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Self-Regulated Learning: A Correlate of Achievement Motivation among Senior Secondary School Adolescents in Nigeria

Shuaib Abolakale Muhammed,[1] Margaret Funke Omidire[2]

[1]*Centre for Evaluation and Assessment, Department of Science Mathematics and Technology Education, Faculty of Education, University of Pretoria, Pretoria, Gauteng, South Africa.*
[2]*Department of Educational Psychology, Faculty of Education, University of Pretoria, Pretoria, Gauteng, South Africa.*

***Corresponding author, email**: shuaib.muhammed@up.ac.za*

Abstract

Transition to senior high school introduces students to heightened academic expectations, requiring the formulation of effective strategies for achievement. This research investigates self-regulated learning (SRL) practices and achievement motivation among Senior Secondary School adolescents in Nigeria, using a descriptive survey design on sample of 400 secondary students selected through simple random and stratified sampling methods. Data were collected via the "Self-Regulated Learning and Achievement Motivation Questionnaire" (SRLAMQ). Data were analysed using percentages, means, rank order and Pearson's Product Moment Correlation. Findings indicated a significant achievement motivation level, with an aggregate mean score of 3.22 and a moderate positive correlation between SRL habits and achievement motivation ($r = 0.307$, $p < 0.05$). Notably, gender differences emerged, with females showing a stronger correlation ($r = 0.344$) compared to males ($r = 0.246$). Age analysis revealed significant relationships for students aged 14–17 years ($r = 0.352$) and 18 years and older ($r = 0.369$), while no significant relationship was noted for ages 10–13 years. There were also positive correlations between SRL practices and achievement motivation based on school types. The study advocates for targeted interventions to enhance SRL practices among adolescents in Nigeria and a qualitative investigation into the gender differences noted.

Keywords: Achievement; Achievement Motivation; Adolescents; Motivation; Learning; Learning habits; Self-Directed Learning; Self-Regulated Learning.

Introduction

As students transition into senior secondary school, they encounter heightened academic demands requiring the development of effective strategies for success. This stage is a crucial period of educational and personal development as students begin to assume greater responsibility for their learning. Academic achievement in such a competitive environment depends not only on intellectual ability but also on self-regulation an essential skill that enables students to plan, monitor, and evaluate their learning (Barkley, 2012). Self-regulation involves controlling one's thoughts, emotions, and actions to attain specific goals and adjust to challenges (Gillebaart, 2018; Panadero, 2017).

Self-Regulated Learning (SRL) refers to a proactive process in which students transform cognitive abilities into academic skills through structured practice and feedback (Zimmerman et al., 2002). Effective self-regulated learners analyse task requirements, set goals, and manage motivation and emotions to achieve success (Paris & Paris, 2001). While SRL and Self-Directed Learning (SDL) share conceptual overlap, SRL focuses more on cognitive and motivational self-management, whereas SDL emphasizes learner autonomy and control over the educational process (Brockett & Hiemstra, 1991; Guglielmino, 2013; Tredoux, 2012). Both are essential to building independent and persistent learners.

Achievement motivation, another key construct influencing academic success, refers to

the internal and external drive that compels individuals to excel and attain goals (Atkinson, 1957; Eccles & Wigfield, 2002). Intrinsic motivation occurs when learners engage in activities for inherent satisfaction, while extrinsic motivation arises from external incentives such as grades or recognition (Deci et al., 2015). Studies such as Harackiewicz and Priniski (2018) and Elliot and Dweck (2005) affirm that mastery-oriented motivation fosters deep learning and persistence, while Ryan and Deci (2000), through the self-determination theory, highlight that autonomy and competence enhance intrinsic motivation and well-being. Together, SRL and achievement motivation form the foundation for lifelong learning, resilience, and academic achievement.

Empirical studies have established that SRL and achievement motivation are interrelated (Panadero & Alonso-Tapia, 2013; Dent & Koenka, 2016; Hadwin et al., 2018). Learners who regulate their cognition, emotions, and behaviour tend to remain motivated, persistent, and academically successful. However, despite this robust body of evidence, research also shows that students' motivation tends to decline as they progress through schooling, especially during adolescence (Busse & Walter, 2017; Dresel & Grassinger, 2013; Rizkallah & Seitz, 2017). This developmental decline highlights the need to better understand how adolescents' SRL habits interact with achievement motivation during this critical educational phase.

Most studies exploring SRL and achievement motivation have been conducted in Western or Asian contexts (e.g., Heikkilä & Lonka, 2016; Mega et al., 2013), focusing on university or college students. Few studies have examined these relationships among secondary school adolescents in Sub-Saharan Africa, and even fewer have explored how SRL habits relate to motivation in Nigeria's unique socio-educational environment. In Nigeria, adolescents often contend with overcrowded classrooms, limited access to learning resources, inconsistent teaching quality, and socio-economic pressures that undermine motivation and self-regulation. Additionally, the high rate of graduate unemployment has diminished many students' faith in education as a reliable path to success, further weakening intrinsic motivation.

Although studies such as Muhammed, Olayiwola-Adedoja, and Iretor-Oscar (2021) and Ayub (2010) have examined aspects of academic motivation among Nigerian learners, comprehensive investigations linking SRL habits and achievement motivation remain scarce. Furthermore, prior studies have not adequately considered how contextual and demographic factors such as gender, age, and school type might moderate this relationship. This represents a key empirical and theoretical gap that this study seeks to address. Gender differences in SRL and motivation have received attention in international research, though findings remain mixed. Studies such as Martinez-Pons and Zimmerman (2018) suggest that female students often exhibit stronger mastery goal orientations, higher persistence, and better use of self-regulatory strategies than males.These differences may stem from socialisation patterns, self-efficacy beliefs, and gendered expectations regarding academic diligence. Investigating gender as a moderating variable in the Nigerian context is therefore essential to understanding whether similar trends hold in African secondary school settings.

Age is another important factor influencing SRL and motivation. As adolescents mature, their cognitive and metacognitive capacities develop, enabling more effective goal setting, monitoring, and reflection (Zimmerman & Kitsantas, 2014). Younger learners often rely more on external guidance, while older adolescents develop internal motivation and self-regulatory control. Exploring how age moderates SRL–motivation relationships can reveal developmental patterns that inform age-appropriate educational interventions.

School type (public vs. private) also represents a potential moderating variable. Differences in teacher quality, learning environments, class size, and resource availability may influence students' self-regulation and motivation (Muhammed, etal 2021). Understanding whether SRL–motivation dynamics vary between public and private school settings in Nigeria is critical for designing equitable strategies to support adolescent learning

and engagement across diverse educational contexts.

Despite growing evidence that SRL habits and achievement motivation significantly shape academic outcomes, many Nigerian adolescents exhibit weak self-regulatory skills, low persistence, and declining motivation. This deficiency manifests in procrastination, poor time management, and limited metacognitive awareness, all of which impede academic performance and holistic development. The Nigerian educational system has yet to integrate structured approaches to strengthening SRL and motivational skills, particularly at the secondary level.

Moreover, there remains a limited understanding of how demographic and contextual factors such as gender, age, and school type influence the SRL–achievement motivation relationship among school going adolescents. Addressing these gaps is vital for developing tailored interventions that foster autonomous, resilient, and motivated learners capable of navigating academic and life challenges. It is against this background that this study examines self-regulated learning habits and achievement motivation among school going adolescents in Nigeria, with specific attention to the moderating effects of gender, age, and school type.

Theoretical framework

This research is based on Social Cognitive Theory (SCT), formulated by Albert Bandura, which highlights the interactive relationship among personal, behavioural, and environmental elements in the learning process. SCT asserts that individuals acquire knowledge not only through direct experience but also by observing others in their social environment. The learning-interaction link between SRL and achievement motivation in adolescents receives significant attention in educational settings. A number of essential components within the notion of SRL and achievement motivation being explored, formed the foundation of SCT. Reciprocal Determinism, a core idea in SCT, asserts that behaviour, personal factors such as beliefs and attitudes, and environmental effects operate together. This idea is critical for understanding the social environment of adolescents' SRL habits and achievement motivation in relation to peers, teachers, and the school as a whole. When these variables are present, students' SRL practices increase. The classroom atmosphere helps students to become more self-sufficient and motivates them to improve their performance. SCT is likewise concerned with self-efficacy because it focusses on the sense of one's ability to organise and execute actions required to complete assigned tasks successfully. Self-efficacy has been demonstrated to be positively connected with one's willingness and effort in academic assignments (Bandura 1997). When students believe they have control over their learning process, they are more likely to participate in autonomous acts that improve their academic achievements.

Equally, SCT's Observational Learning emphasises the requirement of creating new habits by watching others. By watching peers or teachers who model good learning habits, children in schools can create SRL patterns. This aspect of SCT clarifies how social interactions in the classroom promote the development of self-regulated learning and drive in young people. Goal Setting and Self-Regulation, a component of SCT, helps to clarify the concept that students can manage their behaviour to achieve their objectives. This is consistent with the ideas of SRL, in which students actively participate in the scheduling, tracking, and assessment of their learning processes (Zimmerman, 2011). Framed by Social Cognitive Theory, this research explores the intricate linkages between SRL habits and achievement motivation among in-school Nigerian adolescents. The SCT allows a comprehensive study of how environmental factors, social interactions (observational learning), and personal beliefs (self-efficacy) shape students' capacity to self-regulate their learning efficiently.

Methods

Study Design

The research design of this study was a descriptive correlational survey. A descriptive survey is a systematic endeavour to precisely delineate the attributes of a specific population or area of interest. A correlation denotes the relationship between two or more variables. The objective of employing correlations in research is

to ascertain the associations between variables and to assess the degree of their interrelation; it facilitates the researcher's clear and immediate comprehension of any relationship between the variables being examined. Consequently, the researcher deemed correlational research suitable for this study as it examined self-regulated learning habits and achievement motivation among school going adolescents.

Sample

The study's population comprised all school going adolescents in Oyo metropolis Nigeria, and the target population was selected from several secondary schools in Oyo metropolis. As a result, this study used a sample of 400 school going adolescents. Respondents were selected using a simple random sampling procedure. Ten secondary schools in the Oyo metropolis were selected using a random sampling method. The simple random sampling method permits the selection of all samples from a population. In addition, 40 school going adolescents from each designated secondary school were chosen using a random sample technique. The respondents were picked based on gender, age, and school type. A total of 400 (40 x 10) school going adolescents were chosen.

Instrument

The instrument utilised in this study was the "Self-Regulated Learning and Achievement Motivation Questionnaire" (SRLAMQ). The questionnaire has three sections (A, B, and C). Section A featured the respondents' personal data (gender, age, and school type), section B comprised the self-regulated learning scale, and section C comprised items from the achievement motivation scale. The tool is designed around a 4-point Likert-type Scale of 1-4.

To ensure the instrument's validity, five specialists from counselling, and educational psychology, reviewed the draft questionnaire forms. Following the experts' comments, essential changes were made, and the instrument was determined to be appropriate for this study since it accurately assesses the characteristics it is meant to measure. The instrument's reliability was determined using the test–retest reliability approach. The questionnaires were distributed to 20 school going adolescents who were not part of the final sample. After a three-week gap, the same respondents were given the identical instrument to complete. The two sets of scores were correlated using Pearson Product Moment Correlation, yielding reliability coefficients of 0.81 and 0.73 for the two scales, respectively.

Data Collection

The questionnaires were administered with the assistance of two research assistants who were initially taught the processes of the instrument's administration. The respondents were also briefed on the study's objective and expectations and were also provided with information about the importance of closely adhering to instructions. They were urged to answer the instrument truthfully and accurately. They were also assured of the confidentiality of the information provided.

Data Analysis

The grading of the instrument was based on the structure of each of the questionnaire's sections (A, B, and C). Descriptive statistics such as frequency and percentage were used to examine the data from sections A consisting of the demographic data. The following points were assigned to the instrument's sections B and C, which included SRL and achievement motivation. Four points are allotted for Very True of Me (VTM); three points for True of Me (TM); two points for Not True of Me (NTM); and one point for Not Very True of Me (NVTM). A mean score of 2.50 was applied to serve as a cut-off mark for each item. Both descriptive and inferential statistics were used in the study's data analysis. The developed null hypotheses were tested using the Pearson's Product Moment Correlation (PPMC) statistical tool. Every hypothesis was examined at the significance level of 0.05.

Ethical Considerations

The researchers obtained institutional ethics approval, thereby incorporating ethical considerations into the study. The participants, school administration, and parents provided authorisation and informed consent. The participants were informed of the study's objective and the guidelines to be adhered to; participants

were assured of the confidentiality of the information they would provide.

Results

The analysis of the data gathered from the study offers significant information on the SRL habits and achievement motivation of in-school teenagers in Oyo city, Nigeria. The research utilised descriptive and inferential statistical techniques to examine the data, incorporating percentage distribution for demographic information, mean and standard deviation for research enquiries, and Pearson Product-Moment Correlation for hypothesis testing at a significance level of 0.05.

Demographic Overview

The demographic analysis in Table 1 indicates a predominance of female respondents, with 248 females (62.0%) compared to 152 males (38.0%). The age distribution reveals that most participants (67.8%) were aged from 14–17 years, while 21.8% were 10–13 years old, and 10.5% were aged 18 years and above. Additionally, a higher proportion of respondents attended public schools (64.5%) compared to private schools (35.5%).

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Table 1: Percentage distribution of respondents' demographic data

Variable	Frequency	Percentage
Gender		
Male	152	38.0
Female	248	62.0
Total	**400**	**100**
Age		
10–13 years	87	21.8
14–17 years	271	67.8
18 years and above	42	10.5
Total	**400**	**100**
School Type		
Private	142	35.5
Public	258	64.5
Total	**400**	**100**

SRL of Respondents

Table 2 presents the mean, standard deviation, and rank order of the respondents' SRL habits. The table indicates that the assessment of SRL habits yielded mean scores above the threshold of 2.50 across all items evaluated. Notably, the highest-ranked habits included synthesising information from various sources during study sessions and recalling classroom instructions during homework tasks, with mean scores of 3.50 and 3.42 respectively. Conversely, lower-ranked habits involved listening attentively during class and articulating important ideas in one's own words, with mean scores of 2.95 and 2.57 respectively.

Level of School going adolescents' Achievement Motivation in Nigeria

The analysis of achievement motivation in Table 3 revealed an aggregate mean score of 3.22, indicating a high level of motivation among the respondents. The highest-rated motivations included the desire for improvement through repeated opportunities and the influence of interesting schoolwork on effort levels.

Relationship between SRL habits and achievement motivation of respondents

The result in Table 4 indicates a moderate positive relationship between SRL habits and academic motivation ($r = 0.307$), with a statistically significant p-value (0.000). This suggests that improvements in SRL relate to increases in academic motivation among participants.

Table 2: Respondents' SRL habits in mean and rank order

Item No.	Item	Mean	S.D.	Rank
1	I try to use what I have learnt in class and from books when I study for tests.	3.50	.501	1st
2	I try to recall what the teacher said in class while doing homework so I can properly respond to the questions	3.42	.493	2nd
5	I always try to understand what the teacher is saying even if it does not make sense.	3.37	.483	3rd
3	It is easy for me to decide what the main ideas are in what I read.	3.29	.457	4th
8	I perform new tasks using what I have acquired from old homework papers and textbooks.	3.24	.868	5th
19	When I am solving Mathematics problems or subjects, I stop occasionally and go over what I have solved	3.23	1.093	6th
7	I study for an exam by repeating to myself important facts.	3.22	.502	7th
12	I question myself to ensure I understand the material I have been learning.	3.21	.486	8th
13	Even when Mathematics problems and other subjects are hard, I keep on trying.	3.19	.828	9th
20	I work hard to get a good grade even I don 't like math class.	3.18	1.189	10th
6	When I study for a test, I try to remember as many facts as I can.	3.15	.699	11th
16	Before I begin studying, I think about the things I will need to do to learn.	3.10	1.042	12th
10	I outline the chapters in my book to help me study.	3.10	.841	12th
14	I work on practice exercises and answer end of chapter questions even if I do not have to.	3.08	.797	14th
9	When I read material for math class, I say the words over to myself to help me remember.	3.08	.797	14th
15	Even when study materials are uninteresting, I keep working until I am finished.	3.06	.786	16th
11	When reading I try to connect the things, I am reading about with what I already know.	3.01	.838	17th
18	I always listen when the teacher is talking.	2.95	1.245	18th
17	I make sure that I understand what I read for math class.	2.84	1.278	19th
4	When I study, I put important ideas into my own words.	2.57	1.117	20th

Table 3: Respondents' Achievement Motivation in Mean and Rank Order

Item No.	Item	Mean	S.D.	Rank
4	I like having the chance to do something better the second time	3.45	.615	1st
9	How hard I try in school depends on how interesting the work is.	3.41	.635	2nd
12	I like it when other people tell me I did a good job.	3.41	.602	2rd
5	I often try new things on my own	3.41	.694	2th
6	I work hard at school so the teacher will praise me	3.39	.632	5th
3	I try to do well in school so my teachers will be happy.	3.39	.631	5th
13	I try hard to make sure that I am good at my schoolwork	3.36	.664	7th
11	I don 't mind working a long time at schoolwork that I find interesting	3.36	.609	7th
10	It is very important for students to help each other at school	3.30	.532	9th
7	I want to do well at school to show that I can do it	3.30	.694	9th
15	I work hard at school for presents from my parents	3.26	.657	11th
2	Winning is important to me	3.19	.786	12th
17	Praise from my teachers for my good schoolwork is important to me	3.16	1.13	13th
14	I am happy only when I am one of the best in class	3.11	.806	14th
1	I want to do well at school to be better than my classmates	3.07	.629	15th
16	I try to do well at school to please my parents	3.06	1.13	16th
19	I am always getting into trouble at school	3.00	1.18	17th
18	I don 't often mistakes at school	2.96	1.20	18th
20	Getting a reward for my good schoolwork is not very important to me	2.93	1.23	19th
8	I work best in class when I can get some kind of reward	2.91	.865	20th
	Aggregate mean	**3.22**		

Table 4: Pearson 'r' Showing Relationship between SRL Habits and Achievement Motivation of the Respondents

Variable	N	Mean	SD	Cal. r-value	p. value
SRL habits	400	62.78	7.69	.307*	.000
Achievement motivation	400	64.41	8.12		

*Significant, p<0.05

Table 5: Pearson 'r' Showing Relationship between SRL Habits and Achievement Motivation of the Respondents Based on Gender

Gender	Variable	N	Mean	SD	Cal. r-value	p. value
Male	SRL habits	152	61.57	7.066	.246*	.002
	Achievement motivation	152	64.49	7.834		
Female	SRL habits	248	63.52	7.972	.344*	.000
	Achievement motivation	248	64.36	8.320		

*Significant, p<0.05

Table 6: Pearson 'r' Showing Relationship between SRL Habits and Achievement Motivation of the Respondents Based on Age

Year	Variable	N	Mean	SD	Cal. r-value	p. value
10-13 years	SRL habits	87	61.78	6.79	.103	.344
	Achievement motivation	87	63.77	7.93		
14-17 years	SRL habits	271	63.25	8.00	.352*	.000
	Achievement motivation	271	64.56	8.05		
18 years and above	SRL habits	42	61.79	7.19	.369*	.016
	Achievement motivation	42	64.76	9.07		

*Significant, p<0.05

Table 7: Pearson 'r' Showing Relationship between SRL Habits and Achievement Motivation of the Respondents Based on School Type

School Type	Variable	N	Mean	SD	Cal. r-value	p. value
Private	SRL habits	142	62.12	6.788	.281*	.001
	Achievement motivation	142	63.03	8.565		
Public	SRL habits	258	63.14	8.134	.317*	.000
	Achievement motivation	258	65.17	7.792		

*Significant, p<0.05

Gender-based differences in the relationship between SRL habits and achievement motivation of respondents

Table 5 indicates that for male students, a weak positive correlation was observed (r = 0.246, p = 0.002), while female participants exhibited a stronger correlation (r = 0.344, p = 0.000). Both correlations were statistically significant, leading to the rejection of the null hypothesis and indicating that SRL habits positively influence academic motivation for both genders, with a more pronounced effect in females.

Relationship between SRL habits and achievement motivation of respondents based on age

The result in Table 6 indicates varied correlation results by age group; no significant relationship was found for respondents aged 10–13 years (r = 0.103), while moderate positive correlations were identified for those aged 14-17 years (r = 0.352) and those aged 18 years and above (r = 0.369). Thus, the null hypothesis was accepted for the younger group but rejected for the older groups.

Relationship between SRL habits and achievement motivation of respondents based on school type

Table 7 revealed moderate positive correlations for both private (r = 0.281) and public-school students (r = 0.317), with both correlations being statistically significant. This finding led to the rejection of the stated null hypothesis, confirming that SRL habits significantly influence achievement motivation across different school types.

Discussion

The present study examined the relationship between self-regulated learning (SRL) habits and achievement motivation among school going adolescents in Oyo metropolis, Nigeria. The findings revealed that students demonstrated moderately strong SRL habits, with higher mean scores in activities such as synthesising information from class and textbooks, recalling classroom instructions during homework, and striving to understand difficult lessons. These behaviours indicate that Nigerian adolescents actively engage in learning strategies that promote autonomy and persistence. The findings align with Bjork et al. (2013) and Anderson et al. (2021), who emphasised that integrating classroom lessons with independent study strengthens comprehension, problem-solving, and academic performance. Such practices suggest that adolescents who consciously regulate their learning processes are better equipped to meet academic challenges.

The study also established that adolescents in the sampled schools displayed a high level of achievement motivation, with an aggregate mean score of 3.22. This implies that learners are largely driven to succeed, particularly through opportunities for self-improvement and engaging schoolwork. The finding supports Liu et al. (2019) and Muhammed et al. (2021), who reported that structured school environments with clear expectations nurture intrinsic motivation. It appears that the formal school system characterised by defined goals, measurable outcomes, and consistent feedback creates conditions that sustain students' motivation to learn and excel.

A key finding was the significant positive relationship between SRL habits and achievement motivation. This suggests that students who regulate their learning processes tend to be more motivated toward achieving academic success. Such a relationship has been widely documented: Panadero and Alonso-Tapia (2013), Dent and Koenka (2016), and Usher and Pajares (2008) similarly reported that self-regulated learners display higher levels of academic motivation and self-efficacy. The current results reinforce these conclusions within the Nigerian context, indicating that adolescents who plan, monitor, and evaluate their learning are more likely to sustain effort, set challenging goals, and value achievement. In essence, SRL provides the metacognitive foundation upon which motivation is built, while motivation energises the continuous use of SRL strategies a mutually reinforcing dynamic.

Gender differences also emerged. Female students showed a stronger correlation between SRL habits and achievement motivation than males. This finding suggests that female adolescents are more likely to link their self-regulatory strategies to goal-directed motivation. Such differences may stem from socialisation patterns, self-efficacy beliefs, or variations in goal orientation. Consistent with Martinez-Pons and Zimmerman (2018), females often exhibit stronger mastery goal orientations and higher persistence levels, which may explain their greater reliance on SRL strategies to sustain motivation. From a cultural standpoint, this pattern might also reflect differing expectations placed on male and female students in Nigerian schools, where girls are

increasingly encouraged to demonstrate academic diligence and resilience.

Age-related patterns were also observed. Older adolescents (14–17 years and 18 years and above) showed a stronger link between SRL and motivation than younger learners (10–13 years). This finding implies that as adolescents mature, they acquire greater cognitive control, metacognitive awareness, and goal-setting ability skills central to effective self-regulation. This developmental trend supports the work of Zimmerman and Kitsantas (2014) and Wong and Chen (2014), who noted that self-regulation and motivation strengthen with age as students develop executive functions and long-term learning strategies. The present results highlight the importance of introducing SRL training early in secondary education so that younger learners can gradually internalise these competencies.

The analysis further revealed that the positive relationship between SRL and achievement motivation persisted across both public and private school types. This suggests that, regardless of institutional resources or learning environment, students who effectively manage their learning processes maintain higher motivation levels. The finding aligns with Muhammed, etal (2021), who found that goal-oriented learners, irrespective of school context, demonstrate stronger motivation and academic performance. Nonetheless, contextual differences such as class size, teacher feedback quality, and resource availability may influence the intensity with which SRL and motivation interact, warranting further comparative investigation.

Overall, the discussion of findings underscores the intertwined nature of SRL and achievement motivation among Nigerian adolescents. Adolescents who cultivate SRL habits such as goal-setting, monitoring progress, and reflecting on outcomes tend to experience higher motivation and greater academic engagement. Conversely, those lacking these habits may face difficulties sustaining effort, organising learning tasks, or maintaining focus on long-term goals. The findings resonate with the Social Cognitive Theory framework that underpins this study: personal beliefs (self-efficacy), behavioural strategies (self-regulation), and environmental influences (school context) interact reciprocally to shape learning outcomes (Bandura, 1997). When students believe in their competence and perceive supportive environments, their motivation and self-regulatory behaviours are mutually enhanced.

Within the Nigerian context, the implications are particularly significant. Many adolescents navigate educational environments with limited guidance and socio-economic pressures that threaten motivation. Enhancing SRL skills through structured support, mentoring, and counselling could therefore serve as a protective factor, promoting both academic success and psychological resilience. Educational stakeholders' teachers, school counsellors, and policy-makers should prioritise interventions that foster self-regulation and intrinsic motivation, particularly among younger learners and male students who may show weaker SRL–motivation links. By embedding SRL principles into classroom practice, Nigerian schools can cultivate learners who are autonomous, adaptive, and motivated to succeed despite systemic challenges.

Conclusion

The research highlights the significant impact of self-regulated learning habits on achievement motivation of school adolescents. The findings provided evidence of a strong positive relationship of SRL with achievement motivation underlining importance of these activities toward students' academic attainment. They also illustrated marked differences in SRL and motivation by gender, age, and type of school attended. The correlation of self-regulation with achievement motivation is influenced by gender suggesting that some measures targeted to help boys and girls may be necessary for these students to succeed. Moreover, differences among age groups indicate that such changes may be associated with developmental factors. The study calls for school psychologists and education professionals to pay more attention to the blending of SRL techniques into classroom frameworks. By fostering the SDL paradigm, educators stand to boost motivation and immersion, as well as activate the potential for positive results in academic achievement. More effective approaches

with regards to developmental issues and gender differences can be added to these efforts so that all students are able to acquire the competencies required to constructively progress in their education

Limitations and Future Prospects

Regardless of the conclusions drawn from this study, the limitations are considerable. Only self-reported measures which are vulnerable to bias, such as social desirability or lack of insight, were used. In addition, the cross-sectional nature of the study design makes it impossible to ascertain cause-effect relations about the interdependence of SRL behaviours and achievement motivation. Also, the sample was limited to adolescents in Oyo city, which further restricts the generalizability of the findings to other regions or educational settings in Nigeria, or even beyond. More strategically oriented future research can consider longitudinal designs for the purpose of determining causal relationships between SRL and achievement motivation. Moreover, students' actual experiences with SRL and motivational processes could be better captured through qualitative methodologies.

Recommendations

The following recommendations were made based on the study findings:

The study recommends that educational institutions establish targeted training programmes to assist students in effective SRL and SDL practices. These programmes may emphasise strategies such goal formulation, self-monitoring, and self-reflective practices.

Educators needs to cultivate a nurturing classroom atmosphere that fosters self-regulation and motivation. This can be accomplished by cultivating a culture of transparent communication in which students feel at ease posing enquiries and articulating uncertainties.

Counselling services ought to be incorporated into educational institutions to offer tailored assistance for students facing challenges with self-regulation and motivation. Counsellors can collaborate with students to discern their unique learning methods and obstacles, providing customised strategies to enhance their SRL practices.

Disclosure

Declaration of Conflicts of Interest

The authors declares no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

Ethical Approval and Informed Consent Statement

Informed consent of the participants was obtained before embarking on the study. The study was conducted confidentially, and care was taken to protect the identity of the participants.

Data Availability Statement

The dataset of the present study is available upon request from the author.

ORCID

Muhammed SA: https://orcid.org/0000-0002-9820-7194
Omidire MF: https://orcid.org/0000-0002-5784-7734

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