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SELF-REGULATED BEHAVIOUR OF SECONDARY STUDENTS IN RELATION TO ACADEMIC ACHIEVEMENT

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ABSTRACT
Self-regulation is a process that helps students manage their thoughts, behaviours, and emotions to successfully navigate their learning experiences. This process involves students' purposeful actions and efforts directed toward acquiring information or skills. The main objective of this study is to analyze the relationship between self-regulated behaviour and academic achievement among secondary-level students. The investigator used the survey method and selected the sample using random sampling techniques. In this study, 295 ninth-grade students from government, private, and government-aided schools in the Erode district were selected as a sample. The findings of the study indicate a significant difference in the self-regulated behaviour of students from government, aided, and private schools. Additionally, a significant relationship exists between self-regulated behaviour and the academic achievement of secondary-level students.

KEYWORDS: *Academic Achievement, Behaviour, Cognition, Relation, Self-regulation, Self-regulation behaviour, school students.*

INTRODUCTION

Self-regulation is a process that helps students manage their thoughts, behaviors, and emotions to navigate their learning experiences successfully. This process occurs when a student's purposeful actions and processes are directed toward acquiring information or skills. Generally, models of self-regulated learning are separated into phases. One popular cyclical model discusses three distinct phases: forethought and planning, performance monitoring, and reflections on performance (Pintrich & Zusho, 2002; Zimmerman, 2000). Self-regulation is a deep, internal mechanism that enables children, as well as adults, to engage in mindful, intentional, and thoughtful behaviors.

Self-regulation has two aspects. First, it involves the ability to control one's impulses and stop doing something when necessary. For example, a child can resist the immediate inclination to blurt out an answer when the teacher poses a question to another child. Second, self-regulation involves the capacity to do something because it is needed, such as waiting one's turn or raising one's hand. Self-regulated children can delay gratification and suppress their immediate impulses enough to think ahead to the possible consequences of their actions or consider alternative, more appropriate actions. While most children know they are supposed to "use their words" instead of fighting, only those who have acquired a level of self-regulation can actually do so (Rajkumar & Harikrishnan, 2017). This ability to both inhibits one behavior and engage in another on demand is a skill used not just in social interactions (emotional self-regulation) but in thinking (cognitive self-regulation) as well. Research shows that children's self-regulation behaviors in the early years predict their school achievement in reading and mathematics better than their IQ scores (Blair, 2002; Blair & Razza, 2007).

SELF-REGULATION BEHAVIOUR

Behavior regulation, sometimes also known as "self-regulation," refers to our ability to use self-control to behave appropriately. This may involve controlling our impulses to stop doing something, or it may mean doing something even if we don't want to. It includes managing our energy, emotions, attention, and behaviour in ways that are socially acceptable and help us achieve our goals. It enables us to stay calm, focused, and alert and to handle stressors such as excessive noise, fatigue, challenging situations or tasks, and distractions.

Our ability to regulate or manage our behaviour allows us to focus despite distractions, pay attention to important information, take turns, wait, follow rules, adapt to new situations, suppress outbursts of anger, and take on challenges. Behaviour regulation develops gradually during childhood. This process doesn't happen overnight, and some children cope with daily stresses more easily than others.

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ACADEMIC ACHIEVEMENT

A measure of knowledge gained in formal education usually indicated by test scores, grade, grade points, average and degrees. Here, the achievement level of the student is judged by the marks that the students have scored in the examinations. Academic achievement performance is the outcome of education the extent to which a student, teacher or institution has achieved their educational goals.

Self-Regulation Strategies for Students

Goal Setting: Goals can be thought of as the standards that regulate an individual's actions (Schunk, 2001). In the classroom, goals may range from earning a good grade on an exam to gaining a broad understanding of a topic. Short-term, attainable goals are often used to reach long-term aspirations. For example, if a student sets a long-term goal to do well on an exam, they may also set attainable goals such as studying for a set amount of time and using specific study strategies to help ensure success. Research suggests that encouraging students to set short-term goals for their learning can be an effective way to help them track their progress (Zimmerman, 2004).

***Planning*:** Like goal setting, planning helps students self-regulate their learning before engaging in tasks. Research shows that planning and goal setting are complementary, as planning aids learners in establishing well-thought-out goals and strategies for success (Schunk, 2001). Planning occurs in three stages: setting a goal for a learning task, establishing strategies to achieve the goal, and determining the time and resources needed (Schunk, 2001). Teaching students to approach academic tasks with a plan effectively promotes self-regulation and learning (Pressley & Woloshyn, 1995; Scheid, 1993).

***Self-Motivation*:** Self-motivation happens when a learner independently employs strategies to stay focused on their learning goals. It plays a crucial role in self-regulation because it requires learners to take control of their learning process (Corno, 1993). Additionally, self-motivation occurs without external rewards or incentives, indicating a growing autonomy in the learner (Zimmerman, 2004). When students set their own learning goals and find internal motivation to progress towards those goals, they are more likely to persevere through challenging tasks and often find the learning process more rewarding (Wolters, 2003).

***Attention Control*:** To self-regulate effectively, learners need to manage their attention (Winne, 1995). This cognitive process demands substantial self-monitoring (Harnishfeger, 1995). It often involves clearing the mind of distractions and finding environments that are conducive to learning, such as quiet, noise-free areas (Winne, 1995). Research shows that students' academic performance improves with focused, on-task time (Kuhl, 1985). Therefore, teaching students to concentrate on learning tasks should be a priority. Teachers can assist by eliminating potential distractions and offering frequent breaks to help students gradually increase their attention spans.

Flexible Use of Strategies: Successful learners can employ various learning strategies across different tasks and adapt them as necessary to achieve their goals (Paris & Paris, 2001). However, it's important to recognize that most students, particularly those in primary grades, generally lack a wide range of learning strategies (van de Broek et al., 2001). It takes time for students to learn and become comfortable with different strategies. Teachers can aid this process by demonstrating new strategies and offering appropriate scaffolding as students practice, helping them to become independent strategy users.

***Self-Monitoring*:** To become strategic learners, students must take ownership of their learning and achievement outcomes (Kistner et al., 2010). Self-regulated learners assume this responsibility by tracking their progress toward learning goals. The process of self-monitoring incorporates all these strategies. To self-monitor effectively, a learner must set their own learning goals, plan, motivate themselves independently, concentrate on the task at hand, and use learning strategies to enhance their understanding of the material (Zimmerman, 2004).

***Help-Seeking*:** Contrary to common belief, self-regulated learners do not attempt to tackle every task independently but often seek assistance from others when needed (Butler, 1998). What distinguishes self-regulated learners from their peers is that they seek help with the intention of becoming more autonomous (Ryan et al., 2001). Teachers can encourage effective help-seeking behaviors by offering clear, ongoing feedback on students' progress and providing opportunities for students to resubmit assignments after making necessary revisions.

***Self-Evaluation*:** Students are more likely to develop into self-regulated learners when they can assess their own learning independently of teacher-issued summative assessments. This ability allows them to evaluate their learning strategies and make adjustments for similar tasks in the future. Teachers can encourage self-evaluation by assisting students in tracking their learning goals and strategy use, and by guiding them in modifying these goals and strategies based on their learning outcomes (Zimmerman, 2004).

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Self-regulated learners are capable of setting both short- and long-term goals, planning how to achieve them, motivating themselves, and concentrating on their progress. They can use various learning strategies, adjust these strategies as needed, monitor their own progress, seek help when necessary, and evaluate their learning goals based on outcomes. Teachers at the primary and secondary levels can implement these strategies to foster self-regulation in their classrooms. However, it is important for teachers to recognize that students develop at different rates, and what works well for one learner may not be effective for another.

NEED AND IMPORTANCE OF THE STUDY

A study examining the relationship between self-regulated behavior and academic achievement among secondary level students can help identify academic issues, particularly those related to exams. Schools are social institutions established for the benefit of their members, and society places its hopes and expectations on its students. When a child fails to meet societal expectations in academic achievement, they may encounter difficulties, as their self-regulated behavior might be hindered by a persistent fear of failure.

Self-regulated students can delay gratification and control their impulses enough to anticipate the consequences of their actions or consider more appropriate alternatives. Self-regulation encompasses both social-emotional and cognitive behaviors, such as memory and attention. These aspects of self-regulation are interconnected; students who struggle with emotional control are less likely to follow directions or become reflective learners. Secondary students' learning is often focused on academic content, and self-regulation does not develop automatically. However, these skills are crucial for lifelong learning. Thus, it is important for teachers and parents to support and encourage the development of self-regulatory behaviour. This is why the researcher chose to study the "relationship between self-regulated behaviour and academic achievement at the secondary level." The investigation also aimed to compare self-regulated behaviour scores with academic achievement.

REVIEW OF RELATED STUDIES

Kate Elizabeth Williams (2023) analyzed how self-regulation from birth to age seven relates to maternal mental health, parenting, and later child behavior. Her research provides new Australian evidence using a large, long-term dataset and modern statistical methods.

Chung and Mantak Yuen (2021) explored the role of feedback in improving students' self-regulation. They highlight how detailed, personalized feedback in a supportive environment can help students become more autonomous learners. The paper offers suggestions for school staff and future research.

Joseph Tadlock and Sharon Zumbrunn et al. (2021) reviewed self-regulated learning (SRL) in the classroom. They discuss SRL's importance for student motivation and achievement, provide strategies for promoting SRL, and address challenges educators might face in teaching students to be self-regulated, lifelong learners.

McAuley et al. (2021) studied self-regulation and exercise adherence in older adults. They found that better executive function and use of self-regulation strategies improve confidence in exercise abilities, which leads to greater adherence to exercise programs.

OBJECTIVES OF THE STUDY

- ✓ To study the self-regulated behaviour of students at secondary level based on their gender, locality of student, type of school.
- ✓ To find out the relationship between self-regulated behaviour and academic achievement of students at secondary level.

HYPOTHESES OF THE STUDY

- ❑ There is no significant difference in students' self-regulated behaviour based on their gender, locality, and type of school.
- ❑ There is no significant relationship between self-regulated behaviour and academic achievement of students at secondary level.

METHOD OF THE STUDY

The investigator used the survey method for the study. This method collects data from a relatively large number of cases at a specific point in time. It focuses on the overall statistics derived from aggregating data across multiple individual cases, rather than examining the characteristics of each individual case separately.

Population, Sample and Sampling Method

The study's population includes all secondary students in government-recognized schools within Erode district. Using a stratified random sampling technique, the investigator selected 295 ninth-class students from government, private, and government-aided schools in the district.

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Tool Used for the Study

In this study, the investigators employed a self-regulated behavior questionnaire developed and standardized by themselves. The tool includes 30 statements with both positive and negative questions. For positive questions, scores are assigned as 4, 3, 2, and 1, while for negative questions, scores are assigned as 1, 2, 3, and 4.

Validity and Reliability

The investigator validated the items with the assistance of experts, ensuring both face validity and content validity. The reliability of the tool, determined using the Spearman-Brown prophecy formula, was found to be 0.73.

TESTING OF HYPOTHESES

Table-1: Significance of difference in students' self-regulated bahaviour based on Gender

Gender	*N*	*Mean*	*Standard Deviation*	*'t' value*	*Level of Significance*
Boys	171	95.36	9.09	1.10	Not significant
Girls	124	94.12	9.78		

From Table 1, it is observed that the calculated 't' value is 1.10, which is lower than the tabulated value of 1.96 at the 0.05 significance level. Therefore, the null hypothesis is accepted, indicating that there is no significant difference in students' self-regulated behavior based on gender.

Table-2: Significance of difference in students' self-regulated bahaviour based on Locality

Locality	*N*	*Mean*	*Standard Deviation*	*'t' value*	*Level of Significance*
Rural	122	94.23	9.18	1.67	Not Significant
Urban	173	96.28	9.79		

From Table 2, it is observed that the calculated 't' value is 1.67, which is lower than the tabulated value of 1.96 at the 0.05 significance level. Therefore, the null hypothesis is accepted, indicating that there is no significant difference in students' self-regulated behavior based on their locality.

Table-3: Significance of difference in students' self-regulated bahaviour based on Type of School

Type of school	*Mean*	*Standard Deviation*	*Sources of Variation*	*Sum of Square*	*df*	*Mean Square*	*F value*	*Level of Significance*
Govt	97.42	8.02	Between Groups	1136.033	2	568.02	6.67	Significant
Aided	93.62	11.35						
Private	93.14	8.31	Within Groups	24831.4	97	85.03		

From Table 3, it is noted that the calculated F value is 6.67, which exceeds the tabulated value of 3.02 at the 0.05 significance level. Therefore, the null hypothesis is rejected, indicating that there is a significant difference in students' self-regulated behaviour based on their type of school.

Table-4: Significant of relationship between self-regulated bahaviour and academic achievement of students

Sample	*Self-regulated bahaviour*	*Academic achievement*	*Correlation 'r' value*	*Level of significant at 0.05 level*
295	95.02	69.50	0.602	Significant

From Table 4, it is noted that the calculated "r" value is 0.602, indicating a positive correlation between the two variables. Consequently, the null hypothesis is rejected, and it can be concluded that there is a significant relationship between self-regulated behaviour and academic achievement among secondary level students.

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FINDINGS OF THE STUDY

The study found that there is no significant difference in self-regulated behaviour between male and female students. Additionally, there is no notable difference in self-regulated behaviour between urban and rural students at the secondary level. However, a significant difference was observed in self-regulated behaviour among students from government, aided, and private schools. Furthermore, a significant relationship exists between self-regulated behaviour and academic achievement among secondary level students.

CONCLUSION

Based on the findings, it can be concluded that while self-regulated behaviour does not significantly differ between genders or between urban and rural students, it varies significantly across different types of schools. Furthermore, self-regulated behaviour has a significant relationship with academic achievement among secondary level students. This study advocates that enhancing self-regulated behaviour can lead to improved academic performance. Academically, this underscores the importance of developing self-regulation skills in students, which can be achieved through targeted interventions and support from both teachers and parents. By fostering self-regulation, teachers can help students achieve better academic outcomes and become more effective learners.

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