

Academic Grit: A Significant Factor to Enhance Academic Performance of Learners

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ABSTRACT

Education is a multifaceted process that involves not only cognitive skills but also non-cognitive skills such as motivation, resilience and determination but in the present education system it has been seen that most of the school reliance on grades to determine academic success. High expectations from parents, teachers and society are leading to put excessive stress and pressure to perform well in exams among learners. A large number of cases of drawbacks and suicide are also becoming common among adolescents because they have a lack of patience and they are also lacking consistency in their academic life. There will be number of times when a child feels like giving up on a school during their time there. They will experience defeated. They will believe that they are simply unable to understand the material being studied. And it's true that these emotions are common. The majority of these students will benefit from having perseverance to get by. They will be driven and determined to keep going forward. Even though they might seem hopeless, they know in their minds that they can overcome. Academic Grit is a trait that is especially applied to a person's academic life. It includes perseverance, focus and drive. It can assist students in overcoming obstacles including adjusting to new learning environments and pursuing long term goals. Higher Grit students are also more likely to be satisfied with their major and are less likely to burn out or think about changing their course of study and they are also more likely to be content with their major. Development of Academic Grit among learners is significant because, beyond the contribution of talent and intelligence, it can serve as the driving force for success and achievement. Although having inherent intelligence and talent is wonderful, perseverance is necessary if one wants to succeed and prosper, talent could be nothing more than unrealized potential without perseverance. Grittier people have a growth mindset which enables them to view challenges as opportunities and tackle them with optimism. The present paper aims to explore how encouragement of Academic Grit can help learners to achieve their learning goals by motivating them to try hard and persevere in this process.

Key words: Academic Grit; Academic Performance; Perseverance; Learner Motivation; Growth Mindset; Educational Achievement.

INTRODUCTION

The construct grit is defined as perseverance and passion for long term goals (Duckworth, Pearson, Matthews and Kelly; 2007). In the words of Sturman and Pimme(2017), to sustain a focused effort to achieve success in a task, regardless of the challenges that present themselves and the ability to overcome setbacks is grit. Grit is comprised of two aspects- consistency of interest and perseverance of effort. Consistency of interest refers to a maintained interest in one thing for an extended period of time. Perseverance of effort refers to putting effort into facing challenges (Duckworth Peterson Mathews and Kelly., 2007). Long term goals are those that

usually take years to complete. In this regard passion refers to what we might prefer to as a fundamental concern in one's life, In reference to student achievement during the last few years keen interest towards non-cognitive factor like creativity, commitment, emotional intelligence, growth-mindset, gratitude, self-confidence and emotional stability is arising because high expectations from parents, teachers and society exerts excessive pressure to perform well in exams and this pressure to perform well can be overwhelming for some students leading to failure and hopelessness. It has been seen that a large number of cases of drawbacks, academic transitions and suicide among adolescents occur due to lackness of patience and perseverance towards their goal. So, it seems to have a drastic demand among learners to develop an ability of maintaining focus and a practice of hard work to achieve their long term goals even when faced with failure or difficulty. Grit is positively associated with adaptive outcomes among youth and adults, such as general self-efficacy, work-satisfaction, career-retention and positive effect (Crede et al., 2017). people with grit don't let obstacles and hardship to stop them from achieving their future goals.

Conceptualization of Academic Grit

Academic Grit is a subdomain of grit. Grit is described as a passion for long term goals and a willingness to persevere determining if individuals successfully maximize their potential in a variety of domains. In contrast academic-grit emphasizes individuals grit specifically in their academic lives. It describes a student's persistence and engagement in school and their ability to achieve long term academic goal. Academic grit is the act of determination and positive effort for managing challenges and managing unfavourable situations in order to achieve their long term objectives in their academic (Duckworth et al.,2007). Clark & Malecki (2019) defined academic grit as an individual characteristic or skill encompassing determination, resilience and focus in the pursuit of challenging long-term goals within the domain of education, which comprised of various aspects like determination- which is similar to perseverance of effort as determination involves the devotion of effort towards long term academic goals; resilience- which is similar to perseverance of effort as they assess effortful goal pursuit despite adversity also it shows an additional similarity with consistency of interest as resilience concerns sustained effort towards a long term academic goal over time and despite delays in progress; and focus- which is similar to consistency of interest as focus involves prioritizing the achievement of academic goals over goals from other life domains.

Empirical Foundations of Academic Grit

Duckworth, Kirby, Tsukayama, Berstein, & Erickssn (2011) conducted a study on Deliberate practice spells success: Why grittier competitors triumph at the National Spelling Bee through expert performance framework which differentiates between deliberate practice and less effective practice methods. This longitudinal study is the first to apply this framework to understand how children develop an academic skill. The authors specifically investigated the effectiveness and subjective experiences of three common preparation activities aimed at improving spelling skills. Deliberate practice, defined as studying and memorizing words independently, was found to be a better predictor of success in the National Spelling Bee compared to being quizzed by others or reading for enjoyment. Although rated as the most demanding and least enjoyable form of preparation, deliberate practice was increasingly preferred over quizzing as participants gained more competition experience. Moreover, deliberate practice mediated the relationship between the personality trait of grit and final performance, indicating that perseverance and passion for long-term goals help spellers persist

with less intrinsically enjoyable—but more effective—practice methods. DiMenichi, & Richmond, (2015) in their study on Reflecting on past failures leads to increased perseverance and sustained attention aimed to investigate the extent to which grit demonstrates state-like characteristics and how manipulating grit influences performance. Results from the first experiment showed that reflecting on failures led to higher grit scores compared to reflecting on successes. The second experiment further explored the failure–grit relationship by examining its impact on performance: encouraging individuals to reflect on failures significantly reduced error rates in a cognitive task that required perseverance. These findings suggest that grit has state-like qualities, and that prompting individuals to reflect on failures may lead to improved behavioral outcomes. Bazelaïs, Lemay, & Doleck, (2016) performed a study on “How Does Grit Impact College Students' Academic Achievement in Science?” Research suggests that achievement is influenced not only by a learner’s cognitive abilities but also by a combination of cognitive ability and personality traits. This study examines the impact of grit on the academic performance and success of first-year college physics students in the context of a Quebec Collège d'enseignement général et professionnel (CEGEP). Two hierarchical linear regressions were conducted using scores from a 12-item, 5-point Likert scale survey measuring grit to predict student cumulative GPA and final exam scores in a gateway physics course, while controlling for gender and high school GPA. The findings indicated that prior academic performance was a significant predictor of both college performance and success in the physics course. However, grit did not significantly predict student academic achievement or course success. Lee (2017) conducted a study on Relationships among grit, academic performance, perceived academic failure, and stress in associate degree students. This study investigated the relationships between grit, academic performance, perceived academic failure, and stress levels among associate degree students in Hong Kong using path analysis. A total of 345 students from a community college in Hong Kong voluntarily participated, completing a questionnaire that assessed their levels of grit (defined as interest and perseverance) and stress. The students also reported their actual academic performance and their perception of it as either a success or a failure. The path analysis results indicated that both interest and perseverance were negatively correlated with stress, while only perceived academic failure was positively correlated with stress. These findings suggest that psychological evaluation and resources play a more significant role in causing stress than actual negative events. Thus, promoting psychological resilience in students may help reduce the stress. Hodge, Wright & Bennett (2018) performed a study on “The Role of Grit in Determining Engagement and Academic Outcomes for University Students” to address conflicting findings regarding the significance and correlates of grit, and to investigate the role of engagement in the link between grit and academic outcomes, a cross-sectional survey study was conducted. This study assessed grit, engagement, and academic productivity among 395 university students in Australia. The results indicated no significant gender differences in grit; however, this conclusion is tentative due to a substantial gender imbalance among participants. It was also observed that being the first in one’s family to attend university was associated with higher levels of the grit factor "effort." A positive correlation was found between grit, engagement, and academic productivity. Further analysis showed that engagement mediated the relationship between grit and productivity, indicating that individuals with higher grit levels are more likely to have higher engagement, which in turn leads to increased academic productivity. These findings emphasize the importance of grit as a valuable student trait and highlight the role of engagement in the grit-productivity relationship. Park, Yu, Baelen, Tsukayama & Duckworth

(2018) performed a study on Fostering grit: Perceived school goal-structure predicts growth in grit and grades. The study concludes that perceptions of school culture significantly influence the development of grit in middle school students. Specifically, environments that emphasize mastery goals foster greater grit and lead to higher academic achievement, while those focused on performance goals correlate with lower levels of grit and academic performance. The longitudinal analysis further highlights that changes in mastery-oriented school cultures can lead to improvements in grit and, subsequently, academic grades, whereas performance-oriented cultures do not reliably impact grit development. These findings underscore the importance of cultivating a school environment that prioritizes learning for its own sake, as it may encourage students to sustain their interest and effort toward long-term goals, ultimately enhancing their academic success. Clark et al. (2019) conducted a study on Academic Grit scale: Psychometric properties and associations with achievement and life satisfaction on a sample of 757 adolescents. Findings revealed a single factor structure with strong reliability and validity. Academic grit was found to be positively linked to academic performance, life satisfaction and school satisfaction and it showed greater predictive power than general grit. Alhadabi & Karpinski (2020) performed a study on Grit, self-efficacy, achievement orientation goals, and academic performance in University students. The study concludes that grit, characterized by perseverance and consistency, positively influences academic performance through its interaction with self-efficacy and achievement orientation goals. The findings emphasize the importance of self-efficacy as a mediator, enhancing the positive impact of mastery and approach goals while reducing the negative effects of avoidance goals on academic outcomes. These results highlight the value of non-cognitive factors, particularly grit, in predicting and improving academic success, suggesting that fostering these traits in students could be beneficial for their overall academic development. Jiang, Zhang, Li & Luo (2021) conducted a study on how grit influences high school students' academic performance and the mediation effect of academic self-efficacy and cognitive learning strategies. The study concludes that students' traits significantly influence their learning behaviors and academic performance. The findings highlight that higher levels of perseverance of effort, a key dimension of grit, are associated with more frequent use of cognitive learning strategies, with variations in the relationships between effort and each strategy. Academic self-efficacy plays a crucial mediating role in the connection between perseverance and cognitive learning strategies. Additionally, the study reveals that different cognitive learning strategies have distinct effects on academic performance, underscoring the importance of differentiating between these strategies when evaluating their impact. The results suggest that educators should focus on enhancing students' personality traits, academic motivation, and learning behaviors. Specifically, fostering grit, particularly perseverance of effort, boosting academic self-efficacy, and teaching effective learning strategies can significantly contribute to improving students' academic achievement. Kaya & Karakoc (2022) in their study examine the relationship between math mindset, academic grit and math achievement among 225 fourth grade students in Istanbul, Turkey. Using structural equation modeling (SEM), the study found that a fixed math mindset had a significant negative effect on math achievement, while a growth mindset had no direct effect. However, when mediated by academic grit, the growth mindset positively impacted math achievement. The influence of academic grit on math achievement was also found to be positive and significant. The structural equation model (SEM) explained 36% of the variance in math achievement and 64% in academic grit. The study suggests promoting growth mindset and academic grit through school interventions. Harpaz et al. (2023)

performed a study on university students' academic grit and academic achievements predicted by subjective well-being, coping resources and self-cultivation characteristics. This study explored the impact of academic grit, subject well-being, coping resources and self-cultivation on academic achievement. Research on 351 students found that academic grit is directly linked to achievement while other factors have an indirect effect through academic grit. It highlights the need to support students' well-being and personal growth to improve academic performance. Temel, Kansu & Temel (2023) conducted a study on the relationship between academic grit skills and academic success of primary school fourth grade students. This study investigates the relationship between the academic achievement of primary school students and their academic grit. It also examines how academic grit impacts various factors. The quantitative study using a relational screening model, sampled 400 fourth grade students from Sivas. Data was collected using a personal information form and the academic perseverance scale. The result showed a significant, moderate and positive relationship between academic achievement and grit. Academic perseverance varied significantly by gender, father's education, socioeconomic status and pre-school education but not by the number of siblings or mother's education level.

Critical comparison of the empirical researches and their synthesis

On the basis of the analysis of the previous mentioned studies it can be said that the studies present academic grit as a multidimensional and context-dependent construct that contribute to academic achievement, but they do not support that grit alone predicts success. Across the literature, grit is most strongly associated with achievement when it operates through specific behaviors and psychological mechanisms, such as deliberate practice, engagement, self-efficacy, cognitive learning strategies, and adaptive goal orientations. Thus, the reviews suggest that grit is not as an independent trait for academic success, but it is a part of a broader motivational and learning system. Analysis of the reviews presents grit as a positive but inconsistent evidence for academic achievement. Duckworth et al. (2011), for example, demonstrated that grit was related to success in the National Spelling Bee through deliberate practice. Importantly, grit did not simply produce achievement directly; rather, grittier competitors were more likely to persist with a demanding and less enjoyable form of practice that was particularly effective. Similarly, Hodge et al. (2018) found that grit was positively associated with academic productivity, but this relationship was mediated by student engagement. Jiang et al. (2021) likewise showed that perseverance of effort was related to the use of cognitive learning strategies, which subsequently influenced academic performance. These studies therefore converge on the idea that grit encourages behaviors that support learning. Studies of Clark et al. (2019), Kaya et al. (2022) etc. further supported positive role of academic grit. Clark et al. (2019) found that academic grit predicted academic performance, life satisfaction, and school satisfaction, with academic grit showing greater predictive value than general grit. Kaya and Karakoc (2022) found that academic grit positively predicted mathematics achievement and helped explain the positive relationship between growth mindset and achievement. Harpaz et al. (2023) also found a direct relationship between academic grit and academic achievement, while Temel et al. (2023) reported a moderate positive relationship between academic achievement and academic perseverance among primary school students. However, these findings contrast with Bazelaïs et al. (2016), who found that grit did not significantly predict academic achievement or success. It suggests that the predictive value of grit may vary according to age, academic context, subject difficulty, measurement method, and the inclusion of prior achievement as a control variable.

Therefore, the evidence is more accurately synthesized as follows: grit is often associated with academic success, but its direct predictive power is inconsistent. Its influence appears stronger

when it translates into observable learning behaviors and when the academic environment supports its expression.

RESEARCH GAP

Despite considerable research on grit and academic achievement, the existing literature remains fragmented. Previous studies have generally examined the relationship between grit and achievement through single variables or isolated mechanisms, producing inconsistent findings regarding the direct predictive role of grit. While evidence suggests that grit may contribute to academic success through deliberate practice, engagement, self-efficacy, cognitive learning strategies, achievement goals, and growth mindset, these factors have rarely been integrated into a comprehensive model. Furthermore, much of the existing research is cross-sectional, relies heavily on self-report measures, and does not adequately distinguish academic grit from related constructs such as self-efficacy, conscientiousness, motivation, and resilience. There is also limited evidence regarding the causal development of academic grit and the extent to which its effects vary across educational levels, academic subjects, and cultural contexts.

FACTORS CONTRIBUTING TO THE DEVELOPMENT OF ACADEMIC GRIT

Academic grit development is influenced by various factors like -

- **Growth mindset-** people with a growth mindset have a strong belief that their outcome is not due to their innate abilities but they believe that their abilities can be developed over time. These people focus on improving skills rather than outcomes. They always tend to have a positive attitude towards learning and are hard workers. These people have a strong sense of self efficacy which allows them to respond positively to failure.
- **Social support-** Social support is known to act as a social and psychological factor that mitigates the negative effects of stress on an individual's physical and mental health (Glanz et al.,2008).It has been shown to reduce academic burnout among students (An et al., 2017; Noh,2017) and may serve as a mediating variable in the relationship between grit and academic achievement. Therefore, social support can be considered a factor that helps alleviate academic burnout and mediates the connection between grit and academic burnout.
- **Self-control-** self control is positively linked to academic grit and both are connected to academic performance. Self control is also associated with academic motivation and attention control, which in turn are related to academic success. This suggest that interventions aimed at improving academic motivation and attention control could be beneficial in education settings. These interventions can help individuals maintain focus and regulate their behavior, preventing them from being swayed by external distractions or temptations.
- **Role of environment-**A persons environment in which he/she works for his/her success is encircled by family environment, non-shared environment such as motivation, school culture and quality of interactions which plays a very important role for development of academic grit among learners. Self-Determination Theory (SDT) proposes that individuals have three fundamental psychological needs: autonomy, competence, and relatedness. When these basic needs are fulfilled, they enhance intrinsic motivation and facilitate the internalization of extrinsic motivation, leading individuals to grow in a positive and integrated manner. Reinforcing intrinsic motivation boosts individuals' enthusiasm for their goals and perseverance, ultimately increasing their grit. Thus, satisfaction of these basic psychological needs can enhance individual grit. It is also suggested that fulfilling these needs relies on a supportive social environment and

positive experiences. The most significant aspect of this social environment often comes from the people with whom individuals have close relationships.

- **Passion and Perseverance-** Academic grit is a combination of passion and perseverance that can predict academic success. Angela Duckworth argues that exceptional achievement results from a blend of passion for something you deeply care about and a focused approach combined with perseverance, resilience and a strong work ethic. She refers to this combination of passion and perseverance as grit. According to Duckworth, grit is essential because focused effort is needed both to develop a skill and to transform that skill into achievement. She explains that talent combined with effort leads to skill and skill combined with effort leads to achievement. effort plays a key role in both stages. However, if that effort is spread across too many areas due to a lack of focus of passion, the necessary skill won't be fully developed and those skills won't translate into meaningful achievements.

IMPORTANCE OF ACADEMIC GRIT

In order to make students confident and responsible individuals in both academic setting and life beyond school, academic grit is a key attribute for students to cultivate within our educational environment. Relying on intelligence to consider a determinant of academic and professional success has become an old idea, now the emphasis is shifting towards attributes like grit-passion, perseverance and resilience that drive students towards long term goals therefore understanding the concept of grit as highlighted by Angela Duckworth's Grit theory is pivotal for educators aiming to enhance student success. Students with higher grit level typically practice more methodically, keep better attendance records and are less likely to switch courses. This emphasizes how crucial it is for educators to create settings that reward tenacity and commitment. Grit improves psychological health by lowering stress and depression as well as by promoting optimistic and self sufficient thoughts. Higher achievement, attendance and retention rates in the classroom are all result of this emotional resilience. Grit perseverance component, in particular is a strong predictor of these results, indicating that teachers should place a high priority on helping pupil develop tenacity.

CONCLUSION

On the basis of above studies it can be said that individual factors are not the only contributors to the development of academic grit- situational and environmental factors also play a significant role. By understanding these factors that influence academic grit educators can create targeted programs and initiatives to cultivate academic grit, not only in learners but across the broader educational community. The development of positive traits like academic grit and a growth mindset is crucial throughout life, but it is especially important during adolescence. During these formative years, stress levels tend to rise, while self-esteem, perceived abilities, school engagement, and grades often decline. Given that these developmental changes can have lasting impacts, it is essential to explore personal attributes that can help students build resilience and thrive during this period. A gritty person is likely to put in more effort to endure challenging and lengthy tasks to achieve better performance, as grit is also linked to emotional regulation. Additionally, gritty individuals are better at utilizing their resources over time by aligning their efforts and actions toward reaching their goals. The reviewed research has several important implications for students, teachers, schools, and educational policymakers. The central implication is that academic achievement should not be promoted through the development of grit alone. Rather, grit should be cultivated alongside

effective learning strategies, self-efficacy, engagement, supportive school environments, and appropriate academic guidance.

On the basis of the foregoing discussion, it can be concluded that following mechanisms may be used to enhance academic grit among students-

- **Growth mindset-** Adopting a growth mindset is an essential strategy for tackling academic challenges. It lays emphasis on the importance of grit perseverance and flexibility. Students with growth mindset approach problems from different angles and not give up easily. Individuals with growth mindset typically set learning goals focused on mastery. As a result they are more likely to view challenges as opportunities for learning, embrace failure and demonstrate strong persistence when facing difficulties and setbacks (Dweck,2006). In other words a growth mindset is characterized by perseverance in learning and consistency in pursuing goals- two key components of grit.
- **Academic self-efficacy-** Researches has shown that academic self-efficacy is a psychological factor in preventing students from experiencing academic burnout and withdrawing from their studies. By enhancing academic engagement and boosting performance, academic self-efficacy can help lower dropout rates in the face of challenges and competition in education.
- **Resilience-** resilience helps learners to recover when they fail or encounter challenges that feel overwhelming. Building resilience enables better stress management and quicker recovery from setbacks. True grit is strengthened by resilience during difficult times. Having a solid self-care routine that foster resilience is crucial to ensure steady progress .
- **Academic perseverance-** high commitment to a goal can help students be persistent and consistent in their goal achieving process.
- **A greater sense of purpose-** when driven by a sense of purpose students are more likely to remain determined in the face of challenges, their motivation becomes stronger and drive greater satisfaction from their work. Purpose enhances grit, ambition, focus and nearly every other quality essential for achieving mastery.
- **Reflecting on past failures-** Reflection is a crucial aspect of learning from failure. Without it, one can miss the opportunity to grow. After experiencing failure, it's important to take time to process what happened. Consider what aspects of the failure went well, what didn't, and identify where things went wrong. This reflection allows us to make adjustments and improve one's approach for the future. Innovation is essential in learning, but to innovate, it's important to understand what went wrong. Failure promotes learning by allowing us to identify where we deviated from the path. This awareness enables the implementation of new ideas, approaches, and strategies. As a result, innovation and creativity increase, enhancing the overall learning experience.
- **Deliberate practice-** Deliberate practice is a structured, highly effective method for skill development. It involves several key steps: identifying weaknesses, setting challenging goals to address them, practicing with complete focus and effort, seeking and processing feedback on performance and then repeating the cycle.
- **Productive persistence** – Schools should promote productive persistence rather than persistence alone because findings suggest that simply encouraging students to “try harder” may not be sufficient. Duckworth et al. (2011) demonstrated that deliberate

practice was more strongly associated with success than less structured forms of preparation. Similarly, Jiang et al. (2021) emphasized the importance of cognitive learning strategies. Therefore, teachers should teach students how to persist effectively, including: goal-setting; planning and time management; deliberate practice; self-monitoring; feedback use; problem-solving; effective study strategies. The focus should be on quality of effort, not merely the amount of effort.

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