Research Paper

Need for The Will and The Skill: Academic Motivation and Self-Regulated Learning

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ABSTRACT

Understanding academic motivation and ways to self-regulate their learning is central for students to flourish academically. This study investigated the role of Academic motivation on Self-regulated learning in students. Three hundred students, with an equal number of male and female participants, were sampled from high schools and colleges in Kolkata. Data was collected via a standardized measure questionnaire and following the inclusion criteria. The study was a correlational design. The academic Motivation Scale by Vallerand (1992) and Academic Self-regulated Learning Scale by Magno (2010) were used for data collection. For analysing data, parametric statistical techniques were used. The study revealed a significant and positive relationship between self-regulated learning and intrinsic, extrinsic, and amotivation dimensions of Academic Motivation. This study concluded that student's academic motivation is related to self-regulated learning. Thus, one of the possible interventions for students who struggle with academic motivation and self-regulated learning measures would be a workshop addressing motivation and self-regulated learning strategies. Future directions for this research are discussed.

Keywords: *Academic Motivation, Self-regulated learning, Self-Regulation*

In an era of constant distractions of mobile phones, video games, and the internet, it is hardly surprising to discover that many students struggle with academic motivation and self-regulated learning. Students are constantly presented with innumerable paths to choose from in this information-rich, fast-paced world. To select the desired and correct path can sometimes feel overwhelming. Whether students ultimately move in a healthy direction of growth depends on their ability to consider the options, pay attention to where they go astray, and self-direct along the way. Nowadays, students do not believe in keeping any study goals for themselves. They do not employ any specific learning strategies for condensing and memorizing learning material, do not plan their study time, and, therefore, end up cramming lengthy learning hours before the test. They have vague self-evaluative standards and fail to gauge their academic preparation accurately. They hesitate to ask for help from others and are afraid of "looking stupid." The students' overall task is managing their learning process and feeling motivated to learn. Enhanced motivation to study and self-

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regulated learning will help students in their academic performance. To better understand learning, examining the relationship between self-regulated learning and academic motivation would be necessary. Until now there have only been a few attempts to bridge the two concepts. Students with self-regulation skills feel more motivated and learn better than other students (Pintrich, 2000). Thus, this paper addresses this emphasis by focusing on the role of academic motivation in self-regulated learning.

Academic motivation is defined as motivation, needs, and other factors that keep an individual in an educational environment, making them engage in activities to acquire an educational degree. An academically motivated student is seen as self-determined to succeed in academic work (Gesinde, 2000). Ryan and Deci (2000) noted that the type of motivation concerns the 'why' of a student's action. Students have not only different quantities but also different qualities of motivation which can vary from time to time in the context of learning (Ryan & Deci, 2000; Schlechty, 2001). For example, a highly motivated student doing homework out of curiosity and interest is said to be intrinsically motivated. In contrast, another student motivated to do homework to procure a teacher's or parent's approval is said to be extrinsically motivated. Another student may not value the lesson or feels incompetent to do it and lacks an intention to act. Such a student is said to be amotivated (Ryan & Deci, 2000). The difference in students' level and type of motivation may explain why some students do better than their school counterparts. According to Ryan and Deci (2000), extrinsic motivation is a continuum starting from amotivation to external regulation (when a task is attempted to satisfy an external demand); introjected regulation (where a task is done for ego enhancement); identification (the task is valued for itself) and integrated regulation which is the most autonomous form of extrinsic motivation and occurs when external regulations are completely assimilated in an individuals' self-evaluations and beliefs of their own needs. Motivation can have a pivotal impact on student's academic outcomes (Zimmerman, 2008). Without motivation, self-regulated learning is much more challenging to achieve.

Self-regulated learning has been defined as "self-generated thoughts, feelings, and actions that are planned and cyclically adapted to the attainment of personal goals" (Zimmerman, 2000). It refers to the ability of students to understand and control their learning and make adjustments in learning processes in response to their perception of feedback regarding their learning status (Schunk & Zimmerman, 1998). It is a multidimensional construct that emphasizes the learner's active role (Abar & Loken, 2010; Efklides, 2011; Zimmerman, 2008). Pintrich (2000) defined "self-regulated learning as an active, constructive process whereby learners set goals for their learning and then attempt to monitor, regulate and control their cognition, motivation, and behaviour, guided and constrained by their goals and the contextual features in the environment." Also, self-regulation is viewed as a cycle (Pintrich, 2000; Zimmerman, 2000) and imagined as a continuum (Zimmerman, 2000; Dörnyei, 2005) along which students are placed at each moment of learning. This way of modelling self-regulation explains the phenomenon of "the daily ebb and flow of motivation" (Dörnyei & Schmidt, 2001) as well as dysfunctions of self-regulation (Zimmerman, 2000). Students are self-regulated learners to varying degrees (Zimmerman, 2000). Self-regulation does not automatically develop with maturing or cannot be gained passively (inactively) from the environment.

Few researchers have previously examined academic motivation's relationship with self-regulated Learning (Mason, 2004; Fuchs et al., 2003; Shunck, 1994). The results of studies such as Perry et al. (2008), Liew & Mctigue (2008), Breuer & Eugestre (2006), Cleary &

Zimmerman (2004), and Wolters (1998) indicate that self-regulated students have the same characteristics as academic motivation. They use better cognition and meta-cognition strategies, apply more resources to achieve their goals, and reveal better efficiency.

Ning and Downing (2010) examined the reciprocal interplay between motivation and self-regulation constructs in influencing academic performance. Based on two waves of measurements obtained from a large sample of undergraduates from a university in Hong Kong, a cross-lagged structural equation model identified significant reciprocal effects between students' self-regulation and motivation. They found that students' self-regulation predicted their future motivation, and the cause of much of the lack of motivation is the lack of awareness of the appropriate strategies in various learning situations. Aksan (2009) also found that weakness in self-regulation skills leads to low motivation and reduced learning. Bruinsma's (2004) study found a significant relationship between academic motivation and the process of analysing the information, which is achieved using study skills. Similarly, Mahmoudi et al. (2014) research also shows a meaningful relationship between self-regulation learning skills and motivation. Zimmerman and Kitsantas (2005) describe the interrelation of various self-regulatory processes and self-motivational beliefs in three cyclical phases: forethought, performance, and self-reflection. There is strong evidence that people who learn vicariously from self-regulatory models are better motivated. This is vital information for developing intervention programs to assist poorly motivated learners. In addition, Tuckman (1999) believes that acquiring learning strategies is vital for maintaining motivation. He also thinks that the reason for demotivation is not knowing suitable strategies in different situations. Furthermore, Guthrie et al. (2004) also conducted cognitive, metacognitive, and motivational strategies through classroom teachers to enhance the motivation of grade three students and their advancement in science lessons. Khalid and Ahmad (2011) investigated the relationship between motivational beliefs and self-regulating learning. They reported that self-regulated learning components had a significant positive relationship with motivational belief components.

Further, few researchers have examined the relationship between self-regulated learning and different dimensions of academic motivation. Maralanai (2016) investigated the role of intrinsic and extrinsic motivation in metacognitive self-regulation. Three hundred girls were randomly selected from the girl's hostel at the university of Tehran. Findings revealed a significant relationship between self-regulated learning and intrinsic and extrinsic motivation. Harding et al. (2007) also conducted a study to identify relationships between students' perceptions of their self-directed learning ability and learning motivation. Results revealed that Intrinsic motivation and Identified motivation highly correlated to self-directed learning. The results suggest that students who value learning for its own sake, generally perceive themselves as better able to direct their own learning. However, there was no correlation between extrinsically motivated students and their self-directed learning scores. Finally, there were also somewhat weaker negative correlations between amotivation and self-directed learning. Thus, students who reported a high sense of amotivation tended to report being less able to direct their learning. In a study by Lee (2008), administered to one hundred and twenty-three 5th graders, it was found that Intrinsic motivation to accomplish, Intrinsic motivation to know, and Identified regulation positively and amotivation negatively affected self-regulated learning strategies.

However, Tabatabaei & Arjmand's (2013) analyses revealed no positive correlation between self-regulated learning strategies and motivation for learning (r=-0.79, p<0.01). The study argued that the lack of any significant positive relationship between motivational and self-

regulation variables indicates that those learners who are highly motivated may not necessarily be better off employing self-regulated learning in their studies.

The self-regulated learning process starts with the student's motivation. For example, one student may establish a goal of getting the highest marks in the class, whereas another may merely wish to earn a passing grade. Once a goal has been set, metacognitive monitoring and control processes operate during task processing to assess and guide the person to that goal. The ensuing evaluation of performance and reflection on performance outcomes set the scene for a subsequent self-regulated learning cycle of goal-setting, metacognition, performance, and reflection (Schunk & Zimmerman, 1998; Zimmerman, 2008).

Academic motivation is a significant component of academic success (Liem & Martin, 2012; Martin, 2007, 2009; Pintrich, 2003; Schunk, 1990). Self-regulated learning strategies correlate significantly with academic outcomes (Zimmerman, 2002). Therefore, both variables are significant for enhancing students' learning outcomes.

As described above, previous research has provided evidence for the correlation between self-regulated learning and academic motivation, but different studies have generated inconsistent and contradictory results. Also, very few studies have examined the role of intrinsic, extrinsic, and amotivation dimensions of academic motivation on self-regulated learning. Therefore, it is imperative to examine the role of academic motivation in self-regulated learning among students in India, where diversity may contribute to research on academic motivation and self-regulated learning.

Statement of the Problem
In today's highly competitive era, adapting to the demands of school life while encountering a decline in motivation can be considered a central life task of students, contributing to their overall achievement. Academic motivation is integral to the learning process and is the underlying force that drives a student to perform and continue to learn. Today students are suffering more than in the past due to much pressure from home, school, and peer-group concerning their studies, career, and occupation. Suppose they lose interest in studies and underperform in academics. In that case, they will not be able to take up adult responsibilities like securing a job, taking care of family, and aging parents in future. Students are seldom given choices regarding academic tasks in school and are never encouraged to establish goals for their academic work or taught explicit study strategies. They are rarely asked to self-evaluate their work or estimate their competence on new tasks. These self-regulated learning practices are distressingly absent in many students. There is a need for an integrated model of motivation and self-regulated learning.

Study Aim
This study aims to examine whether a significant relationship exists between students' Academic motivation and Self-regulated Learning.

Objectives
To investigate the relationship between Academic Motivation and Self-regulated Learning.

Hypotheses
There is no significant relationship between academic motivation and the self-regulated learning of students.

Operational definition of variables:
(i) Academic motivation
Academic motivation is defined as motivation, needs, and other factors that keep an individual in an educational environment, making them engage in activities to acquire an educational degree. An academically motivated student is seen as self-determined to succeed in academic work (Gesinde, 2000). According to Pintrich and Zusho, "Academic motivation refers to internal processes that instigate and sustain activities aimed at achieving specific academic goals." Academic motivation in the present study is assessed through the Academic Motivation Scale by Vallerand.

(ii) Self-regulated learning
Self-regulated learning refers to one's ability to understand and control one's learning environment. Self-regulation in the present study is anchored in the original conceptualization of Zimmerman (2000) as self-generated thoughts, feelings, and behaviours oriented toward attaining goals. Self-regulated learning in current research is assessed through Academic Self-regulated Learning Scale by Magno.

METHODOLOGY

Research Design
This correlational study collects cross-sectional data from a purposive sample of high school and college students. This study includes 300 students within the age group of 14-23, comprising an equal number of male and female students. It assesses the relationship between academic motivation and the self-regulated learning of students. The place of study is Kolkata.

Sample characteristic
In this study, purposive sampling is used. Purposive sampling is a form of non-probability sampling in which researchers rely on their judgement when choosing members of the population to participate in the study.

Inclusion criteria:
(i)Students within the age range of 14-23 are included in the study.
(ii)Both male and female students are included in the study.
(iii)Students with the comprehension capability of understanding the questionnaire are included in the study.

Exclusion criteria:
(i)Students below the age of 14 and above 23 are not included in the study.
(ii)Students with any known intellectual disability, attention deficit, and hyperactivity are not included in the study.

Tools used
(a) Academic Motivation Scale (AMS)
Vallerand et al. (1992, 1993) developed the AMS with seven subscales, including three types of intrinsic motivation (i.e., knowledge, accomplishment, and stimulation), three types of extrinsic motivation (i.e., identified, introjected, and external), and amotivation. The AMS has demonstrated adequate to good reliability and validity in several studies among high-school students (Grouzet, Otis & Pelletier, 2006), college students (Fairchild et al., 2005), and university students (Vallerand et al., 1992), which reported alpha values for the AMS

ranging between .62–.86 (Vallerand et al., 1992), .70–.86 (Cokley, Bernard, Cunningham & Motoike, 2001), and .70–.90 (Fairchild et al., 2005).

(b) Academic Self-regulated Learning Scale (A-SRL-S).
The A-SRL-S was developed by Magno (2010) to measure students' self-regulation on a four-point Likert scale applicable for the high school to college level. The seven factors of this scale include memory strategy, goal setting, self-evaluation, seeking assistance, environmental structuring, learning responsibility, and organizing. The internal consistencies for the seven factors range from .73 to .87. It was determined that all sub-factors showed significant correlations to each other, and the correlation coefficients ranged between .25 and .55 (Magno, 2011). The seven factors also showed convergent validity, where all seven factors were highly intercorrelated (Magno, 2010). The predictive validity of the seven factors on students" grades at the end of a semester was also established (Magno, 2011a). The scale's construct validity was also established where the seven factors significantly correlated with the LASSI and MSLQ (Magno, 2011b).

Procedure
A letter from Amity University was collected to get permission to conduct research in concerned schools and colleges. Once obtained, the date and time were fixed to meet the students and explain the aims and objectives of the study. Written consent was obtained from them. Once the students agreed and gave consent, they were visited, and a rapport was established. The date, time, and meeting place for collecting demographic information and conducting tests were decided as per the convenience of the students. A self-report measure comprising academic motivation and self-regulated learning was administered. After completing the answer sheets, data were scored as per the norms of the test, and statistical treatment was done based on the obtained result.

Data Analyses and Statistics Used
Mean, Standard Deviation and Correlation were computed in the present study. Pearson correlation analysis is used to determine the relationship between students' academic motivation and self-regulated learning.

RESULTS

Table 1 Descriptive Statistics of Academic Motivation and Self-Regulated Learning

Domains	Mean	S.D.
Intrinsic motivation to know	22.63	4.58
Intrinsic Motivation to Accomplish	19.84	4.99
Intrinsic motivation to Stimulate	20.28	4.56
Extrinsic Motivation Identified	22.40	4.30
Extrinsic Motivation Introjected	18.97	6.12
Extrinsic Motivation External Regulation	22.09	4.98
Amotivation	11.27	6.97
Total Academic Motivation	5.29	4.62
Memory Strategy	40.59	8.02
Goal Setting	13.94	4.01
Self-Evaluation	36.94	6.08
Seeking Assistance	21.31	3.90
Environmental Structuring	14.99	3.20
Responsibility	15.19	3.27
Organising	19.80	3.24
Total Self-regulated learning	162.81	24.39

Table 1 presents the descriptive statistics of the observed variables, including means and standard deviations. The overall mean for Total academic motivation total was 5.29, with a standard deviation of 4.62. The mean for Intrinsic motivation to know was 22.63, with a standard deviation of 4.58. The mean for intrinsic motivation to accomplish was 19.84 (SD = 4.99), and the mean for intrinsic motivation to experience stimulation was 20.28 (SD = 4.56). The mean for Extrinsic motivation Identified was 22.40 (SD = 4.30), extrinsic motivation integrated was 18.97 (SD = 6.12), extrinsic motivation external regulation was 22.09 (SD = 4.98) and amotivation was 11.27 (SD = 6.97). The overall mean for Total self-regulated Learning was 162.81, with a standard deviation of 24.39. The mean for Memory Strategy was 40.59, with a standard deviation of 8.02. The mean for Goal Setting was 13.94 (SD = 4.01), Self-evaluation was 36.94 (SD = 6.08), Seeking Assistance was 21.31 (SD = 3.90), Environmental Structuring was 14.99 (SD = 3.20), Responsibility was 15.19 (SD = 3.27) and Organising was 19.80 (SD = 3.24).

Table 2 Correlation of the Domains of Academic Motivation and Self-Regulated Learning

Domains	IM TK	IM TA	IM ES	EM Idn	EM Inj	EM ER	AM	Total AM
Memory Strategy	0.36**	0.43**	0.38**	0.40**	0.40**	0.31**	0.30**	-0.04
Goal Setting	0.19**	0.33**	0.30**	0.29**	0.32**	0.21**	0.12*	0.04
Self-Evaluation	0.29**	0.37**	0.35**	0.34**	0.32**	0.25**	0.14*	0.06
Seeking Assistance	0.32**	0.36**	0.38**	0.40**	0.27**	0.34**	0.09	0.12*
Env Structuring	0.25**	0.30**	0.27**	0.33**	0.21**	0.30**	0.05	0.10
Responsibility	0.30**	0.37**	0.32**	0.34**	0.25**	0.30**	0.06	0.12*
Organising	-0.05	-0.03	0.07	-0.02	-0.02	-0.04	0.01	0.00
Total SRL	0.38**	0.48**	0.43**	0.45**	0.40**	0.37**	0.18**	0.07

Note: IMTK-Intrinsic Motivation to Know; IMTA-Intrinsic Motivation to Accomplish; IMES- Intrinsic Motivation to Stimulate; EMIdn- Extrinsic Motivation Identified; EMInj-Extrinsic Motivation Introjected; EMER-Extrinsic Motivation External Regulation; AM-Amotivation; Total AM-Total Academic Motivation; Total SRL- Total Self-Regulated Learning
**Correlation is significant at the 0.01 level (2-tailed).
*Correlation is significant at the 0.05 level (2-tailed).

From table 2, it was found that Total Academic Motivation did not significantly correlate with Total Self-regulated Learning. It significantly positively correlated with Seeking Assistance and Responsibility (r=0.12 and 0.12, p<0.05). It was also analysed that, total self-regulated learning and it six dimensions i.e. Memory strategy, goal setting, self-evaluation, seeking assistance, environmental structuring and responsibility significantly correlated with Intrinsic motivation to know (r=0.36, 0.19, 0.29, 0.32, 0.25, 0.30 respectively, p<0.01),intrinsic motivation to accomplish (r=0.43, 0.33, 0.37, 0.36, 0.30, 0.37 respectively, p<0.01), intrinsic motivation to experience stimulation (r=0.38, 0.30, 0.35, 0.38, 0.27, 0.32 respectively, p<0.01), extrinsic motivation identified (r=0.40, 0.29, 0.34, 0.40, 0.33, 0.34 respectively, p<0.01) extrinsic motivation introjected (r=0.40, 0.32, 0.32, 0.27, 0.21, 0.25 respectively, p<0.01) and extrinsic motivation external regulation at (r=0.31, 0.21, 0.25, 0.34, 0.30, 0.30 respectively, p<0.01). It was also examined that Amotivation had significant and positive relationship with Memory strategy (r=0.30, p<0.01), Goal setting (r=0.12, p<0.05) and Self-evaluation (r=0.14, p<0.05). Further, it was analysed that the Organising dimension had no significant relationship with Total Academic motivation and any of its dimensions.

DISCUSSION

The results showed that total Academic motivation did not have any significant correlation with self-regulated learning. However, Intrinsic, Extrinsic, as well as amotivation dimensions of academic motivation have positive and significant relationships with self-regulated learning. Motivation can be considered a continuum, with values and rewards portrayed by intrinsic components toward one end and extrinsic factors at the other (Anwar, Waqas, Shakeel, & Hassan, 2018).

In the current study, intrinsic motivation (IM) dimensions of Academic motivation (IM to know, IM towards accomplishment, IM to experience Stimulation) had positive and significant effects on self-regulated learning, consistent with other studies (Pintrich & DeGroot, 1990; Heikila & Lonka, 2006). These findings can be explained based on research by García & Pintrich (1991), who explained that students who use self-regulated learning strategies are intrinsically motivated and prove to be autonomous learners. Such learners successfully use cognitive and metacognitive strategies. Therefore, using more self-regulated learning strategies makes students intrinsically more motivated. These intrinsically motivated students tend to complete tasks for their own sake and try to develop new strategies out of interest in those tasks. Their motivation comes from within themselves rather than from external sources. Students' level of motivation directly influences cognitive learning strategies, i.e., adopting a learning and mastery orientation and further positive evaluations of competence which further leads to greater use of monitoring, elaboration, and effort management strategies. According to Bloom (1982), creating conditions for success is a way of motivating. When students acquire skills and learning strategies, they realize they have much control over learning and success and can achieve success using it.

In addition, in the present study, extrinsic motivation (EM) dimensions (EM Identified, EM Introjected, and EM External Regulation) had positive and significant effects on self-regulated learning. These findings can be explained through the expectancy-value theory (Eccles, 1983; Eccles, Wigfield, & Schiefele, 1998). According to the theory, students who assign high value to a task are more likely to participate in the activity, persist for long, and further endeavour in the activity by using various strategies. Therefore, it leads us to infer that the learners who feel a given task is significant and valuable prefer to use cognitive strategies more often, resulting in a positive learning outcome. Here, the activity is not done for its own sake but for another reason, such as a future outcome. Today students assign high task value to grades achieved as they feel high grades will get their parents' or teachers' approval and help them with their future careers. Wolters (1999) studied students' use of self-regulation strategies to influence motivational outcomes. He found that students who focused on getting good grades increased their task valuing more than students who focused on an inner desire to learn or find the material more interesting. Therefore, it can be inferred that students who work for extrinsic rewards also put the effort in self-regulated learning.

In addition, the present study's results showed that the amotivation dimension of Academic motivation had a positive and significant relationship with self-regulated learning. This can be explained by the fact that students sometimes select methods for studying because they are easy to use or to accelerate progress even if they believe other effortful and less rapid methods for studying would be better for Learning (Bjork et al., 2013). Similarly, procrastination and other self-handicapping techniques, such as when students intentionally choose not to study so they have an excuse for poor performance (Midgley et al., 1996), are forms of self-regulated learning because they consciously decide how to regulate their

engagement in (or disengagement from) learning. These decisions, however, depress achievement in the long term.

Furthermore, the results of the present study showed that the Organizing dimension of self-regulated learning did not correlate with academic motivation and any of its dimensions. This can be explained by the fact that today students are busy with various activities that require regulating different behaviours. To successfully attend class, busy students may need to schedule courses at convenient times and rearrange work schedules. For completing homework assignments, students need to plan and develop goals for achieving them. Juggling their time may not be easy for many students, which hampers their self-regulated learning. Even though some students feel academically motivated, they may fail to employ self-regulated learning. For instance, Dunlosky and Thiede (2004) observed that many students regulated their study time sub-optimally and then demonstrated that this dysregulation arose from failure to plan and difficulties in executing those plans. Therefore, it can be inferred that students who do not feel motivated also put a certain amount of effort into self-regulated learning.

Thus, the correlational analysis in the present study leads us to infer that there is no difference between extrinsic and intrinsic motivation concerning self-regulated learning. A similar study by Marini and Boruchovitch (2014) also reported a significant relationship between meta-cognitive learning strategies and intrinsic and extrinsic motivation. Students' self-regulatory processes can be facilitated or impeded by their motivational beliefs (Pintrich, 1999; Zimmerman & Schunk, 2012).

Implications and Limitations of the Study
In summary, the results provide empirical evidence for considering motivational and self-regulated learning components in academic performance. The present research confirms that academically motivated students learn better through self-regulated learning. Academic motivation plays a vital role in initiating, guiding, and sustaining student efforts to self-regulate their learning. Also, their academic motivation can be enhanced if their self-regulated learning can be enhanced. Therefore, the present research findings can be used as guidelines for planning interventions in school and college settings. The findings will guide policymakers, curriculum committees, higher education personnel, and faculty to apply strategies that promote students' academic motivation and self-regulated learning, leading to enhanced learning outcomes.

Supporting the motivational antecedents to self-regulated behaviours is one area in which small interventions are likely to reap sizeable benefits. Helping students set goals acquaints them with their agentic power and sense of autonomy. Launching new self-regulatory habits can also be helped by training in executive functioning, which may improve students' self-regulatory capacity. Blair and Diamond (2008) identified several ways teachers and parents can help children's executive functioning, such as encouraging students to make decisions about their learning. Enhancing self-sources of motivation can involve using social resources, such as parental or instructor modeling, praise, or rewards (e.g., academic grades). Parents also have an impact on their children's motivation. When parents are autonomy supportive, their children become more intrinsically motivated, and these motivational factors mediated increase teachers' ratings of students' self-regulatory competence (e.g., Grolnick & Ryan, 1989; Deci et al., 1996). Students must be instructed and given appropriate class feedback to learn self-regulating strategies. School practitioners can help learners frame their self-evaluations and reflective self-assessments in adaptive

ways. In India, self-regulatory research is in its infancy. Students need to have both the "will" and the "skill" to be successful in classrooms (Blumenfeld, Pintrich, Meece, & Wessels, 1982), and there is an urgent need to integrate these components in models of learning.

There are several limitations to these findings, however. Confinement of information resources to self-assessing tools and not using parents' or teachers' information resources for the study variables are the limitation of this research. The self-report questionnaires used to imply a response bias because participants may have faked their responses to look good or to respond according to their socially desirable norm. The convenience sampling method used in this study may have limited the generalization of the findings to similar populations. Future research should compare individuals with different levels of self-regulated learning and academic motivation.

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