

## ARTICLE

# Self-Regulated Learning as a Determinant of Student Academic Motivation and Self Efficacy

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Received: 22 April 2025, Accepted: 08 May 2025, Published: 12 June 2025

## Abstract

In education, the learner is central and the process through which he or she learns is paramount. To this end, various methods have been designed as to ensuring that the learner is at the best when it comes to academic performance and survival in the wider society. One of these methods is to assist students have full control of their behaviors, emotions and thoughts with view to successfully go through their learning experience and this is, what self regulated learning (SRL) is all about. This chapter therefore, takes a look at SRL as a determinant of student academic motivation and self-efficacy by extension student academic performance.

**Keywords:** Self Regulated Learning; Learning; Education; Self-efficacy; Motivation; Students; Academic Performance

## 1. INTRODUCTION

The relationship between input, process and output is a natural one. McGrath, who constructed the I-P-O (Input-Process-Output) model of team interaction process integration, believed that the team interaction process is a process of interacting between different personal traits, which includes communication and conflict used the theoretical framework of the I-P-O model to explore the influencing factors of the team's interaction process. McGrath pointed out that different factors in the input process such as individual factors and environmental factors affect the team interaction process directly as well as influence the team performance through the team interaction process. He also pointed out that although the team interaction in the I-P-O process affects the team performance while team performance also has a feedback impact on team interaction. That is to say that input, process and output are immensely correlated. The last variable being output is dependent on process and input. The implication is that the nature and quality of materials and how they are milled determined the product. This relationship is even higher and stronger in education industry and by extension individual and national development.

In the same vein, the social cognitive theory (SCT) asserts that individuals are active agents in their own lives, hence are capable to influence their behaviour and environment. The implication as suggested is that individuals regulate specifically their behaviour by setting for themselves goals, monitoring their processes as well as adjusting their actions in line with feedbacks received and self-assessment. Social cognitive theory as propounded by Bandura so to speak, emphasis is on the changing of individuals' behaviour as a result of environmental influence. The implication is that learning does not occur only through direct experience but also by observing the actions and outcomes of others, a process known as observation learning [1]. It is pertinent to state that social cognitive theory is concerned with self-efficacy and influence of the environment, the concern of this paper is rather the aspect that involves individuals as active agents in their own lives, hence are capable to influence their behaviour and environment rather than observation learning which is contrary to self-regulated learning which is, this paper's main focus.

In confirmation of this crucial relationship, available evidences from both individual students and institutions point at positive correlation between the three variables. This natural fact has facilitated and

generated much research and development of various paradigms, methods and strategies of education delivery with different positive results. In all the discussions, the principle attention is on the learner as the most important factor [2]. The bottom line is that the utmost success of the education industry depends on the level of attention and resources focused and tailored to the learner. The implication is that learner as raw material, the curriculum and all deliverables must be the right one for the learner. The truth being told is that the learner is central and no two learners are the same. This fact suggest that since the I-P-O process affects the performance of the learner, every individual learner needs to be studied and understood in order to ascertain the best way or strategy with which he or she can learn for optimal academic performance knowing full well that the student performance will be a determinant of the continuity of the I-P-O process. It is a case of garbage-in-garbage-out.

The above assertion is built on the premise that learning is a veritable tool that brings about change in behavior of any organism. As defined, learning is a relatively enduring change in behavior which is a function of prior behavior [3]. This definition projects four attributes of learning as a process. In the first instance, learning brings about a permanent change in behavior. Secondly, it is not directly observable rather manifests in the activities of the individual. Thirdly, the attribute of learning is that it brings about some transformation of enduring nature and finally, it depends on practice and experience. All in all, it has been observed both through practice and research that there are a number of methods that can be applied to enhance students learning and one of such methods is the self regulated learning (SRL).

Self regulated learning is a process that requires students to plan, monitor and evaluate their learning as an entity and assists them to be in-charge of their behavior, emotions and thoughts as to maximally go through their learning experiences. Thereby, allowing a student to intentionally and clearly tailor his or her actions towards acquiring needed information and skills to excel in his or her learning [4]. Suffice it to say, that SRL is that force that creates in a learner that will to say I can. This is because the will is a drive that makes a learner be at his or her best to excel.

The underscore, is that self-regulation is sine-qua-non to the learning process and can assist students create favourable learning habits and enhance their study skills [5,6]. Its application is an effective learning strategy to increase academic performance as well as an effective tool for monitoring students' performance and evaluating their academic progress [7]. It is pertinent to state that SRL development and sustainability is determined by an interconnected framework of factors such as motivation and self-efficacy. To this end, motivation is a critical factor in this framework in that it is one of the strategies that can be used to identify and promote self-regulated learning (SRL) in any learning environment. Furthermore, a conjugation of SRL and motivation have tremendous influence on students' self-efficacy and performances as without motivation, SRL will be a herculean task to achieve [4] by extension efficacy. This chapter therefore through the review of literature takes a look at SRL as a predictor of student academic motivation and self-efficacy with emphasis on self regulated learning as a concept, student motivation, self-efficacy, SRL as a predictor to motivation and self-efficacy and by extension student academic performance.

## **2. SELF-REGULATED LEARNING AS A CONCEPT**

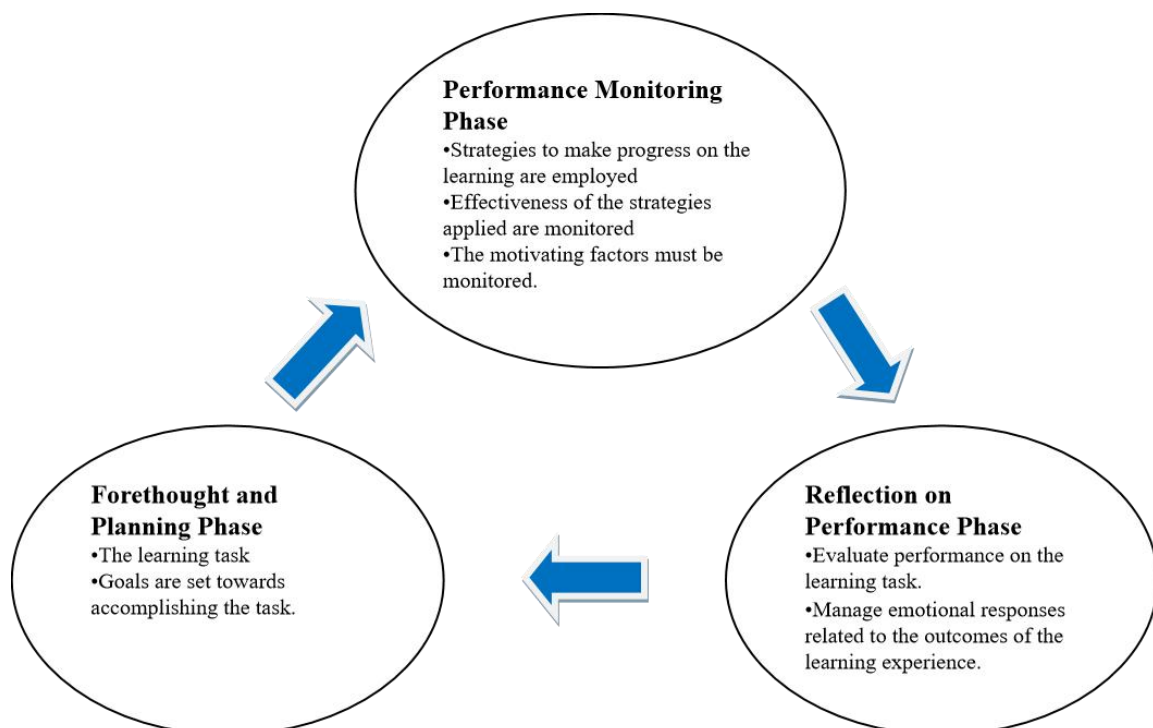
In any given concept, many definitions and explanations abound. Regardless of the approach, they tend to move to one direction and that is telling what the concept is all about. Self-regulated learning is not an exemption. SRL is one's ability to comprehend and be in-charge of one's learning environment more so in the areas of self monitoring, self instruction, self-reinforcement and goal setting [8,9]. In other words, SRL is all about making students masters of their own learning processes. SRL so to speak, self made decision by a learner to change his or her mental capabilities in problem solving in almost in every facet of life [10]. Apart from regulating their reading through covert cognitive, student can as well do that through selecting, modifying or coming up with favorable and conducive individualized environment or by social support. In other words, self-regulated learning goes beyond individualized learning as it is a coordinated and a collective learning strategy in which one excels through the contributions of others. It is also seen as an intentional and strategically adaption of activities geared towards realizing set learning goals by applying approaches deemed suitable to achieving the desired success [11]. The essence of monitoring how successful employed approaches

work is to make adjustment in areas like, learning processes, strategies, motivation and learning environment in the case of differences exceeding a threshold that are suspected to have affected the learning outcomes negatively.

It is also seen by many as a step-by-step approach that aids learners be in-charge of their thinking, the way they behave and their emotions as to positively go through their experiences in learning. This action takes place when the organized activities and learning processes of the learner are tailored directly on skills and knowledge acquisitions. It is generally presented that models of SRL are classified into three phases (see Figure 1) as followed – An articulated thought that will lead to successful learning and planning, monitoring performance of the learning process and having a reflection of the ones performance [12,13]. Under the first phase, students are expected to critically look at their learning task and set realizable goals as to completing the task.

Teachers as well as well experienced peers should guide their students on the best and most effective approaches to apply and appropriate goals to set in cases where they come across unfamiliar topics. In the second phase, students should come up with strategies that will facilitate their progression on the learning task and also monitor the effectiveness of strategies applied likewise the motivating factors for continued progress of realizing the goals for coming up with the task. The emphasis is that with new strategies, there is the tendency that students will return to basis by making use of familiar but ineffective approaches. The implication is that the reverse to familiar strategies that is unsuitable will result to wasted effort as the student will not achieve the desired goals as it concerns learning. On the other hand, if the teacher could take time to make the students learn and practice the novel strategy, the resultant effect will be meaningful learning. The bottom line is that students need close monitoring and well articulated feedback as aids to learning and utilizing novel strategies and approaches with fluency to avoid frustration.

One notable fact about self-regulation is that it is necessary in the learning process as through it students develop good learning habits, enhance their study skills and apply learning strategies that promote their academic performances which are observed and evaluated based on their academic performances and progress [5-7,12,13].



**Figure 1.** Current version cyclical phases' model. Adapted from Zimmerman and Moylan [14].

The ultimate goal of it all is that self regulated learner can control their learning environment to suit their needs. [15-18]. For instance, it has been found among self regulated learners, that the probability of seeking advice is very high researchers have discovered that self-regulated learners are

more likely to seek out advice [17] and they also look out for positive learning environments [19], unlike their mates who exhibit less self-regulation in the classroom. It has also been discovered that self-regulated learners as a result of their resourcefulness learning engagement, perform better on academic tests and in measurement of students performance and achievements [6,20]. According a study involving high school students, learners taught using SRL skills based on monitoring and imitation are found to show high level of academic confidence or self-efficacy and perform better when assessed academically with high level of academic achievement unlike their counterparts who were not taught SRL skills [21,22]. From the above, one can deduce that SRL as a tool of learning is a balancing force in the mist of students when it comes to determining success and failure.

Self-regulated learning (SRL) is also perceived as the cognitive, meta-cognitive, behavioral, motivational and emotional/affective aspects of learning. It is, therefore, an uncommon protective device within which a reasonable number of variables that positively impact on learning such as self-efficacy, volition and cognitive strategies are comprehensively and holistically planned and deliberated on. It is against this backdrop that SRL has become one of the most important areas of research within educational psychology. In other words, Self-regulated learning (SRL) is a core conceptual framework to understanding the cognitive, motivational, and emotional aspects of learning.

### **3. SELF-EFFICACY**

Self-efficacy simply put, is a belief in one's self. It is when one has the ability and skills to initiate, organize and implement the in his or her ability to organize and execute all the plans and strategies needed to achieve goals. As explained by other experts, it is a personal strong opinion of being able to handle given activities and tackle situations and/or aspects of his or her psychological and social functioning [23,24]. It can therefore be said that self-efficacy is a stimulant that makes one to realize his or her ability to take his future in his or her hands and have that zeal to pull down any obstacles that may hinder achieving any set goal. On the other hand, academic self-efficacy which is students' beliefs and behaviours toward their abilities to excel academically, fulfill their academic tasks and the successful learning of the materials Academic self-efficacy is one of the necessary factors which influence academic performance [25,26]. Through increased commitment, endeavour and perseverance, self efficacy is believed to lead to excellent performance. No wonder, students with high level of self efficacy do attribute their failure to lower attempt than on lower ability, while those with low self efficacy attribute theirs to low abilities [27]. This implies that tasks and endurance while learning can be influenced by one's self efficacy and that students with low self efficacy have the likely tendency to easily abandon, avoid, and putt off any given task as a result of being afraid.

Furtherance, when faced with challenges that require solutions, student with high level of self efficacy, have the tendency to rely on their capabilities, exhibit high degree of patience in the process while putting in efforts and persistence to subdue the challenges [27-29]. This shows that self-efficacy plays crucial role in students' academic performance as with high self-efficacy, a student can effectively plan and successfully complete a given task. Since such students, believe in their abilities, they have no doubt in their mind that the application of such abilities and skills to their learning will achieve desired goals even in daunted tasks. The above scenario is contrary to the belief of students with low self efficacy who cannot embark on SRL as they easily avoid and abandon painstaking task as a result of their inability to attain to a goal because they do not believe in their capabilities. The assertion is that while students with high self-efficacy understand their capacities and can successfully plan their activities those with low self-efficacy cannot [26].

Self-efficacy plays a very significant role in how one thinks, acts, and feels about his or her place in the wide world. This implies that self-efficacy plays a prominent role in deciding not only how one feels about oneself, but also on whether or not one can successfully achieved one's goals in life. Self-efficacy as a concept is the pivot on which Albert Bandura's social cognitive theory that emphasizes the role of observational learning, social experience, and reciprocal determinism in developing a personality revolves. Self-efficacy is therefore that part of the self-system that harbours one's attitudes, abilities, and cognitive skills and plays significant role on the way one perceives, behaves and responds to different situations [30].

#### **3.1. The Role of Self-Efficacy in a Student's Life**

Almost every person can say, this is my goal and it is my wish to accomplish same considering what they want to transform and things they will like to achieve. On the other hand, in most cases, such goals remain mere dreams as accomplishing them remain an illusion while to some people who with a strong sense of self-efficacy, putting these plans into action is quite so simple. It is against this backdrop that Bandura [31] did discover that an individual's self-efficacy plays a prominent role in how goals, tasks, and challenges are approached in that people with a strong sense of self-efficacy have this sense of high commitment and develop deep interest in any activity they are involved in and in the case of any setback and disappointments, recover with nostalgia at the same time view challenging problems as task to be mastered.

### **3.2. Importance of SRL to Students**

The importance of SRL to students cannot be overemphasized as there is much to desire. Among which are:

- Stating the obvious, SRL improves imagination, motivates the learner, develops critical thinking, improves creativity improves the learners' brain and reduces stress.

- In a broad term, self-efficacy is the will in one that makes one believe in oneself as to say; I can no matter the situation. This is built on the premise that 'where there is a will, there is a way'. The implication is that SRL expounds knowledge and works as a fulcrum on which the desire to learn balances as well as a driving force to self-efficacy.

- SRL acts as social persuasive tool as the learner through the process sees himself or herself having the skill and capabilities to succeed an encouragement that helps a learner to achieve academically set goals thereby enhancing the student's performance. It further makes students overcome self-doubt and get more focused on giving their best to excel.

- Motivation and self-efficacy may come through persuasion just as asserted by Bandura in which through persuasion people will come to believe that they have what it takes to succeed. The emphasis is that people can through the words of mouth encourage others into believing in themselves and overcome doubts that have posed as challenges toward accomplishing a particular task or tasks. This is what SRL stands for.

- SRL is a strong enclosure that holds essential variables that impact learning positively and at the same time giving out a holistic layout that explains how these variables interface. Above all, when properly designed and implemented, SRL is a veritable tool for successfully improving students learning.

- SRL interventions are applicable on all level of education as they have different effects on different levels of students.

As explained by Bandura, with layout provided for teachers and learners, self-regulated learning interventions have been found to have greater effects on earlier educational levels like in the primary schools as a result it socio-cognitive models designed to be thorough and easier to understand [27,29].

➤ Furthermore, it has been observed that SRL models contain motivational and emotional aspects, which are more salient for academic performance during primary education while those in secondary education benefit more from interventions including more meta-cognitive aspects. This is may be attributed to the increased performance of cognitively demanding tasks that made it mandatory to utilize more specific strategies. The deduction therefore, is that meta-cognitive models would have a higher impact at this educational level. Whereas, in higher education like the university, four highest predictors discovered were; goal level, persistence, effort, and self-efficacy with high motivational values that are all embedded in the socio-cognitive theory [13,31-32]. As a matter of fact, Self-regulated learning practices enhance students' meta-cognition development, motivation, strategic action and also improve students' academic, social, emotional and career outcomes.

### **4. HOW DO WE KNOW THAT A STUDENT IS MOTIVATED?**

When one has the zeal and enthusiasm for doing something without being coerced, the person is motivated. Motivation is therefore seen as the enthusiasm for doing something and the reason behind every action. It is an arousing force and the drive and desire to eel making one to behave or act in a particular way, setting and accomplishing goals. On a broad term, the concept motivation is derived



from the Latin verb ‘movere’, which stands for move on. On the other hand, student motivation is that drive that makes a student willing and determined to attain long-or short-term academic goals set. It is also a manifestation of enthusiasm and a good attitude toward learning [33]. Suffice it to say that motivation is the force that keeps students (in the context of this study) moving, even when barriers or challenges are encountered. It propels and energizes them to work till set goals are achieved and potentials fulfilled. Characteristics of motivated students include that they are energetic, committed, creative and very innovative and they also derive value in their learning and their main focus is to achieve their set goals. [34].

In as much as motivation is the drive or reason to do something, it is further seen from two primary perspectives which are; intrinsic motivation which emanates from ones internal desires and the actions one takes for his or her benefit. This is a stronger and long-lasting form of motivation as well as extrinsic motivation which comes from external desires that give room for rewards devoid of punishment. This type of motivation in the absence of rewards and punishment emanates, is likely to disappear resulting to more superficial learning. Suffice to say, that intrinsic motivation is self-propelled determination to learning and do not desire rewards or punishment to ginger them into being at their best. For instance, children are by nature intrinsically motivated thus are led by in-built curiosity in them and in this situation, such a learner or child is encouraged to be more efficient and effective. Available studies show that students who are internally motivated learn better an indicator that this type of motivation prominent predictor of academic achievement and excellence [35].

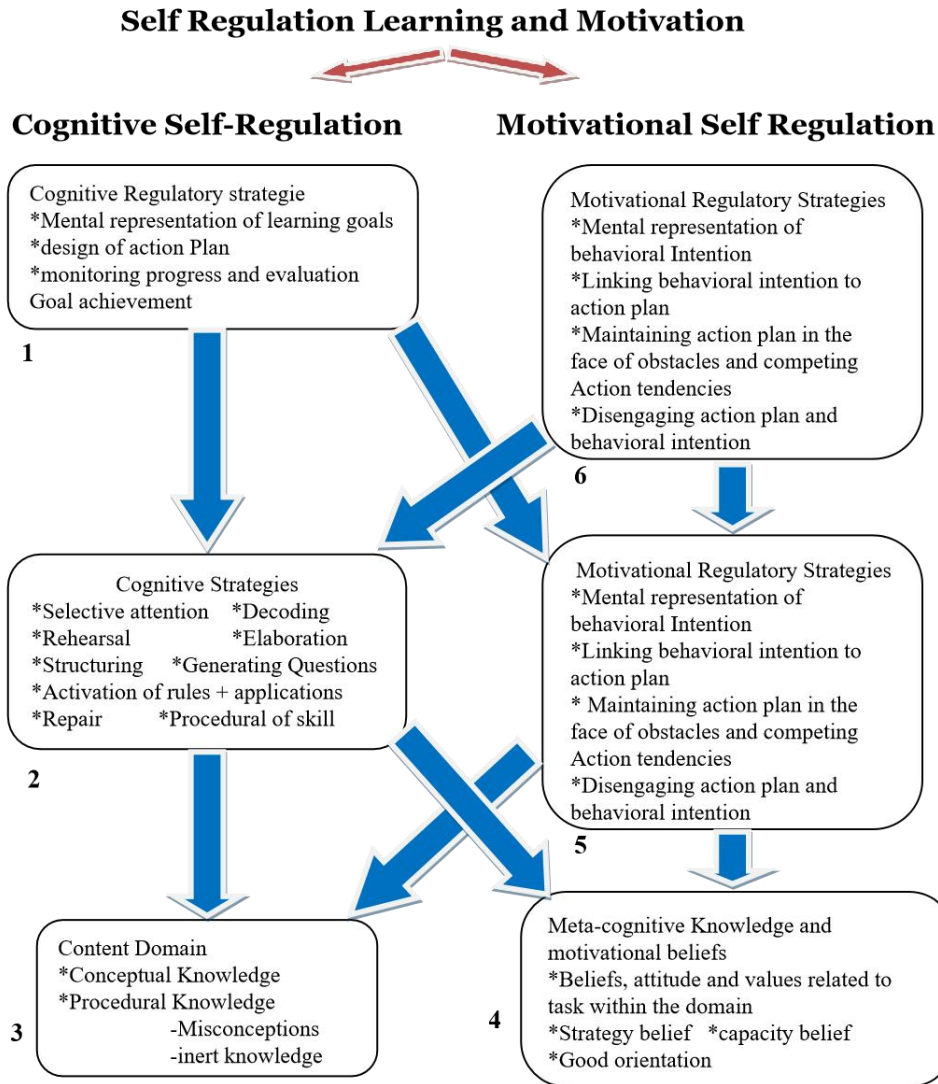
## **5. SELF-REGULATED LEARNING AND MOTIVATION**

In addition to self-regulation, motivation can have a pivotal impact on students’ academic outcomes [6]. SRL is at the centre of development of theoretical layout for learning motivation. SRL as a learning process is goal oriented, consciously executed devoid of any teachers immediate control [36]. Without motivation, SRL is much more difficult to achieve. Suffice it to say, that self-motivation propels a learner to personally utilize a particular or multiple strategies to keep himself or herself on-track toward achieving a learning goal. It is paramount to the process of self-regulation as the learners are in full charge of learning process. Worthy of note also is that, self-motivation is self-induced as it occurs in the absence of external rewards or incentives, a clear indication that the learner is just an entity. As students set their own learning goals and with intrinsic motivation to make headway towards realizing those goals, perseverance and persistence in the cause of learning challenges are basically more rewarding [36].

The underlying factor is that SLR is recognized as an important predictor of student academic motivation and achievement. This built on the premise that self-regulated learning is managed by a webbed framework of factors that ascertain its development and sustainability [6,37] and motivation is seen as the arrow in this framework [38-41].

A case in point under the cyclical phases’ model, during the forethought and planning phase, where students consider why an activity should be completed and the needed effort for such activity, their interests and values are tailored towards the decision [42,43]. In a situation whereby the students do not see any need for such learning task, the tendency is that little or no time will be spent setting goals and planning strategies to accomplish those tasks. In general, self-regulation and motivation are in collaborative to facilitate student learning and success in the classroom. When students are driven to learn, the tendency is that more energy, time and appropriate SRL skills will be employed towards the learning. With all the above on board, the student will work with all commitment to complete the learning tasks. [16].

In the final phase, students assess their performance on the learning task as to ascertain the effectiveness of the strategies chosen. At this stage, students are advised to control their emotions in respect of the results of the learning experience. The self-reflections will determine student’s next line of action and goals including initiating the cycle to begin again where necessary.



**Figure 2.** Six-component model of SRL [41].

## 6. SELF REGULATED LEARNING AND SELF-EFFICACY

Generally, ones belief in self-efficacy assists in determining the pattern of thinking and ways of behaviour. Against this backdrop, self-efficacy is therefore deduced as the ability of a student to judge his or her capabilities with regard to task [44]. Suffice it to say, that students' efficacy beliefs that their confidence in their ability to successfully complete tasks also play a role, especially during the forethought and planning and performance monitoring phases [36]. Research has found self-efficacy and the use of self-regulation strategies to have reflexive positive impacts on one another. Higher self-efficacy beliefs increase the use of self-regulation strategies [45] and the use of self-regulation strategies can lead to increases in self-efficacy beliefs and academic achievement [46].

Most people as revealed claim to understand the importance of goal setting in order to attain a better life [47], but as proven by science 92 percent of people do not achieve their goals while others prefer not to even start setting goals because goals requires one to step out of the comfort zone and embrace oneself until the goals are achieved [48]. The underlying fact is that, most people have come to realize that putting these plans into fruition is not as simple as they sound. As revealed by Bandura and others, how goals, task, and challenges are handled, are based on individual's self-efficacy and with self-regulated learning the students is better placed to achieve self set goals and task and the approaches to apply to tackle the challenges [24-26].

## **7. STRATEGIES FOR ENHANCING SELF-REGULATED LEARNING IN STUDENTS**

To enhance self-regulated learning and ensure its optimal application among students, much work needs to be done by lecturers and teachers. For instance, in Alex Ekwueme Federal University Ikwo, Nigeria, students are encouraged to embark on SRL as they are at the beginning of every semester given areas of focus with every course comprehensive scheme of work. This practice enables our students to set goals and apply various strategies towards ensuring that they achieve their set learning goals and to us the lecturers, it gives us that ample opportunity to discuss our courses while in the classroom with ease. How you may ask? Students are meant to understand the need to make use of their time judiciously by reading strictly based on their time table and setting specific goals on what they intend to achieve within each specific period and mastering the topic being treated, gives them the drive to participate fully in the subject of discussion and making meaningful contributions. We noticed that the application of SRL creates that enthusiasm in our students to learning as they usually have at the back of their minds the goals they have set to achieve in respect their academics programs and had led to excellent performances in their course works and semester examinations as well as their terminal examinations.

The implication is that it behooves teachers to see it as a necessity and a responsibility to impact on the students the knowledge of the self-regulated processes that facilitate learning. Among the processes that must be taught to the students are:

- ❖ Setting goal;
- ❖ Planning for the goal set;
- ❖ Self-motivating;
- ❖ Control of attention;
- ❖ Flexible use of learning strategies;
- ❖ Self-monitoring;
- ❖ Seeking Appropriate help;
- ❖ Self-evaluation [7,13].

Follow up question is: How can students be taught these processes?

### **7.1. Goal Setting**

As asserted by Schunk, goals can be thought of as the standards that are responsible for regulating an individual's actions [49]. In the context of the classroom, goals may include obtaining a commendable grade in an examination as well as having a broad understanding or mastery of a particular topic or subject. One underlying factor is that short-term attainable goals are most cases used to achieve long term aspirations. This implies that teachers should teach the students how to set Specific Measurable Attainable Realizable and within Time frame goals (S.M.A.R.T.). The term was first proposed by George Doran in 1981 as a mnemonic device to establish criteria for effective goal-setting and objective development, where he advocated for setting objectives that are Specific, Measurable, Assignable, Realistic and Time-bound [50]. Proponents of SMART objectives argue that these criteria facilitate a clear framework for goal setting and evaluation, applicable across various contexts such as business (between employee and employer) and sports (between athlete and coach). This framework enables the individual setting the goal to have a precise understanding of the expected outcomes, while the evaluator has concrete criteria for assessment. Let's take a case in point, in a situation a student sets a long-term goal to perform excellently well on an examination, the tendency is that such a student must have also set attainable goals as regards to time to be expended and strategies to apply to guarantee success in the examination. It has also been discovered through research that an effective way to assisting students track their progress is by encouraging them to set short term goals [40].

### **7.2. Planning for the Set Goal**

One known fact is that prior planning prevents poor performance likewise proper planning promotes optimal performance. Be that as it may, as a follow-up to setting a goal, students can effectively as individuals regulate their learning before embarking on the real learning tasks with the aid of proper planning. Indeed, research has shown that planning and setting of goals are like Siamese



twins, inseparable as with planning a learner can come up with well articulated goals with the needed strategies to succeed [49]. Planning in learning as explained are namely:

- ❖ Setting a learning task goal,
- ❖ coming up with strategies towards achieving the set goal and
- ❖ Ascertaining time and resources needed to realize this goal.

So, teaching students on the need to handle every academic task with plans remains an all important step towards enhancing SRL [51]. For stance, making a student understand the need to have a personal reading time table, adhering to the time set for each subject and set out what he or she will cover with each period.

### **7.3. Self-Motivating**

Motivation may be described as a catalyst that facilitates one to keep going breaking all barriers or like the yeast in dough that makes it to rise to sumptuous bread. To this end, one is self motivated as a learner when he or she as an entity working to achieve a set learning goal applies one or more strategies. This process is very paramount when it comes to SRL as it all about being in-charge of one's learning as an entity. Furtherance, it does not require external rewards or incentives and can therefore be a strong indicator that a learner is becoming an entity. As explained, when learning goals are established by learners and are spurred by intrinsic factors to work towards realizing these goals nothing weighs them down and they find the learning processes so benefitting [37]. An example is a case a student decides within himself that he can pass a forth coming terminal examination with distinction and decides no more socializing but 100% commitment to his academics.

### **7.4. Control of Attention**

Attention goes with focus and any student that wants to excel in academic task must be focused. The scenario is not different when it comes to SRL. The bottom line is that for learners to be self-regulate, they must be able to control their attention and have point of focus. Attention control as a cognitive process, calls for all time self-monitoring with mind cleared of any distractive thinking within a welcoming environments for learning such a place that is noise free with good ventilation [52]. Research has also revealed in this case, that students' academic outcomes enhance with focused time spent on-task. To this end, teaching students to attend to learning tasks should be seen as number-one priority. Teachers can assist students have total control of their attention by expunging those factors or stimuli that may cause distractions and providing students with frequent breaks to help them build up their attention spans [53]. In this situation, a student may say that he will no longer watch football matches on campus which has remained a major distracting factor rather will focus on his studies based on the set goals.

### **7.5. Flexibility in the Use of Strategies**

Flexibility is a way of life and students should be ubiquitous when it comes to implementing and applying learning strategies and adjust when the need arises. It is not deniable, that students who have been able to make it to the top academically did apply and adjust various learning strategies in the cause of their learning with which they were able to progress and achieve their set goals [54]. On the other hand, it is important to note that some learners, more so those in primary schools, do not have the luxury of multiple learning strategies at their disposal. For a learner to be satisfied with assorted learning styles, it requires time to master these strategies as practicing brings about perfection. As students make effort in perfecting on the use of SRL strategies, teachers should give the needed back-up for them to become perfect individual users of these strategies [55]. To buttress this point, there are students who read under music and comprehend effectively but a situation another student tries and it fails, the next step should be to try to read in a calm environment to assess the level of comprehension instead of sticking to one strategy.

### **7.6. Self-Monitoring**

It is always wise to look back and ask-how far and well have I. done? The message is that any student, who wants to become strategic learner, must assume full ownership for their learning and achievement outcomes. Self-regulated learners take their fate in their hands by taking on this

responsibility by monitoring their progress towards learning goals. The process of self-monitoring is all embracing of all strategies mentioned above. In order for a learner to self-monitor their progress, they must set their own learning goals, plan ahead, independently motivate themselves to meet their goals, focus their attention on the task at hand, and use learning strategies to facilitate their understanding of material [36]. Self-monitoring can be encouraged by ensuring that students keep accurate records of the period they worked on particular learning tasks, the strategies applied, and the amount of time spent on the task. This approach allows students to have a full picture of their progress and make changes where necessary. For instance, as a student you decide that no matter what, that you will spend a minimal of ten hours reading everyday and you work toward that based on goal set.

### **7.7 Help-Seeking**

No one can be a master of all even if you are a genius. Like-wise, it will be an erroneous assertion to assume that a self-regulated learner can do all. It is a wrong notion to assume that, self-regulated learners do things all alone. In the contrary, they also seek assistance from other learners when they need help but always having at the back of their minds of their goal of being entities. [56,57]. Through the provision of progress feedback, teachers can enhance positive help seeking attitude that can be easily understood by students and pave way for them to make desirable corrections and re-submit their given assignments and projects.

### **7.8. Self-Evaluation**

In the taxonomy of education, evaluation is the last stage. It is aimed at knowing whether the objectives of the teaching/learning have been achieved. Students are more likely to become self-regulated learners when they are able to evaluate their own learning, independent of teacher-issued summative assessments. This practice enables students to evaluate their learning strategies and make adjustments for similar tasks in their future. Teachers can promote self-evaluation in the classroom by helping students monitor their learning goals and strategy use, and then make changes to those goals and strategies based upon learning outcomes [13,36].

## **8. CONCLUSIONS AND RECOMMENDATIONS**

Going by reviewed literature, self-regulated learners are groomed to set specific, measurable attainable realizable and within given time frame short and long term goals for their learning. To accomplish their set goals, apart from planning ahead, they are intrinsically self-motivated and placed all their attentions on how to accomplish their goals and their level of success. Furthermore, they have the ability to apply, adjust when there is need different learning strategies and also monitor, evaluate their goals and successes based on their learning outcomes and at the same time seek help from other learners when needed. Suffice to say, that Self-regulated learning is a broad field that provides an umbrella to understanding variables that influence students' learning. The implication is that lecturers and parents at all levels can utilize the earlier mentioned strategies to promote self-regulated learning among their students and pupils. All the same, one thing to note by both teachers and parents is that the principle of individual differences applies in learning in that learners develop at different paces and strategies that work best for learner 'A' may not always work same with learner 'B'.

One can therefore deduce that, self-efficacy and self-regulation are prime determinants of students' learning outcomes and a decider as to whether they are capable withering the storm as it relates to challenging academic tasks and more. Since teaching is not left in the hands of teachers alone, parents and teachers should bear at the back of their minds that by teaching their wards and students to be more self-regulative, they are likely to experience tremendous success in promoting academic achievement, motivation, and life-long learning. If teachers can devote tangible period of time every school day teaching students how the applications of SRL can enhance their learning, students are likely to embrace them as tools for tackling learning difficulties and other academic means of evaluations [57]. To achieve the global goal of creating successful life-long learners the assertion is that, it is imperative that the first thing is done first and that is to ensuring that students are thought the required strategies to being life-long learners.

In this regard, the following recommendations are made:

❖ Education planners, School management, parents and lecturers/teachers should see encouraging students regulated learning as a collective responsibility. Conducive environment for SRL should be created putting into consideration the complex and diverse range of backgrounds, skills set and personalities as well as coming up with assorted but effective instructional strategies for encouraging self-regulation such strategies like direct instruction and modeling, guided and independent practice, social support and feedback, and reflective practice.

❖ Furthermore, Lecturers and teachers can help reduce students stress by providing environment that is favourable for learning thereby reducing the stressing context that influences student's self-efficacy. They can also enhance learners' emotions positively through appropriate, positive and supportive feedbacks as well as through encouraging the students on the applications of SRL and creating classroom activities that allow for collective interactions. When students are encouraged through positive feedbacks and expression of enthusiasm from the teachers, students are given that sense of belonging and such actions also act as catalyst to students' zeal to learning and ability to learn as an individual and succeed.

❖ One cannot give what he or she does not have. To this end, lecturers and teachers need to be well trained on self-regulated learning theory and models to understanding how they can maximize their students' learning.

❖ Lecturers in institutions of higher learning should focus more on scaffolding self-regulated learning rather than focusing on the course content knowing full well that SRL promotes life-long learning and that course content is based on passing examination.

❖ Teachers, parents as well as school managers should see it as a responsibility to effectively monitor, mentor and encourage learners to believing in themselves that any goal is achievable with determination and commitment and to always work with the maxim, 'I can'.

**Funding Statement:** This study was not funded by any external sources.

**Contribution:** Conceptualization, methodology, software, validation, formal analysis, investigation, resources, data curation, writing—original draft preparation, writing—review and editing, visualization, supervision, project administration, and funding acquisition were all carried out by me, Dr. Onwubiko Emmanuel Chidiadi, as the corresponding author. I affirm that I have independently handled all aspects of this research. I have read and agreed to the published version of the manuscript.

**Informed Consent Statement:** Not applicable.

**Data Availability Statement:** The raw data supporting the conclusions of this article will be made available by the authors, without undue reservation.

**Conflict of Interest Statement:** The author declares no conflicts of interest

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