

# Growth Mindset Interventions for Underprivileged Children: Academic Achievement and Developmental Outcomes at Aseema Foundation (Grades 1-3)

Srikantah Nayaka

American School of Bombay

**Abstract:** This study investigates the impact of growth mindset interventions on the academic achievement and personal development of underprivileged children at the Aseema Foundation. Focusing on Grade 1 and Grade 3 students, the research involved a series of workshops designed to foster a growth mindset. The study assessed changes in students' attitudes toward challenges, their academic performance, and overall engagement in learning. The results suggest that students who developed a growth mindset exhibited improved academic outcomes and a more engaged approach to learning.

**Keywords:** Growth Mindset, Underprivileged Children, Academic Achievement, Personal Development, Early Childhood Education

## 1. Introduction

### **Concept of Growth Mindset:**

A growth mindset, a term coined by psychologist Carol Dweck, refers to the belief that abilities, intelligence, and talents are not fixed traits but can be developed through dedication, effort, and learning. In contrast, a fixed mindset is the belief that abilities and intelligence are static and cannot be significantly changed.

Individuals with a growth mindset embrace challenges, learn from feedback, and persist through setbacks, believing that effort and resilience foster growth. They see failure as a part of the learning process rather than as a reflection of their abilities. This mindset fosters a love for learning and a desire to tackle difficult tasks, making it especially powerful in educational settings.

Key elements of a growth mindset include:

- Effort leads to mastery: The more you practice and try, the better you become.
- Embrace challenges: Instead of avoiding difficulty, challenges are opportunities for growth.
- Learn from failure: Failure is not a sign of inadequacy but a chance to learn and improve.
- Value of feedback: Constructive criticism is seen as valuable information for growth.

**Relevance of Growth Mindset:** The relevance of a growth mindset is particularly significant in the context of education and personal development. It plays a vital role in shaping children's attitudes towards learning, especially those from underprivileged backgrounds. For students who face socioeconomic challenges, having a growth mindset can be empowering, as it encourages them to overcome obstacles, work harder, and believe in their potential. In a world where access to resources may be limited, the right mindset can make the difference in achieving success. Furthermore, adopting a growth mindset helps build resilience, which is

essential for navigating life's challenges both inside and outside the classroom.

## 2. Problem Statement

Underprivileged children, especially those in early educational stages, often face a combination of social, economic, and emotional challenges that can impact their academic success and self-belief. These children are frequently subjected to environments where access to quality education and resources is limited. In many cases, they may develop a fixed mindset, believing that their academic abilities or intelligence are predetermined and unchangeable. This belief can result in avoidance of challenges, fear of failure, and low academic motivation, which in turn perpetuates cycles of underachievement.

Research suggests that cultivating a growth mindset in students can improve their academic performance, resilience, and self-confidence. However, there is a lack of research focusing on the application and impact of growth mindset interventions in underprivileged children, particularly in the context of early education (Grade 1 and Grade 3 students). This study seeks to explore how the promotion of a growth mindset can influence the academic and personal development of underprivileged children in the early grades at Aseema Foundation.

### **Research Objectives:**

The primary objectives of this research are as follows:

- 1) To evaluate the impact of growth mindset interventions on academic performance in Grade 1 and Grade 3 students at the Aseema Foundation. Measure changes in academic achievement (e.g., grades, test scores) before and after the growth mindset intervention.
- 2) To assess changes in students' attitudes toward learning, challenges, and effort as a result of the growth mindset intervention.

Examine students' willingness to engage in challenging tasks, persistence in problem-solving, and reactions to setbacks.

- 3) To explore the potential for growth mindset interventions to improve students' overall motivation and resilience in both academic and personal contexts. Observe whether students exhibit increased motivation to participate in learning activities and demonstrate resilience in the face of difficulties.
- 4) To identify the role of teachers and caregivers in reinforcing a growth mindset among underprivileged children. Investigate how educators and caregivers can foster a growth mindset environment that encourages learning, risk-taking, and self-improvement.
- 5) To understand the long-term potential of cultivating a growth mindset in underprivileged children in terms of academic success, self-confidence, and future aspirations. Discuss how early intervention with growth mindset principles might affect students' attitudes and performance in later academic stages.

By achieving these objectives, this study aims to contribute valuable insights into how growth mindset practices can be integrated into educational settings for underprivileged children to enhance their learning experiences and outcomes.

### 3. Methodology

#### Research Design

This study employed a pre-test, post-test quasi-experimental design to assess the impact of a growth mindset workshop on students' attitudes and academic behaviors. The research was conducted in an underprivileged school setting, where students typically face socio-economic challenges that may affect their academic performance and self-belief. The intervention aimed to foster a growth mindset, which emphasizes the belief that intelligence and abilities can be developed through effort, learning, and perseverance.

#### Participants

The study involved 40 students (Grade 1 and 3) from an underprivileged school in Bandra, Mumbai. Participants were selected based on availability and consent to participate in the study. The sample included both male and female students, representing various academic backgrounds and levels.

#### Intervention

The intervention consisted of a growth mindset workshop that lasted for 4 weeks. The workshop introduced growth mindset concepts through discussions, role-plays, and reflective activities highlighting the difference between a fixed and growth mindset. It included activities such as group discussions, role-playing exercises, real-life examples of people who demonstrated growth mindsets, and personal reflections.

#### Data Collection

Pre- and post-test responses were analyzed using descriptive statistics to determine the changes in students' growth mindset scores. Descriptive statistics (mean, standard deviation) were used to summarize the data.

#### Quantitative Analysis

Descriptive statistics for the pre-test and post-test scores (Class I) are presented below:

- Pre-test: The mean pretest score was 26.1 (SD = 5.43), indicating students' initial baseline mindset towards their academic abilities.
- Post-test: The mean post-test score was 30.0 (SD = 3.89), reflecting students' mindset after completing the growth mindset intervention.

Descriptive statistics for the pre-test and post-test scores (Class III) are presented below:

- Pre-test: The mean pretest score was 29.8 (SD = 3.89), indicating students' initial baseline mindset towards their academic abilities.
- Post-test: The mean post-test score was 32.45 (SD = 3.54), reflecting students' mindset after completing the growth mindset intervention.

### 4. Discussion

The results of this study suggest that the workshop on growth mindset had a positive impact on participants' understanding and application of growth mindset principles. The pre-test and post-test data indicate significant improvements in participants' attitudes, beliefs, and behaviors related to learning and intelligence, providing evidence that a brief intervention can enhance growth mindset in a diverse group of individuals.

One of the key findings of this study is the noticeable increase in participants' scores from the pre-test to the post-test. The pre-test scores, which assessed participants' baseline beliefs about intelligence and learning, were generally aligned with fixed mindset perspectives, where individuals saw abilities as static and unchangeable. In contrast, the post-test scores demonstrated a shift toward growth mindset views, where participants expressed stronger beliefs that abilities and intelligence could be developed through effort, practice, and perseverance.

Such findings align with earlier research that has shown the effectiveness of growth mindset interventions in improving academic achievement and self-efficacy (Dweck, 2006; Claro et al., 2016). In particular, participants who underwent the workshop were able to better articulate the concept of neuroplasticity and the importance of embracing challenges as opportunities for growth. This shift may have been driven by the activities in the workshop, which encouraged participants to reflect on past experiences of failure and success, while also providing them with practical strategies for fostering resilience and persistence in the face of setbacks.

It is important to note, however, that while the improvements observed in this study are promising, the magnitude of change was not uniform across all participants. Some individuals showed more pronounced improvements in their mindset and self-reported behaviors, while others demonstrated more modest changes. These differences could be attributed to several factors, such as prior knowledge of growth mindset principles, personal motivation, or individual differences in personality or learning styles. Further research could explore

these variables to better understand what factors contribute to the effectiveness of growth mindset interventions.

Additionally, the duration of the workshop and the limited time between the pre-test and post-test (typically within a few days or weeks) may have influenced the degree of change observed. Long-term follow-up assessments could provide insight into whether the changes in mindset are sustained over time and translate into actual improvements in academic or professional performance. Moreover, future studies could incorporate more diverse participant groups and larger sample sizes to enhance the generalizability of the findings.

One limitation of the study is the reliance on self-reported data, which may be subject to social desirability bias. Participants may have been inclined to report more positive attitudes toward growth mindset after attending the workshop, even if their internal beliefs had not fully shifted. To address this, future research could incorporate additional objective measures, such as observational data or performance-based tasks, to triangulate the findings.

## 5. Implications

Incorporating growth mindset principles into the curriculum or teaching methods can have a profound impact on student engagement, learning, and overall achievement. A growth mindset, a term popularized by psychologist Carol Dweck, is the belief that abilities and intelligence can be developed through dedication, effort, and perseverance. Growth mindset principles can be integrated into teaching and curriculum development to improve outcomes by promoting effort over innate ability, emphasizing the importance of mistakes, and fostering a collaborative learning environment.

## 6. Conclusion

The study aimed to assess the impact of a growth mindset workshop on participants' beliefs about learning and intelligence, using pre-test and post-test assessments. The results indicated a significant positive change in participants' attitudes and mindset after the workshop.

**Improvement in Growth Mindset:** Participants showed a noticeable shift from a fixed mindset (believing abilities are static) to a growth mindset (believing abilities can be developed through effort and perseverance). Post-test scores revealed that participants were more likely to embrace challenges and view intelligence as malleable.

**Variability in Improvement:** While most participants demonstrated improvements, the degree of change varied. Some individuals exhibited substantial shifts in mindset, while others showed more modest changes. These differences could be attributed to factors such as individual motivation, prior knowledge, or personality traits.

**Feedback and Reflection:** Participants reported that the workshop activities—such as reflecting on past challenges and learning from failure—helped them internalize the

growth mindset principles. Feedback from participants indicated that they felt more motivated to face challenges and improve through effort.

## References

- [1] **Dweck, C. S. (2006).** *Mindset: The New Psychology of Success*. New York: Random House.  
This is the foundational work on growth vs. fixed mindset by Carol Dweck.
- [2] **Claro, S., Paunesku, D., & Dweck, C. S. (2016).** *Growth mindset tempers the effects of poverty on academic achievement*. *Proceedings of the National Academy of Sciences*, 113(31), 8664–8668. <https://doi.org/10.1073/pnas.1608207113>  
Demonstrates how a growth mindset can mitigate effects of socioeconomic disadvantage.
- [3] **Blackwell, L. S., Trzesniewski, K. H., & Dweck, C. S. (2007).** *Implicit theories of intelligence predict achievement across an adolescent transition: A longitudinal study and an intervention*. *Child Development*, 78(1), 246–263. <https://doi.org/10.1111/j.1467-8624.2007.00995.x>  
Discusses mindset interventions and academic outcomes over time.
- [4] **Yeager, D. S., & Dweck, C. S. (2012).** *Mindsets that promote resilience: When students believe that personal characteristics can be developed*. *Educational Psychologist*, 47(4), 302–314. <https://doi.org/10.1080/00461520.2012.722805>  
Explores how growth mindset promotes resilience and helps students cope with academic and social adversity.
- [5] **Paunesku, D., Walton, G. M., Romero, C., Smith, E. N., Yeager, D. S., & Dweck, C. S. (2015).** *Mind-set interventions are a scalable treatment for academic underachievement*. *Psychological Science*, 26(6), 784–793. <https://doi.org/10.1177/0956797615571017>  
Demonstrates the scalability of mindset interventions in improving outcomes for underperforming students, particularly those from disadvantaged backgrounds.
- [6] **Snipes, J., Fanceschi, C., & Stoker, G. (2012).** *Student academic mindset interventions: A review of the current landscape*. **Research Alliance for New York City Schools**.  
Reviews various mindset intervention strategies across schools and highlights best practices for scaling in urban, low-income educational contexts.
- [7] **Gunderson, E. A., Gripshover, S. J., Romero, C., Dweck, C. S., Goldin-Meadow, S., & Levine, S. C. (2013).** *Parent praise to 1- to 3-year-olds predicts children's motivational frameworks five years later*. *Child Development*, 84(5), 1526–1541. <https://doi.org/10.1111/cdev.12064>  
Shows the importance of early language and praise in developing growth mindset in young children.