



Psychological capital as a predictor of academic buoyancy: Insights from positive psychology

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ABSTRACT

Background: Psychological Capital (PsyCap), which includes hope, confidence, resilience, and optimism, is crucial in supporting students' capacity to bounce back from daily academic setbacks and challenges.

Purpose: This research explores how Psychological Capital (Self-efficacy, Hope, Optimism and Resilience) influences Academic Buoyancy, inspired by principles of positive psychology.

Method: A mixed-method approach was employed, combining quantitative and qualitative data collection. Convenience sampling was used to recruit university undergraduates. Quantitative data were gathered using structured instruments, including the School Psychological Capital Questionnaire and an academic buoyancy scale, and analyzed through regression analysis using SPSS. Qualitative data were collected through four open-ended questions embedded in the same survey and were analyzed thematically.

Findings: The findings highlight the importance of Psychological Capital (PsyCap) in helping students stay resilient and succeed academically. Universities are encouraged to adopt positive psychology strategies to strengthen students' PsyCap.

Implication: The findings emphasize the importance of Psychological Capital (PsyCap) in academic settings, highlighting its positive impact on student outcomes, including academic achievement. They also underline the value of positive education and investing in psychological resources to enhance student performance and satisfaction.

KEYWORDS

Psychological capital; academic buoyancy; positive psychology; resilience; academic performance

ARTICLE HISTORY

Received 1 March 2025

Revised 10 September 2026

Accepted 24 September 2026

Introduction

Positive psychology, a field dedicated to studying and promoting positive aspects of human life, has significantly influenced educational practices. It emphasizes enhancing well-being, fostering positive emotions, and building strengths to improve overall life satisfaction and performance (Seligman et al., 2009; Waters, 2011). Positive psychology interventions (PPIs) have been shown to enhance student well-being, relationships, and academic performance across various educational settings (Donaldson & Koci, 2024). The PERMA+4 framework, which includes positive emotions, engagement, relationships, meaning, accomplishment, physical health, mindset, environment, and economic security, provides a comprehensive approach to student well-being and academic success (Koci & Danaldson, 2023). The PERMA+4 is highly relevant to the study of academic buoyancy as it addresses multiple dimensions of student well-being that contribute to resilience and academic success. By fostering positive emotions, engagement, supportive relationships, a sense of meaning, accomplishment, physical health, a positive mindset, a conducive environment, and economic security, the PERMA+4 model provides a holistic approach to enhancing students' ability to thrive academically despite challenges (Hoferichter et al., 2021; Huang & Kou, 2025; Kulandaïammal et al., 2025).

Academic buoyancy, a construct within positive psychology, describes students' ability to overcome and recover from everyday academic setbacks, such as poor grades or exam stress (Weißenfels et al., 2023). This capacity, or the ability of students to cope with daily academic challenges, is closely related to general resilience but specifically focuses on students' day-to-day scholastic difficulties (Abdellatif, 2022). Enhancing academic buoyancy can lead to better academic outcomes and overall student well-being (Yang & Geng, 2024), demonstrating its crucial role in student performance. Studies have consistently shown that academic buoyancy is a significant predictor of academic performance and is shaped by a complex interplay of internal and external factors (Martin & Marsh, 2008). Key predictors include motivational dimensions like controlled and autonomous motivation, academic self-concept, and performance in subjects such as mathematics and reading (Datu et al., 2021; Colmar et al., 2019). Furthermore, self-efficacy, engagement, and teacher-student relationships are influential contributors (Martin & Marsh, 2008). Other psychological attributes, such as emotional intelligence, self-compassion, and achievement goals, are also key contributors, while self-efficacy, persistence, and anxiety influence how buoyancy translates into learning success challenges (Thomas et al., 2024).

The benefits of academic buoyancy are extensive. It fosters positive attitudes and behaviors toward learning, enhances emotional well-being, and helps students maintain strong academic performance by adopting effective coping strategies (Hirvonen et al., 2020; Rafsanjani et al., 2024). This resilience protects them from the adverse effects of minor setbacks, ensuring steady progress in their academic journey (Putwain et al., 2024; Putwain et al., 2020). Efforts to enhance academic buoyancy can focus on interventions such as providing counseling, teaching students to confront challenges constructively, and nurturing motivational skills. Teachers, parents, and peers play vital roles by offering support, modeling positive behaviors, and fostering an encouraging environment. Practices like compassionate self-reflection, self-management strategies, and youth development programs further strengthen students' ability to recover from difficulties (Javadi-Eimi et al., 2022). Research indicates that academic buoyancy remains consistent across gender, academic disciplines, and diverse student backgrounds, including degree level and first-generation status (Abdellatif, 2022). This consistency suggests that strategies to promote buoyancy can be universally applied, benefiting all students regardless of their unique circumstances (Dang et al., 2025).

Psychological capital (PsyCap) is a core concept within positive psychology, referring to an individual's positive psychological state characterized by self-efficacy, hope, optimism, and resilience (Fu & Weng, 2022; You, 2016). Self-efficacy refers to an individual's belief in their ability to succeed in specific situations or accomplish a task. High self-efficacy enhances students' confidence in handling academic challenges, leading to better academic buoyancy. Studies show that self-efficacy significantly predicts academic buoyancy, helping students manage stress and recover from poor grades or other setbacks (Shengyao et al., 2024). Hope involves having a positive motivational state based on an interactively derived sense of successful agency (goal-directed energy) and pathways (planning to meet goals). Hopeful students are more likely to set and pursue academic goals, which helps them stay motivated and resilient in the face of academic difficulties. This positive outlook fosters a more remarkable ability to bounce back from setbacks (Welsh et al., 2024). Optimism is the general expectation that good things will happen in the future. Optimistic students tend to interpret academic challenges as temporary and surmountable, which enhances their ability to remain buoyant. Optimism helps in maintaining a positive attitude towards academic tasks, thereby improving academic engagement and reducing anxiety (Laasiri & Moufdi, 2024). Resilience, the ability to bounce back from challenges, fosters academic buoyancy. Students with strong resilience can manage academic stressors, such as

disappointing grades or the pressures of exams, without letting these setbacks derail their progress. This quality enables them to stay focused and maintain consistent effort despite obstacles, ensuring they remain on track with their academic goals (Behbahani et al., 2024).

Research indicates that PsyCap is crucial in various aspects of student life, including academic performance, mental health, and interpersonal relationships (Hazan Liran & Miller, 2019). PsyCap has been found to positively influence academic engagement, satisfaction, and performance, making it a valuable resource for educational institutions aiming to enhance student outcomes (Carmona-Halty et al., 2018; Sánchez-Cardona et al., 2021). Integrating PsyCap and academic buoyancy can provide a robust framework for improving student resilience and academic performance. PsyCap components such as hope, optimism, and resilience directly contribute to students' ability to handle academic challenges, enhancing their buoyancy. For instance, positive emotions and engagement fostered by PsyCap can mediate the relationship between academic stress and performance, leading to better academic outcomes (Carmona-Halty et al., 2019). Moreover, interventions aimed at boosting PsyCap have been shown to improve academic engagement and reduce burnout, further supporting student success (Fu & Qiu, 2024)

This mixed-methods study draws on the Psychological Capital theory (Luthans et al., 2007) to examine the predictive role of PsyCap, comprising self-efficacy, hope, optimism, and resilience, on academic buoyancy among students. Academic buoyancy is defined as the ability to successfully navigate and overcome everyday academic challenges and setbacks in a school context (Martin & Marsh, 2008). It is increasingly recognized as crucial for student success and well-being. As illustrated in Figure 1, PsyCap is conceptualized as a higher-order construct that reflects an individual's positive psychological state, encompassing four distinct yet interrelated dimensions (Luthans et al., 2007). The model proposes that PsyCap serves as a personal resource that directly predicts students' academic buoyancy, with a single-headed arrow indicating a hypothesized positive relationship. Higher levels of PsyCap are expected to be associated with a greater capacity to manage routine academic adversities, such as receiving poor grades, pressure to obtain feedback, and facing study difficulties. To empirically examine this relationship, the study addresses the following research questions: (1) Does psychological capital significantly predict academic buoyancy? (2) Do self-efficacy, hope, optimism, and resilience individually predict academic buoyancy? (3) Which dimension serves as the strongest predictor? (4) How do students experience and utilize their psychological resources when facing academic challenges? Additionally, (5) what contextual factors influence the translation of psychological capital into academic buoyancy?

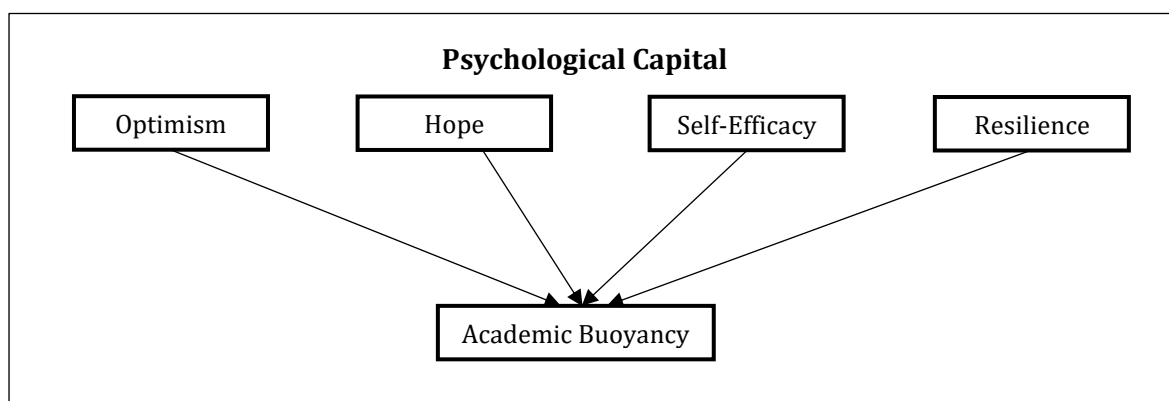


Figure 1. Conceptual model of psychological capital as a predictor of academic buoyancy.

Method

Research Design

A convergent parallel mixed-methods design was employed. Quantitative scale data and qualitative written responses were collected during the same survey administration, analyzed separately, and integrated during interpretation. The quantitative strand examined the collective and unique predictive effects of self-efficacy, hope, optimism, and resilience on academic buoyancy. The qualitative strand explored how students described using these resources when facing routine academic challenges. Equal timing but complementary analytical purposes allowed the qualitative findings to elaborate, contextualize, or qualify the regression results (Creswell & Clark, 2018).

Participants

The population of this study consisted of university students in their first, third, and fifth semesters, as these stages allow for precise observation of students' academic buoyancy. The study involved a sample of college students from various faculty members at a university. The sample size comprised 351 students, with 106 males and 245 females selected through convenience sampling. The qualitative strand involved the same 351 survey participants, who were presented with four open-ended questions after the quantitative scales. No separate interview sample was recruited; the qualitative analysis used the written responses submitted through these survey items. To qualify for the research, students needed to meet three key criteria. First, they must be full-time, on campus. Second, they must actively attend classes and complete coursework. Third, they must voluntarily consent to participate after understanding the research's purpose. Participants completed the surveys via in-person administration, ensuring anonymity and voluntary participation. Self-report questionnaires were administered to measure the constructs of interest. For example, the School PsyCap Scale by King and Caleon (2021) was used to assess psychological capital, and the Martin and Marsh (2008) Scale was used to measure academic buoyancy.

Quantitative Measures

The School Psychological Capital Scale by King and Caleon (2021) assessed students' psychological capital, encompassing four dimensions: hope, self-efficacy, resilience, and optimism. This instrument consists of 16 items, each rated on a 4-point Likert scale ranging from 1 ("Strongly Disagree") to 4 ("Strongly Agree"). The scale demonstrated good internal consistency, with a reliability coefficient of Cronbach's $\alpha = .843$. A sample item is "I feel confident participating in class discussions". The School PsyCap scale demonstrated excellent psychometric properties, with high-reliability coefficients for the total scale and its subscales (López-Guerra et al., 2023). The Academic Buoyancy Scale by Martin and Marsh (2008) measures students' ability to manage academic challenges and setbacks effectively. This scale consists of 26 items, each rated on a 4-point Likert scale ranging from 1 ("Strongly Disagree") to 4 ("Strongly Agree"). The scale's reliability is supported by Cronbach's α of .78, indicating acceptable internal consistency. A sample item from the scale is, "I don't let study stress get on top of me."

As measured by the Martin Scale, academic buoyancy was found to significantly predict academic engagement and emotions, indicating its importance in the academic context (Wang & Hui, 2024). Using well-established measurement tools, such as the validated The School Psychological Capital Scale and Academic Buoyancy Scale, is essential for accurately capturing constructs like psychological capital and academic buoyancy. These instruments ensure that assessments are reliable and valid, contributing to the credibility of the research findings (Ling

et al., 2024; Martinez et al., 2021; Matos & De Andrade, 2021; Khalaf & Abulela, 2021; Wu & Kang, 2023).

Qualitative Data Collection

Qualitative data were obtained through four open-ended items included at the end of the same survey, not through separate interviews. The questions were: (1) How do you deal with challenges or pressures in your studies? (self-efficacy); (2) What helps you maintain a positive outlook after academic failure? (optimism); (3) What motivates you to keep moving forward after academic failure? (hope); and (4) What was your greatest academic challenge, and how did you overcome it? (resilience). Participants typed brief written responses. These prompts were designed to elicit concrete examples of the four PsyCap resources in relation to academic setbacks.

Data Analysis

The data analysis will combine quantitative and qualitative methods to comprehensively understand the data. On the quantitative side, a multiple regression analysis will be conducted using SPSS version 29 to examine how psychological capital and its dimensions—self-efficacy, hope, optimism, and resilience—predict academic buoyancy. This statistical method is widely used in personality and psychological research due to its predictive capabilities, as it helps determine the strength and direction of relationships between multiple independent variables and a dependent variable (Kelley & Maxwell, 2018; Mastor, 2020). This analytical approach was selected because the study aimed to assess the collective and relative contributions of multiple predictor variables to the outcome variable, enabling a more nuanced understanding of which dimensions most strongly influence students' capacity to navigate academic challenges. Prior to the main analysis, the data will be cleaned, and descriptive statistics will be performed to gain insights into the sample's characteristics and to ensure the assumptions for regression analysis are met. Qualitative responses were imported into NVivo and analyzed using a structured thematic procedure. First, responses were read repeatedly and assigned initial codes. Second, codes were organized deductively under the four PsyCap dimensions because each open-ended item targeted one dimension. Third, recurrent meanings within each dimension were refined into subthemes, such as goal setting, pathways, bouncing back, adaptability, positive outlook, reframing challenges, confidence, and mastery. Representative quotations were selected to illustrate each theme. Finally, the two strands were integrated through side-by-side comparison: regression coefficients were compared with qualitative theme patterns to identify convergence, complementarity, and divergence (Braun & Clarke, 2006; Braun & Clarke, 2019; Creswell & Clark, 2018). Consistent with Braun and Clarke's (2006, 2019) guidance, the resulting themes were worded as short descriptive statements of meaning rather than as restatements of the four PsyCap dimensions, which served only as the deductive coding framework.

Result

Quantitative Results

Prior to examining the predictive relationship between PsyCap and academic buoyancy, comprehensive regression assumption tests are well-constructed to ensure the validity of the statistical analysis. The normality of the data distribution is assessed in this study by examining the skewness and kurtosis values, which are .033 and .695 for PsyCap and -.198 and .822 for Academic Buoyancy, respectively. These values fall well within the acceptable thresholds for a large sample, as suggested by Shapiro et al. (2012), indicating the normality assumption was

satisfied. Multicollinearity diagnostics revealed a Tolerance value of 1.000 and a VIF of 1.00, confirming the absence of collinearity between predictor variables. The current study assessed the homoscedasticity assumption using the Glejser test and found a non-significant result ($p = .183$), indicating that the variance of the residuals is constant across all levels of the independent variable. Collectively, these diagnostic tests confirm that the data adhere to the fundamental assumptions required for linear regression, thereby ensuring the validity and reliability of the subsequent statistical analysis.

Table 1.

Summary of Regression Assumption Testing

Assumption	Indicator/Test	Value	Criterion	Decision
Normality	Skewness	.033; -.198	Absolute value < 2	Met
	Kurtosis	.695; .822	Absolute value < 7	Met
No Multicollinearity	Tolerance	1.000	> .10	Met
	VIF	1.000	< 10.0	Met
Homoscedasticity	Glejser Test	$p = .183$	$P > .05$	Met

Note. VIF = Variance Inflation Factor. The criterion for normality is based on recommendations for samples larger than 300 (Curran et al., 1996; Kline, 2016)

This study investigated the extent to which Psychological Capital (self-efficacy, hope, optimism, and resilience) is a significant predictor of Academic Buoyancy. The multiple linear regression analysis revealed that the overall model was a robust and statistically significant predictor of academic buoyancy, $F(4, 346) = 85.765$, $p < .001$. The model produced a high correlation coefficient ($R = .706$) and a coefficient of determination ($R^2 = .498$), with an adjusted R^2 of .492. This signifies that the combined dimensions of Psychological Capital—self-efficacy, hope, optimism, and resilience—account for 49.8% of the total variance in students' ability to navigate everyday academic challenges. The finding that the combined dimensions of Psychological Capital (PsyCap) account for 49.8% of the variance in academic buoyancy is a pivotal discovery within the field of positive psychology. In practical terms, this R-squared value—approaching the 50% mark—suggests that nearly half of a student's capacity to “stay afloat” and navigate the inevitable pressures of university life is driven by their own internal psychological resources. This result underscores that resilience, optimism, self-efficacy, and hope are far more than academic abstractions; they function as the primary engines that allow students to recover from common setbacks, such as disappointing grades or overwhelming workloads.

Table 2.

Multiple Regression Results for Psychological Capital Predicting Academic Buoyancy

Variable	<i>B</i>	Std. Error	β	<i>t</i>	<i>p</i>
(Constant)	8.039	1.393	-	5.769	< .001
Self-efficacy	.520	.124	.226	4.188	< .001
Hope	.208	.122	.089	1.697	.091
Optimism	.501	.117	.202	4.292	< .001
Resilience	.712	.103	.348	6.936	< .001

Note. $R = .706$, $R^2 = .498$, Adjusted $R^2 = .492$, $F(4, 346) = 85.765$, $p < .001$.

An evaluation of the individual predictors, as detailed in Table 2, showed that resilience, self-efficacy, and optimism each contributed significantly to the model. Resilience emerged as the most dominant predictor ($\beta = .348$, $t = 6.936$, $p < .001$), followed by self-efficacy ($\beta = .226$, $t = 4.188$, $p < .001$) and optimism ($\beta = .202$, $t = 4.292$, $p < .001$). Interestingly, hope was not a significant unique predictor in this model ($\beta = .089$, $t = 1.697$, $p = .091$), suggesting that, while goal-directed thinking is valuable, it may not independently drive immediate buoyancy as strongly as the other three dimensions.

These quantitative findings were mirrored in the students' qualitative experiences, which helped humanize the statistical data. For instance, students described resilience as a tangible endurance of pressure, with one participant noting, "I just go through it and pray for ease, sometimes it's heavy, but I endure it". Self-efficacy was reflected in a proactive mindset toward heavy workloads, such as managing tasks "one by one with focus and determination". Optimism manifested as a cognitive buffer, with students reminding themselves that "hardship is temporary and can be overcome". Even though hope did not reach statistical significance in the regression, qualitative responses highlighted it as a vital motivational force often driven by parental encouragement and long-term academic goals. Together, these dimensions form a synergistic psychological framework that enables university students to thrive despite the inevitable pressures of academic life.

Qualitative Results

While the quantitative regression analysis indicated that hope did not emerge as a unique significant predictor of academic buoyancy in this specific model ($p = .091$), the subsequent qualitative analysis provided a more comprehensive and nuanced perspective. These thematic findings emphasize that Psychological Capital (PsyCap)—encompassing the synergistic interplay of hope, resilience, optimism, and self-efficacy—remains the fundamental framework for fostering academic buoyancy. By integrating these qualitative insights, the study highlights how these dimensions interact to equip students with the necessary resources to navigate and recover from everyday scholastic challenges effectively.

Table 3 presents four themes developed from participants' written responses, each linked conceptually to a PsyCap dimension rather than named after it. Enduring pressure through patience and faith captured how students tolerated heavy academic demands rather than avoiding them. Drawing motivation from parental encouragement and future goals described how family support and long-term goals sustained persistence. Managing workload through focus and step-by-step effort captured how students broke large tasks into smaller, manageable parts. Reframing hardship as temporary reflected students' tendency to view setbacks as passing rather than permanent.

Table 3.

Themes Developed from Students' Qualitative Responses

Theme	Description	Example Quote
Enduring pressure through patience and faith	Students described tolerating heavy academic demands with patience rather than avoiding them (linked to the Resilience dimension of PsyCap).	I just go through it and pray for ease, sometimes it's heavy but I endure it.

Table 3.*Themes Developed from Students' Qualitative Responses*

Theme	Description	Example Quote
Drawing motivation from parental encouragement and future goals	Students connected their persistence to encouragement from family and to long-term academic goals (linked to the Hope dimension of PsyCap).	My parents motivate me to keep going, no matter how hard it gets.
Managing workload through focus and step-by-step effort	Students described breaking large workloads into smaller parts and completing them with concentrated effort (linked to the Self-efficacy dimension of PsyCap).	When tasks pile up, I manage them one by one with focus and determination.
Reframing hardship as temporary	Students reinterpreted academic setbacks as passing difficulties rather than permanent failures (linked to the Optimism dimension of PsyCap).	I keep reminding myself that every hardship is temporary and can be overcome.

Four themes were developed from the written responses. Each theme is restated here in full, together with the psychological capital dimension under which it was coded. The first theme, *"Enduring pressure through patience and faith,"* captured accounts in which students tolerated heavy academic demands rather than avoiding them, and was coded under the resilience dimension. The second theme, *"Drawing motivation from parental encouragement and future goals,"* described how family support and long-term aspirations sustained persistence, and was coded under the hope dimension. The third theme, *"Managing workload through focus and step-by-step effort,"* captured the practice of dividing large workloads into smaller units and completing them in sequence, and was coded under the self-efficacy dimension. The fourth theme, *"Reframing hardship as temporary,"* reflected students' interpretation of academic setbacks as passing rather than permanent, and was coded under the optimism dimension.

These four themes formed the mid-level nodes of a hierarchical structure in which academic buoyancy served as the central organizing category and the four psychological capital resources formed its principal branches. The subthemes identified during coding, namely goal setting, pathways, bouncing back, adaptability, positive outlook, reframing challenges, confidence, and mastery, constituted the lower-order nodes. Within this structure, *"Drawing motivation from parental encouragement and future goals"* and *"Reframing hardship as temporary"* clustered as forward-looking resources, reflected in subthemes concerning goal setting, pathways, and a positive outlook. The branch anchored in *"Enduring pressure through patience and faith"* was the most densely coded, encompassing accounts of bouncing back and adapting after setbacks such as poor grades or overwhelming workloads, whereas the branch anchored in *"Managing workload through focus and step-by-step effort"* contained references to confidence and mastery expressed through persistent, organized effort. Cross-connections among the branches indicate that the four resources operate together rather than in isolation, forming a psychological framework that supports students in navigating academic challenges while maintaining emotional balance and sustained engagement.

Mixed-Methods Integration Results

The integrated findings showed convergence for resilience, self-efficacy, and optimism: each was statistically significant in the regression model and was also evident in students' written

accounts. Hope showed divergence across strands. It did not contribute significant unique variance in the regression model, but students frequently described goals, pathways, and encouragement when explaining how they persisted. This pattern suggests that hope may overlap with the other PsyCap dimensions statistically while remaining experientially meaningful in students' coping narratives.

Discussion

Quantitative Findings

The quantitative findings support the proposition that PsyCap functions as a composite academic resource. The four dimensions jointly explained nearly half of the variance in academic buoyancy, extending evidence that psychological resources are associated with academic adjustment, engagement, and performance (Carmona-Halty et al., 2019; Hazan Liran & Miller, 2019; Li et al., 2023). Higher PsyCap equips students with the resources to overcome setbacks, maintain motivation, and excel academically, even in challenging circumstances (Laasiri & Moufidi, 2024). These findings align with the principles of positive psychology, emphasizing PsyCap as a foundational construct that promotes academic resilience and performance (Allan & McKenna, 2022; Afzali et al., 2024). Resilience was the strongest unique predictor, which is theoretically consistent with academic buoyancy as a capacity to recover from routine setbacks. Self-efficacy and optimism also contributed uniquely, suggesting that confidence in action and constructive expectations complement recovery-oriented resources. Hope was not significant after the other dimensions were controlled, possibly because goal agency and pathways overlap with self-efficacy, optimism, or resilience in the multivariate model.

This significant explanatory power challenges the traditional view that student success depends solely on external circumstances or innate academic talent. Instead, it reveals a synergistic psychological framework where these internal states act as a critical buffer against academic risk, reducing anxiety and preventing emotional instability. While the remaining variance is likely influenced by external factors such as teacher-student relationships or support systems, the dominance of the PsyCap model establishes it as a cornerstone for educational interventions. By intentionally fostering these psychological strengths, universities can address nearly half of the factors that keep students resilient and engaged, equipping them with a proactive mindset that views challenges as temporary, surmountable hurdles rather than permanent failures. These results align with the positive psychology framework, suggesting that internal psychological resources empower students to recover from setbacks and maintain motivation (Fati et al., 2019; Martin et al., 2013; Ortega-Maldonado & Salanova, 2018). Evidence from a four-wave study of school students similarly indicates that academic psychological capital mediates the link between teacher-student relationships and academic performance, which suggests that external factors not captured in the present model may themselves operate partly through students' psychological resources (Carmona-Halty et al., 2024; Yang & Liang, 2025).

Resilience, a core component of Psychological Capital (PsyCap), plays a vital role in driving academic buoyancy. Students with higher resilience are naturally better equipped to navigate the inevitable hurdles of university life, enabling them to manage daily academic pressures more effectively. This inner strength directly translates into a more robust capacity to "stay afloat," ensuring that common setbacks do not hinder their overall academic engagement or success (Martin & Marsh, 2008; Weißenfels et al., 2023). Resilience significantly bolsters a student's capacity to navigate academic hurdles, directly enhancing their sense of academic buoyancy. This mental toughness does more than just improve immediate scholastic results; it functions as a

critical buffer, equipping students with the endurance needed to minimize the risk of future academic adversity (Sweet et al., 2019).

Qualitative Findings

The qualitative findings clarified how students enacted PsyCap in everyday academic situations. Resilience was expressed through endurance and adaptation, self-efficacy through task organization and mastery, optimism through temporary and manageable interpretations of setbacks, and hope through goal pursuit and social encouragement. The findings therefore add process-oriented detail that is not available from scale scores alone. However, the responses were brief written accounts, so the analysis provides thematic breadth rather than the depth expected from individual interviews. The deductive alignment between questions and PsyCap dimensions also means that themes should be interpreted as theory-guided rather than wholly emergent.

Read against the regression coefficients, the qualitative accounts also indicate why the four dimensions carried different statistical weights. Resilience, the strongest unique predictor in the present model, was the dimension students described in the most concrete terms, which is consistent with longitudinal evidence that academic buoyancy protects achievement against minor academic adversities (Putwain et al., 2020) and with reciprocal-effects findings linking buoyancy to reduced psychological risk over time (Martin et al., 2013). Self-efficacy operated in students' accounts as a set of executable strategies rather than as a general belief, which parallels findings that academic self-efficacy underlies the association between buoyancy and achievement (Weißenfels et al., 2023) and that efficacy beliefs, together with parental support, shape academic resilience (Shengyao et al., 2024). Optimism functioned as an appraisal resource, echoing evidence that positive expectancies raise academic engagement and lower anxiety (Laasiri & Moufdi, 2024; Wang & Hui, 2024).

Hope requires a more careful reading. Its non-significant unique contribution should not be taken as evidence of irrelevance, because prior work has repeatedly identified hope as a component of the higher-order PsyCap construct that predicts engagement, satisfaction, and performance (Sánchez-Cardona et al., 2021; You, 2016) and as a resource that sustains goal pursuit under pressure (Welsh et al., 2025). A systematic review of psychological capital and academic outcomes reports that the four dimensions are consistently intercorrelated and are frequently modelled as a composite rather than as independent predictors (Li et al., 2023), which offers a plausible account of the shared variance observed here. The theme concerning parental encouragement further suggests that, in this sample, hope was sustained relationally rather than individually, a pattern consistent with evidence that supportive teaching and family contexts strengthen students' academic resilience (Afzali et al., 2024; Hoferichter et al., 2021).

Examining the themes one by one clarifies how each qualitative pattern refines the quantitative findings. The first theme, *enduring pressure through patience and faith*, corresponds to the resilience dimension and portrays recovery as an act of endurance rather than avoidance. Students' accounts of going through hardship while praying for ease are consistent with the conceptualization of academic buoyancy as everyday resilience in the face of routine setbacks (Martin & Marsh, 2008) and echo evidence that resilience fosters adaptability and persistence in university settings (Zumárraga-Espinosa, 2023). Notably, the recurrent references to patience and prayer suggest that, in this cultural context, religious coping is interwoven with students' recovery resources—a contextual nuance that standard PsyCap instruments do not capture.

The second theme, *drawing motivation from parental encouragement and future goals*, corresponds to the hope dimension. Students rarely described hope as abstract goal-directed

thinking; instead, they anchored their persistence in family expectations and long-term aspirations. This is consistent with evidence that parental support strengthens students' academic resilience and motivation (Shengyao et al., 2024) and with the view of hope as a motivational resource that sustains goal pursuit over time (Welsh et al., 2024). The socially embedded character of hope in these accounts helps explain why it remained experientially prominent even though it did not contribute unique variance in the regression model.

The third theme, *managing workload through focus and step-by-step effort*, corresponds to the self-efficacy dimension and describes the behavioral form that confidence takes: decomposing large tasks into smaller, manageable parts and completing them sequentially. Such accounts illustrate how efficacy beliefs are translated into actionable strategies that protect performance under pressure (Weißenfels et al., 2023), and they are consistent with the significant unique contribution of self-efficacy observed in the regression model.

The fourth theme, *reframing hardship as temporary*, corresponds to the optimism dimension. Students repeatedly reminded themselves that difficulties are transient and surmountable, an appraisal style that functions as a cognitive buffer against everyday academic adversity. This pattern aligns with evidence that optimism helps students maintain positive attitudes toward academic tasks, enhances engagement, and reduces anxiety (Laasiri & Moufdi, 2024), and with findings linking positive expectancies to higher academic engagement and satisfaction (Li et al., 2023; López-Guerra et al., 2023). Taken together, the four themes indicate that the PsyCap dimensions operate as complementary resources: the forward-looking resources of hope and optimism sustain motivation and positive appraisal, whereas the action-oriented resources of self-efficacy and resilience convert those appraisals into persistence and recovery from setbacks (Collie et al., 2024).

Integration of Quantitative and Qualitative Findings

Integration produced both convergence and complementarity. Resilience, self-efficacy, and optimism converged across strands, strengthening confidence that these resources are relevant to academic buoyancy. Hope produced the most informative mixed-method discrepancy: it was not a significant unique predictor, yet it was prominent in students' descriptions of motivation, pathways, and support. Rather than treating this as a contradiction, the combined evidence suggests that hope may operate through shared variance with the other PsyCap resources or may become salient in specific moments that are not fully captured by its unique regression coefficient. The qualitative strand thus qualifies the quantitative ranking and supports interpretation of PsyCap as an interdependent resource system.

This integrative pattern can be developed further using the analytic logic of the convergent parallel design (Creswell & Clark, 2018), which distinguishes convergence, complementarity, and expansion between strands. Convergence was strongest for resilience: its dominant regression weight ($\beta = .348$) was mirrored qualitatively by the density of endurance narratives, in which students described going through hardship rather than avoiding it. Complementarity was evident in the way qualitative accounts supplied the mechanisms behind the coefficients. Step-by-step task management gave concrete behavioral content to the self-efficacy coefficient ($\beta = .226$), while appraisals of hardship as temporary and surmountable illustrated how optimism ($\beta = .202$) buffers the emotional impact of everyday setbacks. In this way, the qualitative strand did not merely repeat the quantitative results; it explained how the statistically significant resources are enacted in daily academic life.

The divergence surrounding hope constitutes the most informative mixed-methods finding. Statistically, hope's contribution appears to have been absorbed by shared variance with the

other resources; experientially, students placed goals and parental encouragement at the center of their persistence narratives. A plausible interpretation is that hope operates as a distal, future-oriented resource that energizes long-term goal pursuit, whereas academic buoyancy concerns immediate recovery from daily setbacks—a function served more directly by resilience, self-efficacy, and optimism. The qualitative strand also expanded the quantitative model by surfacing contextual factors that the scales do not represent, particularly religious coping and family support, thereby addressing the fifth research question concerning the conditions under which psychological capital is translated into academic buoyancy. Taken together, the integrated evidence supports interpreting PsyCap as an interdependent resource system rather than four independent predictors, implying that interventions are likely to be most effective when the four resources are developed jointly rather than in isolation.

Arranging the two strands in a joint display sharpens these meta-inferences. For resilience, the largest standardized coefficient ($\beta = .348$) corresponds to the most densely coded theme, so the strands converge on both magnitude and meaning. For self-efficacy ($\beta = .226$) and optimism ($\beta = .202$), the coefficients establish that the resources matter, while the themes specify the behaviour and the appraisal through which they matter, which is complementarity rather than replication. For hope, the strands diverge in emphasis: the coefficient is the smallest in the model, yet the corresponding theme was raised whenever students explained why they continued after failure. Treating the coefficient and the theme as answers to different questions, one about unique variance and the other about lived salience, resolves the apparent contradiction without discarding either result.

The integration also produced expansion, in the sense that the qualitative strand raised content the instruments did not measure. References to prayer and patience indicate that religious coping was woven into students' recovery narratives, and references to parental expectation indicate that motivation was distributed across the family rather than located solely within the individual. Neither element appears in the School Psychological Capital Scale, so neither could contribute to the 49.8% of variance explained. This observation addresses the fifth research question directly: psychological capital was translated into academic buoyancy within a relational and religious context that shaped how the resources were enacted. It also suggests that part of the unexplained variance may be recoverable through culturally grounded measurement. Taken together, the integrated evidence supports interpreting PsyCap as an interdependent resource system, which implies that interventions developing the four resources jointly are likely to outperform those targeting a single dimension.

Implications

Theoretical Implications

Three theoretical contributions follow from these results. First, the finding that the four dimensions jointly explain 49.8% of the variance in academic buoyancy while hope contributes no unique variance supports the treatment of PsyCap as a higher-order construct rather than as four separable predictors, consistent with the original formulation of psychological capital as a synergistic resource (Luthans et al., 2007) and with reviews reporting strong intercorrelations among its dimensions (Li et al., 2023). Second, the dominance of resilience refines the theoretical boundary between buoyancy and broader resilience: because academic buoyancy concerns recovery from routine setbacks rather than from major adversity, resources oriented towards immediate recovery predict it more strongly than resources oriented towards distal goals (Martin & Marsh, 2008). Third, the qualitative strand extends PsyCap theory towards cultural embeddedness by showing that religious coping and family expectation carried functions. The

four canonical dimensions do not name, which raises the question of whether PsyCap requires context-specific elaboration in collectivist and religiously observant settings.

Practical Implications

Universities can translate these findings into structured student-development initiatives. Resilience may be supported through coping-skills training and guided reflection after setbacks; self-efficacy through mastery experiences, scaffolded tasks, and constructive feedback; optimism through realistic cognitive reframing; and hope through goal-setting and pathway planning. Programs should treat PsyCap as a coordinated set of developable resources rather than isolated traits. Screening and intervention should remain supportive rather than diagnostic, and effectiveness should be evaluated using longitudinal or experimental designs.

At the practical level, the ranking of predictors offers a basis for sequencing institutional effort. Because resilience carried the largest coefficient, academic support units may prioritize structured post-setback interventions, such as debriefing sessions after examination results and short coping-skills modules embedded in the first-semester curriculum. Self-efficacy may be strengthened through scaffolded assessment and staged feedback that allow students to accumulate mastery experiences, an approach aligned with the task-decomposition strategies students themselves reported. Optimism may be addressed through reframing exercises delivered in academic advising, and hope through goal-setting workshops that make degree pathways explicit. The relational character of hope in this sample also suggests a role for family-facing communication, since students located much of their motivation in parental encouragement. For counselling services operating in comparable settings, the findings support integrating religious and family resources into support conversations rather than treating psychological capital as a purely individual attribute. Institutions should evaluate such programmes with longitudinal or experimental designs, and should keep screening supportive rather than diagnostic.

Limitations

Several limitations should be considered. The cross-sectional and single-university design prevents causal inference and limits generalizability. Convenience sampling may have introduced selection bias, and all quantitative variables were self-reported in one administration, creating potential common-method bias. The qualitative strand used four brief open-ended survey questions completed by the same participants rather than separate interviews; consequently, responses lacked opportunities for probing, and coding frequencies should not be interpreted as prevalence estimates. The questions were deductively mapped to PsyCap dimensions, which may have constrained the emergence of themes outside the theoretical framework. Future studies should use multi-site samples, longitudinal or experimental designs, multi-source data, and in-depth interviews with purposively selected participants. Qualitative designs that trace how students construct resilience across the course of a degree would be a useful complement, since grounded-theory work with doctoral students shows that coping strategies shift as academic demands change (Kokotsaki, 2023).

Conclusion

This conclusion offers valuable insights into positive psychology research, the concept of academic buoyancy, and practical strategies for educational institutions while also highlighting directions for future exploration. Within the field of positive psychology, the findings emphasize

the importance of *Psychological Capital* (PsyCap) in academic settings, calling for deeper investigation into its relationship with student outcomes such as engagement, well-being, and academic performance. It also reinforces the need for universities to incorporate PsyCap-focused development programs into their curricula, fostering both academic success and students' overall well-being. Additionally, the conclusion broadens our understanding of academic buoyancy by illustrating how PsyCap supports students in managing stress, maintaining motivation, and effectively navigating the demands of academic life. By advocating for strategies to enhance academic buoyancy, the findings provide a roadmap for helping students thrive in the face of challenges, offering practical implications for educators and meaningful avenues for future research. Future research should explore the long-term benefits of PsyCap in higher education through longitudinal studies, examine its impact across diverse student populations, and assess the effectiveness of targeted interventions. These approaches highlight the critical role PsyCap plays in enhancing academic performance and emotional resilience in university settings.

Credit / Acknowledgment

The authors thank the participating students and the university personnel who facilitated data collection.

Author Contribution

Dina Haya Sufya contributed to conceptualization, methodology, investigation, formal analysis, and writing of the original draft. Nurul Ain Hidayah Abas contributed to supervision, validation, review and editing. Both authors approved the final manuscript.

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