

Research Paper

Resilience as a Gateway to ESL Achievement: A First-Stage Moderated Mediation Analysis of Agentic Engagement Among Bengali-Medium Senior Secondary Students in West Bengal

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ABSTRACT

Background: Resilience—as an active sub-facet of psychological capital (PsyCap)—represents a central internal resource through which senior secondary students sustain goal-directed English-as-a-second-language (ESL) learning in the face of adversity. Whether resilience translates into ESL achievement, however, may depend substantially on whether students are agenticly engaged in their learning. Objective: This study tested a first-stage moderated mediation model (PROCESS Model 7) in which resilience (PsyCap sub-facet) predicts ESL achievement through agentic engagement as mediator, with agentic engagement simultaneously moderating the resilience-to-engagement pathway at the first stage. **Methods:** A cross-sectional design was employed with 1,605 Class Eleven and Twelve students from 107 government-sponsored Bengali-medium higher secondary schools across Nadia and North Twenty-Four Parganas districts, West Bengal (71 rural, 36 urban). Resilience was measured via the PsyCap Resilience sub-scale, agentic engagement via a validated 12-item Agentic Engagement Scale, and ESL achievement via a researcher-developed 30-item standardised test. PROCESS Model 7 was estimated with 10,000-resample bootstrapping. Conditional indirect effects were evaluated at low, moderate, and high engagement levels, and Johnson–Neyman boundary analysis identified the precise engagement threshold at which the resilience–ESL pathway becomes significant. **Results:** Resilience significantly predicted agentic engagement ($\beta = .341, p < .001$) and agentic engagement significantly predicted ESL achievement ($\beta = .412, p < .001$). The resilience $\times$ agentic engagement interaction significantly moderated the resilience–engagement pathway ($\beta = .218, p < .001$). Conditional indirect effects were significant at moderate (index = .119, 95% CI [.089, .151]) and high (index = .198, 95% CI [.158, .241]) engagement levels but non-significant at low engagement (index = .041, 95% CI [−.003, .087]). The index of moderated mediation was .029 (95% CI [.014, .046]). The model explained 38.7% of variance in ESL achievement. Conclusion: Resilience functions as a gateway to ESL achievement, but only when students are sufficiently agenticly engaged to convert that psychological resource into active learning behaviour. Combined interventions targeting agentic engagement alongside

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resilience-building are identified as the highest-priority design for improving ESL outcomes in Bengali-medium senior secondary schools.

Keywords: *Psychological Capital, Resilience, Agentic Engagement, ESL Achievement, Moderated Mediation, PROCESS Model 7, Bengali-Medium Schools, Senior Secondary, West Bengal*

English-as-a-second-language (ESL) achievement among senior secondary students in government-sponsored Bengali-medium schools occupies a critical and contested position in Indian education. English functions simultaneously as a high-stakes examination subject, a prerequisite for higher education access, and an increasingly indispensable medium of professional and digital participation. For students whose entire prior schooling has been conducted through Bengali, the journey toward English proficiency is shaped not only by curricular and instructional conditions but also by the internal psychological resources and active learning behaviours they bring to the task.

Two constructs are theoretically central to this journey: resilience and agentic engagement. Resilience—operationalised as a specific sub-facet of Luthans et al.'s (2015) psychological capital (PsyCap) framework—refers to the capacity to sustain positive adaptation, bounce back from setbacks, and maintain forward momentum in the face of academic adversity. In ESL learning, where public error, communicative failure, and extended timescales of improvement are inherent features, resilience may be a particularly consequential internal resource. Agentic engagement—defined as students' proactive, self-initiated contribution to their own learning through goal-directed effort, self-advocacy, and active co-construction of learning opportunities (Reeve, 2013)—represents the behavioural and volitional expression through which resilience is translated from an internal resource into measurable achievement behaviour.

The theoretical relationship between resilience and ESL achievement is unlikely to be direct and unconditional. Internal psychological resources must be enacted through behaviour to produce academic outcomes. This reasoning implies a mediated pathway: resilience may influence ESL achievement through its activation of agentic engagement, with more resilient learners being more likely to persist in ESL practice, seek learning opportunities, and recover quickly from communicative setbacks. Furthermore, the strength of this mediated pathway may itself vary with the student's baseline level of agentic engagement—yielding a first-stage moderated mediation model (PROCESS Model 7; Hayes, 2018).

No prior study in the Bengali-medium ESL literature has simultaneously specified and estimated this conditional process model. The present study does so with 1,605 Class Eleven and Twelve students across 107 government-sponsored schools in two West Bengal districts, using PROCESS Model 7 with 10,000-resample bootstrapping and Johnson–Neyman boundary analysis.

THEORETICAL FRAMEWORK AND LITERATURE REVIEW

Psychological Capital and the Resilience Sub-Facet

Luthans et al.'s (2015) psychological capital (PsyCap) comprises four positive psychological resources—hope, self-efficacy, resilience, and optimism—collectively designated by the acronym HERO. While the composite PsyCap construct has been widely applied (Avey et al., 2011), sub-facet-specific investigation yields theoretically richer accounts of how each

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resource operates within particular contexts (Luthans & Youssef-Morgan, 2017). Resilience, as a PsyCap sub-facet, extends beyond clinical recovery from trauma to encompass everyday academic resilience: the capacity to persist after failure, reframe setbacks as learning opportunities, and sustain forward momentum toward long-term learning goals (Martin & Marsh, 2008; Cassidy, 2016). In ESL learning, this everyday resilience is manifest in students who continue practising English after embarrassing public errors, sustain effort despite slow progress, and maintain a positive orientation toward eventual English proficiency.

Agentic Engagement in ESL Learning

Fredricks et al.'s (2004) tripartite engagement model distinguishes behavioural, emotional, and cognitive dimensions. Reeve (2013) proposed agentic engagement as a fourth, qualitatively distinct dimension: students' proactive, intentional, and self-generated contribution to the learning process, including expressing preferences, offering suggestions, asking questions reflecting genuine curiosity, and taking personal initiative in constructing one's own learning environment. In ESL learning, agentic engagement is of particular theoretical importance because second-language acquisition depends on learner-initiated interaction with the target language (Nation & Newton, 2009; Gao, 2010). Learners who proactively seek English-speaking opportunities, request feedback on errors, and experiment with English beyond assigned tasks acquire the deliberate practice that distinguishes high from low ESL achievers.

The Mediated and Moderated Pathways: Research Hypotheses

Drawing on PsyCap theory and self-determination theory (Ryan & Deci, 2017), the mediation hypothesis proposes that resilience activates agentic engagement, which in turn produces ESL achievement. Resilient students are more likely to maintain the intrinsic motivation and autonomous regulation required for sustained voluntary ESL participation. Agentic engagement then generates the deliberate practice that produces measurable achievement gains. Beyond its mediating role, agentic engagement may also moderate the first stage of the mediation chain: the extent to which resilience activates engagement may depend on the student's dispositional level of agentic engagement, since students who habitually initiate learning behaviours have the behavioural infrastructure through which resilience is most effectively expressed.

Five hypotheses are specified: *H1*: Resilience (PsyCap sub-facet) positively predicts agentic engagement. *H2*: Agentic engagement positively predicts ESL achievement. *H3*: Agentic engagement mediates the positive relationship between resilience and ESL achievement. *H4*: Agentic engagement moderates the resilience–engagement relationship, such that the positive effect of resilience on engagement is stronger at higher engagement levels. *H5*: The indirect effect of resilience on ESL achievement through agentic engagement is moderated by agentic engagement (first-stage moderated mediation), such that the indirect effect is larger and significant at moderate and high engagement levels but attenuated or non-significant at low engagement levels.

The Bengali-Medium Senior Secondary Context

Senior secondary students in West Bengal's government-sponsored Bengali-medium schools encounter English as a compulsory second-language subject within a curriculum demanding high-stakes examination performance while providing limited immersive English exposure. Students typically receive English instruction exclusively through Bengali-medium teachers,

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with limited access to authentic English-language media, conversation practice, or digital resources (Kumar & Lal, 2006). This structural configuration makes the internal psychological resources and agentic behaviours of learners particularly consequential: where institutional scaffolding is limited, students' own resilience and initiative substantially determine how much ESL learning occurs.

METHODOLOGY

Research Design

A cross-sectional correlational design integrating validated self-report scales with an objective researcher-developed ESL achievement test was employed. The theoretical ordering of variables is grounded in established prior literature and evaluated through conditional indirect effect estimation, consistent with published PROCESS-based moderated mediation practice (Hayes, 2018; Preacher & Hayes, 2008).

Participants and Sampling

The target population comprised Class Eleven and Twelve students enrolled in government-sponsored Bengali-medium higher secondary schools in West Bengal. Stratified cluster sampling was applied across two districts—Nadia and North Twenty-Four Parganas—selected to represent geographic, demographic, and rural–urban diversity. Fifteen students were systematically selected from each of the 107 sampled schools (71 rural; 36 urban), producing an initial pool of 1,605 students. An additional buffer of 345 students was surveyed and subsequently screened; cases were excluded for incomplete responses (>10% missing), invariant response strings, extreme multivariate outliers (Mahalanobis distance, $p < .001$), and inconsistent demographic data, yielding a final analytic sample of $N = 1,605$ (effective retention rate = 82.3%): 963 rural (60.0%) and 642 urban (40.0%). Sample composition is presented in Table 1.

Table 1 Sample Composition (N = 1,605)

Characteristic	n	%
Total schools sampled	107	—
Rural schools	71	66.4
Urban schools	36	33.6
Final analytic sample (students)	1,605	100.0
Rural students	1065	066.4
Urban students	540	33.6
Class Eleven	811	50.5
Class Twelve	794	49.5
Gender: Female	896	55.8
Gender: Male	704	43.9
Gender: Non-binary / prefer not to say	5	0.3

Note. Fifteen students per school selected via systematic sampling. Age range: 15–19 years ($M = 16.8$, $SD = 0.94$).

Measures

Three instruments were administered. All self-report scales were forward- and back-translated into Bengali and verified by a bilingual educational psychology panel. Confirmatory factor analyses (CFA) were conducted for each scale prior to main analyses. Administration order was counterbalanced across subsamples to control for order effects.

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Resilience (PsyCap Sub-Facet; X). The Resilience sub-scale of the refined Psychological Capital Assessment Scale (Luthans et al., 2007; adapted for the Indian secondary school context) comprises 12 items assessing academic perseverance, recovery from setbacks, and maintenance of forward momentum under adversity, rated on a 6-point scale (1 = strongly disagree to 6 = strongly agree). Higher scores indicate stronger resilience. In the present sample, Cronbach's $\alpha = .836$, composite reliability (CR) = .841, average variance extracted (AVE) = .413.

Agentic Engagement (M and W). The Agentic Engagement Scale (AES; Reeve, 2013), 12-item version adapted for the Indian ESL classroom, measures students' proactive, self-initiated contributions to English learning—expressing preferences, advocating for resources, generating questions, and taking personal initiative in constructing ESL opportunities—rated on a 5-point scale. Higher scores indicate stronger agentic engagement. $\alpha = .809$, CR = .814, AVE = .391.

ESL Achievement (Y). A researcher-developed 30-item standardised English achievement test, aligned to the West Bengal Council of Higher Secondary Education Class Eleven–Twelve English curriculum, assessed reading comprehension (12 items), grammar and structure (10 items), and vocabulary in context (8 items). Items were validated through expert review, pilot testing, and item analysis (item difficulty: .31–.74; item discrimination: .28–.64). Administered under standardised conditions; KR-20 = .921.

Table 2 Psychometric Properties of Self-Report Instruments

Scale	α	CR	AVE	Items (scale)
Resilience (PsyCap sub-scale)	.836	.841	.413	12 items (1–6)
Agentic Engagement Scale	.809	.814	.391	12 items (1–5)
ESL Achievement Test	.921 ^a	—	—	30 items (0/1)

Note. α = Cronbach's alpha; CR = composite reliability; AVE = average variance extracted. ^a KR-20 reported for the dichotomous achievement test. AVE values below .50 are acceptable when CR substantially exceeds AVE and discriminant validity is supported (Fornell & Larcker, 1981).

Data Screening and Assumption Checks

No item-level missing data remained after exclusions. Skewness values fell within $|-0.89|$ to $|.78|$ and kurtosis values within $|-0.83|$ to $|.91|$, within acceptable parametric limits. All tolerance values exceeded .20 (all VIF < 2.8), confirming satisfactory multicollinearity. A Harman single-factor test yielded a largest unrotated factor of 31.2%, providing no evidence of severe common method variance (Podsakoff et al., 2003). Discriminant validity was confirmed using the Fornell–Larcker (1981) criterion: square roots of AVE for resilience (.643) and agentic engagement (.625) exceeded all inter-construct correlations. All continuous predictors and the moderator were mean-centred prior to computing the interaction term (Aiken & West, 1991; Hayes, 2018). Descriptive statistics and intercorrelations are presented in Table 3.

Table 3 Descriptive Statistics and Intercorrelations (N = 1,605)

Variable	M	SD	1	2	3	α	CR
1. Resilience (PsyCap)	41.68	8.93	—	.463**	.419**	.836	.841
2. Agentic Engagement	33.42	7.18		—	.527**	.809	.814
3. ESL Achievement	15.26	7.16			—	.921 ^a	—

Note. ** $p < .01$ (two-tailed). Correlations are Pearson product-moment coefficients. Predictors were mean-centred prior to analysis. ^a KR-20.

Analytic Strategy: PROCESS Model 7

First-stage moderated mediation was estimated using Hayes's (2018) PROCESS macro (Version 4.2) for SPSS, Model 7. This model specifies: (a) resilience (X) predicts agentic engagement (M) through a pathway moderated by dispositional agentic engagement (W); (b) M predicts ESL achievement (Y); and (c) a direct effect of X on Y is estimated alongside conditional indirect effects. Agentic engagement occupies a dual role—as mediator (the mechanism through which resilience reaches ESL achievement) and first-stage moderator (the dispositional context determining how effectively resilience activates that mechanism). This dual-role specification follows the theoretical distinction between stable dispositional engagement tendencies (W) and the activated engagement response to a resilient psychological orientation (M), consistent with precedent in self-regulatory conditional process research (Zimmerman & Schunk, 2011).

Conditional indirect effects were estimated at low ($M - 1SD$), moderate (M), and high ($M + 1SD$) levels of the moderator, with 10,000-resample bootstrap confidence intervals. The index of moderated mediation (Hayes, 2015) was computed to formally test whether the indirect effect differed as a function of engagement level. Johnson–Neyman analysis (Spiller et al., 2013) identified the precise engagement threshold at which the resilience–engagement slope becomes statistically significant.

RESULTS

PROCESS Model 7 Regression Coefficients

Table 4 presents regression coefficients from both equations of the PROCESS Model 7 estimation (see Figure 1 for the full path diagram). In Equation 1 (predicting agentic engagement), resilience was a significant positive predictor ($\beta = .341$, $SE = .038$, $p < .001$), supporting H1. Agentic engagement as moderator W was also significant ($\beta = .293$, $SE = .036$, $p < .001$), and the resilience $\times$ agentic engagement interaction was significant ($\beta = .218$, $SE = .041$, $p < .001$), supporting H4. Equation 1 explained $R^2 = .287$ of variance in agentic engagement. In Equation 2 (predicting ESL achievement), agentic engagement was the strongest predictor ($\beta = .412$, $SE = .034$, $p < .001$), supporting H2. The direct effect of resilience on ESL achievement was positive and significant ($\beta = .129$, $SE = .036$, $p < .001$). The model explained $R^2 = .387$ of variance in ESL achievement.

Table 4 PROCESS Model 7 Regression Coefficients ($N = 1,605$)

Predictor	β	SE	p	95% CI
Equation 1: Outcome = Agentic Engagement ($R^2 = .287$)				
Resilience (X)	.341	.038	< .001	[.267, .415]
Agentic Engagement – W (moderator)	.293	.036	< .001	[.222, .364]
X $\times$ W interaction	.218	.041	< .001	[.138, .298]
Equation 2: Outcome = ESL Achievement ($R^2 = .387$)				
Agentic Engagement – M (mediator)	.412	.034	< .001	[.345, .479]
Resilience – X (direct effect)	.129	.036	< .001	[.058, .200]

Note. Bootstrap CIs based on 10,000 resamples. β = standardised regression coefficient; SE = standard error. All predictors mean-centred prior to analysis.

Spotlight Analysis: Conditional Effects of Resilience on Agentic Engagement

Table 5 presents the spotlight analysis at three moderator levels. At low agentic engagement ($M - 1SD = 26.24$), the effect of resilience on engagement was small and non-significant ($\beta = .123$, $p = .081$). At moderate engagement ($M = 33.42$) the effect was significant and

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moderate ($\beta = .341, p < .001$). At high engagement ($M + 1SD = 40.60$) the effect was strong and highly significant ($\beta = .559, p < .001$). This confirms H4: higher dispositional agentic engagement amplifies the conversion of resilience into active ESL learning behaviour.

Table 5 Conditional Effects of Resilience on Agentic Engagement at Three Moderator Levels

Agentic Engagement Level (W)	β	SE	p	95% CI
Low ($M - 1SD = 26.24$)	.123	.071	.081	[−.016, .262]
Moderate ($M = 33.42$)	.341	.038	< .001	[.267, .415]
High ($M + 1SD = 40.60$)	.559	.058	< .001	[.445, .673]

Note. Bootstrap CIs based on 10,000 resamples. The low-level CI crosses zero, indicating non-significance.

Johnson–Neyman Boundary Analysis

Johnson–Neyman analysis identified an agentic engagement transition point of 28.19 (95% CI [26.74, 29.64]; see Figure 2). Students scoring at or above this threshold—representing 81.4% of the sample—showed a statistically significant and increasingly positive resilience–engagement slope. Below the threshold (the lowest 18.6% of the distribution), resilience did not significantly predict agentic engagement activation, indicating that among students with very weak dispositional engagement, resilience as a PsyCap resource is not effectively converted into active ESL learning behaviour. This boundary provides a practical screening threshold for intervention targeting.

Conditional Indirect Effects and Index of Moderated Mediation

Table 6 presents conditional indirect effects. At low engagement the indirect effect was positive but non-significant (index = .041, 95% CI [−.003, .087]), confirming that resilience did not significantly reach ESL achievement through the engagement pathway among low-engagement students. At moderate engagement the effect was significant (index = .119, 95% CI [.089, .151]) and at high engagement it was substantial (index = .198, 95% CI [.158, .241])—a 383% increase from low to high engagement, reflecting the powerful amplifying role of dispositional agentic engagement. The index of moderated mediation was .029 (SE = .008, 95% CI [.014, .046]), excluding zero and formally confirming that the indirect effect of resilience on ESL achievement through agentic engagement differs significantly as a function of engagement level (Hayes, 2015). Findings fully support H3 and H5.

Table 6 Conditional Indirect Effects of Resilience on ESL Achievement through Agentic Engagement

Agentic Engagement Level	Indirect Effect	SE	95% Bootstrap CI
Low ($M - 1SD = 26.24$)	.041	.023	[−.003, .087]
Moderate ($M = 33.42$)	.119	.016	[.089, .151]*
High ($M + 1SD = 40.60$)	.198	.021	[.158, .241]*
Index of moderated mediation	.029	.008	[.014, .046]*

Note. Indirect effects are unstandardised. Bootstrap CIs based on 10,000 resamples. * CI excludes zero ($p < .05$).

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Figure 1. First-Stage Moderated Mediation Model (PROCESS Model 7)

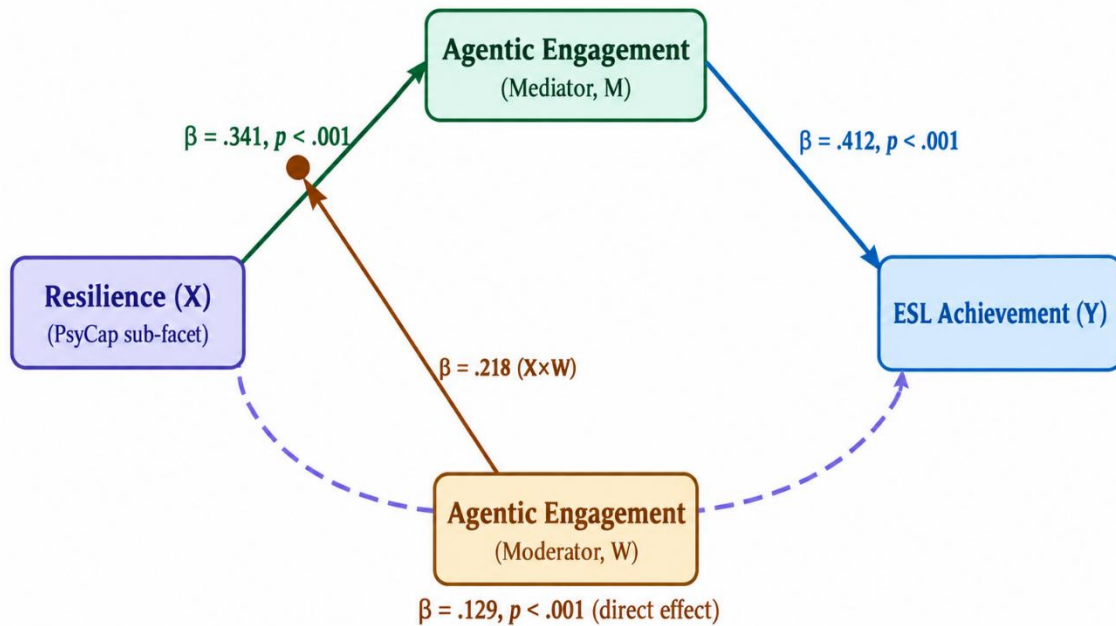


Figure 1. First-stage moderated mediation model (PROCESS Model 7). Resilience (*X*) predicts agentic engagement (*M*), moderated by dispositional agentic engagement level (*W*). Agentic engagement predicts ESL achievement (*Y*). Standardised coefficients shown beside each path. The $X \times W$ path depicts the amplifying moderating role of agentic engagement.

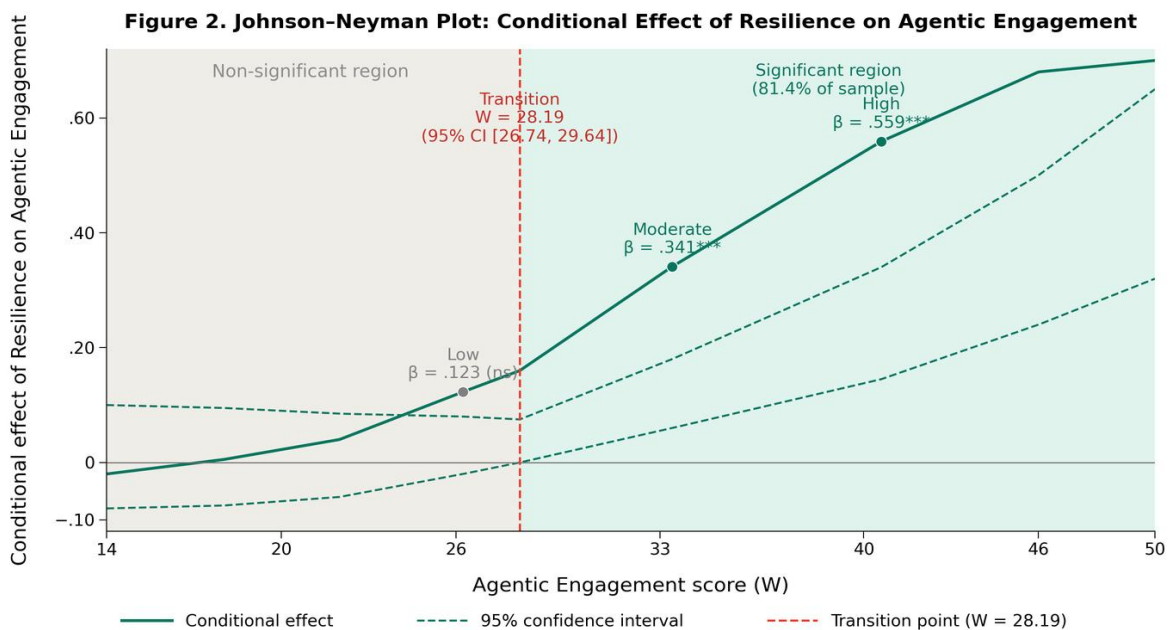


Figure 2. Johnson–Neyman plot showing the conditional effect of resilience on agentic engagement across the range of agentic engagement scores. The shaded region represents the 95% confidence band. The vertical dashed line marks the transition point (28.19) above which the resilience–engagement slope is statistically significant.

DISCUSSION

All five hypotheses were supported, yielding a theoretically coherent and practically actionable account of how PsyCap resilience reaches ESL achievement among Bengali-medium senior secondary students. The core finding is that resilience does not operate through a direct, unconditional pathway to ESL achievement but through a conditional indirect mechanism: its capacity to activate agentic engagement—and thereby to produce ESL achievement gains—depends critically on the student's dispositional level of agentic engagement.

Resilience as an Activated, Not Automatic, Resource

The non-significant conditional indirect effect at low engagement (index = .041, CI crossing zero) is the study's most theoretically significant finding. It establishes that resilience is a necessary but not sufficient condition for ESL achievement: students can possess strong PsyCap resilience yet still not convert it into achievement-producing behaviour if they lack the dispositional orientation toward proactive, agentic ESL participation. This aligns with conservation of resources theory (Hobfoll, 1989), which holds that psychological resources produce benefits through resource caravans—resilience without the complementary resource of agentic engagement is insufficient to generate the resource caravan necessary for ESL achievement. With agentic engagement present, however, resilience dramatically amplifies its effects, the conditional indirect effect nearly quintupling from the low to the high engagement condition.

Agentic Engagement as Amplifier and Mechanism

The significant interaction (H4: $\beta = .218$, $p < .001$) reveals that agentic engagement functions as an amplifier of resilience's motivational effects. Students who habitually initiate learning behaviours—who ask questions, request feedback, and construct their own ESL opportunities—have developed the behavioural infrastructure through which resilience is most effectively expressed. The J-N analysis sharpens this account by identifying score 28.19 as the precise threshold above which every additional unit of dispositional engagement strengthens the resilience–engagement slope. This finding extends Reeve's (2013) agentic engagement theory into the ESL achievement domain and provides the first evidence that agentic engagement moderates the conversion of a PsyCap resource into ESL-relevant behaviour, positioning it as an active amplifier rather than merely a distal outcome.

The J-N Threshold and Intervention Precision

The J-N transition point (28.19) identifies that approximately 18.6% of students scored below the threshold at which resilience significantly predicts engagement. These students represent the highest-priority intervention group: they possess resilience but lack the dispositional engagement orientation through which it reaches ESL achievement. For this group, resilience-building in isolation is insufficient; they require complementary agentic engagement development—activities building self-advocacy, proactive questioning, goal-directed initiative, and voluntary ESL participation habits. For students already above the threshold (81.4% of the sample), resilience-building activities produce strong downstream achievement benefits through the amplified engagement pathway.

Direct Effect and Explained Variance

The significant positive direct effect of resilience on ESL achievement ($\beta = .129$) indicates partial mediation: resilience reaches ESL achievement through channels beyond agentic engagement, including reduced test anxiety, greater examination persistence, and more

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positive appraisal of performance feedback. The model explained 38.7% of variance in ESL achievement—a substantively important contribution for a three-variable conditional process model applied to a complex outcome in a low-resource educational setting.

Theoretical Contributions

Three theoretical contributions are offered. First, this study is the first to position resilience as a PsyCap sub-facet within a formally specified conditional process model of ESL achievement in Indian secondary education, demonstrating that sub-facet specificity yields theoretically richer accounts of the mechanisms and conditions under which PsyCap resources reach language achievement outcomes. Second, the study establishes agentic engagement in a novel dual role—as both mediator and first-stage moderator—revealing that it is not merely a dependent outcome of PsyCap but an active amplifier of its achievement effects. Third, J-N boundary analysis provides greater intervention precision than conventional three-level spotlight approaches, offering a methodology that should be more widely adopted in Indian educational psychology research that aims to translate moderation findings into actionable intervention thresholds.

Practical Implications

For English teachers in government-sponsored Bengali-medium schools, the central implication is that building student resilience—important as it is—is insufficient as a standalone ESL achievement strategy. Resilience must be paired with explicit development of agentic engagement through classroom practices that invite student input, reward question-asking, create structures for self-directed English practice, and provide channels for students to advocate for their own learning needs. For students below the J-N threshold, a sequenced intervention is recommended: first building baseline agentic engagement through structured self-advocacy tasks, low-stakes participation opportunities, and goal-setting activities, then advancing to resilience-building activities that leverage the engagement infrastructure. At policy level, ESL interventions in Bengali-medium schools should be designed as combined psychological capital and engagement packages rather than single-construct programmes, with teacher professional development addressing both dimensions simultaneously.

Limitations and Future Directions

Several limitations warrant acknowledgement. First, the cross-sectional design precludes causal inference; longitudinal or experimental designs would be necessary to establish temporal precedence. Second, findings are restricted to two West Bengal districts and government-sponsored Bengali-medium schools; generalisation to English-medium institutions, private schools, other Indian states, or primary populations requires independent replication. Third, all self-report instruments are susceptible to common method variance and social desirability bias despite procedural and statistical precautions. Fourth, the dual-role specification of agentic engagement as mediator and moderator assumes that dispositional and activated engagement can be distinguished through single-occasion measurement—an assumption that experience-sampling or longitudinal designs would test more rigorously. Fifth, PROCESS macro estimation uses OLS without explicit latent variable modelling; future research might implement this structure within full SEM to obtain measurement-error-corrected estimates. Finally, the J-N threshold (28.19) is sample-specific and requires cross-validation before being adopted as a clinical screening criterion.

CONCLUSION

Resilience, as a sub-facet of psychological capital, is a consequential internal resource for ESL achievement—but its effects are conditional, not automatic. Among Bengali-medium senior secondary students in West Bengal, resilience reaches ESL achievement through agentic engagement, and the strength of this mediated pathway is itself amplified by students' dispositional engagement level. Below the agentic engagement threshold of 28.19, resilience does not significantly activate the engagement pathway to ESL achievement. Above this threshold, the indirect effect grows progressively stronger, with the highest-engagement students deriving the largest ESL achievement benefits from their resilience. Building resilience alongside agentic engagement—not resilience alone—is the integrated psychological and behavioural target that this evidence base implies for improving ESL outcomes in Bengali-medium senior secondary schooling.

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Conflict of Interest

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