

Mindset Orientation and Its Effects on Academic Resilience and Achievement in Higher Education

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ABSTRACT

Grounded in Carol Dweck's Mindset Theory, this study examined the characteristics of first-year higher education students and determined the extent to which fixed and growth mindsets predict academic resilience and academic performance. Employing a quantitative cross-sectional correlational predictive design, data were collected from 148 randomly selected students at the University of Science and Technology of Southern Philippines using validated self-administered questionnaires. Descriptive statistics and simple linear regression analyses were utilized. Findings revealed that the respondents were predominantly graduates of public senior high schools and largely perceived themselves as belonging to low or lower-middle socioeconomic groups. Despite these contextual conditions, most respondents demonstrated a high level of growth mindset and academic resilience, while academic performance remained predominantly at the average level. Regression analyses showed that growth mindset significantly predicted both academic resilience and academic performance, whereas fixed mindset did not significantly predict either outcome. Although growth mindset emerged as a significant predictor, it explained only a modest proportion of the variance, indicating that academic success is influenced by multiple psychological, behavioral, socioeconomic, and institutional factors. The findings affirm Dweck's Mindset Theory and underscore the importance of integrating growth mindset interventions with comprehensive academic support systems to strengthen resilience and improve student achievement in higher education.

Keywords: Growth mindset; Academic resilience; Academic performance; Higher education students; Mindset theory

INTRODUCTION

Higher education institutions (HEIs) in the Philippines consistently uphold their mission to provide quality instruction and holistic academic support to students. However, each academic term brings recurring challenges, particularly among students who struggle to meet institutional standards and expectations. This concern is especially prevalent among first-year college students at the University of Science and Technology of Southern Philippines (USTP).

As new entrants to university life, first-year students often face significant challenges adjusting to the academic demands, learning independence, and cognitive rigor characteristic of higher education. Compared with their experiences in basic education—particularly senior high school—the university environment requires stronger self-regulation, critical thinking, and perseverance. While many students initially express enthusiasm and a positive attitude toward their studies, these expressions of motivation are not always reflected in their actual academic performance. Such a gap between intent and achievement raises important questions about the psychological and behavioral factors that may influence student success during the transition to college.

Across semesters at USTP, faculty observations and student feedback indicate that learners' beliefs, perceptions, and attitudes toward learning—collectively known as academic mindsets—may contribute to differences in academic performance. *Nottingham and Larsson (2019)* emphasize that academic mindsets encompass the personal beliefs and perceptions that shape how students engage with learning tasks, respond to challenges, and

persist in the face of difficulty. These mindsets, therefore, have significant implications for students' motivation, resilience, and overall academic achievement.

This study is anchored in *Carol Dweck's (2006)* theory of mindsets, which distinguishes between two fundamental orientations toward ability: the fixed mindset and the growth mindset. Individuals with a fixed mindset believe that intelligence and talent are innate and unchangeable, whereas those with a growth mindset perceive these traits as malleable and improvable through sustained effort, effective strategies, and learning from feedback (*Dweck, 2006; Yeager & Dweck, 2020*).

Research has consistently demonstrated the strong relationship between mindset and academic outcomes. In a study by *Claro et al. (2016)*, students who exhibited a growth mindset showed continuous improvement in academic performance and greater persistence compared to those with fixed mindsets. Similarly, Dweck's earlier work (2006) established that growth-oriented students tend to embrace challenges, persist after failure, and view effort as an essential path to mastery. These findings highlight the role of mindset not only in determining academic achievement but also in fostering academic resilience—the ability to adapt and recover from academic setbacks.

The relationship between mindset, academic resilience, and academic performance is both dynamic and interdependent. Students with growth mindsets are more likely to demonstrate resilience, as they view difficulties as opportunities for learning rather than as threats to their self-concept. This adaptive interpretation enables them to persist longer, employ more effective learning strategies, and ultimately achieve better academic results (*Yeager & Dweck, 2012; Burnette et al., 2013*). Conversely, students with fixed mindsets may interpret setbacks as evidence of low ability, which can reduce motivation and effort, leading to poorer outcomes.

Within the Philippine higher education context, where socioeconomic and educational disparities often shape academic adjustment, understanding the influence of mindset and resilience becomes especially important. Examining these constructs among first-year college students provides insights into the psychological and motivational factors that support academic success during one of the most critical transitions in the educational journey.

Guided by these theoretical and empirical considerations, this study aims to explore the relationship between academic mindsets, academic resilience, and academic performance among first-year students of the University of Science and Technology of Southern Philippines. Specifically, it seeks to determine: (1) *the characteristics of the respondents in terms of school origin (private or public school), perceived economic status, type of mindset (fixed or growth mindset), level of academic resilience, and level of academic performance; and (2) the extent to which the type of mindset contributes to the respondents' levels of academic resilience and academic performance when grouped according to growth and fixed mindsets.*

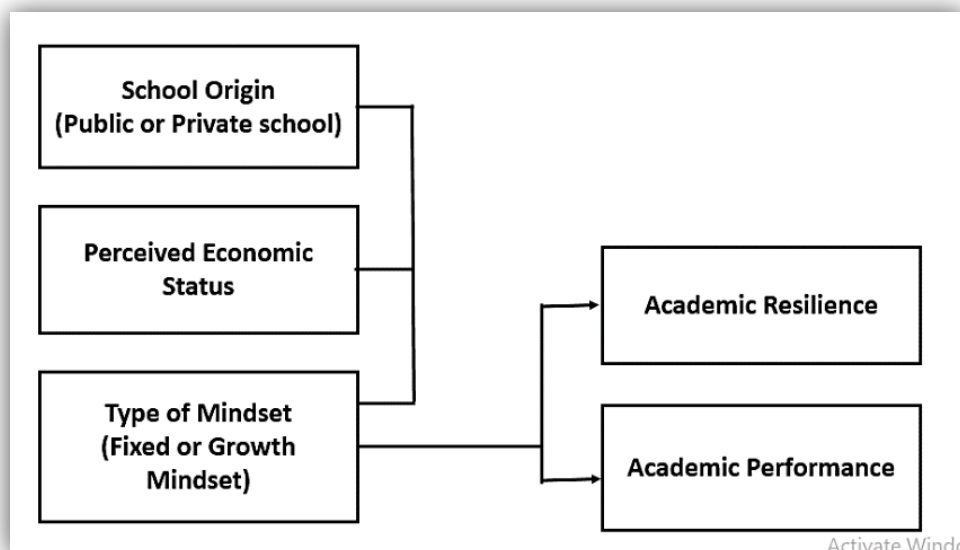


Figure 1 Schematic Diagram Showing Relationship of Variables

Academic resilience is broadly defined as the capacity of students to successfully cope with academic setbacks, stressors, and challenges while maintaining or restoring positive academic trajectories (*Martin & Marsh, 2006*). Research indicates that academic resilience is multidimensional and shaped by both internal resources (e.g., self-efficacy and optimism) and external supports (e.g., teacher and peer support) (*Cai & Meng, 2025*). Studies with university samples show positive associations between academic resilience and academic outcomes, with social supports—particularly perceived teacher support—often mediating the relationship between resilience and performance (*Cai & Meng, 2025*).

In the Philippines, empirical work on academic resilience is growing but remains relatively limited compared with Western and East Asian contexts. Recent local studies have examined resilience among senior high school and undergraduate students and have highlighted contextual factors such as socioeconomic status, family support, and school origin that interact with personal resources to influence academic adjustment and achievement. *However, broader evidence also indicates that socioeconomic conditions and educational support systems are important determinants of resilience and academic success (Sirin, 2005; Richardson et al., 2012).*

Carol Dweck's mindset framework (fixed vs. growth) has been applied across multiple educational levels and contexts. The core empirical finding relevant to higher education is that growth-oriented beliefs tend to predict more adaptive responses to challenge (e.g., persistence and use of effective strategies) and, in many studies, better academic outcomes over time (*Dweck, 2006; Yeager & Dweck, 2020*). Meta-analyses and recent empirical studies further suggest that mindset influences related constructs such as motivation, grit, self-regulated learning, and subjective well-being, which collectively shape learning engagement and academic achievement (*Burnette et al., 2013; Zhao et al., 2024*).

Within the Philippine context, intervention and correlational studies indicate that growth-mindset practices can positively affect student motivation and learning behaviors. Classroom interventions promoting adaptive beliefs have demonstrated improvements in students' motivation, engagement, and learning strategies, although longitudinal evidence among Filipino first-year university students remains limited (*Claro et al., 2016; Yeager & Dweck, 2020*).

An integrated perspective emerging from recent literature proposes that mindset and resilience operate together to support academic success. Growth mindsets foster adaptive appraisals of difficulty by viewing setbacks as learning opportunities, thereby strengthening resilience and sustaining academic performance (*Nottingham & Larsson, 2019; Martin & Marsh, 2006*). Moreover, environmental supports such as teacher feedback, institutional practices, and peer networks moderate and mediate these relationships, indicating the importance of examining both individual beliefs and contextual factors concurrently (*Cai & Meng, 2025; Zhao et al., 2024*).

This interaction suggests that mindset and resilience do not operate in isolation but function synergistically within broader academic environments, influencing motivation, persistence, and achievement outcomes (*Martin & Marsh, 2006; Richardson et al., 2012*).

Despite meaningful progress in the literature, several gaps remain that this study aims to address. First, there is limited Philippine research that jointly examines mindset and academic resilience among first-year university students. Second, there is insufficient attention to how socioeconomic status and school origin interact with mindset and resilience to affect performance during transitional academic phases. Third, most research uses *cross-sectional designs*, with relatively few *longitudinal studies* tracking changes in mindset and resilience over time and their influence on academic performance (*Yeager & Dweck, 2020; Zhao et al., 2024*). Addressing these gaps will inform interventions tailored to Filipino first-year cohorts and support evidence-based student development strategies in Philippine higher education institutions.

METHODOLOGY

Research Design

This study employed a quantitative correlational predictive research design to examine the extent to which mindset orientation predicts students' academic resilience and academic performance. A correlational predictive design is appropriate when the objective is to determine whether one or more independent variables significantly

predict or explain variations in a dependent variable without manipulating the study variables (Creswell & Creswell, 2018). In this study, fixed mindset and growth mindset served as the predictor (independent) variables, while academic resilience and academic performance were the outcome (dependent) variables.

The study also utilized descriptive statistics to describe the respondents' characteristics in terms of senior high school origin, perceived economic status, type of mindset, academic resilience, and academic performance. Subsequently, simple linear regression analysis was performed to determine the predictive influence of fixed and growth mindsets on academic resilience and academic performance. Since the study collected data from respondents at a single point in time without any intervention or manipulation, it adopted a cross-sectional correlational predictive design.

This research design is consistent with Carol Dweck's Mindset Theory (2006), which posits that individuals' beliefs about the malleability of intelligence influence their motivation, persistence, resilience, and academic outcomes. Accordingly, the design enabled the examination of whether students' mindset orientations significantly predict their academic resilience and academic achievement.

Research Setting and Participants

The participants were first-year college students at the University of Science and Technology of Southern Philippines enrolled in one of the courses at the Social Sciences unit, selected through random sampling procedure to ensure adequate representation of the target population. Inclusion criteria focused on accessibility and relevance to the study variables, specifically academic resilience, mindset, and academic performance (Correa-Rojas, et. al. 2024).

The sample size for this study was determined using the Cochran formula with finite population correction to ensure adequate representativeness of the respondents. Given a total population of 241 students, the computation was based on a 95% confidence level ($z = 1.96$), a margin of error of 5% ($e = 0.05$), and an assumed population proportion (p) of 0.5, which yields the maximum possible sample size.

Using these parameters, the resulting sample size was approximately 148 respondents. The participants were selected using simple random sampling, ensuring that each student in the population had an equal and independent chance of being included in the study.

3. Instrumentation

Data were collected using a *self-administered structured questionnaire* designed to measure the respondents' demographic characteristics, mindset orientation, and academic resilience. The instrument consisted of *three major sections*.

Part I gathered the respondents' profile and background characteristics, including *senior high school origin* (public, private, or alternative learning system), *perceived family economic status*, and *average academic grade*, which served as the measure of academic performance.

Part II assessed *academic resilience* using *10 statements* that measured students' ability to cope with academic challenges, adapt to setbacks, and persist in achieving academic goals. Responses were measured using a *five-point Likert scale* ranging from *1 (Strongly Disagree)* to *5 (Strongly Agree)*, with higher scores indicating greater academic resilience.

Part III measured *mindset orientation* using *six (6) statements* adapted from *Dweck's Implicit Theories of Intelligence framework* (Dweck, 2006). The items were rated on the same five-point Likert scale (*1 = Strongly Disagree* to *5 = Strongly Agree*) to determine whether respondents demonstrated a *fixed mindset* or a *growth mindset*. Higher scores on the growth mindset items indicated stronger beliefs that intelligence and abilities can be developed through effort and learning, whereas higher scores on the fixed mindset items reflected beliefs that intelligence and abilities are relatively stable and unchangeable.

To establish the *content validity* of the instrument, the questionnaire was reviewed by experts in educational psychology, guidance and counseling, educational research, and measurement and evaluation. Their recommendations regarding item relevance, clarity, content coverage, and language appropriateness were incorporated before the final administration of the instrument.

A *pilot test involving 30 higher education students*, who were excluded from the final sample, was conducted to determine the reliability of the instrument. Internal consistency reliability was assessed using *Cronbach's alpha coefficient*, yielding an overall reliability coefficient of $\alpha = .91$, which indicates *excellent internal consistency* (Taber, 2018). This finding suggests that the questionnaire consistently measured the intended constructs of mindset orientation and academic resilience. Furthermore, the use of previously validated scales grounded in *Carol Dweck's Mindset Theory* provides additional evidence of the instrument's construct validity (Dweck, 2006).

4. Test Administration and Data Gathering

The survey was administered in a designated testing room using a self-administered questionnaire, following the procedures outlined below:

1. Participants were instructed to answer all sections of the questionnaire as truthfully as possible and were informed of the confidentiality measures governing their responses.
2. Respondents were allotted a maximum of 30 minutes to complete the Self-Survey Questionnaire.
3. The instructions for completing each part of the survey are as follows:
Part I gathers background information, including the respondents' school type (private, public, or alternative learning system) and their perceived economic status (low, lower-middle, middle, upper-middle, or high).
Part II assesses Academic Resilience. Respondents rate 10 statements using a five-point Likert scale: 1 = *Strongly Disagree* | 2 = *Disagree* | 3 = *Neither Agree nor Disagree* | 4 = *Agree* | 5 = *Strongly Agree*.
Part III measures Types of Mindset. Respondents evaluate six statements using the same five-point Likert scale: 1 = *Strongly Disagree* | 2 = *Disagree* | 3 = *Neither Agree nor Disagree* | 4 = *Agree* | 5 = *Strongly Agree*.

5. Statistical Treatment for Data Analysis

The collected data were encoded, cleaned, and analyzed using descriptive and inferential statistical techniques. Descriptive statistics, including frequencies, percentages, means, and standard deviations, were employed to summarize the respondents' characteristics in terms of senior high school origin, perceived economic status, type of mindset, academic resilience, and academic performance, as well as to describe the distribution of the study variables.

To address the predictive objectives of the study, simple linear regression analysis was performed to determine the extent to which fixed mindset and growth mindset predict students' academic resilience and academic performance, consistent with previous studies examining the influence of mindset on educational outcomes (Claro et al., 2016). Separate regression models were estimated for each predictor variable to determine its individual contribution to the dependent variables.

Prior to the regression analyses, the underlying assumptions of linear regression were evaluated. The normality of residuals was examined using normal probability plots and residual analyses, while homoscedasticity and linearity were assessed through scatterplots of standardized residuals against predicted values. Since each regression model contained only one predictor variable, the assumption of multicollinearity was not applicable. These diagnostic procedures confirmed the suitability of the regression models for hypothesis testing (Field, 2018).

Statistical significance was evaluated at the 0.05 level of significance, and all analyses were performed using Microsoft Excel Data Analysis ToolPak.

RESULTS AND DISCUSSION

Table 1 presents the frequency distribution of respondents based on their senior high school origin. The results indicate that the majority of participants graduated from public senior high schools, comprising 58.78% of the sample. Meanwhile, 41.22% of the respondents came from private senior high schools.

Table 1. Frequency Distribution of Respondents According School Origin (Senior High School)

Code in Scoring	Type of School Origin	Frequency	Percent (%)
1	Public School	87	58.78
2	Private School	61	41.22
3	Alternative / homeschool	0	0.00
4	Others :	0	0.00
TOTAL		148	100.00

This distribution suggests that the sample reflects a predominantly public-school background, which may have implications for understanding variations in mindset orientation, academic resilience, and achievement across different educational environments. Furthermore, there is a need to consider students' prior schooling context, particularly among students from resource-constrained public schools. This predominance of public-school students suggests that the sample reflects a context in which limited educational resources, larger class sizes, and fewer academic support mechanisms may influence students' mindset orientation, resilience, and academic achievement (OECD, 2019; Sirin, 2020). Public-school backgrounds often require students to develop adaptive learning strategies to cope with resource constraints, which may contribute to higher levels of growth mindset and resilience observed in the sample (Yeager & Dweck, 2020; Claro et al., 2016). Educational interventions in higher education institutions may therefore benefit from tailored academic and psychosocial support programs that sustain and strengthen growth-oriented learning behaviors.

Table 2 presents the frequency distribution of respondents based on their perceived economic status. The results indicate that the largest proportion of respondents identified as lower middle income (43.92%), followed by those who considered themselves part of the middle-income group (19.05%). Additionally, 25.68% classified themselves under the low-income category. When combined, respondents from the low and lower middle-income groups account for 69.60% of the sample.

Table 2 Frequency Distribution of Respondents According to Perceived Economic Status

Code in Scoring	Perceived Economic Status	Frequency	Percent(%)
1	Low	38	25.68
2	Lower Middle	65	43.92
3	Middle	43	29.05
4	Upper Middle	0	0.00
5	High	2	1.35
TOTAL		148	100.00

The combined categories of low and lower middle, which account for 69.60%, suggest that a substantial majority perceive themselves as belonging to economically constrained households. Economic constraints can affect access to learning resources, self-efficacy, and motivation, potentially influencing both academic performance and academic resilience (Yeager & Dweck, 2020; Richardson et al., 2022). Students from economically constrained backgrounds may exhibit heightened adaptive behaviors, such as persistence and resourcefulness, which can strengthen their academic resilience despite moderate performance levels. This aligns with studies showing that growth mindset can buffer the negative effects of socioeconomic disadvantage by promoting adaptive learning behaviors and self-regulated learning strategies (Claro et al., 2016; OECD, 2019). These findings imply that universities should implement support programs, including scholarships, mentoring, academic coaching, and skill-building workshops, to mitigate the impact of economic disadvantage on academic outcomes.

Table 3 presents the frequency distribution of respondents according to their type of mindset. The results show that 47.30% of respondents rated themselves at a moderate level of fixed mindset, followed by 20.95% at a low level and 16.89% at a high level. In contrast, 45.95% of respondents scored very high in growth mindset, with 32.43% at a high level and 18.24% at a moderate level with an overall mean score of 4.03.

Table 3 Frequency Distribution of Respondents' Type of Mindset

Range	Fixed Mindset		Growth Mindset		Descriptions
	Freq	%	Freq	%	
4.21 – 5.00	9	6.08	68	45.95	Very High
3.41 – 4.20	25	16.89	48	32.43	High
2.61 – 3.40	70	47.30	27	18.24	Moderate
1.81 – 2.60	31	20.95	3	2.03	Low
1.00 – 1.80	13	8.78	2	1.35	Very Low
TOTAL	148	100.00	148	100	
Mean = 2.93 Descriptions = Moderate			Mean = 4.03 Descriptions = High		

The overall mean score of 4.03 indicates that respondents generally lean toward a high level of growth mindset, suggesting a strong orientation toward adaptability, learning, and personal development (Dweck, 2006; Yeager & Dweck, 2020; Zhao et al., 2024). The strong growth mindset orientation suggests that these students are likely to embrace challenges, persist through difficulties, and use feedback constructively, all of which contribute to enhanced resilience and performance outcomes (Claro et al., 2016; Burnette et al., 2020). This may challenge higher education institutions to integrate mindset-oriented interventions into the curriculum, such as feedback-focused learning, reflective practices, and growth-oriented assessments, to further reinforce positive academic behaviors.

Table 4 presents the frequency distribution of respondents according to their level of academic resilience. The results indicate that the majority of respondents (55.41%) rated themselves at a high level of resilience, followed by 24.32% who reported a moderate level, and 16.89% who rated themselves at a very high level.

Table 4 Frequency Distribution of Respondents' Level of Academic Resilience

Range	Descriptions	Frequency	Percent
4.21 – 5.00	Very High	25	16.89
3.41 – 4.20	High	82	55.41
2.61 – 3.40	Moderate	36	24.32
1.81 – 2.60	Low	5	3.38
1.00 – 1.80	Very Low	0	0.00
TOTAL		148	100.00

Mean = 3.75

Description : High Level of Resilience

When combining the high and very high categories, a total of 72.30% of respondents demonstrate elevated levels of academic resilience, which reflects students' capacity to adapt and recover from academic setbacks while demonstrating self-regulation and coping strategies essential for higher education success (Martin & Marsh, 2006; Cassidy, 2016; Cai & Meng, 2025). High resilience aligns with the observed predominance of growth mindset, supporting Dweck's (2006) framework that belief in personal development fosters adaptive coping and persistence in learning contexts (Yeager & Dweck, 2020). This implies that promoting resilience-focused programs, including stress management workshops, peer mentoring, and resilience-building interventions, can further enhance students' capacity to navigate academic challenges effectively (Cassidy, 2016; Cai & Meng, 2025).

Table 5 presents the frequency distribution of respondents based on their academic performance. The results reveal that the majority of respondents (52.03%) reported an average level of academic performance, while 37.16% were classified as below average. The remaining respondents represent the higher performance categories which comprises 6.06%, with 4.73% failing in their overall academic performance.

Table 5 Frequency Distribution of Respondents' Academic Performance based on General Weighted Average

Range	Descriptions	Frequency	Percent
1.00 - 1.25	Very High	0	0
1.50 – 1.75	High	9	6.08
2.00 -2.25	Average	77	52.03
2.50 - 3:00	Below Average	55	37.16
3.25 – 5:00	Failed	7	4.73
TOTAL		148	100.00

Given the results stating that the majority of students cluster around the average range, this pattern underscores the need for targeted academic interventions aimed at elevating overall performance within this population. Notably, despite the respondents' generally high levels of growth mindset and resilience, their academic outcomes remain moderate. This suggests that mindset-related attributes, while beneficial, may not be sufficient on their own to drive higher academic achievement.

Consistent with prior research, additional determinants such as self-regulated learning strategies, availability of environmental or institutional support, and effective time management may play a substantial role in shaping performance outcomes (Richardson *et al.*, 2012; Broadbent & Poon, 2015; Tinto, 2017). Socioeconomic context also emerges as a relevant factor, as many respondents come from low- to lower-middle-income households, which may constrain access to learning resources or financial means needed to fully engage in academic projects and requirements—an observation aligned with recent evidence linking socioeconomic disadvantage to academic disparities (Claro *et al.*, 2016; OECD, 2019).

While growth mindset and resilience provide a strong foundation for academic success, actual achievement likely depends on how these psychological strengths interact with adaptive study behaviors, self-regulated learning, and institutional support mechanisms (Yeager & Dweck, 2020; Burnette *et al.*, 2013). These findings highlight the importance of implementing targeted interventions—such as study skills programs, mentoring systems, academic coaching, and self-regulated learning interventions—to effectively translate students' resilience and growth-oriented beliefs into higher levels of academic performance.

Table 6 presents the Test of Extent of Contribution of Fixed Mindset on Academic Performance. The regression analysis examining the effect of Fixed Mindset on academic performance revealed a very weak positive correlation (Multiple $R = 0.144$) and explained only 2.07% of the variance in academic performance ($R^2 = 0.0207$; Adjusted $R^2 = 0.014$). The ANOVA results indicated that the model was not statistically significant ($F = 3.08$, $p = 0.081$).

Table 6 Test of the Extent of Contribution of Students Type of Mindset (Fixed) on Academic Performance

Predictor	B	SE B	Beta	t	p
Constant	2.009	0.084	—	23.92	<0.001
Fixed Mindset	0.1035	0.059	0.144	1.755	0.081

Multiple $R = 0.144$; $R^2 = 0.021$; Adjusted $R^2 = 0.014$; $F = 3.08$, $p = 0.081$

The Fixed Mindset coefficient was 0.1035 ($p = 0.081$), suggesting that each one-unit increase in Fixed Mindset predicted only a 0.10-unit increase in academic performance, but this effect was not statistically meaningful.

Fixed Mindset does not significantly influence academic performance among higher education students. This aligns with prior studies showing that fixed beliefs about intelligence generally exhibit limited predictive power over measurable academic outcomes when examined independently, particularly after accounting for other psychological and contextual influences (Claro *et al.*, 2016; Yeager & Dweck, 2020). Students with a fixed mindset may avoid challenges, demonstrate lower persistence when confronted with difficult tasks, and engage

less frequently in adaptive learning strategies, thereby limiting their potential influence on academic performance (Burnette et al., 2013; Yeager & Dweck, 2020).

Table 7 presents the test of Extent of Contributions of Growth Mindset to Academic Performance. The analysis showed a moderate positive correlation between Growth Mindset and academic performance (Multiple R = 0.412). The model accounted for 17.0% of the variance ($R^2 = 0.170$; Adjusted $R^2 = 0.165$) and was statistically significant ($F = 25.47$, $p < 0.001$). The Growth Mindset coefficient (0.389, $p < 0.001$) indicates that for each one-unit increase in Growth Mindset, academic performance increased by 0.389 units.

Table 7. Test of the Extent of Contribution of Students Type of Mindset (Growth) on Academic Performance

Predictor	B	SE B	Beta	t	p
Constant	1.587	0.090	—	17.63	<0.001
Growth Mindset	0.389	0.077	0.412	5.05	<0.001

Multiple R = 0.412; $R^2 = 0.170$; Adjusted $R^2 = 0.165$; $F = 25.47$, $p < 0.001$

Students exhibiting a Growth Mindset are likely to achieve higher academic performance, consistent with Dweck's (2006) theory that emphasizes adaptability, persistence, and embracing challenges. Supporting empirical evidence indicates that cultivating a growth mindset is associated with improved academic achievement, learning engagement, and adaptive learning behaviors, particularly when combined with supportive educational environments (Claro et al., 2016; Yeager & Dweck, 2020; Sisk et al., 2018). This highlights the importance of educational strategies that foster mindset flexibility, encourage constructive responses to challenges, and promote sustained academic engagement.

Table 8 presents the test of Extent Contribution of Fixed Mindset to Academic Resilience. The regression examining Fixed Mindset and academic resilience revealed a weak correlation (Multiple R = 0.118), with $R^2 = 0.014$, Adjusted $R^2 = 0.008$, and $F = 2.34$, $p = 0.128$, indicating that the model was not significant. The Fixed Mindset coefficient (0.089, $p = 0.128$) showed minimal impact on academic resilience.

Table 8 Test of the Extent of Contribution of Students Type of Mindset (Fixed) to Academic Resilience

Predictor	B	SE B	Beta	t	p
Constant	2.105	0.095	—	22.16	<0.001
Fixed Mindset	0.089	0.058	0.118	1.53	0.128

Multiple R = 0.118; $R^2 = 0.014$; Adjusted $R^2 = 0.008$; $F = 2.34$, $p = 0.128$

A Fixed Mindset does not meaningfully affect academic resilience. This suggests that students with fixed beliefs are less likely to exhibit adaptive coping mechanisms in the face of academic challenges. The finding aligns with prior research indicating that fixed beliefs about intelligence are associated with less adaptive responses to setbacks, lower persistence, and reduced use of effective coping strategies, thereby limiting the development of academic resilience (Burnette et al., 2013; Yeager & Dweck, 2020; Zhao et al., 2024).

Table 9 presents the test of Extent of Contribution of Growth Mindset to Academic Resilience. The regression of Growth Mindset on academic resilience revealed a moderate positive correlation (Multiple R = 0.423) and explained 17.9% of variance in resilience ($R^2 = 0.179$; Adjusted $R^2 = 0.173$). The ANOVA confirmed significance ($F = 27.34$, $p < 0.001$). The coefficient for Growth Mindset (0.412, $p < 0.001$) indicated that for every one-unit increase in Growth Mindset, academic resilience increased by 0.412 units.

Table 9. Test of the Extent of Contribution of Students Type of Mindset (Growth) on Academic Resilience

Predictor	B	SE B	Beta	t	p
Constant	1.587	0.090	—	17.63	<0.001
Growth Mindset	0.389	0.077	0.412	5.05	<0.001

Multiple R = 0.423; $R^2 = 0.179$; Adjusted $R^2 = 0.173$; $F = 27.34$, $p < 0.001$

Growth Mindset positively and significantly predicts academic resilience. Students who embrace learning, persist through challenges, and view failure as a stepping stone are more likely to demonstrate resilience. This finding corroborates recent studies emphasizing the role of mindset in adaptive coping and academic perseverance (*Claro et al., 2016; Yeager & Dweck, 2020; Zhao et al., 2024*). Educational programs promoting Growth Mindset can enhance students' resilience and overall academic success.

The regression analyses demonstrated that growth mindset significantly predicts both academic resilience and academic performance, whereas fixed mindset did not exert a statistically significant influence. These findings provide empirical support for Dweck's Mindset Theory (*Dweck, 2006*), which posits that students who perceive intelligence as malleable are more likely to embrace challenges, persist in the face of setbacks, and employ adaptive learning strategies that facilitate academic success. Students with a growth mindset tend to interpret academic difficulties as opportunities for learning rather than indicators of limited ability, thereby strengthening both resilience and academic achievement (*Yeager & Dweck, 2020; Zhao et al., 2024*).

Although growth mindset emerged as a significant predictor, the regression models explained only a modest proportion of the variance in academic resilience and academic performance. This finding suggests that while mindset orientation is an important psychological factor, it represents only one component of a broader network of determinants influencing students' academic outcomes. Academic performance is inherently multidimensional and is shaped by the interaction of cognitive, motivational, behavioral, social, and environmental factors (*Richardson et al., 2012; Broadbent & Poon, 2015*). Consequently, a relatively modest coefficient of determination (R^2) is expected in educational and behavioral research, where numerous variables simultaneously contribute to student achievement.

Several factors not examined in the present study may account for the remaining unexplained variance. These include self-regulated learning, academic motivation, study habits, learning strategies, time management, self-efficacy, teacher support, family support, peer relationships, mental health, learning resources, and socioeconomic conditions (*Broadbent & Poon, 2015; Richardson et al., 2012; Cassidy, 2016*). Likewise, institutional factors such as instructional quality, learning environment, curriculum design, and access to academic support services may substantially influence students' performance beyond their mindset orientation (*Tinto, 2017*).

The findings also indicate that despite the majority of respondents demonstrating high growth mindset and high academic resilience, their academic performance remained predominantly at an average level. This pattern suggests that psychological strengths alone may not be sufficient to maximize academic achievement when students encounter structural and contextual challenges. In the present study, a considerable proportion of respondents came from public senior high schools and perceived themselves as belonging to low or lower-middle socioeconomic groups, conditions that may influence access to educational resources, technology, academic support, and learning opportunities (*Claro et al., 2016; OECD, 2019*). Nevertheless, the significant effect of growth mindset indicates that cultivating adaptive beliefs about learning can partially buffer these challenges and promote more positive educational outcomes (*Yeager & Dweck, 2020*).

Taken together, these findings reinforce the importance of integrating mindset-based educational interventions with broader institutional support systems. While cultivating a growth mindset may enhance students' resilience and motivation, improving academic performance likewise requires comprehensive interventions that address learning skills, academic engagement, socioeconomic barriers, and supportive educational environments. Future studies may therefore consider incorporating additional psychological, behavioral, and contextual variables into predictive models to provide a more comprehensive explanation of students' academic success (*Broadbent & Poon, 2015; Cassidy, 2016; Yeager & Dweck, 2020*).

CONCLUSION

Grounded in Carol Dweck's Mindset Theory, this study examined the characteristics of higher education students and the extent to which mindset orientation predicts academic resilience and academic performance. The findings

revealed that the respondents were predominantly graduates of public senior high schools and largely perceived themselves as belonging to low or lower-middle socioeconomic groups. Despite these contextual circumstances, the participants generally demonstrated a high growth mindset and high levels of academic resilience, although their academic performance remained predominantly within the average range. These findings suggest that students from relatively disadvantaged educational and economic backgrounds are capable of developing adaptive beliefs and resilient learning behaviors that support their academic functioning.

The regression analyses further demonstrated that **growth mindset significantly predicts both academic resilience and academic performance**, whereas **fixed mindset did not significantly influence either outcome**. These findings provide empirical support for Dweck's (2006) proposition that students who believe intelligence and abilities can be developed through effort, effective learning strategies, and persistence are more likely to demonstrate adaptive responses to academic challenges and achieve better educational outcomes. Conversely, holding fixed beliefs about intelligence does not appear to facilitate resilience or academic success within the present sample.

Although growth mindset emerged as a statistically significant predictor, the regression models explained only a modest proportion of the variance in academic resilience and academic performance. This indicates that mindset orientation, while important, represents only one of several interrelated determinants of student success. Academic outcomes are shaped by a complex interaction of psychological, behavioral, socioeconomic, and institutional factors, including self-regulated learning, academic motivation, self-efficacy, study habits, family and teacher support, learning resources, and the overall educational environment (Richardson et al., 2012; Tinto, 2017). Consequently, the significant predictive effect of growth mindset should be interpreted as one meaningful contributor rather than the sole determinant of students' academic development.

Taken together, the findings reinforce the value of cultivating growth-oriented beliefs as an important educational strategy for strengthening resilience and improving academic outcomes, particularly among students from public schools and economically constrained backgrounds. These results underscore the need for higher education institutions to complement mindset-oriented interventions with comprehensive academic support systems, including mentoring programs, resilience training, self-regulated learning initiatives, academic advising, and equitable access to learning resources. Such integrated approaches may enhance students' capacity to overcome academic challenges and optimize their educational achievement. Future research is encouraged to employ longitudinal and multi-institutional designs and incorporate additional psychological, behavioral, and contextual variables to develop a more comprehensive understanding of the factors influencing academic resilience and performance in higher education.

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