

Growth Mindset and Academic Achievement Among Grade 4 Learners

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Abstract: This study investigated the relationship between Growth Mindset and Academic Achievement among Grade 4 learners. Utilizing a quantitative research approach, the researcher employed the Pearson Product Moment Correlation to assess this relationship and a Multiple Linear Regression Model to identify specific indicators of Growth Mindset influencing academic outcomes. The study involved a sample of Grade 4 learners, with data collected through surveys and academic performance records analysis. The results reveal a significant moderate relationship between Growth Mindset and Academic Achievement, emphasizing the role of Growth Mindset in improving academic performance among Grade 4 learners. Further analysis identifies four key indicators—accepting feedback, viewing mistakes as opportunities for learning, setting goals and working towards them, and emphasizing the process rather than just the outcome—that significantly influence Academic Achievement. These findings have practical implications for educators and policymakers aiming to enhance academic success among Grade 4 learners. Targeted interventions can be developed to nurture these Growth Mindset indicators, fostering a learning environment where students are open to feedback, resilient in the face of mistakes, and goal-driven. Also, the study contributes to the broader literature on Growth Mindset and its relationship to academic achievement, offering insights into the specific dimensions of Growth Mindset that impact student success.

Keywords: Growth Mindset, Academic Achievement, Grade 4 learners, Accepting Feedback, Opportunities for Learning, Setting Goals.

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I. INTRODUCTION

A growth mindset referred to the belief that skills and intelligence could be improved through dedication, perseverance, and consistent effort. This perspective positively influenced academic performance, as learners who trusted their capacity to develop were more motivated to work hard and achieve success. In recent years, increasing attention had been given to how growth mindset related to the academic outcomes of elementary students.

Studies conducted in different countries demonstrated that growth mindset interventions positively influenced academic achievement. Research in Japan and Chile showed that students with a growth mindset improved in math and reading performance, while Philippine studies revealed similar outcomes, particularly among Grade 4 learners. Findings suggested that growth mindset could play a vital role in promoting academic success across diverse contexts, yet more research was needed to focus specifically on younger learners in the Philippine setting.

In addition to formal studies, anecdotal reports from teachers and parents indicated that students with a growth mindset were more engaged, motivated, and resilient in learning compared to those with a fixed mindset. These students were more open to challenges, saw mistakes as

learning opportunities, and demonstrated persistence toward academic goals. However, such accounts were largely subjective, highlighting the need for further empirical research on how growth mindset influenced Grade 4 learners' academic performance in Davao City.

Research has shown that growth mindset supports academic success among elementary learners both internationally and in the Philippines. Still, there is limited evidence on its impact specifically on Grade 4 students in local contexts like Davao City. Exploring this area could provide insights into how growth mindset can be nurtured at this level, as well as strategies to enhance learning outcomes. Such studies could also guide educational practices and policies while enriching the wider research on mindset and achievement.

Studies of Related Literature emphasized the value of developing a growth mindset in young learners, especially in Grade 4. Research showed that it not only improved academic performance but also strengthened engagement, resilience, and lifelong learning skills. Growth mindset interventions have proven effective across different groups, though further studies are needed to identify the best approaches and to assess their long-term impact on both academic and personal development.

This study drew on Bandura's Social Cognitive Theory (SCT), which emphasized observational learning, self-efficacy, and self-regulation in shaping behavior. SCT explained that individuals learned by observing others, while self-efficacy influenced persistence and effort, and self-regulation involved setting goals and adjusting strategies. It has been applied in education to promote growth mindset, making it useful for understanding Grade 4 learners.

It also relied on Self-Determination Theory (SDT) by Ryan and Deci, which highlighted the needs for autonomy, competence, and relatedness. When these needs were met, students showed greater intrinsic motivation and academic engagement. SDT's focus on autonomy and competence made it a valuable framework for fostering growth mindset through learner-centered interventions.

This study looked into the relationship between growth mindset and academic achievement among Grade 4 learners. Specifically, it answered the following questions:

- *What is the Extent of Growth Mindset Among Grade 4 Learners in Terms of:*
 - embracing challenges;
 - accepting feedback;
 - Viewing mistakes as opportunities for learning;
 - Setting goals and work to reach them;
 - Perceiving effort as a positive thing; and
 - Emphasizing the process of learning?
- *What is the Extent of Academic Achievement of Grade 4 Learners in Terms of:*
 - English;
 - Math; and
 - Science?
- *Is there a significant relationship between growth mindset and academic achievement among Grade 4 learners?*
- *Which among the indicators of growth mindset significantly influences the academic achievement among Grade 4 learners?*

The study was tested at .05 level of significance.

- HO1: There is no significant relationship between growth mindset and academic achievement among Grade 4 learners.
- HO2: There is no indicator of indicators of growth mindset significantly influences the academic achievement among Grade 4 learners.

II. METHOD

This study employed a descriptive correlational design using a survey method to explore the link between growth mindset and academic achievement among Grade 4 learners. This design was appropriate as it described the extent of the relationship and examined the association between the two variables without manipulation, allowing the researcher to identify the strength and direction of their relationship.

The study involved 100 Grade 4 learners from Dona Asuncion Hizon Elementary School in Brgy. Pampanga, Davao City, selected through simple random sampling. This method was chosen because it gives each learner an equal chance of being included, ensuring representativeness and minimizing bias. It is also efficient, practical, and suitable for a relatively small and homogeneous population, while allowing the findings to be generalized to the larger group of Grade 4 learners.

The study used a self-reported survey questionnaire adapted from Dweck's (2006) *Mindset: The New Psychology of Success* to measure Grade 4 learners' growth mindset. The instrument assessed indicators such as embracing challenges, accepting feedback, viewing mistakes as learning opportunities, valuing effort, and focusing on the process. Learners rated their agreement with each item using a Likert scale ranging from "Strongly Agree" to "Strongly Disagree."

The data gathering process began with securing approval from the School District Superintendent and school principal through formal letters outlining the study's purpose, significance, and expected outcomes. After consent was obtained, the researcher administered self-reported survey questionnaires and collected periodic grades from Grade 4 learners during class hours, with the class adviser present. The survey was anonymous and voluntary, and students were assured of confidentiality. To uphold ethical standards, informed consent was obtained from school officials, learners, and parents, ensuring participants were informed about the study, its benefits, risks, and the voluntary nature of participation.

The data from the survey and periodic grades were analyzed using statistical tools to examine the relationship between growth mindset and academic achievement among Grade 4 learners. The mean was used to determine average scores, Pearson-r measured the correlation between the two variables, and regression analysis assessed the significance of the relationship while accounting for possible confounding factors, providing a deeper understanding of how growth mindset predicts academic performance.

III. RESULTS AND DISCUSSIONS

The findings show that Grade 4 learners demonstrate the highest agreement with the indicator "Accepting feedback" (M=3.45), reflecting their strong receptiveness to constructive criticism as a tool for improvement. Conversely, the lowest-rated indicator was "Viewing mistakes as opportunities for learning" (M=3.30), suggesting that while students acknowledge the value of mistakes, there is room to strengthen this perspective. Overall, the mean score across all growth mindset indicators was 3.38, indicating a moderately extensive level of growth mindset, meaning it is sometimes manifested by learners. These results highlight the importance of fostering feedback acceptance and reinforcing the belief in mistakes as valuable for growth, aligning with Yeager et al. (2019) and Hong et al. (2019), who emphasize the role of growth mindset in promoting perseverance, improvement, and a positive learning orientation.

Table 1 Summary of the Extent of Growth Mindset Among Grade 4 Learners

Indicators	Mean	SD	Description
Embracing challenges	3.33	0.39	Moderately Extensive
Accepting feedback	3.45	0.39	Extensive
Viewing mistakes as opportunities for learning	3.30	0.60	Moderately Extensive
Setting goals and working towards them	3.36	0.63	Moderately Extensive
Perceiving effort as a positive thing	3.40	0.56	Extensive
Emphasizing the process rather than just the outcome	3.44	0.61	Extensive
Overall	3.38	0.18	Moderately Extensive

Grade 4 learners attained their highest mean grade in Science (84.30), indicating that they generally demonstrated competence and understanding in the subject, which highlights the importance of sustaining and further enhancing their performance in this area. In contrast, Mathematics had the lowest mean grade (82.90), suggesting that while still within the “Satisfactory” range, students might benefit from additional support or targeted interventions to strengthen their skills. The overall mean grade across all subjects was 83.64, also within the “Satisfactory” category as defined by DepEd, reflecting a generally acceptable academic standing among the learners. These findings provide a baseline for evaluating their academic performance and serve as a foundation for examining how factors such as growth mindset may play a role in influencing and potentially improving student achievement.

Table 2 Summary of the Extent of Academic Achievement of Grade 4 Learners

Subjects	Mean Grade	SD	Description*
English	83.72	2.21	Satisfactory
Mathematics	82.90	3.42	Satisfactory
Science	84.30	3.96	Satisfactory
Overall	83.64	1.61	Satisfactory

*Department of Education Department Order no. 8, s. 2015

The study found a significant moderate relationship between Growth Mindset and Academic Achievement among Grade 4 learners ($R=0.49$, $p<0.05$), with growth mindset accounting for 24% of the variance in academic performance. This suggests that learners with stronger growth mindsets tend to achieve higher academically, supporting Dweck’s (2016) theory that effort and belief in improvement enhance performance. The findings align with Yeager et al. (2019) and Blackwell et al. (2007), highlighting that fostering growth mindset in educational settings can positively influence learning outcomes. Overall, the results emphasize the importance of cultivating growth mindset through targeted strategies to improve academic success.

Table 3 Test of Relationship Between Growth Mindset and Academic Achievement Among Grade4 Learners

Variables	Mean	SD	R	R ²	Degree of Relationship	p-value	Decision @ a 0.05 Level
Growth Mindset	3.38	0.18	0.49	0.240	Moderate	0.00	Significant (Reject Ho)
Academic Achievement	83.64	1.61					

The multiple regression analysis revealed that four growth mindset indicators, accepting feedback, viewing mistakes as opportunities for learning, setting goals and working toward them, and emphasizing the process over outcomes, significantly predicted academic achievement among Grade 4 learners ($F=26.71$, $p<0.05$). Meanwhile, embracing challenges and perceiving effort positively did not show significant effects. The regression model explained 26.4% ($R^2=0.264$) of the variance in academic achievement, suggesting that specific aspects of growth mindset play a crucial role in enhancing learners' performance.

Table 4 Indicators of growth Mindset that Influence the Academic Achievement Among Grade 4 Learners

Indicators of Home Growth Mindset	B	SE	t-stat	p-value	Decision @ a 0.05 Level
(Constant)	68.66	2.75	24.98	0.00	Significant
Embracing challenges	0.55	0.38	1.46	0.15	Not Significant
Accepting feedback	0.89	0.38	2.35	0.02	Significant
Viewing mistakes as opportunities for learning	0.97	0.26	3.77	0.00	Significant
Setting goals and working towards them	0.56	0.26	2.12	0.04	Significant
Perceiving effort as a positive thing	0.43	0.27	1.60	0.11	Not Significant
Emphasizing the process rather than just the outcome	1.04	0.28	3.65	0.00	Significant
Regression Model:					
Academic Achievement = 68.66 + 0.89(Accepting feedback) + 0.97(Viewing mistakes as opportunities for learning) + 0.56(Setting goals and working towards them) + 1.04 (Emphasizing the process rather than just the outcome)					
F: 5.57, R: 0.514, R ² : 0.264, p: 0.00					

Grade 4 learners demonstrated a moderately extensive growth mindset, though areas like embracing challenges and perceiving effort as positive require further support. Strengthening these aspects can help balance the development of a growth mindset among students. Academic achievement in English, Mathematics, and Science was found to be satisfactory, meeting the Department of Education's standards and showing general competence across subjects.

The study also revealed a significant moderate relationship between growth mindset and academic achievement, emphasizing the positive influence of mindset

on learning outcomes. This finding supports the theoretical framework that believing in the malleability of abilities enhances performance. It suggests that integrating growth mindset principles into teaching and curriculum design can improve academic outcomes and better support the educational journeys of Grade 4 learners.

The regression model shows that significant growth mindset indicators collectively explain 26.4% of the variance in academic achievement among Grade 4 learners. With an F-statistic of 5.57 ($p<0.05$), the model is statistically significant, underscoring the meaningful impact of growth mindset while

also pointing to the influence of other contributing factors on academic success.

The study reveals that Grade 4 learners demonstrate a moderately extensive growth mindset, though certain areas like embracing challenges and perceiving effort as positive need more support. Their satisfactory performance in English, Mathematics, and Science reflects competence, but findings show that growth mindset significantly enhances academic achievement. Key factors such as accepting feedback, learning from mistakes, setting goals, and focusing on the process strongly influence success, while other aspects may need different strategies. These results highlight the practical value of integrating growth mindset principles into teaching to strengthen learners' academic outcomes.

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