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Students' Practices of Self-Regulated Learning Strategies: A case Study at Samtse College of Education

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Abstract

This study explored the self-regulated learning (SRL) strategies of students at Samtse College of Education (SCE) using a mixed-methods explanatory sequential design. The study employed quantitative survey data from 151 students, with qualitative insights from focus-group interviews. The findings revealed that while students demonstrated autonomy, motivation and goal setting, they lacked a comprehensive understanding of effective SRL processes. Notably, Master of Education (M.Ed) students exhibited stronger self-regulation skills compared to postgraduate diploma and undergraduate students. The research underscores the importance of academic tasks in nurturing SRL strategies in grooming competent 21st century teachers. The study recommends SRL scaffolding (goal setting, planning, and self-assessment) and early intervention at the undergraduate level, alongside teacher training to promote learner autonomy and reduce dependence on tutor feedback. These interventions aim to cultivate a learning environment that nurtures autonomy, reflection, and strategic thinking, equipping students for better academic success and lifelong learning.

Keywords: Self-regulated learning (SRL), motivation, academic tasks, lifelong learning

Introduction

The fast pace of transformation driven by tremendous advancement in science and technology has provoked the education fraternity to rethink both its purpose and the relevance of the higher education system. Such an unprecedented phenomenon has resulted in uncertainty about the future but at the same time provides a myriad of opportunities of human advancement through education (Organisation for Economic Co-operation and Development [OECD], 2018). Unlike a few decades ago, the ultimate goal of 21st century higher education has leaped from mere consumers of knowledge to producing 'lifelong learners' who can live up to the dazzling changes of life (Demirel,2009; Kapur, 2020). As such, the Royal Kasho issued by His Majesty the 5th King of Bhutan explicitly highlights the goal of education as nurturing future generations to become lifelong learners. This vision is also reflected in the national education policy (Ministry of Education and Skills Development [MoESD], 2025) and Bhutan Professional Standards for Teachers (MoE, 2020).

Samtse College of Education, as a key agent of education transformation in Bhutan, is mandated to prepare future teachers with the required level of competency to nurture future generations with the right mindset and skills to regulate their own learning continuously throughout life. According to Kapur (2020), the only strategy to keep up with the fast-changing knowledge and skills of this century is to 'learn how to learn'. Thus, it becomes critical to study the practices of self-regulated learning (SRL) strategies of students who have a pivotal role in grooming school students to be lifelong learners in Bhutan.

SRL involves students actively influencing their learning across emotional, behavioural, metacognitive and motivational dimensions (Puustinen & Pulkkinen, 2001; Zimmerman, 1989). Its theoretical foundation is rooted in a social cognitive view of academic learning (Zimmerman, 1989). This framework emphasises crucial motivational beliefs such as self-efficacy (Pintrich, 1995). Furthermore, SRL is considered an important component of postsecondary learning for adults, particularly college students (Pintrich, 1995). Given the considerable freedom college students have over time management, these skills are essential for adapting to academic demands (Pintrich, 1995; Zimmerman et al., 1994, as cited in Pintrich, 1995).

As per the Wheel of Academic Law of the Royal University of Bhutan [RUB], 2025, in addition to mandatory academic tasks in each module, students are engaged in various activities such as class presentations, group activities, projects and creative works. Furthermore, all the modules offered at SCE require students to extensively engage in independent learning. For example, in the definitive programme document (2020) of Postgraduate Diploma in Education (PgDE), the

majority of modules allow 75 hours of independent learning out of 150 credit hours per module (SCE, 2019). All academic programmes at SCE are designed to provide enough opportunities and time for students to engage in SRL.

Although there are numerous research studies done in other contexts, there is no single study on the practices of SRL in education colleges of Bhutan. While SCE produces hundreds of new teacher graduates annually, public debate over the quality of teachers has become prominent in recent years (Childs et al, 2025). Moreover, there are also unfavorable instances of academic failures, malpractice cases, requests for deadline extensions and classes absenteeism towards the end of the semester in the college. For example, in 2021, 47 students had to sit for their reassessment examination (SCE, 2021). In addition, there have been reports of students suffering from academic stress, sickness and even weight loss due to sleepless nights spent preparing for examinations. Data also show that from 2015 to 2020, a total of 42 students sought counselling service at the college (SCE, 2020). All these incidents likely indicate weak SRL strategies in managing academic tasks and engaging in continuous learning processes. If so, such behaviour of students (future teachers) may have an adverse impact on education transformation, especially in the grooming of young minds in schools. Therefore, an in-depth study to understand the practices of SRL strategies of students became pivotal.

Main Research Question:

What are the self-regulated learning strategies practiced by students?

Sub-questions:

1. What is the students' understanding of self-regulated learning?
2. How do students plan and motivate themselves for various academic tasks?
3. What strategies and skills do students use to complete their academic tasks independently?
4. What are the reflective practices of students in doing academic tasks?

Literature Review

Meaning of self-regulated learning

Self-regulated learning theory basically originated from the work of American psychologist

Albert Bandura, who strongly proposed that learning is the by-product of personal, environmental and behavioural factors (Schraw et al, 2006). Based on his principles of learning, numerous psychologists have developed different models of SRL which are adopted depending on the existing context of educational settings. For example, today we can see multiple models proposed by Zimmerman, Boekaerts, Winne and Hadwin, Pintrich, Efklides, and Hadwin, Jarvela and Miller (Panadero & Alonso-Tapia, 2014). However, Zimmerman's model of SRL is widely adopted as it is comprehensive and also encourages a cyclic review of each phase of learning (Torre & Daley, 2023). Zimmerman's model is divided into three distinct phases: forethought, performance and self-reflection, with major components within each phase (Panadero & Alonso-Tapia, 2014). The illustration given below provides an instant explanation of SRL.

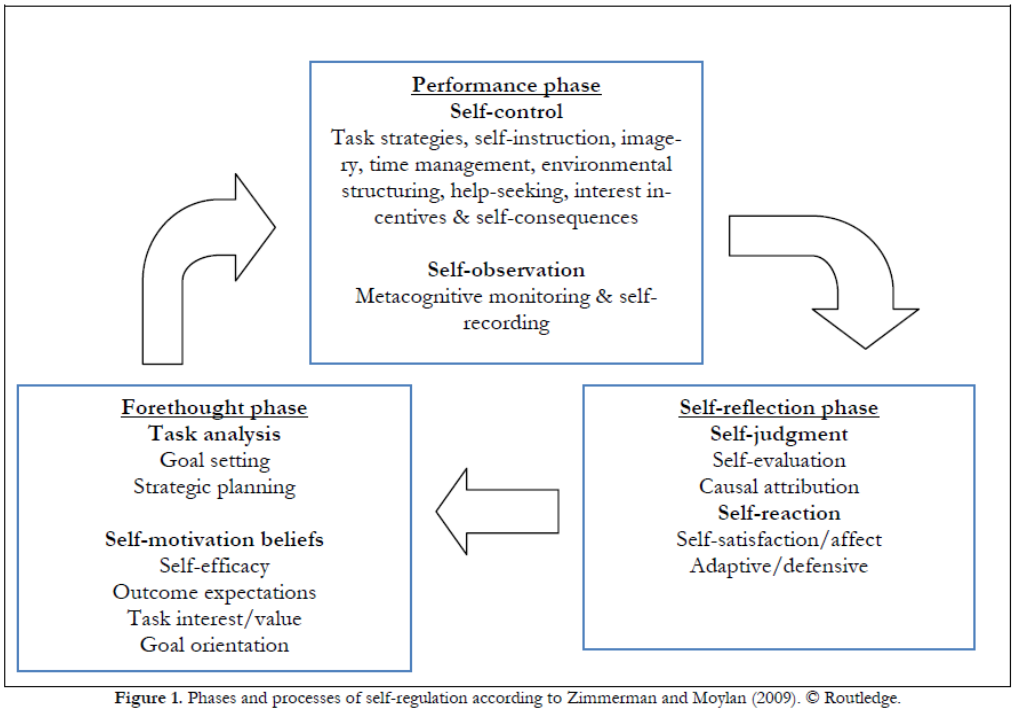

Figure 1. Phases and processes of self-regulation according to Zimmerman and Moylan (2009). © Routledge.

Figure 1. *Zimmermman's Phases of Self-regulated Learning*

SRL is based on the principle that students use cognitive, motivational, and behavioural components in their learning process (Pintrich, 1999). Thus, according to Panadero and Alonso-Tapia (2014), SRL is defined as the "control that students have over their cognition, behaviour, emotions and motivation through the use of personal strategies to achieve the goals they have established" (p. 450). Similarly, it is also understood as the "capacity of an individual to personally monitor, control and manage their behaviour, emotions, or thoughts to reach a goal"

(Anthonysamy et al, 2021, p. 33). This research is based on Zimmerman's Cyclical Model of Self-Regulated Learning (SRL), which builds on Bandura's Social Cognitive Theory emphasising the interaction of personal, behavioural, and environmental factors. Zimmerman's model is widely adopted because of its comprehensive and cyclical nature, consisting of three interconnected phases: forethought, performance, and self-reflection. In the forethought phase, learners set goals and plan strategies. A key issue in this phase is a lack of effective goal setting practices; students may be setting very general or overly ambitious goals and may have difficulties tracking progress (Zimmerman, 2008). In the performance phase they use strategies and track progress. They also lack metacognitive awareness to understand how they learn, what strategies are effective or when to change ineffective strategies (Pintrich, 1995). In the self-reflection stage, they review their outcomes and adjust them for improvement. This ongoing process is a manifestation of the active involvement of learners in managing their cognition, motivation and behaviour to attain meaningful learning goals. Students who have low levels of self-efficacy may take risks, easily get discouraged or rely heavily on teachers for direction (Zimmerman, 2013).

Characteristics of self-regulated learner

All the phases of SRL include the characteristics of self-regulated learners. Learners establish clear goals and choose strategies to reach them in the forethought stage (Zimmerman & Schunk, 2001). They have to analyse tasks according to assessment criteria and expected performance levels (Panadero & Alonso-Tapia, 2014), which makes it necessity for teachers to give explicit guidance. Having clear goals, learners can create action plans and choose appropriate strategies (Zimmerman, 2008) with motivational beliefs (such as self-efficacy, task value, interest, and outcome expectations) (Wang & Sperling, 2020).

Such characteristics are sometimes referred to as 'grit', which helps students control their behaviour, maintain motivation and put in effort. They, therefore, support resilience, optimise learning approaches, and are more effective in reinforcing endurance than cognition (Pishghadam et al., 2022).

Moreover, SRL enhances the problem-solving ability. Students who show SRL traits like interest, self-control and task analysis achieve better results in solving mathematical problems (Marchis, 2012). It also fosters flexibility of thinking and adaptability, key to a successful participation in the global job market (De Smul et al., 2020). SRL paves the way for lifelong learning by cultivating habits that promote growth and ongoing education (Coklar & Yurdakul, 2017). This is why it is essential to train teachers in lifelong learning strategies for improving their effectiveness and fostering autonomous learners (Demir & Doganay, 2019).

Method

In this study, pragmatism was used as a research paradigm to study SRL strategies of students. Pragmatism enables researchers to apply an appropriate method to solve a research problem, while also taking into account the importance for practical application of research results (Creswell, 2018). This supports a mixed methods approach that allows for a comprehensive study of SRL to be conducted. The method used was an explanatory-sequential design that began by identifying quantitative data with a survey, and then collecting qualitative data from focus-group interviews to deepen the findings.

The data were collected from students pursuing undergraduate (Bachelor of Social Work), Postgraduate Diploma (Postgraduate Diploma in Education and Contemplative Counselling and Psychology) and Masters of Education (M.Ed) programmes. For the survey, convenience sampling ensured accessibility, whereas in focus groups six participants from each programme were randomly selected, providing reasonable representativeness with minimal bias.

The survey was based on Zimmerman's SRL model, and consisted of 23 items using the Likert scale from 1 to 6. Prior to distribution through Google Forms, the instrument was pilot-tested with 13 respondents, achieving a reliable Cronbach's alpha of 0.86 and interview instruments were reviewed by experts for validity. The semi-structured focus-group interviews were carried out, with questions covering the planning, doing and reflection on academic tasks.

The quantitative data was analysed in SPSS (Version 26), and descriptive statistics like frequencies, means, and standard deviations were used. The data were analysed qualitatively using thematic analysis to explore the main patterns and themes. The ethical issues were addressed by maintaining the anonymity of participants and by assigning coded identifiers to each group.

Demographics characteristics

A total of 151 respondents participated in the survey, comprising 58.9% females (n = 89) and 41.1% males (n = 62). The majority of participants were young, with 60.3% (n = 91) aged 25 years and below, while 39.7% (n = 60) were aged 26 years and above. In terms of academic programme levels, most participants were enrolled in the postgraduate diploma programme (70.2%, n = 106), followed by the undergraduate programme (15.9%, n = 24) and the M.Ed programme (13.9%, n = 21).

Table 1. Gender distribution within academic programme levels

		Gender	
		Male	**Female**
Under Graduate	Count	4	20

	% within Academic Programme	16.7%	83.3%
Pg Diploma	Count	44	62
	% within Academic Programme	41.5%	58.5%
M.Ed	Count	14	7
	% within Academic Programme	66.7%	33.3%

Table 1 shows that a higher proportion of female students were enrolled in the undergraduate (83.3%) and postgraduate diploma (58.5) academic programme levels, whereas a greater proportion of male students were in the M.Ed programme (66.7%).

Results

This section presents the results under the key themes that emerged from the coalesced analysis of quantitative and qualitative data: understanding of self-regulated learning, goal setting and strategic planning, self-motivational beliefs, self-control, self-observation and self-judgement.

Understanding of self-regulated learning

Self-regulated learning (SRL) is understood as an educational experience in which learners actively participate, rather than simply being passive recipients of knowledge. It involves self-exploration and independent knowledge discovery, fostering curiosity and self-direction. Flexibility and convenience are also key aspects that reinforce this autonomy. For example, FGC6 described SRL as "the ability to take control of one's learning process". Similarly, FGP5 highlighted it as learning through one's dreams of plans, emphasising that it is a form of student-centred learning that does not rely solely on teachers or a teacher-driven approach. FGM5 further highlighted the importance of mindfulness and proactive engagement, reducing the need for constant guidance.

Goal setting and strategic planning

The quantitative data analysis suggests that students in all academic programmes have clear objectives and have strategic plans on how to execute assignments as indicated in Table 2. Overall, mean scores of M.Ed students were generally higher than those of the undergraduate and postgraduate diploma students in all categories, indicating that they were better at goal setting, understanding the assessment criteria, formulating clear action plans and selecting suitable assessment strategies. However, the standard deviations (SD) varied between the programmes, indicating different levels of consistency in responses within each group.

Table 2. Descriptive statistics on goal setting

Sl.no	Item	M.Ed		Pg Diploma		Under graduate	
		M	**SD**	**M**	**SD**	**M**	**SD**
1	I set a clear goal to do the academic assignments.	5.14	.57	4.54	1.13	4.79	.77
2	I familiarise myself with the assessment criteria of the assigned academic assignments.	5.19	.87	4.90	1.15	4.92	1.06
3	I develop a clear action plan for the academic assignments.	4.76	.70	4.36	1.13	4.13	.99
4	I choose appropriate strategies to implement my action plan.	4.71	.78	4.39	1.13	4.21	.88

The qualitative analysis showed that students used both structured and flexible strategies for academic tasks. Some planned proactively through timetables, deadlines, task breakdowns, drafting, revision and proofreading. Others relied on flexible or last-minute approaches, including internet sources and sample assignments near deadlines. However, many students lacked clear action plans for achieving learning outcomes, indicating limited strategic planning skills.

Self-motivation beliefs

Quantitative data analysis depicts that students generally have strong beliefs in their capabilities to perform academic assignments and meet expected outcomes. Participants also believe they can relate the relevance of assignments to their personal goals and understand the learning purpose well. M.Ed students tend to have higher mean scores in all categories as shown in Table 3, suggesting they generally have higher confidence in their abilities, perceive greater relevance of academic assignments to their personal goals, generate more curiosity about assignments, and have a better understanding of assignment purposes compared to postgraduate diploma and undergraduate students.

Table 3. Descriptive statistics on self-motivation beliefs

Sl.no	Item	M.Ed		Pg Diploma		Under graduate	
		M	**SD**	**M**	**SD**	**M**	**SD**
1	I believe in my capability to perform academic assignments.	5.29	.56	4.72	1.09	4.92	.65
2	I believe I can meet the expected outcomes of the academic assignments.	5.19	.68	4.69	1.03	4.71	.75
3	I can relate the relevance of the academic assignment to my personal goal.	5.19	.60	4.57	1.01	4.63	.82
4	I can make myself curious to do the academic assignments.	4.86	.85	4.43	1.05	4.42	.97
5	I can very well know the learning purpose of the academic assignments.	5.29	.64	4.68	1.05	4.92	.97

The qualitative data revealed that the majority of the students believe that assignments to be personally enriching thereby nurturing professional growth, critical thinking, hard work and dedication (FGP4, FGP6, FGM3, FGM5 and FGC4). For example, FGC6 stated “the assignments given in the college are really useful. It helps in exploring new resources and carrying out research related to the assignment”.

The quantitative findings show that M.Ed. students had stronger self-motivational beliefs, especially when assignments were linked to personal goals. This relevance increased curiosity, motivation and effort in planning academic tasks. Qualitative data similarly showed greater engagement when assignments were meaningful and useful for future aspirations. The students regulate learning better when tasks connect with their interests, experiences and life goals.

Self-control

Quantitative data analysis showed that students generally reported positive behaviours and strategies related to academic assignments. They concentrated on details, instructed themselves in the processes, visualised the information, and created an enabling environment. However, there was more variability in responses as shown in Table 4, when it came to following the exact

timeline in the action plan, with some students adhering closely to the timeline and others not as much. It indicated that M.Ed students tend to have higher mean scores in most categories, indicating that they generally exhibit better behaviours and strategies related to academic assignments compared to the postgraduate diploma and undergraduate students.

Table 4. Descriptive statistics on self-control

Sl.no	**Item**	**M.Ed**		**Pg Diploma**		**Under graduate**	
		M	**SD**	**M**	**SD**	**M**	**SD**
1	I concentrate on the details of the academic assignments.	4.81	.60	4.47	1.17	4.46	.93
2	I instruct myself in the processes of doing academic assignments.	4.86	.73	4.62	1.06	4.50	.89
3	I mentally visualise the process of information about the academic assignments.	4.81	.75	4.65	1.11	4.63	.97
4	I follow the exact timeline drawn in the action plan of the academic assignments.	5.00	.84	4.34	1.20	4.38	1.50
5	I create an enabling environment that facilitates doing academic assignments well.	5.05	74	4.67	1.15	4.88	.90
6	I seek help from others about my academic assignments when needed only.	5.10	.94	4.73	1.11	4.88	.99

The qualitative data collected in response to the question, *"What strategies and skills do you use to complete academic assignments?"* highlighted several key themes. Participants consistently emphasised the importance of time management, structured planning, drafting, and research skills as essential for successful assignment completion. In addition, they underscored the role of self-care and stress management, which were particularly critical in group work settings where differing individual values often created additional challenges.

Self-observation

Quantitative data analysis indicated that students demonstrated generally high levels of self-observation in managing their academic assignments. Across the three academic levels, M.Ed students reported the highest mean scores on all self-observation items, suggesting stronger monitoring and tracking of their learning progress. In contrast, undergraduate students recorded the lowest mean scores across all categories, although their responses still reflected positive self-observation practices, as shown in Table 5.

Specifically, M.Ed students reported the highest levels of constantly monitoring the progress of their academic assignments and concentrating on assignment details. They also showed relatively strong practices in maintaining records of assignment progress. While Pg Diploma and undergraduate students also reported positive self-observation behaviours, their comparatively lower mean scores suggest less consistent engagement in monitoring and documenting their academic progress.

Table 5. Descriptive statistics on self-observation

Sl.no	Item	M.Ed		Pg Diploma		Under graduate	
		M	SD	M	SD	M	SD
1	I constantly monitor the progress of my academic assignments.	4.81	.750	4.53	1.02	4.46	.93
2	I maintained various records about the progress of the academic assignments.	4.52	.750	4.27	1.22	3.88	1.39
3	I concentrate on the details of the academic assignments.	4.81	.602	4.47	1.17	4.46	.93

The qualitative data revealed diverse strategies for managing assignments and monitoring progress were used. The majority of them reported using detailed comments from tutors to monitor their progress in academic tasks (FGC1, FGC2 and FGPC). Moreover, structured tools such as checklists, rubrics, and to-do lists were commonly employed for task tracking, with some individuals favouring straightforward methods like marking off completed tasks. Participants also used mental planning and digital resources like Virtual Learning Environments (VLE) to

access feedback and grades.

Different personal approaches were noted, ranging from visual methods like using sticky notes, to systematic documentation in group assignments, and engaging in peer reviews. For example, FGC2 emphasised the importance of discipline and commitment, stating, "I review my assignments a couple of times before submission. It can simply be put into discipline and commitment since without these two, self-instruction is probably absent in a person." The findings suggest that students complete academic tasks independently by employing a combination of behavioural regulation, cognitive planning, progress monitoring, and reflective evaluation**.**

Self judgement

Quantitative data analysis indicated that students generally reported feeling motivated when they completed academic assignments. They also likely engaged in self-assessment of their assignments based on the marking criteria and self-explanation of feedback and marks provided by the module tutor.

Table 6. Descriptive statistics on self-judgement

Sl.no	**Item**	**M.Ed**		**Pg Diploma**		**Under graduate**	
		M	**SD**	**M**	**SD**	**M**	**SD**
1	I feel motivated with my completion of the academic assignments.	5.38	.59	4.98	1.11	5.17	.70
2	I do self-assessment of the academic assignments based on the making criteria.	4.43	1.25	4.37	1.15	4.38	1.28
3	I do self-explanation of the feedback and marks provided in the academic assignments by the module tutor.	4.57	1.17	4.29	1.19	4.58	.93

As shown in Table 6, comparatively M.Ed students tend to have higher mean scores in feeling motivated upon completing assignments, but there are only slight differences between the

programmes in terms of self-assessment and self-explanation behaviours. The standard deviation (SD) suggests that there is variability in these behaviours within each group. On the other hand, qualitative data shows that the majority of the students do not seriously engage in self-assessment of their assignments before and even after getting grades from the tutors concerned (FGP3, FGP5, FGP2, FGP6). They rather leaned heavily on the instructor's assessment. In contrast, some students detailed a more comprehensive self-assessment method such as aligning their assignment with marking criteria and rubrics, seeking guidance from tutors, asking friends to proofread and assess incidences of plagiarism (FGM1, FGM3, FGM5 and FGM6).

Table 7. Descriptive statistics on self-reaction

Sl.no	**Item**	**M.Ed**		**Pg Diploma**		**Under graduate**	
		M	**SD**	**M**	**SD**	**M**	**SD**
1	I derive satisfaction from the self-judgement done on my assignments.	4.71	.78	4.39	1.09	4.46	.83
2	I incorporate lessons learned from doing assignments in the upcoming academic assignments.	5.14	.73	4.59	1.17	4.63	1.01
3	I praise myself with the progress of the academic assignments.	4.71	.90	4.52	1.09	4.08	1.14

Students across all programmes reported generally positive reactions after completing assignments, with M.Ed students showing higher satisfaction in self-judgment, applying lessons learned, and self-praise. However, standard deviation values indicated minimal variation within groups (Table 7). Qualitative findings revealed mixed experiences. While most participants expressed overall satisfaction, some reported dissatisfaction with their work. For instance, one participant noted rewarding themselves after completion, whereas another felt they could have performed better each time. Dissatisfaction was often linked to "silly mistakes" identified through feedback, highlighting its importance for improvement. Participants also emphasised the challenges of one-chance assignments and the need for greater care in future tasks.

Discussion

This study explored students' self-regulated learning (SRL) practices in completing academic assignments, focusing on their understanding of SRL, goal setting and strategic planning, self-motivational beliefs, self-control, self-observation and self-judgement. The results offer valuable insights into the nature of students' SRL in the context of academic levels and add to the existing knowledge about SRL in higher education settings.

Understanding of self-regulated learning

This research found that the students' general perception of SRL is an active learning process that is learner-centred, which includes autonomy, self-direction and self-responsibility. Participants mentioned that SRL involved taking control of the learning process, including independence and proactive involvement in learning. This understanding aligns with Schunk and Zimmerman (2013)**,** who conceptualised SRL as learners' ability to actively control and direct their cognitive, motivational and behavioural processes toward achieving learning goals.

However, qualitative findings showed that many students viewed SRL mainly as personal interest, motivation and individual responsibility, rather than a structured and teachable strategy. This indicates a partial understanding of SRL, supporting Zimmerman (2013), who argues that self-regulation must be explicitly taught and scaffolded. Unlike Lai et al. (2018), students saw SRL more as a personal trait, suggesting the need for explicit SRL instruction.

Goal setting and strategic planning

Another important finding is that students generally reported engaging in goal setting and planning before undertaking academic assignments. Quantitative findings indicated positive behaviours across all academic levels, with M.Ed students demonstrating consistently higher levels of goal setting, familiarity with assessment criteria and strategic planning compared to postgraduate diploma and undergraduate students. This finding aligns with Zimmerman and Schunk (2011), who identify goal setting and strategic planning as critical components of the forethought phase of SRL.

Qualitative findings, however, revealed substantial variation in the quality and consistency of students' planning practices. While some students used structured strategies such as creating timetables, setting deadlines and revising drafts over time, others relied on flexible or last-minute approaches, often turning to internet resources or sample assignments when deadlines

approached. Notably, many participants admitted that they did not develop clear action plans aligned with learning outcomes. This inconsistency suggests that although students recognise the importance of planning, many may lack the skills to engage in intentional and outcome-oriented strategic preparation.

These findings are consistent with Lai et al. (2018), who found that students often require explicit support to develop effective planning and goal-setting skills. The stronger planning practices among M.Ed students may reflect the influence of academic maturity and greater exposure to independent learning demands. This suggests that strategic planning competence develops progressively with academic experience. Therefore, higher education institutions should integrate structured SRL scaffolding, such as goal-setting templates and planning frameworks, particularly for less experienced learners.

Self-motivational beliefs

The findings also indicate that students generally possessed strong self-motivational beliefs, particularly confidence in their ability to complete academic assignments and achieve expected outcomes. Students reported being able to connect assignments to their personal goals and understand their learning purpose, with M.Ed students again showing stronger motivational beliefs than postgraduate diploma and undergraduate students.

This finding supports Radovan (2010) and Cho and Shen (2013), who identify self-efficacy and intrinsic motivation as key predictors of SRL. Students with stronger confidence persist and use better strategies. Qualitative findings showed assignments promoted professional growth, critical thinking and motivation, especially when meaningful. This aligns with the findings of Coklar and Yurdakul (2017) and Demir and Doganay (2019).

The findings indicate that students regulate their learning more effectively when academic assignments are perceived as meaningful and personally relevant. This highlights the importance of designing authentic learning experiences that connect academic tasks to students' lived experiences and professional aspirations.

Self-control and performance management

Another key finding is that students generally demonstrated positive self-control behaviours during assignment completion, including concentration, process self-instruction, mental visualisation and creating enabling environments for learning. Students also reported seeking help when needed, suggesting adaptive use of external support. However, there was greater

variability in their ability to follow timelines consistently.

These findings align with Zimmerman's (2008) SRL performance phase, where time management, task focus and environmental structuring support sustained learning. M.Ed students showed stronger self-control through meeting deadlines and creating productive study environments. Qualitative data also highlighted planning, drafting, research skills, self-care and stress management, supporting Yan's (2020) emphasis on behavioural regulation and adaptive coping. Undergraduate students may need scaffolded support, reflective journals and structured deadlines.

Self-observation and progress monitoring

The students' self-observation was also generally good, such as keeping track of their work, checking the details of assignments and checking progress. M.Ed students indicated the greatest amount of progress monitoring while undergraduate students indicated comparatively low levels of progress monitoring.

The results are consistent with those of Zimmerman (2008) who showed that self-monitoring is one of the essential metacognitive skills that enables learners to assess their own learning process and make appropriate adjustments when needed. The qualitative results showed that a variety of monitoring approaches were being implemented, such as the feedback provided by their tutors, checklists, rubrics, to-do lists, peer monitoring, and digital learning platforms.

Tutor feedback is used as a monitoring tool regularly, indicating that this practice is valued by students. This may help to support learning, but it could also be a sign that the student is not using self-monitoring to a completely independent level. This discovery is indicative of the educational culture across Bhutan where the feedback from the teacher plays a major role in students' academic growth. The results indicated that students are starting to become more reflective in monitoring themselves, yet there is still a need to reinforce the students' autonomous monitoring habits especially those of undergraduate students.

Self-judgement and self-reaction

Students generally felt motivated after completing assignments and engaged in some self-assessment and reflection. However, qualitative data showed that only a few critically evaluated their work before or after marking, and many relied heavily on tutor feedback. This suggests that evaluative judgement remains underdeveloped for many students. Some students showed

stronger SRL behaviours, such as using marking criteria, seeking peer feedback, checking for plagiarism, and applying lessons to future tasks. Overall, students value feedback, but structured self-assessment, reflective prompts, and rubric-based peer review are needed to strengthen independent learning.

Overall implication

In sum, this study validates that SRL is a vital and teachable approach to learning that promotes autonomous learning, academic achievement, and lifelong learning. M.Ed students outperform post-graduate diploma and undergraduate students in their capacity to be self-regulated learners. Therefore, it can be inferred that SRL grows gradually along with the academic maturity and learning experiences.

The results, however, also identify some significant weaknesses in the strategic planning, self-monitoring, and self-evaluation of less experienced learners. Moreover, teacher-centred education norms seem to have an impact on students' dependence on others' guidance, suggesting that culturally responsive teaching methods should be used to gradually increase students' self-reliance and autonomy while providing them with the assistance they need.

The study highlights the need to explicitly teach and integrate SRL strategies into academic practices, which is in line with those of Panadero and Alonso-Tapia (2014) and Demir and Doganay (2019). Higher education institutions can enhance their students' learning autonomy, adaptability and lifelong learning through goal setting, reflective monitoring and evaluative judgement.

Conclusion

The study carried out a comparative approach in analyzing students'' self-regulated learning (SRL) in various programmes in terms of its various dimensions as goal setting, self-motivation, self-control, self-observation, and self-judgement. In sum, the results suggest that students generally exhibit SRL behaviours that are positive and are more evident in their motivational strategies, task engagement, and basic planning strategies. However, there were some differences in the depth, and consistency of strategic planning, independent and evaluative judgement and monitoring.

M.Ed students showed stronger SRL capacities across most dimensions, suggesting that SRL

skills improve with academic experience and level. Undergraduate and postgraduate diploma students were less consistent, especially in self-assessment and reflection. While many felt motivated by feedback, some dissatisfaction arose from avoidable errors noticed after grading, showing limited proactive self-evaluation. Overall, students have basic SRL skills but need stronger reflective practice, evaluative judgement, and strategic planning.

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