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MOTIVATIONAL DETERMINANTS OF SELF-REGULATED LEARNING AT THE UNIVERSITY LEVEL IN PUNJAB, PAKISTAN

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ABSTRACT

Self-regulation is regarded as important due to its positive impact on educational and behavioural results. Therefore, this study was conducted to explore motivational determinants of self-regulated learning for postgraduate students. This study was conducted at the University of Agriculture Faisalabad. A total of 202 randomly selected students were interviewed using the structured questionnaire, and collected data were analysed using Statistical Package for Social Sciences (SPSS). Results indicated that the determinants of internal motivation vary in their influence on students' motivation levels. The highest-ranked determinants were related to the student's belief in their capabilities, the perception of self-regulated learning as valuable, and the positive impact on self-esteem. Students perceived various positive outcomes and benefits associated with self-regulated learning. They believe it enhances their understanding, improves their grades, provides satisfaction, broadens knowledge, and motivates further learning. Students also value the ability to demonstrate their abilities to others and the opportunity to learn from mistakes. This implies that self-regulated learning seems to have a positive impact on students' development, thus, continuous motivation is deemed important to increase the outcomes.

Keywords: Learning; Motivation; Determinants; Post-graduate; Education.

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INTRODUCTION

Self-regulated learning (SRL) is one area of self-regulation and is closely related to educational goals. In general, this refers to learning guided by metacognition (thinking about one's thinking), strategic actions (planning, monitoring, and evaluating personal progress toward standards), and motivation for learning (Ames, 1990). Self-regulation is considered a useful element for students in terms of doing homework. This concept represents the difference in student's efforts to do their homework. In addition, academic students are capable students who use different strategies in the classroom with self-ideologies (Bahr, 2007). Self-regulated learning enhances students' motivational, metacognitive, affective, and behavioural characteristics, improving their learning (Ganda & Boruchovitch, 2018). Self-regulated learners use appropriate learning strategies and maintain high levels of motivation, which are crucial for academic success (Bembenuddy, 2007). Self-regulated learning offers learners the opportunity to become autonomous, which is essential for ensuring Japanese students acquire English proficiency (Tsuda & Nakata, 2013).

Self-regulated learning (SRL) originated in mid-19th-century writings about learners' sense of responsibility in self-education, with foundations including Skinner's behaviourism and Bandura's social learning theory (Winne, 2017). The original taxonomy on Self-Regulated Learning (SRL) strategies was presented in 1986 by Barry Zimmerman and Manuel Martinez-Pons (Garcia et al., 2018). According to Lindner and Harris (1998), self-regulated learning is a construct with varied origins, but its main promise lies in its focus on volition (goal-directed) and internal, reflective control over learning outcomes. Students' self-regulatory skills develop initially from social sources of academic skill and shift to self-sources in a series of 4 levels: observational, imitative, self-controlled, and self-regulated (Schunk & Zimmerman, 1997). Self-regulation among students was influenced by their ability to observe their behaviour, reflect on achievements, and engage in self-reflection, leading to transformative learning (Martin & Islas, 2017).

Teacher-led experiences have been valued in the early years of high school to support self-regulatory abilities (Davis, 2003). Self-regulated getting to know self-ruled thoughts, emotions, and moves, which are planned and mechanically tailored to reach personal targets, is made from 3 key capabilities. First, self-regulated individuals are conscious that there may be a connection between strategic planning and academic achievement. Second, self-regulated novices take measures to control the attempt given educational obligations. Self-regulated monitors the success of their knowledge strategies and reacts to remarks in a selection method (Bogdan & Biklen, 2007). Self-regulation is desirable because of the effects it has on educational and behavioural outcomes. The use of self-regulation techniques is a way to actively engage active, and passive students in their academic teaching. Self-regulation techniques are a way to connect with other non-students who use their learning (Bogdan & Biklen, 2007).

The motivational factors that drive self-regulated learning can vary depending on individual traits and approaches. Strategies for motivational regulation can assist in mobilizing cognitive, metacognitive, and social strategies, ultimately facilitating learning and enhancing academic achievement (Zhang & Dong, 2022). Personal characteristics, such as motives related to competence, individual interests, and self-efficacy beliefs, play a crucial role in self-regulated learning (Ilishkina et al., 2022). Self-regulated learning encompasses the processes through which learners proactively monitor and control their learning, employing a range of strategies. The concepts of self-efficacy and task value are theorized to support and sustain students' motivation and engagement in self-regulated learning (Ahmed, 2017).

Investigating self-regulated learning is justified due to its significance in enhancing learning outcomes, its transferability to real-life contexts, its contribution to our understanding of motivation and psychological processes, and its potential to inform educational practices. By studying self-regulated learning, we can advance our knowledge and develop strategies to empower individuals to become active, self-directed learners.

METHODOLOGY

This study was descriptive. The study was conducted at the University of Agriculture Faisalabad, which has a total of seven faculties. Of the seven faculties, one social science faculty was selected randomly. M.Sc. (Hons.) and M. Phill degree programs are ongoing in the selected faculty. A total of 425 students were enrolled in M.Sc. and M. Phill degree programs. These students served as the study population, and the list of students served as the sampling frame. The list was obtained from the dean's office, Faculty of Social Sciences. Of the total 425 students, M.Sc. 1st semester was 45, M.Sc. 3rd semester 55, M.Phil. 1st semester 110, and M.Phil. 3rd semester was 215 in total population.

The study's sample size was determined using an online sample size calculator, www.surveysystem.com, keeping a confidence level of 95% and a confidence interval of 5. The sample size of the study was 202 students. Respondents were chosen using proportionate sampling.

Data were collected using a validated, reliable, structured questionnaire, and collected data were analyzed using Statistical Package for Social Sciences (SPSS). The questionnaire's purpose for data collection was

that the population was literate, so they responded positively. Closed-ended questions with four different scales were used by considering the respondents' limited time and feasibility. The closed-ended nature of the questions also helped the researcher to focus on the subject and time. It has three parts. First, it was related to personal information, the second was related to emotional adjustment, and the final part dealt with parents' economic status. An instrument was designed on a five-point Likert Scale, and a survey was conducted among the selected teachers to collect data about the Types, causes, and techniques for handling misbehavior among students in the classroom. The statements of the questionnaire were structured in the form of a five-point Likert scale coded as (1) Strongly Disagree (2) Disagree (3) Undecided (4) Agree (5) Strongly Agree. Collected data were analysed using a descriptive statistical technique such as frequency, percentage, mean, standard deviation, and weighted scores. Responses were rated based on mean scores, whereas responses were ranked based on weighted scores.

RESULT AND DISCUSSION

Demographic Attributes of Respondents

In this section, the background, age, monthly income, qualification, and CGPA of the student are explored and presented in Table 1. The demographic profile is regarded as vital in survey-based research and examines the likely impact on existing practices and future policies, as endorsed by Utami et al. (2022), Ashraf et al. (2015), and Saleem et al. (2022).

Table 1. Demographic attributes of respondents.

Attributes	Frequency	Percentage
<i>Background</i>		
Urban	71	35.9
Rural	131	57.3
Total	202	100.0
<i>Age</i>		
21-30 years	175	86.6
31-40 years	26	12.9
Above 40 years	1	.5
Total	202	100.0
<i>Monthly income</i>		
Up to 25000	43	21.3
25000-50000	51	25.2
50000-75000	83	41.1
Above 75000	25	12.4
Total	202	100.0
<i>Qualification</i>		
Masters	103	51.0
M.phil	99	49.0
Total	202	100.0
<i>CGPA</i>		
2.5-3	14	6.9
3-3.5	112	55.4
3.5-4	76	37.6
Total	211	100.0

Table 1 The data presented in the table provides information on various attributes of a group of individuals. In terms of background, 35.9% of the individuals come from urban areas, while the majority, accounting for 64.1%, are from rural areas. In terms of age, the largest age group is 21-30 years, comprising 86.6% of the total individuals. The 31-40 years age group represents 12.9%, and individuals above 40 years

constitute a small percentage of 0.5%. Moving on to monthly income, 21.3% of the individuals have an income up to 25000, 25.2% fall within the 25000-50000 income range, 41.1% have an income between 50000-75000, and 12.4% have an income above 75000. Regarding qualifications, 51% of the individuals hold a Master's degree, while 49% have an M.Phil qualification. Finally, in terms of CGPA (Cumulative Grade Point Average), 6.9% have a CGPA between 2.5-3, 55.4% fall within the 3-3.5 range, and 37.6% have a CGPA between 3.5-4.

Internal and External Motivation

High self-regulated learning (SRL) and high motivation are significantly associated with higher achievement and improved personality traits (Dörrenbächer & Perels, 2016). The relationship between learning and motivational processes is not well specified, but integrating formal models of learning, goal choice, and goal striving can account for findings previously not explained by self-regulatory models of motivation (Vancouver et al., 2014). Therefore, in this study, the aspect of motivation was explored in relation to self-regulated learning among students. The information recorded is tabulated in Table 2 and Table 3.

Table 2. Determinants of internal motivation.

Determinants of internal motivation	Mean	Std. Deviation	Weighted score	Rank
I expect to do very well in the class.	3.95	1.237	834	4
I can do well on the problems and tasks assigned.	3.24	1.143	683	12
Students Grip on topic or content when they perform.	3.55	1.001	748	11
Self-regulated students want other students to give positive responses when they perform in class.	3.36	1.151	708	10
The teacher appreciated the self-regulated learner after their performance	3.36	1.151	735	9
The environment is peaceful when they regulate their knowledge.	3.48	1.164	791	8
SR learner communicates well in the classroom.	3.75	0.925	799	7
Learners also find productive results throughout the learning	3.79	0.965	832	6
Self-regulated learner motivates and encourages other students.	3.90	0.928	851	5
Self-regulated learning develops self-esteem in students	4.03	0.958	837	2
Self-regulation is enhanced through goal-setting or planning	3.97	1.270	868	3
SRL helps me to realize that I am not wasting my time	4.11	0.887	859	1

Table 2 indicates that SRL helps me realize that I am not wasting my time, which had the highest mean score of 4.11, suggesting that students perceive self-regulated learning as a valuable and worthwhile use of their time. It ranks 1st in terms of weighted score. Self-regulated learning develops self-esteem in students, with a mean score of 4.03, implying that self-regulated learning has a positive impact on students' self-esteem. It ranks 2nd in terms of weighted score. Self-regulation enhanced through goal setting or planning obtained a mean of 3.97, indicating that goal setting and planning contribute to the development of self-regulated learning. I expect to do very well in the class and obtained a mean score of 3.95, indicating that students have high expectations for their performance in the class. It was ranked 4th in terms of weighted score.

Self-regulated learner motivates and encourages other students has a mean score of 3.90, indicating that self-regulated students also inspire and support their peers. It ranks 5th in terms of weighted score. Learner also finds productive results throughout learning, with a mean score of 3.79, which explains that students value the achievement of productive outcomes during the learning process. It ranks 6th in terms of weighted scores. SR learner communicates well in the classroom: This determinant has a mean score of 3.75, indicating that effective communication plays a role in motivating self-regulated learning. It ranks 7th in terms of weighted scores.

"Environment is peaceful when they regulate their knowledge," with a mean score of 3.48 infers that students prefer a calm and conducive environment for practising self-regulated learning. It ranks 8th in terms of weighted scores. Teachers appreciated the self-regulated learners after their performance with a mean score of 3.36, indicating that students perceive teacher appreciation as an important factor in motivating their self-regulated learning. Strong teacher adherence to self-regulated learning principles significantly increases students' motivation and deep-level processing strategies over time in the Interactive Learning Group System (ILS) (Rozendaal et al., 2005). Teacher beliefs, knowledge of self-regulated learning, and attributional styles mediate the association between student characteristics and teachers' support of self-regulated learning (Peeters et al., 2016). Self-regulated students want other students to give positive responses when they perform in the class with a mean score of 3.36, suggesting that students value positive feedback from their peers when demonstrating self-regulated learning. Monitoring exercises and feedback significantly influence class performance, calibration, and self-efficacy in self-regulated learning (Nietfeld et al., 2006). Students' Grip on the topic or content when they performed obtained a mean score of 3.55, indicating that students feel moderately knowledgeable and competent when performing tasks related to the topic. I can do well on the problems and tasks assigned with a mean score of 3.24; this determinant suggests that students have relatively lower confidence in their ability to perform well on assigned tasks.

This is deduced that the determinants of internal motivation vary in their influence on students' motivation levels. The highest-ranked determinants are related to the student's belief in their capabilities, the perception of self-regulated learning as valuable, and the positive impact on self-esteem. Results are similar to those of Zimmerman (2000), who found that self-efficacy is a highly effective predictor of students' motivation and learning, influencing their activity choices, effort, persistence, and emotional reactions. Higher-ranked determinants of internal motivation include belief in capabilities, perception of self-regulated learning as valuable, and positive impact on self-esteem, as revealed by Pintrich (1999).

Table 2. Determinants of external motivation.

Descriptive Statistics	Mean	Std. Deviation	Weighted score	Rank
SRL helps me to show my ability to my teacher, class fellows and family	3.31	1.229	698	9
Through SRL my grades are better than other students	3.57	1.234	753	7
I can easily understand the content as thoroughly as possible.	3.74	1.235	790	4
SRL experienced pleasure and satisfaction while learning new things	3.76	1.335	794	3
SRL broadened my knowledge about subjects	3.51	1.335	741	8
SRL helped to provide an effective learning environment.	3.73	1.315	788	6
The SRL technique motivated me to more learn	3.88	1.284	819	2
Monitor their progress towards achieving goals	3.64	1.126	769	5
When self-regulator learner fails at something, they learn from their mistakes	3.92	1.386	827	1

Table 3 shows that when self-regulated learners fail at something, they learn from their mistakes, obtaining the highest (mean 3.92), indicating that students strongly believe in the capacity of self-regulated learners to learn from their failures. SRL techniques motivated me to learn more, and have a relatively high mean score of 3.88, indicating that students feel motivated to engage in further learning through self-regulated techniques. Self-Regulated Learning (SRL) significantly influences the learning independence of elementary school students (Sukowati et al., 2020). Group guidance with self-regulated learning techniques can increase the learning motivation of vocational students (Arfianti & Azmi, 2021).

SRL brings pleasure and satisfaction while learning new things, having a mean of 3.76, and reports that students find enjoyment and satisfaction in engaging in self-regulated learning. I can easily understand the content as thoroughly as possible and obtained a mean score of 3.74, indicating that students believe that

self-regulated learning helps them comprehend the content deeply. Monitoring their progress towards achieving goals with a mean of 3.64 implies that students value monitoring their progress as part of self-regulated learning. Moreover, SRL helped to provide an effective learning environment (mean 3.73), reports that students perceive self-regulated learning as contributing to a conducive learning environment. It ranks 6th in terms of weighted scores. Self-regulated learning (SRL) in classrooms can help students develop strategic, motivated, and independent learning strategies, benefiting both teachers and students (Paris and Paris, 2001). Self-regulated learning training significantly improved conceptual understanding among students, as reported by Azevedo and Cromley (2004).

Through SRL, my grades are better than other students" obtain a mean score of 3.57, which implies that students attribute their improved grades to self-regulated learning. Students with previous online learning experiences, higher motivation, and technology self-efficacy in online courses tend to have better grades (Wang et al., 2013). Self-regulated learning (SRL) positively impacts academic achievement in math, with self-efficacy and perceived usefulness of SRL strategies playing a crucial role in this relationship (Rosário et al., 2013). In another study, Butzler (2016) identified that flipped classrooms using self-regulated tools improve overall course grades for students in the top third, middle third, and bottom third of their graduating class by 7%, 3%, and 6%, respectively. SRL broadened my knowledge about subjects (mean=3.51), indicating that students believe self-regulated learning expands their knowledge in different subjects. SRL helps me to show my ability to my teacher, class fellows, and family had a mean score of 3.31, indicating that students perceive self-regulated learning as a means to demonstrate their abilities to others.

The results summarize that students perceive various positive outcomes and benefits associated with self-regulated learning. They believe it enhances their understanding, improves their grades, provides satisfaction, broadens knowledge, and motivates further learning. Students also value the ability to demonstrate their abilities to others and the opportunity to learn from mistakes. Self-regulated learning (SRL) helps students become strategic, motivated, and independent learners (Paris & Paris, 2001). Self-regulated learning strategies are generally associated with the perceived benefit of virtual patient learning activities, but external teacher and peer regulation are productive for increasing learners' perceived benefit (Edelbring & Wahlström, 2016). A self-regulated learning intervention showed significant gains in learning skills and self-efficacy for learning among undergraduate students enrolled in a teacher education program (Arcoverde et al., 2020).

CONCLUSIONS AND RECOMMENDATIONS

This study concludes that the determinants of internal motivation have varying degrees of impact on students' motivation levels. The determinants that ranked highest in influence are linked to students' confidence in their abilities, their perception of self-regulated learning as valuable, and the positive impact on their self-esteem. The results suggest that students hold positive perceptions of self-regulated learning, recognizing its ability to enhance their understanding, improve their grades, provide satisfaction, broaden their knowledge, and foster motivation for continued learning. Additionally, students value the opportunity to showcase their abilities to others and appreciate the ability to learn from their mistakes. These findings shed light on the importance of nurturing self-regulated learning practices as a means to enhance students' motivation and overall learning experiences.

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