Goal Setting, Grit, and Motivation: Do They Really Have an Influence on Students' Self-Regulation?

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ABSTRACT

This study explores the influence of goal setting, persistence, and motivation on student self-regulation through a literature review. Self-regulation is a fundamental skill necessary for academic success, yet many students struggle to develop this skill. Through a literature analysis of various empirical studies published between 2015 and 2025, this study seeks to answer the fundamental question of whether and how goal setting, persistence, and motivation influence self-regulation. The analysis reveals that all three components significantly influence student self-regulation. Specific and challenging goal setting provides direction and a standard for evaluation for learning. Perseverance, or grit, acts as a mediator, enabling students to maintain effort in the face of adversity. Intrinsic motivation, supported by the fulfillment of basic psychological needs, provides the energy and drive to engage in learning. Importantly, these three components do not operate in isolation but interact within a dynamic system that creates positive or negative cycles in self-regulation. These findings offer important implications for developing instructional strategies that support student learning independence, particularly regarding how teachers can facilitate goal setting, foster persistence, and foster intrinsic motivation in an integrated manner to optimize student self-regulation.

Keywords: *Self-regulation; Goal-Setting; Grit; Motivation.*

INTRODUCTION

Self-regulation is a fundamental skill students need to achieve academic success in 21st-century learning. Academic self-regulation is an active process in which students set learning goals, then monitor, regulate, and control their cognition, motivation, and behavior. While it is clear that the ability to self-regulate is fundamental not only for mastering current learning objectives but also for learning throughout life (Zimmerman, 1989, 2000, 2022). Research consistently shows that many learners do not possess well developed self-regulation skills. For the students, the ability to self-regulate may be the primary cause of not effectively managing the time required for their study, maintaining attention, and systematically overcoming the challenges presented by the learning process.

The issue highlights the need to understand the processes of self-regulation in depth. The current research literature emphasizes three interrelated self-regulations: goal setting, grit, and motivation. Goal setting works as a guide and a point of reference to self-regulate (Bruhn et al., 2017; Freund & Hennecke, 2015b). Students will easily lose focus when encountering problems if determination is not present, as goals can be lost. This is where grit is central to the problem. As pointed

out in the works of Duckworth (2019), grit is the quality that enables students to stay the course in long-term commitments when vision wears off (Duckworth et al., 2019). Whereas, motivation is the quality that drives the energy within the system (Biwer et al., 2021; Panadero et al., 2017; Schunk & DiBenedetto, 2020).

These three elements have been researched in isolation. The way they influence interaction within self-regulation. There is a strong connection between grit and goal orientation (Wolters & Hussain, 2015). Besides, the capacity to self-regulate one's own learning is the most important predictor of academic success and self-regulation is more than just balancing intelligence. Unfortunately, many students fail to manage their time and show quick frustration and disengagement when lessons are difficult (Garzón-Umerenkova et al., 2018; Kormos & Csizér, 2013; Zimmerman, 2022). This emphasizes the need to understand the active information for students' self-regulation. This research is based on three fundamental pillars; goal-setting, grit and motivation.

This study aims to comprehensively analyze the influence of goal setting, grit, and motivation on students' self-regulation through a literature review. Specifically, this study will answer the questions: (1) How does goal setting influence students' self-regulation? (2) To what extent does grit contribute to self-regulation? (3) How does motivation play a role in students' self-regulation? and (4) How do these three components interact? By answering these questions, this study is expected to provide a deeper understanding of the self-regulation process and its implications for educational practice.

The objectives of this study are to seek to address the influence of goal setting, the influence of grit, and the influence of motivation on the self-regulating abilities of the students. Accordingly, this study attempts to address the following four objectives to determine the extent of these components influence the self-regulating abilities of the students and if the components interact together to form a group. The answer to these questions is to result in greater insight and understanding of the self-regulating process and this insight will better the educational practice.

METHODS

This study engaged in a literature analysis exploring the influence of goal setting, perseverance, and motivation on self-regulated learning. A literature review is a research technique whereby one gathers, reads, comprehends, and analyzes a body of literature concerning the issue of study. This technique was applied because it allows a researcher to integrate the findings of a number of previous empirical studies to provide a more informed summary of the knowledge in the particular area of study, which in this case, is self-regulated learning.

The literature to be reviewed in this particular exercise was obtained from a number of scholarly databases including Google Scholar, Scopus, and a number of other educational psychology journal articles. The materials selected included journal articles and textbooks, and other documents detailing empirical research published from 2015-2025.

This study's criteria involve focusing on self-regulation from an educational standpoint, understanding self-regulation and its various components, understanding the interconnections of motivation on the self-regulation, understanding goal-setting, and achievement and learning behavior, understanding grit on self-regulation. The literature that has been selected has been researched and published by reputable organizations and has an empirical foundation, either through quantitative, qualitative, or mixed-method approaches.

RESULTS AND DISCUSSION

Goal Setting on Students' Self-Regulation

As indicated by an analysis of the literature, goal setting affects student self-regulation. A major theory from Locke and Latham (2002) found that people with specific goals perform 12-15% better than people with no goals or vague goals (Locke & Latham, 2002). This finding is important to the field of education since it means that students who are able to create specific and clear goals pertaining to learning are more likely to achieve.

Goal setting positively relates to self-regulation through multiple functions. One of them is the directing function of goals, through which they help students focus their attention and expend their effort on tasks relevant to learning (Cleary & Zimmerman, 2004; Murphy et al., 2023; Zimmerman, 2022). Goals help students concentrate on the learning in class and spend more time on duties. Students who have goals spend more time on tasks and are more focused and less distracted compared to students that do not have goals and do not spend time on tasks (Murphy et al., 2023; Schunk et al., 2022; D.Schunk, 1991). For instance, the energizing function of more difficult goals is to mobilize students' energy and effort. Latham and Locke (2016) argued that there is a linear relationship between the difficulty of goals and the effort that is put in (Latham, 2016). However, goals should not be too difficult to be unachievable in order for increased effort to be put in. Goals also help students to be more persistent, and the function of goals is to maintain effort on a task for a prolonged period of time (Bruhn et al., 2017). Finally, the more strategic function of goals is to encourage students to have and use novel and more effective strategies.

Another result, achievement of process goals leads to students developing more effective and advanced strategies as compared to those students who only

focus on outcome goals due to the reason of concentrating more on the ways or methodologies to attain goals, rather than only fixating on the end results (Freund & Hennecke, 2015b, 2015a; Kaftan & Freund, 2020).

Grit on Students' Self-Regulation

It has been shown that grit affects student self-regulation, which, in turn, affects students' levels of achievement even more than cognitive factors. The same pattern as the first round of theorizing about grit in the work of Duckworth et al. (2019) where grit predicted resilience and success in diverse, resilient cohorts, and this added more weight to the theory that more than innate talent, what matters is the ability to stick with something for the long haul (Angela Lee Duckworth, Quirk, et al., 2019). This is the same conclusion drawn in the meta-analysis conducted by Credé et al. (2017) in which the dimension of effort expended over time was found to be one of the strongest correlates of students' academic success and academic persistence (Credé et al., 2017). This explains the case of self-discipline where a student is likely to show an even greater academic achievement than one would expect with a particular IQ score. The research of Galla and Duckworth (2015) showed that high self-discipline students do not simply withstand temptation (Galla & Duckworth, 2015) but, as a means of overcoming procrastination, establish automatic and sustained study behaviors (Angela L Duckworth, Taxer, et al., 2019; Galla & Duckworth, 2015).

Moreover, grit was seen to be an important mechanism of motivational regulation strategies and learning outcomes. According to recent pathway analyses, strategies that include positive-self-talk and environmental structuring do not lead to achievement directly, but rather, achievement increases through the enhancement of student persistence (Steinmayr et al., 2019). Self-efficacy also contributes significantly, as students with strong self-efficacy are more likely to engage in and sustain effort toward the attainment of more demanding goals, and they recover from failure more quickly because they see it as a necessary part of the process rather than a lack of effort (Honicke & Broadbent, 2016). All of this puts emphasis on the need to focus educational efforts on the training of internal attributions and non-cognitive skills to enable students to develop adaptive self-regulation in complex learning contexts (Haynes Stewart et al., 2011).

The Role of Motivation on Students' Self-Regulation

Research shows that students who have higher self-regulation skills are more likely to have higher motivation levels. It shows that students that are intrinsically motivated to learn are likely to demonstrate higher levels of self-regulation than students who are less motivated. This shows that motivation is more than just where the students start learning from; it is what drives them to set a goal set and choose the cognitive strategies that they will use and monitor how they progress.

In the discussion, the connection between motivation and self-regulation as demonstrated through the self-regulation learning cycle is presented. Self-regulation as described by Panadero (2017) is an intricate process and is dependent on the emotional will and interest students have towards the assigned task. Without any interest or value attached to the material, metacognitive strategies are likely to be underutilized (Panadero et al., 2017). This is what Schunk and DiBenedett (2020) emphasize, according to them, self-regulation is central; students automatically deploy mental resources and are motivated to develop more organized strategies for learning when they feel competent (Schunk & DiBenedetto, 2020). Given the recent advances in technology, the importance of motivation is increasingly relevant to keeping students' attention on the lesson as opposed to the myriad of external distractions.

Moreover, considering the various kinds of motivation, one may argue that intrinsic motivation may fuel the long-term development of self-regulation, but internalized extrinsic motivation is equally important. According to Howard et al. (2021), through the lens of Self-Determination Theory, students can exhibit self-regulation when they appreciate the significance of a task, even though the task is somewhat undesirable (Howard et al., 2021). Self-regulation, however, is a concern when one is externally driven to self-regulate due to a risk of punitive control, as it becomes a tentative form. In the same way, Biwer et al. (2021) also stated that in the case of self-directed learning (i.e., during online learning), motivation would serve as a 'gatekeeper' that determines whether students would apply their learning for technological purposes in scientific work or would be confined in procrastination (Biwer et al., 2021).

Interacting Three Components on Students' Self-regulation

Goal setting, grit, and motivation work together to determine the extent to which a student can self-regulate, and are part of a larger psychological system. From the outside, and from a cognitive perspective, goal setting gives the system direction by helping students focus their energies on a given task. Motivation provides the effort (the initial energy) to get things started. Consistency, though, requires a different fuel source, which is where grit comes in. The type of motivation that is needed here is intrinsic. This type of motivation grows the persistence to get a task done and students that become interested in a task often demonstrate persisting at higher levels (Duckworth, 2016; Duckworth, et al., 2019). These three components work together to develop students' self-regulation in different ways.

The interplay of these components in students' self-regulation is seen in their capacity to handle cognitive and emotional regulatory resources through different stages of action. In self-regulated learning, students set their own learning goals to help in measurable strategic planning in the first stage of the self-regulated learning

process, while motivation supports the emotional drive needed to start action in the self-regulated learning process. Thereafter, grit is needed in the control of desired action in the process, where students have proven to be more capable, in maintaining habitual control for positive action, of the effective control of temptations and overcome procrastination through persistence in the desired task (Galla & Duckworth, 2015).

Thus, the interaction between goal setting, motivation, and grit creates a comprehensive self-regulation system, where academic success no longer depends solely on intellectual intelligence, but rather on students' ability to synergize direction, energy, and resilience. Goal setting provides cognitive structure, motivation provides initial impetus, and grit ensures the sustainability of these efforts in the face of long-term obstacles. The integrative role of these three components is vital in strengthening self-regulation, as it enables students to shift from mere learning intentions to consistent and adaptive concrete actions. Therefore, the development of these non-cognitive character traits is an integral foundation in shaping students who are resilient, independent, and capable of achieving optimal academic achievement amidst the dynamic challenges of education.

CONCLUSION

The review of literature shows that goal-setting, motivation, and grit have an influence on the self-regulated learning of students. Furthermore, the three are interrelated and work together in complete unison. Motivation enhances the learning thirst of students, and coupled with goal-setting, effective self-regulation is achieved. In the face of challenges, students are able to maintain their focus and effort stamina because of persistence. With such in mind, the self-regulated learning of students needs explicit goal-setting in addition to motivation-boosting strategies, and grit maintenance support to widen the independence learning abilities of the students to their 21st century learning needs. The focus of subsequent research needs to be on the complex interrelationships and the evidence-based self-regulated learning strategies that can be adapted into any teaching practice. It is only through the self-regulation of student learning that new educational paradigms can emerge to develop deep learning and create lifelong learners.

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