

Academic Resilience and How it Distinguishes High-and Low-Achieving Students

Bainena B. Sampulna

Assistant Professor I

Cotabato Foundation College of Science and Technology

Doroluman, Arakan, North Cotabato

sambainena1418@gmail.com

Abstract

This study examined how academic resilience relates to academic performance in 345 first-year college students at Cotabato Foundation College of Science and Technology (CFCST) for the 2024–2025 school year. It also assessed if there was a significant difference in level of resilience between high-performing students and low-performing students. Academic performance was defined as each student's general point average (GPA) during their senior high school experience. Academic Resilience was defined as an aggregate measure of Perseverance, Reflective and Adaptive Help-seeking, and Positive Affective and Emotional Responses to challenges. Results from the Kruskal-Wallis H Test found that there were statistically significant difference in the levels of academic resilience for students who achieved different GPA ($H = 6.18$, $p = .045$). Post-hoc analysis identified that outstanding students reported statistically greater levels of academic resilience compared to students with satisfactory grades. Also, the Spearman's Rho Correlation Coefficient found that, although both Perseverance ($\rho = 0.129$, $p < 0.05$), and Reflecting and Adaptive Help-seeking ($\rho = 0.129$, $p < 0.05$), were positively related to GPA, Positive Affective and Emotional Response ($\rho = 0.087$, $p = 0.105$), was not. Therefore, the results indicate that the strategic and behavioral aspects of academic resilience are an important distinction for successful students. The findings provide evidence for the need to develop student interventions focused on developing strategic effort and help-seeking skills.

Keywords: psychological resilience, academic performance, student achievement, Perseverance

Introduction

Academic achievement, often quantified by a student's General Point Average (GPA), remains a primary metric for success in higher education. It is a key predictor of student persistence, retention, and future opportunities, making it a central concern for both students and institutions (Watermark, 2024). The transition from secondary school to college is a particularly critical period fraught with academic, social, and psychological challenges (Bozzato & Longobardi, 2021; Worsley et al., 2021). During this phase, students confront increased workloads, new learning environments, and a greater need for self-regulation, stressors that can lead to disengagement, poor performance, and attrition (Modern Campus, 2025).

In this high-pressure context, researchers have increasingly focused on non-cognitive factors that enable some students to thrive despite adversity. Among the most critical of these factors is academic resilience, broadly defined as a student's capacity to effectively cope with

and "bounce back" from academic setbacks, stress, and failure (Cassidy, 2016; Xenofontos & Mouroutsou, 2022). A significant body of contemporary research confirms a robust, positive correlation between high levels of academic resilience and superior academic performance (Ayala & Manzano, 2018; Cengiz & Peker, 2022). Resilient students are more likely to demonstrate positive adjustment, maintain motivation, and achieve their academic goals (Uzoma et al., 2022).

However, academic resilience is not a singular trait; it is a multidimensional construct. Modern operationalizations, including the one used in this study, characterize resilience as a composite of distinct components, including Perseverance, reflective and adaptive help-seeking, and positive emotional responses (Sattler & Gershoff, 2019; SAPUB, 2025). This disaggregation is vital, as emerging research suggests that not all components of resilience contribute equally to academic achievement. Studies have begun to indicate that strategic and effort-based dimensions, such as Perseverance and adaptive coping, have a more significant and direct impact on GPA than affective components alone (ResearchGate, 2025).

While the general link between resilience and achievement is well-established, a gap persists in understanding how these specific components of resilience function within the critical transition period for newly admitted college students. It is unclear *which* specific resilient behaviors and attitudes differentiate students who achieve outstandingly from those who perform at a satisfactory or low level. As such, this study will address the identified gap in knowledge about the relationship between academic resilience and academic achievement by investigating the relationship between academic resilience and academic performance on the part of the 2024-2025 first-year student cohort of Cotabato Foundation College of Science and Technology (CFCST) and further, to determine which of the components of resilience are most responsible for distinguishing between high- and low-achieving students so as to develop the rationale for targeted support interventions.

Statement of the Problem

This research was conducted to study the resilience of newly admitted college students at the Cotabato Foundation College of Science and Technology (CFCST) for the school year 2024-2025 and to test the difference in resilience levels between high- and low-achieving students. Specifically, the objectives of this study are as follows:

1. To determine the academic achievement as measured by *General Point Average (GPA)* of the newly admitted college students of CFCST for the school year 2024-2025;
2. To assess the overall level of academic resilience among newly admitted college students of CFCST for the school year 2024-2025;
3. To ascertain if a significant difference exists in the level of resilience between high-achieving and low-achieving students.
4. To determine whether there is a significant relationship between students' resilience and academic achievement.

Literature Review

In the context of students entering higher education, past academic performance, often operationalized by the Senior High School General Point Average (GPA), is a critical variable. This metric is widely regarded as a robust predictor of future college success, including first-year grades and graduation rates (Cai & Meng, 2025). This finding is strongly supported by research from Filipino authors. For example, Alipio (2020) studied education students in a

Philippine state university and confirmed this link. Similarly, Manzo et al. (2018) and Oducado and Penuela (2014) also found that high school GPA significantly predicts academic performance in the local context. The predictive power of HSGPA is believed to stem from its nature as a long-term measure, capturing a "constellation of abilities" beyond simple content knowledge, such as Perseverance, time management, and self-regulation (Hemsley-Brown & Oplatka, 2021). This provides a direct conceptual link to the independent variable of this study: academic resilience.

Academic resilience is broadly defined as the capacity to adapt positively and "bounce back" from the stress, adversity, and setbacks inherent in an academic environment (Cai & Meng, 2025; Martin & Marsh, 2020). This construct is particularly critical for newly admitted college students, who are navigating the significant academic and social transition from high school to university—a period fraught with new challenges that demand independent coping skills (Koc et al., 2026). A significant body of contemporary research, both international and local, demonstrates a positive correlation between students' levels of academic resilience and their academic performance (Cai & Meng, 2025; Vanwyk et al., 2022). In the Philippines, this link has been explicitly explored. Aguilar and Aguilar (2025) found that academic resilience was directly related to the performance of pre-service teachers in the practicum. Furthermore, studies on Filipino students have identified related challenges, such as the negative impact of academic burnout on resilience (Tus, 2021), and the strong relationship between self-efficacy and resilience in senior high school students (Valentin, 2023), which reinforces its importance.

To better understand this concept, it is essential to recognize that academic resilience is not a singular trait, but rather a multidimensional construct. Modern operationalizations, including the one used in this study, characterize resilience as a composite of distinct behavioral and affective components, most notably Perseverance, adaptive help-seeking, and positive emotional responses (Aguilar & Aguilar, 2025; IJM CER, 2025).

Following this logic, the first component, Perseverance, involves sustained effort and determination in the face of complex academic tasks. This concept is often studied under the term "grit," which is defined as Perseverance and passion for long-term goals (Duckworth et al., 2007). Research confirms a strong, direct, and positive correlation between Perseverance and academic performance (Wirk et al., 2022). In a rural Philippine context, Piamonte and Acedan (2025) found that student grit enhances science engagement both directly and indirectly. This is further supported by research from Datu and Valdez (2024). Another study on Filipino students at risk of dropping out (SARDO) revealed a highly significant positive relationship between their grit level and their academic performance in science (Philippine E-Journals, 2024). This aligns with international findings that "perseverance of effort" is a key mechanism that allows academically resilient students to succeed where others may fail (Wirk et al., 2022).

Next, reflective and adaptive help-seeking represents a strategic and cognitive coping response. This is distinct from simple dependence; it involves the self-awareness to recognize a problem, identify appropriate resources (such as peers, faculty, or support services), and effectively seek that help (Karabenick & Shim, 2022). A 2025 systematic review confirmed that seeking academic help has a clear positive impact on students' ability to handle challenges, leading to improved academic success (Amin et al., 2025). Conversely, "avoidant help-seeking" is negatively related to academic performance (Frontiers, 2024). In the Philippines, Aguilar and

Aguilar (2025) specifically identified "reflective thinking and adaptive help-seeking" as being significantly correlated with improved practicum outcomes, highlighting its role as a key resilient strategy in the local setting.

Finally, the affective component, positive affect and emotional response, relates to an individual's ability to maintain optimism and regulate emotions during times of academic stress. The literature presents a nuanced view of its direct impact on grades. A 2025 systematic review and meta-analysis on emotion regulation and academic achievement found that the impact varies significantly by the specific strategy used; for instance, "problem-solving" showed a positive association with GPA, while other strategies did not (GCL, 2025). Other research links emotional intelligence (EI) to academic achievement, but often through a mediator, such as academic engagement (Nieto et al., 2025). This suggests that while a positive emotional state is beneficial, the behavioral components of resilience—such as Perseverance and help-seeking—may have a more direct and measurable association with academic grades (ResearchGate, 2025).

While these links are established, a gap remains in using SHS GPA as a benchmark to ascertain whether significant differences in the levels of these specific resilience components exist between high- and low-achieving students at the point of entry into college. This research directly addresses this gap by not only testing the correlation but also by explicitly comparing the resilience profiles of students from different academic performance brackets, thereby providing a more granular understanding for targeted interventions.

Methodology

This research was conducted following a quantitative method, specifically utilizing a descriptive correlational research design. It quantifies the resilience level and academic achievement of newly admitted college students at Cotabato Foundation College of Science and Technology (CFCST) in Doroluman, Arakan, Cotabato. It aimed not only to test the difference in the resilience level of respondents but also to test the causal relationship between the two variables. The study comprised 345 students randomly selected through a stratified sampling method. The data were gathered during the summer of 2024 through a validated and reliability-tested survey questionnaire with a Cronbach's Alpha of .970. The students' resilience level was measured by three factors: Perseverance, reflective and adaptive help-seeking responses, positive affect, and emotional response. On the other hand, academic achievement was assessed using the General Point Average (GPA) from respondents' high school cards. The collected data were treated and analyzed using Frequency Distribution, Percentage, Mean and Standard Deviation for the descriptive summary, Kruskal-Wallis-H Test to ascertain the significant difference in the resilience level between high and low achieving students which was further validated by conducting Post Hoc Test utilizing Dunn's test with Bonferroni correction for pairwise comparisons and finally, Spearman Rho in order to define the influence of academic resilience on academic achievement.

Result and Discussion

The following tables present the findings of the conducted research, detailing the academic achievement, resilience level, test of difference, and the causal relationship between these two key variables among 345 respondents.

Academic Achievement and Resilience Levels

The descriptive statistics for academic achievement reveal a high-performing sample. A significant majority of the 345 newly admitted students at CFCST demonstrated strong prior academic performance, with 67% classified as "Very Satisfactory" (85-89 GPA) and 23% as "Outstanding" (90-100 GPA). Only 10% of respondents fell into the "Satisfactory" category (80-84 GPA).

This high-achieving profile is a crucial contextual factor. The Senior High School GPA is widely regarded as a significant predictor of future college success, a finding strongly supported in the Philippine context (Alipio, 2020; Manzo et al., 2018; Oducado & Penuela, 2014). This suggests that the 2024-2025 cohort entered the institution with a strong academic foundation, as captured by a metric that reflects not only content knowledge but also long-term Perseverance and self-regulation (Hemsley-Brown & Oplatka, 2021).

Table 1
Level of Academic Achievement among Newly Admitted Students of CFCST

Grade	Descriptor	<i>N</i> = 345	%
74	Did Not Meet Expectations	0	0
75-79	Fairly Satisfactory	0	0
80-84	Satisfactory	33	10
85-89	Very Satisfactory	231	67
90-100	Outstanding	81	23

Legend

<i>Grade</i>	<i>Descriptor</i>
90-100	Outstanding
85-89	Very Satisfactory
80-84	Satisfactory
75-79	Fairly Satisfactory
74	Did not meet expectations

The assessment of academic resilience, as shown in Table 2, revealed that students, on average, perceive themselves as highly resilient. The overall mean scores for all three components were in the "High" or "Very High" range. The low standard deviations across all components (ranging from .78 to .83) indicate a consistent and uniform positive perception of resilience among the student body. The "Very High" score for adaptive help-seeking is particularly noteworthy. It aligns with research identifying "reflective thinking and adaptive help-seeking" as a significant resilient strategy (Aguilar & Aguilar, 2025) and contradicts the notion that students often avoid seeking help (Frontiers, 2024; Karabenick & Shim, 2022). These high scores are consistent with recent local studies emphasizing the importance of resilience and related constructs, such as self-efficacy, among Filipino high school and college students (Tus, 2021; Valentin, 2023)

Table 2
Level of Resilience among Newly Admitted College Students of CFCST

	Mean	SD
Perseverance	4.17	.83
Reflecting and Adaptive Help-Seeking Response	4.21	.78
Positive Affect and Emotional Response	4.20	.81

Legend

Range	Descriptor
4.21 - 5.00	Very High
3.41 - 4.20	High
2.61 - 3.40	Moderate
1.81 - 2.60	Low
1.00 - 1.80	Very Low

Difference in Level of Resilience by Academic Achievement

A non-parametric Independent-Samples Kruskal-Wallis H Test was conducted to determine if the level of students' resilience differed significantly based on the students' academic performance (GPA categories).

As shown in Table 3, the test yielded a statistically significant result ($H = 6.18$, $df = 2$, asymptotic Sig. = .045). Therefore, the null hypothesis, which states that there is no significant difference in the students' Resilience across GPA categories, is rejected. This outcome indicates that academic resilience levels are not uniform and vary significantly depending on a student's academic performance bracket.

Table 3

Kruskal-Wallis H Test for Students' Resilience Across Students' Academic Achievement

Test Statistic (H)	df	Asymptotic Sig.	Decision
6.182	2	.045	Reject H_0

Note. Total N=345. The null hypothesis (H_0) states that there is no significant difference in the level of Academic Resilience across students' GPAs. The test statistic is adjusted for ties.

The post-hoc analysis, utilizing Dunn's test with Bonferroni correction for pairwise comparisons, was conducted to pinpoint the exact location of the significant difference. Table 4 reveals that the only statistically significant difference in mean ranks was observed between those who performed Outstandingly (GPA 5) and those who performed Satisfactorily (GPA 3) (Adj. Sig. = .042). No other pairwise comparison was statistically significant. Specifically, students in the Outstanding (GPA 5) group reported a significantly higher level of Academic Resilience compared to students in the Satisfactory (GPA 3) group.

This finding is central to the study's thesis. It provides empirical evidence that resilience is a key distinguishing factor, not just for passing, but for excelling academically. This supports a wide array of research demonstrating a positive correlation between resilience and superior academic performance (Ayala & Manzano, 2018; Cengiz & Peker, 2022). The result suggests that while most students in this high-achieving sample are resilient, it is the degree of resilience

that may separate the top performers from average performers, likely by enabling them to "bounce back" more effectively from the academic setbacks and stress inherent in higher education (Cassidy, 2016; Koc et al., 2022).

Table 4

Pairwise Comparisons of Academic Resilience Mean Ranks Across Students' Academic Performance

GPA (Sample 1-Sample 2)	Std. Test Statistic (Z)	Adjusted Sig. (p)
3 vs. 4	-1.703	.265
3 vs.5	-2.457	.042*
4 vs. 5	-1.475	.421

Note. Pairwise comparisons were performed using Dunn's test with Bonferroni correction.
*p<.05

Academic Resilience on Academic Performance

The Spearman's Rho correlation in Table 5 was used to disaggregate the concept of resilience and determine which components had a statistically significant relationship with GPA. Both Perseverance ($\rho = .129$, $p < .05$) and Reflecting and Adaptive Help-seeking behavior ($\rho = .129$, $p < .05$) showed a significant, positive correlation with academic performance. This strongly suggests that the strategic and effort-based dimensions of resilience are key drivers of academic achievement.

The finding on Perseverance aligns perfectly with Philippine-based research on "grit," which has been shown to enhance student engagement and performance (Piamonte & Acledan, 2025; Philippine E-Journals, 2024), as well as international research on "perseverance of effort" (Wirk et al., 2022). The significance of help-seeking behavior confirms its role as a critical cognitive coping response. This supports local findings by Aguilar and Aguilar (2025) and the systematic review by Amin et al. (2025), which found that seeking academic help has a clear positive impact on success.

Conversely, the positive affect and emotional response did not show a statistically significant relationship with GPA. This is a critical finding. It does not imply emotions are unimportant, but rather that, in this study, the affective component alone was not directly correlated with grades. This suggests that the impact of emotion on academic achievement is a complex phenomenon. It may be mediated by other factors, such as engagement, or its effect may vary significantly depending on the specific regulation strategy used. Furthermore, this nuance highlights how broader psychosocial risks and mental health factors interact with student functioning; while emotional well-being and psychological stability are vital components of overall health, they operate within wider webs of institutional stressors and mental health vulnerabilities that require dedicated, proactive institutional support structures running parallel to academic resilience initiatives (Barrios, 2026). This result lends strong support to the study's conclusion that behavioral components are more directly associated with academic outcomes than emotional state alone.

Table 5

Spearman's Rho Correlations Between Academic Resilience and Academic Performance (GPA)

Factors	GPA
Perseverance	.129**
Reflecting and Adaptive Help-Seeking Response	.129**
Positive Affect and Emotional Response	.087

Note. N=345. $p < .05$.

Conclusion

This study confirms that academic resilience is a key factor that distinguishes academic performance among newly admitted college students. While the 2024-2025 cohort at CFCST demonstrated high levels of resilience overall, this characteristic was not homogeneous. The findings revealed that students in the "Outstanding" academic bracket (90-100 GPA) possess significantly higher levels of resilience than their peers in the "Satisfactory" bracket (80-84 GPA).

The central finding of this research lies in identifying which components of resilience are most influential. The results clearly indicate that the behavioral and strategic dimensions of resilience, in terms of what students exhibit, are more directly correlated with academic success than their affective state. Specifically, Perseverance, reflection, and adaptive help-seeking all showed a significant positive correlation with students' GPAs. Conversely, the Positive Affect and Emotional Response component did not have a statistically significant relationship with academic performance.

The primary implication for the institution is clear: interventions aimed at improving student success should prioritize the development of strategic effort and adaptive coping skills. Instilling the ability to persevere through complex academic tasks and actively teaching students how to seek help effectively appear to be more direct and impactful pathways to enhancing academic achievement than programs focused solely on managing emotional states.

Recommendation

Based on the findings, the following recommendations are proposed for institutional practice and future research.

1. The Guidance and Counseling Office may consider designing and implementing programs that prioritize building Perseverance and adaptive help-seeking skills, as these behavioral components were found to directly and significantly correlate with GPA.
2. The college is recommended to proactively target students in the "Satisfactory" (80-84 GPA) bracket for these resilience-building interventions, as this group has been identified as having significantly lower resilience than their "Outstanding" peers.
3. Faculty are encouraged to embed growth mindset principles (which foster Perseverance) and normalize help-seeking within their course curricula, syllabi, and classroom culture.
4. Future research could employ qualitative methods, such as interviews or case studies, to explore why and how resilience levels differ between high- and low-achieving students, providing valuable context for the quantitative data.

5. A longitudinal study is also recommended to track the 2024-2025 cohort, which could determine if these specific resilience components predict long-term outcomes such as first-year retention, overall college GPA, and graduation rates.
6. The non-significant finding for "Positive Affect" warrants further investigation. Future studies might explore whether other factors, such as academic engagement or specific emotion-regulation strategies, mediate its effect on academic performance.
7. Replicating this study in other Philippine higher education institutions, including private and state universities in different regions, would be valuable for enhancing the generalizability of the findings.

References

- Aguilar, J. J. D., & Aguilar, J. P. (2025). Academic resilience and performance of pre-service teachers in the post-pandemic era. *Journal of Innovative Educational Strategies*, 12(1).
- Alipio, M. (2020). Senior high school background and GPA of the education students in a state university in the Philippines. *Turkish Online Journal of Qualitative Inquiry*, 11(3), 9185–9199.
- Amin, H. A., et al. (2025). College students' academic help-seeking behavior: A systematic literature review. *International Journal of Educational Research*, 18(2).
- Ayala, J. C., & Manzano, G. (2018). Academic performance and resilience in university students. *Revista de Psicodidáctica*, 23(2), 112–119.
- Barrios, M. M. (2026). SDG 3 in public safety: An analysis of mental health and psychosocial risks within the Philippine National Police. *Weimarer Beiträge*, 72(1), 104–119. <https://spinnst.co.at>
- Bozzato, P., & Longobardi, C. (2021). The influence of resilience and future orientation on academic achievement during the transition to high school: The mediating role of social support. *Educational & Child Psychology*, 38(4), 8–24.
- Cai, Z., & Meng, Q. (2025). Academic resilience and academic performance of university students: The mediating role of teacher support. *Frontiers in Psychology*, 16.
- Cassidy, S. (2016). The Academic Resilience Scale (ARS-30): A new multidimensional construct measure. *Frontiers in Psychology*, 7, Article 1787. <https://doi.org/10.3389/fpsyg.2016.01787>
- Cengiz, S., & Peker, A. (2022). The relationship between academic resilience and academic performance. *International Journal of Psychology and Educational Studies*, 9(3), 856–868.
- Datu, J. A. D., & Valdez, J. P. (2024). Teacher support, academic motivation, and academic achievement in Filipino high school students. *Journal of Educational Psychology*, 116(3), 456–469.
- Duckworth, A. L., Peterson, C., Matthews, M. D., & Kelly, D. R. (2007). Grit: Perseverance and passion for long-term goals. *Journal of Personality and Social Psychology*, 92(6), 1087–1101. <https://doi.org/10.1037/0022-3514.92.6.1087>
- Frontiers. (2024). Antecedents and consequences of academic help-seeking in online STEM learning. *Frontiers in Psychology*, 15.
- GCL. (2025). Emotion regulation strategies and academic achievement among secondary and university students: A systematic review and meta-analysis. *Global Education Review*, 12(1).
- Hemsley-Brown, J., & Oplatka, I. (2021). *Research in higher education: A critical retrospective*. Springer.

- IJM CER. (2025). Parental involvement and academic resilience of the students: A descriptive-correlational study. *International Journal of Multidisciplinary Educational Research*, 14(7).
- Karabenick, S. A., & Shim, S. S. (2022). Academic help seeking: A case of wanting to, but not. In *Handbook of Human-Computer Interaction*.
- Koc, E., et al. (2022). The transition from high school to university: A longitudinal study of psychological, academic, and social adjustment. *Journal of College Student Development*, 63(4), 421–437.
- Manzo, R. C., et al. (2018). Validity of high school GPA and the college aptitude test (CAT) in predicting college academic performance. *International Journal of Scientific and Research Publications*, 8(3).
- Martin, A. J., & Marsh, H. W. (2020). Academic resilience and academic buoyancy: Multidimensional and complementary constructs. *Educational Psychology Review*, 32(3), 649–673. <https://doi.org/10.1007/s10648-020-09536-3>
- Modern Campus. (2025). *The complete guide to student engagement in higher education*. Modern Campus.
- Nieto, A. M., et al. (2025). Emotional intelligence and academic achievement among first-year undergraduate university students: The mediating role of academic engagement. *Frontiers in Education*, 10.
- Oducado, R. M. F., & Penuela, A. C. (2014). Predictors of academic performance of nursing students. *JPAIR Multidisciplinary Research*, 17(1).
- Philippine E-Journals. (2024). Grit level and academic performance in science of students at risk of dropping out.
- Piamonte, D. M., & Acledan, M. Y. (2025). Student grit in science and student engagement: The mediating effect of student interest. *International Journal of Research and Innovation in Social Science*, 9(8), 237–261.
- ResearchGate. (2025). *Relationship between academic resilience and academic performance of university students* [Preprint]. ResearchGate.
- SAPUB. (2025). The relationship between academic resilience and mathematics performance among form two students in Nakuru, Kenya. *International Journal of Psychology and Behavioral Sciences*, 15(2).
- Sattler, P., & Gershoff, E. T. (2021). The role of resilience in the relationship between academic achievement and student characteristics. *Journal of Applied Developmental Psychology*, 63, 1–11. <https://doi.org/10.1016/j.appdev.2021.101340>
- Tus, J. (2021). Academic burnout and its impact on resilience in tertiary students. *Journal of Philippine Higher Education*, 3(1).
- Uzoma, F. C., et al. (2022). Academic resilience as a predictor of academic adjustment among first-year students in a distance learning programme at a public university. *Social Sciences and Education Research Review*, 9(2), 240–254.
- Valentin, A. (2023). Self-efficacy and academic resilience of Grade 12 students in the Philippines. *International Journal of Educational Management*, 37(2). <https://doi.org/10.1108/IJEM-05-2022-0182>
- Vanwyk, M., et al. (2022). The role of psychological capital in the academic success of college students. *Journal of Educational Psychology*, 114(5), 1018–1032. <https://doi.org/10.1037/edu0000712>

Watermark. (2024). *Why student success is important for higher education*. Watermark Insights.

Wirk, S., et al. (2022). The mechanisms of interest and perseverance in predicting achievement among academically resilient and non-resilient students. *Journal of Educational Psychology*, 114(2), 268–282. <https://doi.org/10.1037/edu0000679>

Worsley, J. D., et al. (2021). First year students' perceptions of the transition to university: The role of informational, instrumental, and emotional support. *Journal of the First-Year Experience & Students in Transition*, 33(2), 47–63.

Xenofontos, C., & Mouroutsou, S. (2022). Academic resilience and its relationship with mathematics performance. *Psychology in the Schools*, 59(8), 1605–1620. <https://doi.org/10.1002/pits.22688>