combined with training in PBIS strategies, would provide future educators with a practical, evidence-based foundation for addressing classroom behavior while cultivating meaningful student connections. Emphasizing relational tools such as praise, one-to-one interaction, and consistency can help new teachers build the trust and emotional safety that underlie effective classroom instruction.

Conclusion

This study demonstrates that teacher-student relationships can be measured easily and meaningfully using a valid instrument, and that even short-term PBIS interventions can positively influence these relationships. Specifically, the findings support that such interventions can increase perceived closeness and reduce conflict between teachers and students. For early-career educators in particular, relationship-centered behavior strategies offer a manageable and impactful way to create positive classroom environments.

Beyond immediate effects, Tier 1 PBIS practices (e.g., behavior specific praise, brief one-to-one interactions, and simple reinforcement routines) are low-cost, time-efficient, and sustainable because they embed into daily instruction and can be maintained through coaching, self-monitoring, and school-wide teaming. Moreover, these core practices are adaptable across international contexts when culturally attuned. For example, calibrating praise language and frequency to local norms, selecting reinforcers that reflect community values, co-developing expectations with families, and using multilingual visuals to communicate routines. The results contribute to a growing body of literature showing that the interpersonal aspects of teaching, e.g. trust, rapport, and emotional attunement, are not only foundational to effective teaching but

can also be intentionally developed and measured. PBIS, when implemented with a relational focus, provides a scalable method for enhancing student behavior, improving teacher-student relationships, and strengthening teacher confidence.

Recommendations for Future Research

Future studies should explore the effects of additional PBIS strategies, as well as combinations of approaches, to determine their differential impact on closeness and conflict. Expanding the intervention period beyond two weeks may also yield insight into the sustainability and long-term relational benefits of PBIS.

It is recommended that PK-12 classroom teachers replicate all or part of this study to measure the relationship between themselves and some of their students and to determine the effects of a PBIS intervention on that relationship. The measurement can be conducted in any PK-12 classroom to assist with classroom management. It can be conducted in any country - the fundamentals of classroom management are universal, and international replications are encouraged.

Finally, additional qualitative research is warranted to capture teacher narratives and contextual factors that influence how relational changes occur. Such work would build on the present study's findings by identifying not only whether PBIS improves relationships, but how and why it does so in the day-to-day realities of teaching.

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Appendix A. Student-Teacher Relationship Scale (STRS)

Subscale (Conflict or Closeness)	Question
closeness	1. I share an affectionate, warm relationship with this child.
conflict	2. This child and I always seem to be struggling with each other.
closeness	3. If upset, this child will seek comfort from me.
closeness	4. This child is uncomfortable with physical affection or touch from me.
closeness	5. This child values his/her relationship with me.
closeness	6. When I praise this child, he/she beams with pride.
closeness	7. This child spontaneously shares information about himself/herself.
conflict	8. This child easily becomes angry with me.
closeness	9. It is easy to be in tune with what this child is feeling.
conflict	10. This child remains angry or is resistant after being disciplined.
conflict	11. Dealing with this child drains my energy.
conflict	12. When this child is in a bad mood, I know we're in for a long and difficult day.
conflict	13. This child's feelings toward me can be unpredictable or can change suddenly.
conflict	14. This child is sneaky or manipulative with me.
closeness	15. This child openly shares his/her feelings and experiences with me.

Appendix B. Post Intervention Teacher Reflection Questions

	Teacher Reflection Questions
1.	The purpose of this study is to investigate how Positive Behavioral Interventions and Supports (PBIS) might have a positive effect on teacher-student relations and a decrease in discipline referrals. In 3-5 sentences, share whether or not this student's behavior changed as a result of implementing PBIS. If possible, share evidence/examples of this change. If there was no change, share why you think there was no change.
2.	In what ways do you think your gender or teaching grade level influences your relationships with your students?
3.	What outcomes have you noticed in your classroom when positive relationships are present compared to when they are lacking?

