

Perceived Peer Support and Academic Adjustment among Junior High School Students: The Indirect Role of Friendship Quality

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ABSTRACT: This study examined associations among perceived peer support, friendship quality, and academic adjustment and estimated the indirect association linking peer support to academic adjustment through friendship quality. Participants were 532 seventh- and eighth-grade students from a junior high school in J County, Z Province. Analyses included descriptive statistics, Pearson correlations, regression models, and nonparametric bootstrapping. Higher perceived peer support was associated with greater friendship quality ($r = 0.707$, $p < 0.01$) and better academic adjustment ($r = 0.554$, $p < 0.01$); friendship quality was also associated with academic adjustment ($r = 0.463$, $p < 0.01$). The indirect association through friendship quality was significant (unstandardized estimate = 0.090, 95% confidence interval [0.024, 0.163]) and represented 18.26% of the total association. The findings indicate an indirect statistical association through friendship quality; however, the cross-sectional design precludes conclusions about temporal or causal ordering.

Keywords - academic adjustment, friendship quality, indirect association, junior high school students, perceived peer support

1. INTRODUCTION

Academic adjustment concerns how students respond cognitively and behaviorally to curricular demands, learning tasks, interpersonal contexts, and academic evaluation. The transition to junior high school brings changes in course difficulty, pace, and assessment, while peer networks become more salient and undergo rapid reorganization. Academic adjustment is therefore shaped not only by individual abilities and strategies but also by the social resources available in the classroom [1].

Self-determination theory links satisfaction of the needs for autonomy, competence, and relatedness to motivation, engagement, and adjustment [2]. During adolescence, peers become a particularly salient source of relatedness. Feeling understood, respected, and accepted by classmates can strengthen students' sense of security and belonging and encourage their participation in learning. Peer relationships thus form part of the social context in which academic adjustment develops.

1.1 Perceived Peer Support and Academic Adjustment

Peer support is a central element of adolescents' social support systems. It encompasses emotional support, such as comfort, understanding, and encouragement, as well as informational support, including academic advice, information exchange, and help with problem solving. Malecki and Demaray [3] distinguished these functions and linked both forms of support to school adjustment and coping with school-related stress.

At school, peer support is woven into everyday learning. Students often turn to classmates for explanations, feedback, and suggestions during class discussions, exam preparation, and group work, as well as when

completing homework. Social interdependence theory holds that shared goals, individual accountability, and mutual assistance can promote engagement, social skills, and learning outcomes in positively interdependent settings [4]. These exchanges provide practical academic help while reinforcing a sense of belonging to the group.

Wentzel [5] found that middle school students' relationships with parents, teachers, and peers were closely associated with learning motivation and school-related behavior. Peers are also well placed to help academically because similarities in age, cognitive development, and learning experience can make their explanations easier to understand and apply.

Social learning theory offers a complementary explanation: students acquire supportive social behaviors through observation, imitation, and reinforcement [6]. When peer assistance, resource sharing, discussion, and encouragement are routine, students receive immediate help while also learning to cooperate, seek help, and tackle problems constructively. These processes may help explain how perceived peer support relates to students' learning strategies, attitudes, and interpersonal experiences at school.

More recent evidence points in the same direction. In a longitudinal study, Gao et al. [7] linked higher peer support and classroom justice to greater academic engagement. Shao et al. [8] found that peer relationships were related to junior high school students' academic achievement through learning motivation and engagement. Together, these studies suggest that peer support provides both immediate assistance and an ongoing social context for motivation and engagement. Accordingly, students who perceive stronger peer support are expected to have access to more cognitive, emotional, and social resources and to report better academic adjustment.

1.2 Perceived Peer Support and Friendship Quality

Perceived peer support occurs within friendship networks, but friendship quality is not simply a matter of having friends. It reflects the levels of support, trust, communication, intimacy, and conflict within those relationships [9, 10, 11].

Furman and Bierman [9] showed that children's and adolescents' views of friendship gradually shift from shared activities toward emotional support, loyalty, and intimacy. Parker and Asher [10] linked friendship quality to peer acceptance, loneliness, and social dissatisfaction, while Berndt [11] described supportive, intimate friendships as a resource for social development.

Emotional and informational support can build trust in everyday classroom interactions. Listening, encouragement, and practical help during difficult moments signal that a friend is dependable. Repeated supportive exchanges can deepen trust and communication and strengthen friendship quality [9, 11]. Accordingly, students who repeatedly receive support are likely to feel more understood and accepted and to report greater trust and communication in their friendships.

1.3 Friendship Quality and Academic Adjustment

Friendship quality offers adolescents a relatively stable source of social and emotional support. It is commonly reflected in trust, open communication, support, and low alienation. In their work on adolescent peer attachment, Armsden and Greenberg [12] identified trust, communication, and alienation as central dimensions of peer relationships, underscoring the value of relational security and openness.

The need for relatedness provides one explanation for the association between friendship quality and academic adjustment. Self-determination theory proposes that support, acceptance, and connection in important relationships can satisfy this need and sustain learning motivation [2]. Dependable friends can also provide emotional support during examinations, academic setbacks, or uncomfortable classroom experiences. Friendships also create opportunities for academic information exchange and behavioral modeling. Through frequent interaction, friends can influence one another's learning attitudes, time-management habits, and classroom participation. Maunder and Monks [13] found that children with a reciprocated best friend reported higher friendship quality and peer identification; peer relationships were also positively related to general self-worth.

Ladd et al. [14] found that friendship quality predicted children's early school adjustment. Although their sample was younger than the students examined here, the study suggests that friendship quality can matter

for school adjustment. At the middle-school level, Wentzel and Caldwell [15] linked friendship and peer acceptance to academic achievement. Together, these findings support examining friendship quality as a correlate of academic adjustment among junior high school students.

1.4 The Indirect Role of Friendship Quality

Friendship quality may account for part of the association between perceived peer support and academic adjustment because it is expected to covary with both variables [3, 9, 14].

Peer support is enacted through encouragement, comfort, explanation, advice, and collaborative problem solving. Repeated experiences of these behaviors can shape students' broader judgments of their friends' reliability and supportiveness. Perceptions of supportive exchanges and broader appraisals of friendship quality are therefore conceptually linked.

Friendship quality is also tied to security, belonging, and social identification and may facilitate learning through academic communication and behavioral modeling. These links imply that perceived peer support is related to academic adjustment both directly and indirectly through friendship quality.

Previous studies have often treated peer support and friendship quality as separate lines of inquiry [7, 8, 14, 15]. Drawing on this work, the present study examined the three pairwise associations and used a bootstrap analysis of the indirect association [16] to test whether perceived peer support was indirectly associated with academic adjustment through friendship quality.

H1: Perceived peer support is positively associated with friendship quality.

H2: Perceived peer support is positively associated with academic adjustment.

H3: Friendship quality is positively associated with academic adjustment.

H4: There is a significant positive indirect association between perceived peer support and academic adjustment through friendship quality.

2. METHOD

2.1 Participants

Participants were seventh- and eighth-grade students at a junior high school in J County, Z Province, China. To protect the participating school's identity, the county and province are reported using initials. A total of 550 responses were collected via Wenjuanxing (Questionnaire Star), a Chinese online survey platform. Eighteen responses containing substantial missing data or clear evidence of patterned responding were excluded. The final analytic sample comprised 532 students, representing 96.73% of the collected responses.

The sample included 272 boys (51.13%) and 260 girls (48.87%); 225 students were in Grade 7 (42.29%) and 307 were in Grade 8 (57.71%). There were 158 only children (29.70%) and 374 students with siblings (70.30%). Most students were from Z Province ($n = 379$, 71.24%); the remaining 153 (28.76%) came from other provinces.

2.2 Procedure and Ethical Considerations

Data were collected in October 2025. Before data collection, the school, participating teachers, students, and legal guardians were informed of the study's purpose and procedures, the voluntary nature of participation, the protections for anonymity and confidentiality, and participants' right to withdraw. The school authorized the survey, participating teachers and legal guardians provided informed consent, and all students provided informed assent before completing the questionnaire.

2.3 Measures

2.3.1 Perceived Peer Support Scale

Perceived peer support was measured with the eight-item peer support subscale of the Social Support Questionnaire for Middle School Students described by Zhao [17]. The subscale contains four emotional-support items and four informational-support items.

Emotional support captures students' perceptions of being understood, respected, comforted, and encouraged by peers, whereas informational support captures assistance with analyzing problems, obtaining information, and making decisions.

Items were rated on a five-point Likert scale, and total and subscale scores were calculated by averaging the relevant items. Higher scores indicated greater perceived peer support. In the pilot study, Cronbach's alpha was 0.937 for the full subscale, 0.896 for emotional support, and 0.900 for informational support.

2.3.2 Friendship Quality Scale

Friendship quality was operationalized using an adapted version of the peer section of the Inventory of Parent and Peer Attachment [12]. The item referent was changed to the respondent's best friend, and the trust, communication, and alienation dimensions were treated as indicators of friendship quality because they overlap with established descriptions of the construct [10, 11].

The pilot version contained 25 items. One trust item and one alienation item performed comparatively poorly in the item analyses and were removed before the main survey. The final 23-item version included 9 trust items, 8 communication items, and 6 alienation items.

Items were rated on a five-point Likert scale. Alienation items were reverse-coded before total and subscale scores were calculated by averaging the relevant items. Higher scores indicated greater trust, better communication, lower alienation, and better overall friendship quality.

In the pilot study, Cronbach's alpha was 0.922 for the overall scale and 0.920, 0.878, and 0.825 for trust, communication, and alienation, respectively.

2.3.3 Academic Adjustment Scale

Academic adjustment was assessed using a modified version of the 16-item Academic Adjustment Scale for Students Entering Junior High School, developed by Ding [18]. The original form comprised four dimensions: learning tasks, study strategies, interpersonal environment, and attitudes toward learning. In the pilot analysis, the four learning-task items showed relatively poor discrimination and weak item-total correlations; this dimension was therefore removed before the main survey. The final 12-item scale comprised three dimensions: study strategies, interpersonal environment, and attitudes toward learning.

Five items on study strategies assessed planning, adapting study strategies, and time management; three items on interpersonal environment assessed teacher–student interaction, peer communication, and adjustment to the classroom; and four items on attitudes toward learning assessed the value students placed on learning, sustained engagement, and persistence in the face of difficulty. Responses were made on a five-point Likert scale. Total and subscale scores were calculated by averaging the relevant items, with higher scores indicating better academic adjustment.

In the pilot study, Cronbach's alpha was 0.942 for the overall scale and 0.911, 0.822, and 0.855 for study strategies, the interpersonal environment, and attitudes toward learning, respectively.

2.4 Data Analysis

All analyses were conducted in SPSSAU. Descriptive statistics were calculated for the three study variables, and Pearson correlations were used to examine the associations among perceived peer support, friendship quality, and academic adjustment. Regression models and a nonparametric bootstrap procedure were then used to estimate the indirect association through friendship quality [16].

The model specified perceived peer support as the predictor (X), friendship quality as the modeled mediator (M), and academic adjustment as the outcome (Y). Unstandardized coefficients are reported. An indirect association was considered significant when its 95% bootstrap confidence interval excluded zero.

3. RESULTS

3.1 Descriptive Statistics for the Study Variables

Table 1 presents the descriptive statistics. Mean scores were 3.778 ($SD = 0.964$) for perceived peer support, 3.798 ($SD = 0.686$) for friendship quality, and 3.710 ($SD = 0.858$) for academic adjustment. All three means were numerically above the theoretical midpoint of 3 on the five-point scale.

Table 1. Descriptive Statistics for the Study Variables

Variable	<i>M</i>	<i>SD</i>
Perceived peer support	3.778	0.964
Friendship quality	3.798	0.686
Academic adjustment	3.710	0.858

3.2 Correlations among Perceived Peer Support, Friendship Quality, and Academic Adjustment

As shown in Table 2, perceived peer support correlated positively with academic adjustment, $r = 0.554$, $p < 0.01$, and friendship quality, $r = 0.707$, $p < 0.01$. Friendship quality also correlated positively with academic adjustment, $r = 0.463$, $p < 0.01$.

Table 2. Pearson Correlations among the Study Variables

Variable	PPS	FQ	AA
PPS	1		
FQ	0.707**	1	
AA	0.554**	0.463**	1

Note. ** $p < 0.01$. PPS = Perceived peer support, FQ = Friendship quality, AA = Academic adjustment.

3.3 Regression Analysis

In the first regression model, perceived peer support was positively associated with academic adjustment, $B = 0.493$, $p < 0.01$. The model yielded $R^2 = 0.307$ and adjusted $R^2 = 0.306$.

In the second model, perceived peer support was positively associated with friendship quality, $B = 0.503$, $p < 0.01$; R^2 was 0.500 and adjusted R^2 was 0.499.

When both predictors were entered into Model 3 for academic adjustment, the coefficient for perceived peer support decreased from $B = 0.493$ to $B = 0.403$ but remained significant ($p < 0.01$). Friendship quality was also positively associated with academic adjustment, $B = 0.179$, $p < 0.01$. The model yielded $R^2 = 0.317$ and adjusted $R^2 = 0.314$. The full regression results are reported in Table 3.

Table 3. Unstandardized Regression Coefficients for the Indirect Association Model

Predictor	Model 1: Academic Adjustment	Model 2: Friendship Quality	Model 3: Academic Adjustment
Constant	1.847**	1.897**	1.507**
Perceived peer support	0.493**	0.503**	0.403**
Friendship quality	—	—	0.179**
R^2	0.307	0.500	0.317
Adjusted R^2	0.306	0.499	0.314

Note. Entries are unstandardized regression coefficients (B). ** $p < 0.01$.

3.4 Indirect Association through Friendship Quality

Table 4 summarizes the path estimates. The total association between perceived peer support and academic adjustment was $c = 0.493$, $p < 0.01$. The path from perceived peer support to friendship quality was $a = 0.503$, $p < 0.01$, and the path from friendship quality to academic adjustment, controlling for peer support, was $b = 0.179$, $p < 0.01$.

The indirect association was $a \times b = 0.090$ (bootstrap $SE = 0.036$). Its 95% bootstrap confidence interval, [0.024, 0.163], excluded zero, indicating statistical significance.

After friendship quality was included, the direct association between perceived peer support and academic adjustment remained significant ($c' = 0.403$, $p < 0.01$).

Based on the reported estimates, the indirect association represented 18.26% of the total association. Overall, the results supported H1–H4.

Table 4. Indirect Association through Friendship Quality

Path	Estimate
Total association (c)	0.493**
$X \rightarrow M$ path (a)	0.503**
$M \rightarrow Y$ path (b)	0.179**
Indirect association ($a \times b$)	0.090
Bootstrap SE	0.036
95% bootstrap CI	[0.024, 0.163]
Direct association (c')	0.403**
Overall pattern	Significant indirect and direct associations

Note. All estimates are unstandardized. ** $p < 0.01$. The significance of the indirect association was evaluated using the 95% bootstrap confidence interval.

4. DISCUSSION

4.1 Perceived Peer Support and Academic Adjustment

Perceived peer support was positively related to academic adjustment in both the correlation and regression analyses. This pattern is consistent with the social-support findings of Malecki and Demaray [3] and with social interdependence theory [4].

Informational support gives students immediate access to academic resources. Explanations, shared materials, and strategy discussions can reduce the burden of solving problems alone. As Johnson and Johnson [4] argued, positive interdependence encourages explanation, feedback, and cooperation, all of which can increase academic participation. Emotional support addresses a different need: understanding and encouragement from friends can help students remain engaged when schoolwork becomes stressful or frustrating. Wentzel [5] similarly linked social relationships to middle school students' motivation and identified peers as an important part of the school context.

Peer support can also shape classroom norms. From a social learning perspective [6], students learn how to seek help, cooperate, and assist others by observing these behaviors. As such practices become routine, they can make classroom interaction more supportive and participatory. This interpretation is consistent with longitudinal evidence from Gao et al. [7], who found that peer support and classroom justice were associated with greater engagement and lower academic disaffection.

4.2 Perceived Peer Support and Friendship Quality

Perceived peer support was strongly correlated with friendship quality ($r = 0.707$), and the association remained significant in the regression analysis.

This pattern is developmentally plausible. Furman and Bierman [9] showed that children's views of friendship shift from shared activities toward trust, support, and emotional intimacy as they mature. Repeated supportive interactions may therefore inform students' perceptions of friendship quality. Support during academic difficulties or emotional distress may signal that a friend is dependable and may accompany greater trust and more open communication. The cross-sectional data, however, cannot establish the temporal ordering of these experiences and perceptions.

4.3 Friendship Quality and Academic Adjustment

Friendship quality remained associated with academic adjustment after perceived peer support was included in the regression model. This finding indicates that friendship quality accounted for unique variance in academic adjustment after perceived peer support was entered, although the self-report design and conceptual overlap between the measures preclude a strong claim of construct distinctness.

Self-determination theory helps explain this result: relationships that provide support, acceptance, and connection can satisfy the need for relatedness and sustain motivation and engagement [2]. Friendship quality may thus support learning by strengthening emotional security and belonging.

Daily interactions may give friends opportunities to influence one another's learning attitudes, time-management habits, and classroom participation [6], although these processes were not measured directly

here. Prior research has linked friendship and peer acceptance to academic achievement in middle school [15], reciprocated best friendship to peer identification and peer relationships to self-worth [13], and friendship quality to school adjustment [14]. Together with the present findings, this evidence suggests that interpersonal relationship quality is relevant to academic adjustment without establishing the underlying mechanism.

4.4 Indirect Association through Friendship Quality

The bootstrap analysis identified a significant indirect association between perceived peer support and academic adjustment through friendship quality. The estimate was 0.090, representing 18.26% of the total association, while the direct association remained significant after friendship quality was included.

Supportive exchanges and friendship quality may reinforce one another: students who receive emotional and academic support may also perceive their friendships as more secure, trusting, and open. Immediate peer support and broader perceptions of friendship quality may therefore capture related aspects of students' peer relationships [9, 11]. Friendship quality may, in turn, relate to academic adjustment by supporting relatedness, emotional security, academic communication, and classroom belonging [2, 4, 13, 14]. These proposed mechanisms were not measured directly in the present study.

Shao et al. [8] identified indirect links between peer relationships and academic outcomes through learning motivation and engagement. The present findings suggest that friendship quality may be another relational factor in such indirect associations. Because the direct association remained significant, friendship quality may represent only one of several relevant variables; future studies could also examine learning motivation, academic self-efficacy, resilience, classroom belonging, and engagement.

The cross-sectional design is critical to interpretation: the indirect-association estimate represents a pattern of associations, not evidence of temporal causality. Longitudinal and intervention studies are needed to test the proposed sequence.

5. EDUCATIONAL IMPLICATIONS

These associations suggest that schools may benefit from supporting peer interactions that combine academic assistance with trust and communication. This perspective emphasizes the quality of peer interactions rather than their frequency alone.

Informed by social interdependence theory, teachers may consider incorporating peer explanations, collaborative error analysis, shared reflection, group review, and other structured peer-learning activities [4]. Such activities may be most useful when they encourage students to explain their reasoning and solve problems together rather than simply exchange answers. These practices were not evaluated in the present study and should therefore be treated as theory-informed options.

Homeroom teachers may also wish to avoid rigid, one-way arrangements in which higher-achieving students always help and struggling students always receive help. Rotating roles, cooperative projects, and reciprocal peer tasks may allow students to act as both helpers and help seekers and may foster more balanced peer relationships.

6. LIMITATIONS AND FUTURE RESEARCH

The findings should be considered in light of five limitations. First, the sample was limited to seventh- and eighth-grade students at one junior high school in J County, Z Province. This single-site sample limits generalizability. Future studies should include multiple regions, urban and rural settings, grade levels, and school types.

Second, all three study variables were assessed using student self-reports, making the estimates susceptible to social desirability bias and common method variance. Teacher ratings, peer reports, classroom observations, and social network data would provide useful complementary evidence.

Third, the cross-sectional design does not establish temporal ordering, even though the bootstrap estimate of the indirect association was significant. Longitudinal, cross-lagged, and intervention designs would provide a more rigorous test of the proposed pathway.

Fourth, friendship quality accounted for only a modest share of the total association, indicating that most of the association was not accounted for by this pathway. Future studies could test learning motivation, engagement, academic self-efficacy, school belonging, and resilience in models with multiple indirect paths. Finally, friendship quality was operationalized with an adapted peer-attachment measure, and the academic-adjustment scale was modified by removing the learning-task dimension. The retained interpersonal-environment subscale may also overlap conceptually with perceived peer support and friendship quality. Future work should confirm the factor structures, evaluate convergent and discriminant validity using dedicated measures of friendship quality and academic adjustment, and compare results with and without the interpersonal environment subscale.

7. CONCLUSION

Among 532 seventh- and eighth-grade students in J County, greater perceived peer support was associated with higher friendship quality and better academic adjustment. Friendship quality remained positively related to academic adjustment after perceived peer support was included in the regression model.

The bootstrap analysis also yielded a significant indirect association through friendship quality (estimate = 0.090, 95% CI [0.024, 0.163]), representing 18.26% of the total association. Perceived peer support and friendship quality were each independently associated with academic adjustment in the regression model. Because the measures overlap conceptually and the data are cross-sectional, these findings do not establish construct distinctness or temporal and causal ordering.

Thesis Declaration: This article is based on research conducted as part of Leyue Fan's master's thesis.

Conflict of Interest: The authors declare no conflict of interest.

8. REFERENCES

- [1] G. Jiang, M. Ying, X. Lin, H. Wei, and H. Zhang, Development of set of school adjustment scales for elementary and middle school students, *Chinese Journal of Clinical Psychology*, 25(3), 2017, 435–444 (in Chinese). <https://doi.org/10.16128/j.cnki.1005-3611.2017.03.009>.
- [2] R. M. Ryan and E. L. Deci, Self-determination theory and the facilitation of intrinsic motivation, social development, and well-being, *American Psychologist*, 55(1), 2000, 68–78. <https://doi.org/10.1037/0003-066X.55.1.68>.
- [3] C. K. Malecki and M. K. Demaray, What type of support do they need? Investigating student adjustment as related to emotional, informational, appraisal, and instrumental support, *School Psychology Quarterly*, 18(3), 2003, 231–252. <https://doi.org/10.1521/scpq.18.3.231.22576>.
- [4] D. W. Johnson and R. T. Johnson, An educational psychology success story: Social interdependence theory and cooperative learning, *Educational Researcher*, 38(5), 2009, 365–379. <https://doi.org/10.3102/0013189X09339057>.
- [5] K. R. Wentzel, Social relationships and motivation in middle school: The role of parents, teachers, and peers, *Journal of Educational Psychology*, 90(2), 1998, 202–209. <https://doi.org/10.1037/0022-0663.90.2.202>.
- [6] A. Bandura, *Social learning theory* (Morristown, NJ: General Learning Press, 1971).
- [7] Q. Gao, Y. Zhou, L. Zhang, C. Wang, Y. Yang, W. Liang, and Y. Zhang, Longitudinal effects of peer support and classroom justice on academic engagement and disaffection among Chinese adolescents: A mediation and multigroup analysis, *British Journal of Educational Psychology*, 95(4), 2025, 1001–1022. <https://doi.org/10.1111/bjep.70021>.
- [8] 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 Psychology*, 12, 2024, Article 278. <https://doi.org/10.1186/s40359-024-01780-z>.

- [9] W. Furman and K. L. Bierman, Children's conceptions of friendship: A multimethod study of developmental changes, *Developmental Psychology*, 20(5), 1984, 925–931. <https://doi.org/10.1037/0012-1649.20.5.925>.
- [10] J. G. Parker and S. R. Asher, Friendship and friendship quality in middle childhood: Links with peer group acceptance and feelings of loneliness and social dissatisfaction, *Developmental Psychology*, 29(4), 1993, 611–621. <https://doi.org/10.1037/0012-1649.29.4.611>.
- [11] T. J. Berndt, Friendship quality and social development, *Current Directions in Psychological Science*, 11(1), 2002, 7–10. <https://doi.org/10.1111/1467-8721.00157>.
- [12] G. C. Armsden and M. T. Greenberg, The Inventory of Parent and Peer Attachment: Individual differences and their relationship to psychological well-being in adolescence, *Journal of Youth and Adolescence*, 16(5), 1987, 427–454. <https://doi.org/10.1007/BF02202939>.
- [13] R. Maunder and C. P. Monks, Friendships in middle childhood: Links to peer and school identification, and general self-worth, *British Journal of Developmental Psychology*, 37(2), 2019, 211–229. <https://doi.org/10.1111/bjdp.12268>.
- [14] G. W. Ladd, B. J. Kochenderfer, and C. C. Coleman, Friendship quality as a predictor of young children's early school adjustment, *Child Development*, 67(3), 1996, 1103–1118. <https://doi.org/10.1111/j.1467-8624.1996.tb01785.x>.
- [15] K. R. Wentzel and K. Caldwell, Friendships, peer acceptance, and group membership: Relations to academic achievement in middle school, *Child Development*, 68(6), 1997, 1198–1209. <https://doi.org/10.1111/j.1467-8624.1997.tb01994.x>.
- [16] K. J. Preacher and A. F. Hayes, Asymptotic and resampling strategies for assessing and comparing indirect effects in multiple mediator models, *Behavior Research Methods*, 40(3), 2008, 879–891. <https://doi.org/10.3758/BRM.40.3.879>.
- [17] L. Zhao, *Research on social support and school adjustment of left-behind children in rural China*, doctoral diss., East China Normal University, Shanghai, China, 2019 (in Chinese).
- [18] J. Ding, *Academic adjustment among students entering junior high school and its intervention*, master's thesis, Henan University, Kaifeng, China, 2008 (in Chinese).

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