

Latent Profile of Academic Resilience and Friendship Satisfaction in Relation to Achievement Emotions among School-Aged Adolescents

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ARTICLE INFO

Article history

Received 9 January 2026

Revised 11 February 2026

Accepted 29 March 2026

ABSTRACT

Adolescence represents a critical developmental phase characterized by escalating academic demands and increasingly salient peer relationships, both of which play a central role in shaping students' achievement-related emotional experiences. Although academic resilience and friendship satisfaction are well-established protective resources, prior research has predominantly examined these constructs in isolation, leaving their joint configurations and emotional consequences underexplored, particularly within resource-constrained and culturally contextualized educational settings. Adopting a person-centered approach, this study identified latent profiles of school-aged adolescents based on combined patterns of academic resilience and friendship satisfaction and examined profile differences in positive and negative achievement emotions. Data were collected from 582 randomly selected adolescents in Kupang City, Indonesia, using validated measures of academic resilience, friendship satisfaction, and achievement emotions. Latent profile analysis followed by multivariate analysis of variance revealed four distinct profiles with meaningful emotional differentiation. Adolescents in the buffered resilience profile exhibited the most adaptive emotional patterns, characterized by high positive emotions (enjoyment, hope & pride) and low negative emotions (anger, anxiety, shame, hopeless & boredom) in learning and classroom contexts. In contrast, adolescents in the relationally constrained profile reported low positive emotions alongside elevated negative emotions in both contexts. Notably, high friendship satisfaction alone, as observed in the relationally compensated profile, was

insufficient to offset low academic resilience. These findings extend the Theoretical Resilience and Relational Load Linkage framework by highlighting the synergistic role of individual adaptive capacities and relational resources in shaping adolescents' achievement emotions, offering actionable implications for school-based interventions and educational policy.

Keywords

Academic Emotions
Friendship
Latent Profile Analysis
Psychosocial Adaptation
Resilience

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Introduction

Adolescence is a critical developmental period characterized by heightened academic demands and intensified peer interactions, both of which provide meaningful contexts for understanding students' emotional experiences in school. At this stage, adolescents are required not only to meet increasingly complex academic expectations but also to navigate relational challenges that demand adequate adaptive capacities [1]–[2]. Difficulties in managing these intertwined academic and social demands are frequently associated with heightened academic stress, emotional dysregulation, and disengagement from learning [3], [4]. Such conditions underscore the urgency of identifying protective resources that enable adolescents to maintain adaptive academic and emotional functioning at school [5],[6]. Consequently, understanding how school-aged adolescents regulate their academic functioning and emotions under concurrent academic and social pressures is essential for elucidating the underlying internal mechanisms.

Academic resilience and friendship satisfaction are key psychological constructs that support students' academic success by shaping their emotional experiences. Academic resilience is strongly influenced by the quality of social relationships that provide emotional support and promote adaptive coping [7]–[9], while friendship satisfaction has been consistently associated with stronger coping capacities, more effective emotional regulation, and greater psychological resilience [10]–[12]. Previous studies demonstrate an interconnection between academic resilience and friendship satisfaction [10], [13]–[15]. However, how academic resilience and friendship satisfaction jointly shape distinct patterns of academic emotions among school learners remain underexplored, especially in resource-limited and culturally embedded educational contexts.

The existing literature has broadly examined academic resilience and friendship satisfaction in isolation or relied on variable-centered approaches that implicitly assume

homogeneous relationships across students when predicting academic emotions [10], [16]–[20]. Such perspectives tend to overlook the possibility that adolescents may display qualitatively distinct combinations of academic resilience and friendship satisfaction, each carrying different implications for their emotional experiences in achievement contexts. Drawing on the theoretical premises of the Theory of Resilience and Relational Load (TRRL), academic resilience and friendship satisfaction can be understood as interdependent resources that operate in tandem [7], [21], with their combined configurations reflecting meaningful heterogeneity in students' adaptive functioning. From this perspective, examining the internal mechanisms underlying these combined patterns is essential for clarifying how different constellations of academic resilience and friendship satisfaction are associated with variations in students' emotional functioning and school performance.

The present study adopts a person-centered approach using latent profile analysis (LPA) to identify distinct student profiles characterized by unique constellations of academic resilience and friendship satisfaction. Consistent with the theoretical premises of the TRRL, academic emotions are examined as outcomes of these academic resilience–friendship satisfaction profiles. Thereby offering a theory-driven account of how configurations of personal and relational resources operate within adolescents' academic lives in culturally embedded, Eastern-oriented contexts where social norms may emphasize community and social support [22],[23]. By capturing meaningful heterogeneity in adaptive functioning that is typically obscured by variable-centered methods, this approach offers a parsimonious yet informative framework for identifying subgroups of students who may benefit from differentiated and targeted educational support.

Literature Review

A. Person-centered approaches to academic resilience–friendship satisfaction

The TRRL provides a coherent explanation for why some relational systems, such as friendships, remain resilient or even thrive under repeated stress, whereas others deteriorate when demands exceed available resources [8]. Within this framework, adaptive functioning is understood as a dynamic balance between individuals' coping capacities and the relational demands embedded in their social environments, with peer relationships playing a central role in regulating relational load [21]. In school contexts, this balance is reflected in how students manage academic demands through the interplay of personal and relational resources [24]–[25]. Consequently, academic resilience and friendship satisfaction represent key, interdependent constructs through which coping capacity and relational load are configured within students' academic lives.

Academic resilience and friendship satisfaction function as interdependent psychosocial resources that jointly support students' capacity to sustain effective academic functioning

under demanding conditions. Academic resilience refers to the ability to cope effectively with academic challenges and recover from failure [26]–[28], whereas friendship satisfaction refers to students' evaluations of the quality and fulfillment of their friendships and functions as an essential relational resource [29]–[30]. Empirical evidence consistently shows that high-quality friendships strengthen coping resources and resilience, particularly during adolescence and key educational transitions [10], [13], [31].

From a person-centered perspective, learners are expected to differ not only in the level of each resource but also in their configurations of academic resilience and friendship satisfaction [32],[33]. Prior research indicates that stable and supportive peer relationships buffer academic difficulties and promote adaptive adjustment, whereas limited friendship support may constrain resilience processes [14], [34]. Accordingly, theoretically meaningful profiles may be anticipated, including learners with high academic resilience and high friendship satisfaction, representing an optimal adaptive configuration [35]–[37]. Further, learners with moderate or asymmetric configurations (e.g., high resilience but low friendship satisfaction, or vice versa) reflect potential compensatory processes. Finally, learners with low levels on both dimensions may experience heightened vulnerability due to limited coping capacity and elevated relational load [38].

B. Academic Resilience and Friendship Satisfaction in Relation to Achievement Emotions

Achievement emotions refer to emotions that arise in relation to achievement activities and contexts and are shaped by students' appraisals of control and value [39]. Further, achievement emotions are commonly classified into positive (enjoyment, hope, and pride) and negative (anger, anxiety, shame, hopelessness, and boredom) emotions. Empirical research consistently shows that positive achievement emotions are associated with higher engagement, effective self-regulation, and academic persistence, whereas negative emotions tend to impair attention, motivation, and learning processes [40],[41]. Developmental evidence further indicates a decline in positive emotions and an increase in negative emotions—particularly anxiety, boredom, and hopelessness—as students progress into secondary education, reflecting rising academic demands and evaluative pressure [42],[43].

Academic resilience and friendship satisfaction jointly serve as foundational mechanisms for students' emotional adjustment in school. Resilient students are more likely to experience hope and enjoyment, and less likely to feel anxiety or hopelessness when facing academic difficulties [44]–[47]. Teacher emotional support and a positive learning environment have been shown to enhance both resilience and emotional balance, with resilient learners demonstrating greater engagement and satisfaction [48],[49]. Moreover, psychological resilience not only protects against negative emotions but can also amplify positive ones, acting

as a mediating mechanism between emotional well-being and achievement [50]. In parallel, a large body of evidence indicates that positive peer relationships are associated with greater emotional engagement, school connectedness, and well-being [20], [51]. Friendship satisfaction functions not only as an indicator of social belonging but also as an emotional buffer that mitigates stress and negative academic emotions. Students who perceive strong peer support report lower anxiety and boredom, and greater enjoyment and pride in learning activities [52],[53]. Conversely, social exclusion, rejection, or peer conflict can intensify negative emotions, undermining both motivation and resilience [54],[55].

C. Present Study

Grounded in the TRRL, the present study adopts a person-centered approach using LPA to capture heterogeneity in students' adaptive resources. This approach enables the identification of distinct student profiles characterized by different configurations of academic resilience and friendship satisfaction, thereby capturing naturally occurring patterns of psychological and relational resources. Such profiles provide a theoretically grounded basis for examining how combinations of individual and social factors relate to students' academic emotions across learning and classroom-related contexts. The objectiveness of the present study is:

1. Identify latent profiles of school learners based on academic resilience and friendship satisfaction, and
2. Examine differences across these profiles in positive and negative aspects of achievement emotions.

By integrating resilience and relational resources into a single analytic model, this study extends current understanding of academic adjustment related to emotions in a school context with Eastern culture. The following hypotheses were formulated:

1. Distinct latent profiles reflecting heterogeneous configurations of academic resilience and friendship satisfaction will be identified among school learners (Hypothesis 1).
2. Learners characterized by high academic resilience and high friendship satisfaction will report higher positive and lower negative emotions than learners in other profiles (Hypothesis 2).
3. Learners characterized by low academic resilience and low friendship satisfaction will exhibit the least adaptive emotional pattern, marked by lower positive and higher negative emotions (Hypothesis 3).
4. Profile differences will be more pronounced for positive emotions than for negative emotions across learning and classroom-related contexts (Hypothesis 4).

Material and Methods

A. Research Design

This study employed a quantitative cross-sectional design. Formal permission was obtained from the relevant local authorities and participating schools prior to data collection. Data were collected using self-administered, paper-based questionnaires consisting of three sections: informed consent, demographic information, and scale items. The questionnaires were administered in classroom settings under the supervision of the research team. Participants were assured of confidentiality and anonymity, and they were informed that their responses would be used exclusively for research purposes to minimize potential response bias. The study protocol received ethical approval from the Research Ethics Committee of the Faculty of Public Health, Universitas Nusa Cendana.

B. Population and Sample

The study population comprised students in Kupang City, Indonesia. Random sampling was employed, and a total of 582 students voluntarily participated. The distribution of male and female participants was approximately balanced, with no single age group or grade level accounting for more than 50% of the sample. The participants predominantly represented students from public schools, while private school students accounted for approximately 20% of the total respondents. Detailed demographic characteristics of the participants are presented in Table 1.

Table 1. Descriptive data of participants

Characteristics		N = 582	Percentage (%)
Gender	Male	254	43.6
	Female	328	56.4
Age (Year)	15	81	13.9
	16	243	41.8
	17	216	37.1
	18	42	7.2
	First year	223	38.3
Class level	Second year	213	36.6
	Third year	146	25.1
School	Public	459	78.9
	Private	123	21.1

C. Measures

All constructs were measured using standardized self-report instruments previously validated for use in the Indonesian school context. Reliability and construct validity were assessed before the primary analysis.

1. Friendship Satisfaction

Friendship satisfaction was assessed using the Friendship Satisfaction Subscale from the Multidimensional Life Satisfaction Scale (MLSS) [30], comprising 4 items that assess the perceived quality and emotional closeness of peer relationships. Responses were rated

on a 5-point scale (1 = strongly disagree to 5 = strongly agree). Higher scores reflect greater satisfaction with friendships and peer interactions.

2. Academic Resilience

Academic resilience was measured using the Academic Resilience Scale (ARS-8) developed by Apriliana & Suranata, (2025a), comprising 8 items that assess students' capacity to persist and recover from academic challenges. Each item was rated on a 5-point Likert scale (1 = strongly disagree to 5 = strongly agree). Higher total scores indicate stronger academic resilience. This scale has demonstrated satisfactory internal consistency and factorial validity among Indonesian adolescents.

3. Achievement Emotions

Achievement emotions were measured using the short version of the Academic Emotions Questionnaire (AEQ) [56], which captures both positive emotions (enjoyment, hope, pride) and negative emotions (anger, anxiety, shame, hopelessness, boredom) in learning, class, and test contexts. In this study, only emotion-related learning and classroom context items were used, comprising 16 of the original 24 items. This scale was rated on a 5-point Likert scale (1 = strongly disagree to 5 = strongly agree). Subscale scores were computed (positive and negative) to reflect the valence and intensity of emotions associated with class and learning.

D. Data Analysis

Data were analyzed using RStudio with the tidyLPA and Mclust Packages [57]. This approach was employed to identify the optimal number of latent subgroups based on patterns of academic resilience and friendship satisfaction. Model fit was evaluated using a combination of statistical criteria: the Akaike Information Criterion (AIC), Bayesian Information Criterion (BIC), and entropy values. The best-fitting model was selected based on lower AIC/BIC values and higher entropy (≥ 0.80) [58]–[59].

Following the identification of the optimal profile solution, multivariate analysis of variance (MANOVA) and post hoc comparisons (Tukey HSD) were performed. The Tukey HSD test demonstrates greater capability in detecting statistically significant differences than alternative post hoc tests [60]. All statistical analyses adopted a significance level of $p < .05$. Before analysis, data were screened for missing values, outliers, and normality to ensure validity and reliability of the results [61].

Results

LPA was conducted to identify distinct subgroups of school learner based on their patterns of academic resilience and friendship satisfaction. A series of competing models specifying 1 to 6 latent classes was estimated and systematically compared using established model fit indices (see Table 2).

Table 2. Model fit indices for latent profile solutions

Criteria Model	1 Class	2 Classes	3 Classes	4 Classes	5 Classes	6 Classes
AIC	3396	2428	2367	2331	2315	2316
BIC	3413	2459	2411	2387	2384	2399
Entropy	1	0.985	0.945	0.962	0.750	0.615

Note: AIC (Akaike Information Criterion), BIC (Bayesian Information Criterion)

Model fit improved with the successive addition of latent classes, as indicated by a consistent decrease in AIC and BIC values from the one-class through the five-class solutions. Although the five-class model showed a marginal improvement in fit, the solution was accompanied by a notable reduction in entropy (<.80), suggesting diminished classification accuracy. In contrast, the four-class model provided a better balance between model fit and classification quality, yielding lower AIC and BIC values and an acceptable entropy level, indicative of high precision in profile assignment. Descriptive statistics for the four-class solution based on the mean levels of academic resilience and friendship satisfaction are presented in Table 3 and described below.

Table 3. Profile characteristics

Profile	N	Academic resilience	Friendship satisfaction
Buffered resilience	455	4.086 (0.035)	4.393 (0.041)
Relationally compensated	10	2.307 (0.442)	3.805 (0.396)
Emerging adaptation	26	3.549 (0.178)	2.506 (0.314)
Relationally constrained	91	1.874 (0.054)	1.608 (0.083)

Note: Data displayed in Mean (SE)

The four latent profiles were characterized based on distinct patterns of academic resilience and friendship satisfaction. The profile characterized by high levels of both academic resilience and friendship satisfaction was named the *buffered resilience* profile. In contrast, the profile marked by low levels of both variables was named the *relationally constrained* profile. The following profile, characterized by low academic resilience and high friendship satisfaction, was named the *relationally compensated* profile. The following final profile, reflecting moderate levels of both academic resilience and friendship satisfaction, was named the *emerging adaptation* profile. Regarding distribution, the *buffered resilience* profile accounted for the largest proportion of the sample, whereas the *relationally compensated* profile accounted for the smallest.

Descriptive statistics and bivariate correlation analyses were conducted to provide an overview of the parameter variables in LPA. Table 4 summarizes the descriptive statistics of students' emotions related to classroom and learning activities. Subsequently, Pearson correlation coefficients were examined to identify the direction and strength of associations among the studied variables.

Table 4. Descriptive statistics and correlation of variables

Variables	Mean	SD	1	2	3	Skew	Kurt
1. Positive class-related emotions	3.698	1.011	-			-1.002	0.263
2. Negative class-related emotions	2.558	0.960	-0.282**	-		0.421	-0.293
3. Positive learning-related emotions	3.661	1.068	0.749**	-0.209**	-	-0.821	-0.288
4. Negative learning-related emotions	2.733	0.956	-0.242**	0.694**	-0.197**	0.216	-0.502

Note: SD (Standard Deviation), Skew (Skewness), Kurt (Kurtosis)

Overall, students reported relatively high levels of positive emotions related to both classroom participation and learning activities, whereas negative emotions were moderate. Positive class-related emotions were strongly and positively correlated with positive learning-related emotions. In contrast, correlations between negative class-related emotions and negative learning-related emotions were of moderate magnitude. As expected, positive and negative emotions were significantly and inversely correlated; however, the strength of these associations was weak [62]. Additionally, skewness and kurtosis values for all variables were within acceptable thresholds, indicating no substantial departures from normality and supporting the appropriateness of the data for subsequent latent profile analysis [63].

To examine whether the identified academic resilience and friendship satisfaction profiles differed significantly in terms of achievement emotions, pairwise comparisons were conducted across positive and negative class-related and learning-related emotions. Overall group differences were first tested using multivariate analyses, followed by post hoc Tukey HSD tests to identify specific between-profile contrasts. Effect sizes were estimated using Cohen's *d* to assess the magnitude of profile differences (see Table 5).

Table 5. Pairwise comparisons of latent profiles across achievement emotions

Profile	Mean Difference	Std. Error	Sig.
Positive class-related emotions ($F = 357.323^{**}$, $d = 2.72$)			
Buffered Resilience			
vs. Relationally Compensated	1.332	0.192	0.000**
vs. Emerging Adaptation	0.676	0.121	0.000**
vs. Relationally Constrained	2.223	0.069	0.000**
Relationally Compensated			
vs. Emerging Adaptation	-0.656	0.223	0.018*
vs. Relationally Constrained	0.891	0.199	0.000**
Emerging Adaptation			
vs. Relationally Constrained	1.547	0.133	0.000**
Negative class-related emotions ($F = 10.134^{**}$, $d = 0.46$)			
Buffered Resilience			
vs. Relationally Compensated	-0.622	0.300	0.163
vs. Emerging Adaptation	-0.034	0.189	0.998
vs. Relationally Constrained	-0.562	0.107	0.000**
Relationally Compensated			

Profile	Mean Difference	Std. Error	Sig.
vs. Emerging Adaptation	0.588	0.349	0.334
vs. Relationally Constrained	0.060	0.313	0.997
Emerging Adaptation			
vs. Relationally Constrained	-0.527	0.209	0.057
Positive learning-related emotions ($F = 232.994^{**}$, $d = 2.21$)			
Buffered Resilience			
vs. Relationally Compensated	1.542	0.230	0.000**
vs. Emerging Adaptation	0.440	0.145	0.014*
vs. Relationally Constrained	2.145	0.083	0.000**
Relationally Compensated			
vs. Emerging Adaptation	-1.102	0.268	0.000**
vs. Relationally Constrained	0.603	0.240	0.059
Emerging Adaptation			
vs. Relationally Constrained	1.705	0.160	0.000**
Negative learning-related emotions ($F = 7.523^{**}$, $d = 0.40$)			
Buffered Resilience			
vs. Relationally Compensated	-0.739	0.301	0.068
vs. Emerging Adaptation	-0.221	0.190	0.649
vs. Relationally Constrained	-0.447	0.108	0.000**
Relationally Compensated			
vs. Emerging Adaptation	0.518	0.350	0.450
vs. Relationally Constrained	0.292	0.313	0.788
Emerging Adaptation			
vs. Relationally Constrained	-0.226	0.209	0.701

Note: $p < .05^*$; $p < .01^{**}$; Post hoc comparisons were conducted using t-tukey HSD tests.

Significant between-profile differences emerged for positive class-related and positive learning-related emotions, with very large effect sizes. Pairwise comparisons indicated that students in the buffered resilience profile reported significantly higher levels of positive emotions than those in all other profiles, particularly compared with the relationally constrained profile. In contrast, students in the relationally compensated and emerging adaptation profiles did not differ significantly from other profiles in negative learning-related or negative class-related emotions. Notably, the relationally compensated profile also showed no significant differences from the relationally constrained profile in positive learning-related emotions. It is underscoring the pivotal role of academic resilience in shaping positive emotional experiences in academic contexts [64]–[66].

A visual representation was used to illustrate differences in discrete achievement emotions across the four groups of academic resilience and friendship satisfaction profiles in both class- and learning-related contexts (see Fig. 1). As shown in Fig. 1, a clear and consistent emotional gradient emerged across profiles. Students in the group *buffered resilience* profile displayed the most adaptive pattern, characterized by high levels of enjoyment, hope, and pride, alongside low levels of negative emotions across both contexts. In contrast, the *relationally constrained* profile exhibited the least adaptive configuration, with elevated anxiety, shame, hopelessness, and boredom, particularly in learning-related situations.

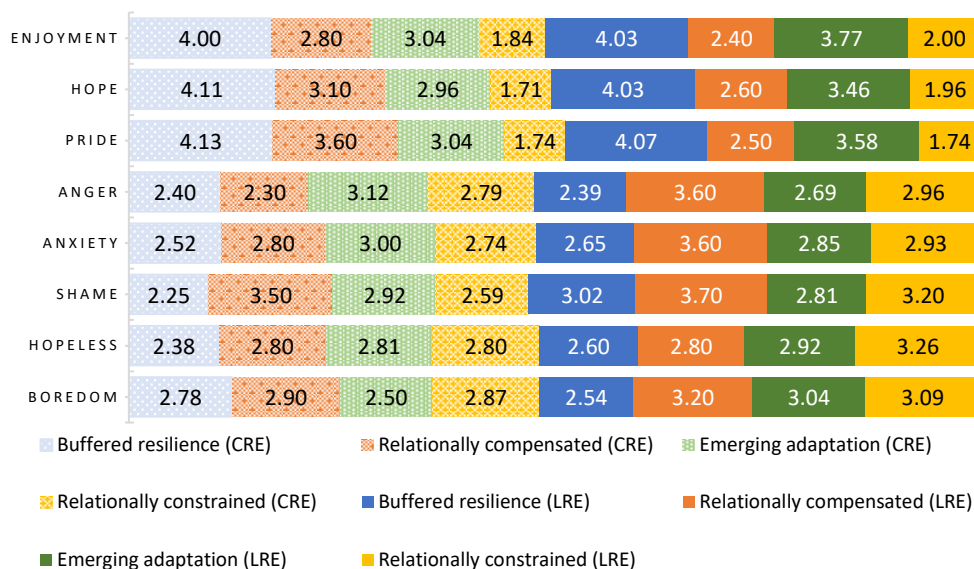


Fig. 1. Mean levels of class-related (CRE) and learning-related (LRE) achievement emotions across latent profiles

The two intermediate profiles showed mixed emotional patterns. The relationally compensated profile displayed moderate levels of positive emotions alongside comparatively higher levels of negative emotions across both class-related and learning-related contexts. Meanwhile, the *emerging adaptation* profile occupied a middle position with more balanced emotional experiences. Overall, Figure 1 illustrates systematic differences in achievement emotion patterns across the four latent profiles, with distinct configurations observed for positive and negative emotions in both class-related and learning-related contexts.

Discussion

Interpreted through the Transactional Resilience–Relational Load (TRRL) framework, the identified profiles reflect qualitatively distinct configurations of individual adaptive capacity and relational resources that shape adolescents’ emotional experiences in school contexts. The observed profile patterns are consistent with the TRRL, which conceptualizes resilience as a dynamic process shaped by the interaction between individual adaptive capacities and relational resources [7], [21].

The ideal profile is reflected in the “buffered resilience” profile, characterized by high levels of academic resilience and friendship satisfaction. From the TRRL perspective, this configuration indicates an effectively buffered relational load, in which supportive peer relationships attenuate academic and contextual stressors and facilitate sustained adaptation [8]. From a control–value theory perspective, the emotional advantages observed among students in the buffered resilience profile can be understood as the outcome of jointly enhanced perceptions of control and task value. Academic resilience is likely to enhance

perceived control through persistence, adaptive coping, and self-regulatory competence [67]–[69], whereas friendship satisfaction reinforces perceived task value by offering emotional security, encouragement, and social affirmation [11], [70]. Collectively, these individual and relational resources appear to operate synergistically to foster positive emotional experiences in learning contexts, underscoring that optimal achievement emotions are most likely to emerge when personal resilience and supportive peer relationships co-occur rather than function independently.

In contrast, the *relationally constrained* profile represents a particularly vulnerable subgroup characterized by concurrent low academic resilience and low friendship satisfaction, reflecting unbuffered relational load and relational disconnection that have been associated with constrained coping capacity, emotional dysregulation, and elevated developmental risk [7], [71]. Students in this profile appear to lack both the internal adaptive resources required to manage academic challenges and the peer-based relational support that could otherwise provide emotional reassurance or compensatory assistance. Consistent with this configuration, students in the *relationally constrained* profile reported markedly lower levels of positive achievement emotions, underscoring the emotional costs of simultaneously absent personal and interpersonal resources. The pronounced emotional gradient between the *buffered resilience* and *relationally constrained* profiles further suggests that positive achievement emotions are particularly sensitive to the synergistic interplay of academic resilience and social support rather than to either resource in isolation.

The remaining two profiles provide additional, nuanced insight into students' psychosocial adaptation patterns in school contexts, namely the *emerging adaptation* and *relationally compensated* profiles. The *emerging adaptation* profile, characterized by moderate levels of both academic resilience and friendship satisfaction, appears to reflect a transitional or developmental configuration. Consistent with Masten (2014) conceptualization of resilience as a dynamic and evolving process, students in this profile may be in the early stages of consolidating adaptive resources that have not yet translated into consistently optimal achievement emotions. The relationally compensated profile provides empirical support for compensatory processes proposed in relational resilience models, whereby supportive peer relationships may attenuate, but not fully counterbalance, the emotional consequences of limited individual adaptive capacity [73]–[74]. Although these two profiles demonstrate distinct and theoretically meaningful patterns of psychosocial adaptation, their overall emotional functioning appears less optimal than that observed in the *buffered resilience* profile, yet more adaptive than the *relationally constrained* profile, highlighting a graded continuum of adaptation shaped by the interplay of individual and relational resources.

A more fine-grained comparison of achievement emotions further differentiates the *emerging adaptation* and *relationally compensated* profiles. Overall, students in the *emerging adaptation* profile demonstrated relatively more favorable emotional functioning, particularly with respect to positive achievement emotions, which exhibited a pattern approaching the optimal configuration observed in the *buffered resilience* profile. The relative stability of negative achievement emotions across profiles suggests that such emotions may be more strongly influenced by situational academic demands than by stable psychosocial configurations alone. In contrast, the *relationally compensated* profile displayed an emotional pattern that closely resembled the *relationally constrained* profile, despite higher levels of friendship satisfaction. This finding suggests that while supportive peer relationships may alleviate emotional distress and foster a sense of belonging [15], [52], they are insufficient to fully substitute for the individual adaptive capacities required to manage academic demands effectively. Taken together, these results indicate that social support alone is unlikely to generate optimal positive achievement emotions in the absence of strong academic resilience, reinforcing the central role of individual adaptive resources in sustaining emotionally adaptive learning experiences [75]–[76].

From a theoretical perspective, the present findings extend existing resilience and achievement emotion frameworks by demonstrating the value of a person-centered approach in capturing heterogeneity in adolescents' psychosocial adaptation. By identifying distinct latent profiles based on the joint configuration of academic resilience and friendship satisfaction, this study advances the TRRL by providing empirical evidence that resilience-related outcomes are shaped by the synergistic interplay between individual adaptive capacities and relational resources, rather than by either dimension in isolation. The differentiated emotional patterns observed across profiles further refine control-value theory by illustrating that positive achievement emotions are most robust when perceptions of control (supported by academic resilience) and task value (reinforced by supportive peer relationships) co-occur. Importantly, the emergence of intermediate profiles—such as *emerging adaptation* and *relationally compensated* highlights resilience as a dynamic and developmental process, underscoring that relational resources may compensate for, but cannot fully replace, individual adaptive capacities in generating optimal emotional experiences.

From a practical standpoint, these findings carry important implications for school-based interventions and educational policy. Efforts to promote students' emotional well-being and academic engagement should move beyond single-focus approaches and instead adopt integrated strategies that simultaneously strengthen academic resilience (e.g., self-regulation, adaptive coping, persistence) and cultivate supportive peer relationships. While relationally

oriented programs may reduce emotional vulnerability among students with low resilience, the limited emotional benefits observed in the *relationally compensated* profile suggest that such initiatives should be complemented by targeted supports to enhance individual adaptive skills. Moreover, the identification of the *emerging adaptation* profile underscores the importance of early, developmentally sensitive interventions to consolidate nascent adaptive resources before maladaptive emotional patterns become entrenched. Collectively, these implications emphasize the need for multi-level, profile-informed interventions that are responsive to students' distinct psychosocial configurations, thereby fostering more adaptive emotional experiences and sustained engagement in learning contexts.

Conclusion

This study provides a nuanced understanding of adolescents' psychosocial adaptation by identifying distinct latent profiles based on the joint configuration of academic resilience and friendship satisfaction, and by demonstrating how these profiles are differentially associated with achievement emotions in school contexts. Overall, these findings emphasize that adaptive emotional functioning in learning environments is most likely to occur when individual adaptive capacities and relational supports co-occur, rather than operate independently. By integrating person-centered profiling with established theoretical frameworks, this study contributes to a more refined understanding of the mechanisms linking resilience, peer relationships, and achievement emotions among school-aged adolescents. The results underscore the importance of profile-informed, multi-component interventions that simultaneously promote academic resilience and supportive peer relationships to foster emotionally adaptive and sustainable learning experiences.

Limitation and Suggestions

Several limitations should be acknowledged. First, the cross-sectional design precludes causal inferences regarding the directionality of relationships among academic resilience, friendship satisfaction, and achievement emotions. Longitudinal designs or person-centered growth modeling approaches would be valuable for examining developmental transitions between profiles over time. Second, the relatively small size of the *relationally compensated* profile warrants cautious interpretation and replication in larger and more diverse samples. Future research could also extend this work by incorporating additional contextual variables, such as teacher support, instructional quality, and school climate, to examine how broader ecological systems interact with individual-relational profiles to shape emotional and academic outcomes.

Conflict of Interest

The authors declare no conflict of interest.

References

- [1] Z. Niu, Y. Wang, K. Yang, B. Zuo, and F. Wen, "Understanding academic expectations: The influence of students' academic emotions on academic expectations and the mediational role of perceived teacher competence and warmth," *Soc. Psychol. Educ.*, vol. 28, no. 1, e79, 2025, doi: 10.1007/s11218-025-10039-3.
- [2] Y. Shao, S. Kang, Q. Lu, C. Zhang, and R. Li, "How peer relationships affect academic achievement among junior high school students: The chain mediating roles of learning motivation and learning engagement," *BMC Psychol.*, vol. 12, no. 278, pp. 1–12, 2024, doi: 10.1186/s40359-024-01780-z.
- [3] S. Kumar and A. Rathi, "Acta Psychologica Adolescent academic stress and exam anxiety in schools in the wake of the COVID-19 pandemic," *Acta Psychol. (Amst.)*, vol. 261, no. 105820, 2025, doi: 10.1016/j.actpsy.2025.105820.
- [4] S. Haritay, M. Angolkar, V. Koparde, D. Oswal, and A. Carvalho, "Academic stress in adolescents: Findings from a school-based study in Belagavi district," *Front. Public Heal.*, vol. 13, no. 1631136, pp. 1–9, 2025, doi: 10.3389/fpubh.2025.1631136.
- [5] A. Bjugstad, J. B. Cardoso, J. C. Báez, W. Fan, and S. Borja, "The role of school climate and institutional influences on emotion regulation skills: An international study," *School Ment. Health*, vol. 17, no. 4, pp. 1357–1372, 2025, doi: 10.1007/s12310-025-09811-9.
- [6] D. W. Nordstokke and Y. Hindes, "Relationships between first-year student resilience and academic stress," *Behav. Sci. (Basel)*, vol. 15, no. 6, 2025, doi: 10.3390/bs15060772.
- [7] T. D. Afifi, A. F. Merrill, and S. Davis, "The theory of resilience and relational load," *Pers. Relatsh.*, vol. 23, no. 4, pp. 663–683, 2016, doi: 10.1111/pere.12159.
- [8] T. D. Afifi, M. A. Callejas, and K. Harrison, "Resilience through stress: The theory of resilience and relational load," in *The Oxford Handbook of the Physiology of Interpersonal Communication*, 2020, pp. 210–234. doi: 10.1093/oxfordhb/9780190679446.013.11.
- [9] M. Vicién-Rami and E. C. de Luis, "Self-concept, social skills, and resilience of rural students: before and after transitioning to secondary education," *Rev. Int. Educ. para la Justicia Soc.*, vol. 14, no. 1, 2025, doi: 10.15366/riejs2025.14.1.009.
- [10] R. Graber, R. Turner, and A. Madill, "Best friends and better coping: Facilitating psychological resilience through boys' and girls' closest friendships," *Br. J. Psychol.*, vol. 107, no. 2, pp. 338–358, 2016, doi: 10.1111/bjop.12135.
- [11] E. B. Lozano, M. Hojjat, and J. Sims-Knight, "Does ego-resilience impact friendship outcomes?," *J. Individ. Differ.*, vol. 37, no. 2, pp. 128–134, 2016, doi: 10.1027/1614-0001/a000197.
- [12] J. Surzykiewicz, S. B. Skalski, A. Sołbut, S. Rutkowski, and K. Konaszewski, "Resilience and regulation of emotions in adolescents: Serial mediation analysis through self-esteem and the perceived social support," *Int. J. Environ. Res. Pub. Health*, vol. 19, no. 13, 2022, doi: 10.3390/ijerph19138007.
- [13] L. M. Lessard and J. Juvonen, "The academic benefits of maintaining friendships across the transition to high school," *J. Sch. Psychol.*, vol. 92, pp. 136–147, 2022, doi: 10.1016/j.jsp.2022.03.005.
- [14] A. D. Benner, A. E. Boyle, and F. Bakhtiari, "Understanding students' transition to high school: Demographic variation and the role of supportive relationships," *J. Youth Adolesc.*, vol. 46, no. 10, pp. 2129–2142, 2017, doi: 10.1007/s10964-017-0716-2.
- [15] E. Sellars, B. R. Oliver, P. Leijten, and L. Bowes, "Trajectories of psychosocial functioning across maltreatment levels: A group-based modeling approach to resilience," *Dev. Psychopathol.*, pp. 1–13, 2025, doi: 10.1017/S0954579425100758.
- [16] P. Obeng *et al.*, "Students' academic resilience and well-being in Ghana: The mediating effects of grit and motivation," *Discov. Educ.*, vol. 4, no. 1, e132, 2025, doi: 10.1007/s44217-025-00537-z.
- [17] P. H. Carnell, N. J. Hunsu, D. F. Ray, and N. W. Sochacka, "Exploring the relationships between resilience and student performance in an engineering statics class: A work in progress," in *ASEE Annual Conference and Exposition, Conference Proceedings*, 2018, vol. 2018-June. [Online]. Available: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85051167514&partnerID=40&md5=9e8c3bbe1a97c22f9f4981948c023c33>
- [18] I. Rachmawati, P. Setyosari, D. M. Handarini, and I. M. Hambali, "Do social support and self-efficacy correlate with academic resilience among adolescence?," *Int. J. Learn. Chang.*, vol. 13, no. 1, pp. 49–62, 2021, doi: 10.1504/IJLC.2021.111664.
- [19] K. S. Leventhal, J. Gillham, L. DeMaria, G. Andrew, J. Peabody, and S. Leventhal, "Building psychosocial assets and well-being among adolescent girls: A randomized controlled trial," *J.*

- Adolesc.*, vol. 45, pp. 284–295, 2015, doi: 10.1016/j.adolescence.2015.09.011.
- [20] L. Tikkanen, H. Anttila, S. Ulmanen, and K. Pyhältö, "Peer relationships and study well-being: upper secondary students' experiences," *Soc. Psychol. Educ.*, vol. 27, no. 6, pp. 3097–3117, 2024, doi: 10.1007/s11218-024-09942-y.
- [21] V. Rubinsky, "Extending the theory of resilience and relational load into polyamorous relationships," *Interpersona*, vol. 13, no. 2, pp. 144–170, 2019, doi: 10.5964/ijpr.v13i2.364.
- [22] S. S. Heinz *et al.*, "Mediating pathways between resilience, mental health and well-being: A scoping review of individual, social, and systemic factors," *BMC Public Health*, vol. 25, no. 1, 2025, doi: 10.1186/s12889-025-24897-1.
- [23] S. Raghavan and P. Sandanapitchai, "The relationship between cultural variables and resilience to psychological trauma: A systematic review of the literature," *Traumatology*, vol. 30, no. 1, pp. 37–51, 2024, doi: 10.1037/trm0000239.
- [24] M. U. Farchi and M. Peled-Avram, "The ART of resilience: A theoretical bridge across resilience perspectives," *Front. Psychol.*, vol. 16, e1556047, 2025, doi: 10.3389/fpsyg.2025.1556047.
- [25] R. M. Lerner, "Resilience as an attribute of the developmental system: Comments on the papers of professors Masten & Wachs," in *Annals of the New York Academy of Sciences*, 2006, vol. 1094, pp. 40–51. doi: 10.1196/annals.1376.005.
- [26] L. Liu, C. Chen, and S. Li, "Efficacy of cognitive behavioral group counseling in enhancing the psychological resilience and academic emotion of urban primary school students," *BMC Psychol.*, vol. 13, no. 1, e189, 2025, doi: 10.1186/s40359-025-02472-y.
- [27] L. Romano, G. Angelini, P. Consiglio, and C. Fiorilli, "Academic resilience and engagement in high school students: The mediating role of perceived teacher emotional support," *Eur. J. Investig. Heal. Psychol. Educ.*, vol. 11, no. 2, pp. 334–344, 2021, doi: 10.3390/ejihpe11020025.
- [28] I. P. A. Apriliana and K. Suranata, "Exploring academic resilience among vocational students; development of measurement tools," *J. Educ. Learn.*, vol. 19, no. 4, pp. 2351–2358, 2025, doi: 10.11591/edulearn.v19i4.22674.
- [29] T. A. Alotaibi *et al.*, "The benefits of friendships in academic settings: A systematic review and meta-analysis," *Cureus*, vol. 15, no. 12, pp. 2–10, 2023, doi: 10.7759/cureus.50946.
- [30] I. P. A. Apriliana and K. Suranata, "Psychometric properties of multidimensional life-satisfaction scale on Indonesian college students," *Int. J. Eval. Res. Educ.*, vol. 14, no. 4, pp. 2565–2573, 2025, doi: 10.11591/ijere.v14i4.33503.
- [31] M. H. Burleson and M. C. Davis, "Social touch and resilience," in *The Resilience Handbook: Approaches to Stress and Trauma*, 2013, pp. 131–143. doi: 10.4324/9780203135303.
- [32] L. E. Vaneekhaute, T. Vanwing, W. Jacquet, B. Abelshausen, and P. Meurs, "Community resilience 2.0: Toward a comprehensive conception of community-level resilience," *Community Dev.*, vol. 48, no. 5, pp. 735–751, 2017, doi: 10.1080/15575330.2017.1369443.
- [33] A. Veale, "Fostering resilience in adolescents," in *Child Psychology and Psychiatry: Frameworks for Clinical Training and Practice*, 2017, pp. 125–131. doi: 10.1002/9781119170235.ch15.
- [34] Z. E. Taylor, L. D. Doane, and N. Eisenberg, "Transitioning from high school to college: Relations of social support, ego-resiliency, and maladjustment during emerging adulthood," *Emerg. Adulthood*, vol. 2, no. 2, pp. 105–115, 2014, doi: 10.1177/2167696813506885.
- [35] D. W. Putwain, L. Connors, W. Symes, and E. Douglas-Osborn, "Is academic buoyancy anything more than adaptive coping?," *Anxiety Stress Coping*, vol. 25, no. 3, pp. 349–358, 2012, doi: 10.1080/10615806.2011.582459.
- [36] A. McGraw and A. Walker, "The role of adaptive expertise in sustaining school-university partnerships in increasingly complex times," in *Creating, Sustaining, and Enhancing Purposeful School-University Partnerships: Building Connections Across Diverse Educational Systems*, 2024, pp. 241–257. doi: 10.1007/978-981-99-8838-9_13.
- [37] R. Fallahchai, M. Fallahi, and A. Moazen Jami, "Well-being and perfectionism in students: Adaptive versus maladaptive," *Iran. Evol. Educ. Psychol. J.*, vol. 1, no. 3, pp. 222–230, 2019, doi: 10.29252/ieepj.1.3.222.
- [38] A. Nieuwborg, S. H. Mastrigt, M. Melles, J. Zekveld, and S. Santema, "A categorization of resilience: A scoping review," *Adm. Sci.*, vol. 13, no. 95, 2023, doi: 10.3390/admsci13040095.
- [39] R. Pekrun, "The control-value theory of achievement emotions: Assumptions, corollaries, and implications for educational research and practice," *Educ. Psychol. Rev.*, vol. 18, no. 4, pp. 315–341, 2006, doi: 10.1007/s10648-006-9029-9.
- [40] M. Ainley and J. Ainley, "Student engagement with science in early adolescence: The contribution of enjoyment to students' continuing interest in learning about science," *Contemp. Educ. Psychol.*, vol. 36, no. 1, pp. 4–12, 2011, doi: 10.1016/j.cedpsych.2010.08.001.

- [41] S. Lichtenfeld, R. Pekrun, H. W. Marsh, U. E. Nett, and K. Reiss, "Achievement emotions and elementary school children's academic performance: Longitudinal models of developmental ordering," *J. Educ. Psychol.*, vol. 115, no. 4, pp. 552–570, 2022, doi: 10.1037/edu0000748.
- [42] W. Ahmed, G. van der Werf, H. Kuyper, and A. Minnaert, "Emotions, self-regulated learning, and achievement in mathematics: A growth curve analysis," *J. Educ. Psychol.*, vol. 105, no. 1, pp. 150–161, 2013, doi: 10.1037/a0030160.
- [43] X. Kang and F. K. S. Leung, "The impact of ethnic cultures on achievement emotions in mathematics: A control-value approach," *Educ. Stud. Math.*, vol. 121, pp. 401–421, 2025, doi: 10.1007/s10649-025-10444-7.
- [44] M. B. Pour, A. Hajiyakhchali, M. S. Yailagh, and G. Maktabi, "The effect of psychological capital training on students' academic engagement and positive emotions," *J. Appl. Psychol. Res.*, vol. 15, no. 3, pp. 139–159, 2024, doi: 10.22059/japr.2024.358495.644629.
- [45] T. Yamamoto, H. Nishinaka, and Y. Matsumoto, "Relationship between resilience, anxiety, and social support resources among Japanese elementary school students," *Soc. Sci. Humanit. Open*, vol. 7, no. 1, pp. 1–6, 2023, doi: 10.1016/j.ssaho.2023.100458.
- [46] D. Ibrahim *et al.*, "How do emotional intelligence, resilience, and parental employment affect anxiety and depression levels among Sudanese adolescents?," *Discov. Ment. Heal.*, vol. 4, no. 1, e36, 2024, doi: 10.1007/s44192-024-00096-z.
- [47] M. Reis, C. Noronha, G. Tomé, M. Carvalho, N. N. Rodrigues, and M. G. de Matos, "Understanding academic evaluation anxiety in Portuguese adolescents: A psychosocial and educational perspective," *Int. J. Ment. Health Promot.*, vol. 27, no. 10, pp. 1457–1470, 2025, doi: 10.32604/ijmhp.2025.070318.
- [48] J. Lobo, B. D. Bernardo, and X. J. Alfonso, "Academic resilience of students to school engagement through perceived emotional support from the instructor, and gender variation," *Int. J. Educ. Res. Innov.*, no. 24, pp. 1–20, 2025, doi: 10.46661/ijeri.7556.
- [49] M. K. Mallick and S. Kaur, "Academic resilience among senior secondary school students: Influence of learning environment," *Rupkatha: J. Interdiscip. Stud. Humanit.*, vol. 8, no. 2, pp. 20–27, 2016, doi: 10.21659/rupkatha.v8n2.03.
- [50] C.-H. Lu and H.-J. Chen, "The relationship between temporal metacognition and academic emotions among college students: The serial mediating effects of sense of purpose and academic resilience," *J. Res. Educ. Sci.*, vol. 70, no. 1, pp. 255–283, 2025, doi: 10.6209/JORIES.202503_70(1).0008.
- [51] A. Gowing, "Peer-peer relationships: A key factor in enhancing school connectedness and belonging," *Educ. Child Psychol.*, vol. 36, no. 2, pp. 64–77, 2019, doi: 10.53841/bpsecp.2019.36.2.64.
- [52] C. A. Knifsend, G. Espinoza, and J. Juvonen, "The role of peer relationships on academic and extracurricular engagement in school," in *Handbook of Research on Student Engagement: Second Edition*, 2022, pp. 451–467. doi: 10.1007/978-3-031-07853-8_21.
- [53] L.-J. Wang, W.-C. Wang, H.-G. Gu, P.-D. Zhan, X.-X. Yang, and J. Barnard, "Relationships among teacher support, peer conflict resolution, and school emotional experiences in adolescents from Shanghai," *Soc. Behav. Pers.*, vol. 42, no. 1, pp. 99–113, 2014, doi: 10.2224/sbp.2014.42.1.99.
- [54] G. W. Ladd and B. Kochenderfer-Ladd, "Research in educational psychology: Social exclusion in school," in *Social Exclusion: Psychological Approaches to Understanding and Reducing Its Impact*, pp. 109–132, 2016, doi: 10.1007/978-3-319-33033-4_6.
- [55] B. S. Bilgic, A. O. Sonmez, and A. Erdogan, "Cognitive emotion regulation strategies and cognitive flexibility levels in high school students subjected to peer bullying," *Haseki Tip Bul.*, vol. 59, no. 5, pp. 393–399, 2021, doi: 10.4274/haseki.galenos.2021.7791.
- [56] R. Pekrun, T. Goetz, A. C. Frenzel, P. Barchfeld, and R. P. Perry, "Measuring emotions in students' learning and performance: The achievement emotions questionnaire (AEQ)," *Contemp. Educ. Psychol.*, vol. 36, no. 1, pp. 36–48, 2011, doi: 10.1016/j.cedpsych.2010.10.002.
- [57] J. M. Rosenberg, P. N. Beymer, D. J. Anderson, V. Lissa, and J. A. Schmidt, "tidyLPA: An R package to easily carry out latent profile analysis (LPA) using open-source or commercial software," *J. Open Source Softw.*, vol. 3, no. 30, e978, 2018, doi: 10.21105/joss.00978.
- [58] D. Spurk, A. Hirschi, M. Wang, D. Valero, and S. Kauffeld, "Latent profile analysis: A review and 'how to' guide of its application within vocational behavior research," *J. Vocat. Behav.*, vol. 120, e103445, 2020, doi: 10.1016/j.jvb.2020.103445.
- [59] S. L. Clark and B. Muthén, *Relating Latent Class Analysis Results to Variables not Included in the Analysis*. 2009. [Online]. Available: <https://www.statmodel.com/download/relatinglca.pdf>.
- [60] A. Stoll, *Post Hoc Tests: Tukey Honestly Significant Difference Test*. Thousand Oaks, California:

- SAGE Publications, Inc, 2017. doi: 10.4135/9781483381411.n452.
- [61] J. W. Creswell and J. D. Creswell, *Research design: Qualitative, quantitative, and mixed methods approaches*, 5th ed. SAGE Publications Inc, 2018.
- [62] P. Schober, C. Boer, and L. A. Schwarte, "Correlation coefficients: Appropriate use and interpretation," *Anesth. Analg.*, vol. 126, no. 5, pp. 1763–1768, 2018, doi: 10.1213/ANE.0000000000002864.
- [63] P. Rogers, "Best practices for your exploratory factor analysis: A factor tutorial," *Rev. Adm. Contemp.*, vol. 26, no. 6, pp. 1–17, 2022, doi: 10.1590/1982-7849rac2022210085.en.
- [64] T. Selameab and M. R. Mason, "Addressing workforce disparities by improving the academic resilience and professionalism of health science students through structured and targeted supports," *Front. Public Heal.*, vol. 9, e634548, 2021, doi: 10.3389/fpubh.2021.634548.
- [65] F. Wang and R. B. King, "Socio-emotional skills matter for academic resilience: A global perspective," *Learn. Individ. Differ.*, vol. 123, e102758, 2025, doi: 10.1016/j.lindif.2025.102758.
- [66] H. Abdelrahman, M. Al Qadire, S. Ballout, M. Rababa, E. N. Kwaning, and H. Zehry, "Academic resilience and its relationship with emotional intelligence and stress among university students: A three-country survey," *Brain Behav.*, vol. 15, no. 4, pp. 1–9, 2025, doi: 10.1002/brb3.70497.
- [67] N. Erdemir, F. Karanfil, and R. Şengül, "Enhancing academic resilience through mindfulness-based practices in the schools: A study on vocational high school students," *Psychol. Sch.*, vol. 61, no. 6, pp. 2359–2375, 2024, doi: 10.1002/pits.23168.
- [68] M. Amoadu, J. E. Hagan Jr, P. Obeng, E. K. Agormedah, M. Srem-Sai, and T. Schack, "Academic resilience and motivation as predictors of academic engagement among rural and urban high school students in Ghana," *Youth*, vol. 5, no. 1, p. 11, 2025.
- [69] K. Ramesh, R. L. Singh, and D. Sharma, "Resilience Training in Educational Settings (RTES): A framework for enhancing student well-being and positive behaviour," in *Promoting Positive Behaviors and Emotional/Social Well-being in School*, 2025, pp. 133–156. doi: 10.4018/979-8-3373-3351-9.ch005.
- [70] R. Furman, K. Collins, M. D. Garner, K. L. Montanaro, and G. Weber, "Using social work theory for the facilitation of friendships," *Smith Coll. Stud. Soc. Work*, vol. 79, no. 1, pp. 17–33, 2009, doi: 10.1080/00377310802634582.
- [71] E. H. Mereish and V. Paul Poteat, "The conditions under which growth-fostering relationships promote resilience and alleviate psychological distress among sexual minorities: Applications of relational cultural theory," *Psychol. Sex. Orientat. Gend. Divers.*, vol. 2, no. 3, pp. 339–344, 2015, doi: 10.1037/sgd0000121.
- [72] A. S. Masten, "Global perspectives on resilience in children and youth," *Child Dev.*, vol. 85, no. 1, pp. 6–20, 2014, doi: 10.1111/cdev.12205.
- [73] T. D. Afifi, C. Haughton, and A. P. Mazur, "The theory of resilience and relational load: Implications for research and practice," in *Engaging Theories in Interpersonal Communication: Multiple Perspectives, 3rd Edition*, 2021, pp. 342–353. doi: 10.4324/9781003195511-30.
- [74] J. V Jordan, "Relational resilience in girls," in *Handbook of Resilience in Children*, 2023, pp. 71–84. doi: 10.1007/978-3-031-14728-9_4.
- [75] J. Huo, "The role of learners' psychological well-being and academic engagement on their grit," *Front. Psychol.*, vol. 13, no. February, pp. 1–8, 2022, doi: 10.3389/fpsyg.2022.848325.
- [76] M. F. Omidire, "Experiencing language challenges in a rural school: implications for learners' life aspirations," *Early Child Dev. Care*, vol. 190, no. 10, pp. 1619–1637, 2020, doi: 10.1080/03004430.2019.1660963.

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