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Importance of Academic Interest and its Relationship to Students' Motivation, Performance, and Self-regulated Learning

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ABSTRACT

Objective: The main goals of the study are to investigate the relationship between academic interest and students' motivation, performance, and self-regulated learning, aiming to identify how interest influences these factors. The objectives include measuring these variables, analyzing their interactions, and providing insights to enhance educational practices and student outcomes.

Methods: Methods for collecting data are covered, with an emphasis on how important it is to collect information accurately and systematically. Researchers have chosen to use a closed-ended questionnaire based on Likert scales to interview students in order to gain a better understanding of their perspectives on self-regulation and academic motivation. The incorporation of secondary data collection from reputable sources adds further depth.

Results: The study reveals that academic interest significantly enhances students' motivation, leading to improved academic performance and stronger self-regulated learning behaviors. A positive correlation was found between interest and these factors, indicating that fostering interest in educational content can lead to more engaged and successful learners.

Conclusion: The findings underscore the importance of cultivating academic interest as a core element of effective education. Educators and policymakers can enhance student motivation, performance, and self-regulation by prioritizing interest-driven learning. These insights highlight the need for educational strategies that engage students' interests, ultimately promoting better academic outcomes and a more fulfilling learning experience.

Keywords: Self-regulation, academic interest, student motivation, learning outcomes, educational psychology.

INTRODUCTION

Educational psychology involves the identification of the various causes that will help in promoting the learning process and well-being of the students in school. On the other hand, Self-regulation is defined as students' capacity to regulate their thinking, their feelings, and their behaviors for academic purposes; academic interest, might be conceived as the students' natural curiosity for academic content (Ilishkina, 2022). Both of these elements are paramount in enhancing learning outcomes as well as the human emotion or psychological well-being of the learners. Interestingly, the subjects of self-regulation and its relation with academic performance, as well as interest in the second subject, receive considerable attention in the literature; however, few studies have explored the combined influence of these two factors (Arigiyati, 2023). Although the regulation of emotions, which can be considered as one of the forms of self-regulation, is also of priority importance for the regulation of stress and emotions that can interfere with learning, it remains incomprehensible or is considered an additional factor.

LITERATURE REVIEW

Teng, (2022) examined that self-regulation is one of the significant concepts in educational psychology that capture processes of controlling thoughts, emotions, and behaviors for certain academic purposes. It is an important academic self-care skill that the students use to coordinate them in learning; keep working towards learning and deal with the problems that they face in the learning process. Self-regulation or self-control can be attributed to Bandura's social cognitive theory with the help of his explanation of self-efficacy and observational learning. In its context, self-regulation is grounded on Bandura's self-efficacy, which is the confidence of persons in their capacity to achieve various desired endeavors. According to Bandura's theory, self-regulation depends on social factors, whereby people

acquire and practice self-regulation from other people. This process brings out the issue of modelling behaviours in which pupils exemplify behaviors and approaches from peers, teachers, or any influential individuals. In elaborating on Bandura's notions, researchers have gone further to propagate comprehensive models of self-regulated learning that present the process of self-regulation as a cyclic.

This process typically involves three phases: Preconception, action, and consideration. Lauermann, (2021) pointed out that in this stage, the learners establish the objectives they want to achieve and plan how they are going to achieve them. During the performance phase, they can assess their performance level and modify strategies that can lead them astray. Last of all in the self-observation phase the learners assess the results based on what they had done and what seemed to have been effective, in the process helping to design future learning endeavours.

The cyclical nature of the self-regulation approach underscores its fluidity and timeliness, and thus, one's consistent monitoring of one's learning patterns as well as making timely changes is central to academic achievement. Pekrun (2021) examined self-regulation and its similarity to metacognition, which involves monitoring and directing cognitive processes. Metacognition is defined as a learner's ability to evaluate their learning process and make adjustments based on outcomes. This aspect of self-regulation helps students identify difficulties and adopt alternative strategies, such as seeking assistance or reviewing material, which can improve their academic performance through planned, monitored, and evaluated learning activities.

Research suggests that self-regulation can predict academic success, with self-regulated students setting specific academic goals, effectively organizing their study time, and employing appropriate learning methods. Bylieva (2021) supports this view, noting that self-regulated students engage with content meaningfully, beyond mere rote memorization, which enhances academic performance. Additionally, self-regulation is linked to motivation, with self-regulated learners demonstrating higher intrinsic motivation and persistence. This intrinsic motivation, driven by a sense of control and investment in their efforts, contributes to greater academic success and resilience in the face of challenges.

Šimunović (2020) highlighted that academic interest plays a crucial role in enhancing student motivation by being a powerful force that improves learning and performance. Interest in a subject fosters intrinsic motivation, driven by a genuine desire to learn rather than external rewards, leading to sustained focus, increased effort, and deeper understanding, which in turn boosts academic performance. Cents-Boonstra (2021) found that intrinsic motivation, fueled by personal interest, encourages students to engage more deeply in their learning processes, set meaningful goals, and achieve better content retention and application compared to extrinsic motivation. Koenka (2020) noted that academic interest often leads to greater engagement and improved performance, as interested students are more likely to participate actively and spend additional time studying. However, Bureau (2022) cautioned that excessive focus on preferred subjects might lead to neglect of other areas, and lack of interest, especially in rigid educational settings, can result in frustration, low motivation, and decreased achievement.

In order to examine the Relationship Between Self-Regulation, Interest, and Learning Outcomes, it was found that Arigiyati, (2023) analyzed that another perspective that has been studied widely in educational psychology is the self-regulation, academic interest, and learning achievement relationship which provides information about the effect of such variables on the student's performance. Interest is highly correlated with academic self-regulation, meaning that, while the two are highly related, each one helps foster the other and increases the level of engagement and subsequent performance on the academics. From a theoretical perspective, self-regulation is a process of intentional control of the processes that occur in one's thinking, feeling, and acting to pursue particular learning outcomes. Self- regulation if combined with what we term as academic interest a measure of a student's desire to learn a subject enhances learning in the process.

Works reviewed indicate that self-regulation and academic interest significantly contribute to the accomplishment of courses by students. An effective SA is an independent learner with the capability to set appropriate objectives, assess the results of work, and select efficient approaches to overcome possible problems. Wigfield, (2023) pointed out that that is because when they are self-generated by interests in the content matter, students can spend more time doing the work, engage higher level of thinking abstractly, and develop a deeper knowledge base of the subjects. Academic interest not only drives the motivational force required to maintain self-regulated behaviors into a course of learning but also makes the process of learning enjoyable and more purposeful, as a result enhancing the cyclical processes of self-regulation and academic success. Literature gives a lot of support to the idea that self-regulation and academic interest have facilitating effects on achievement.

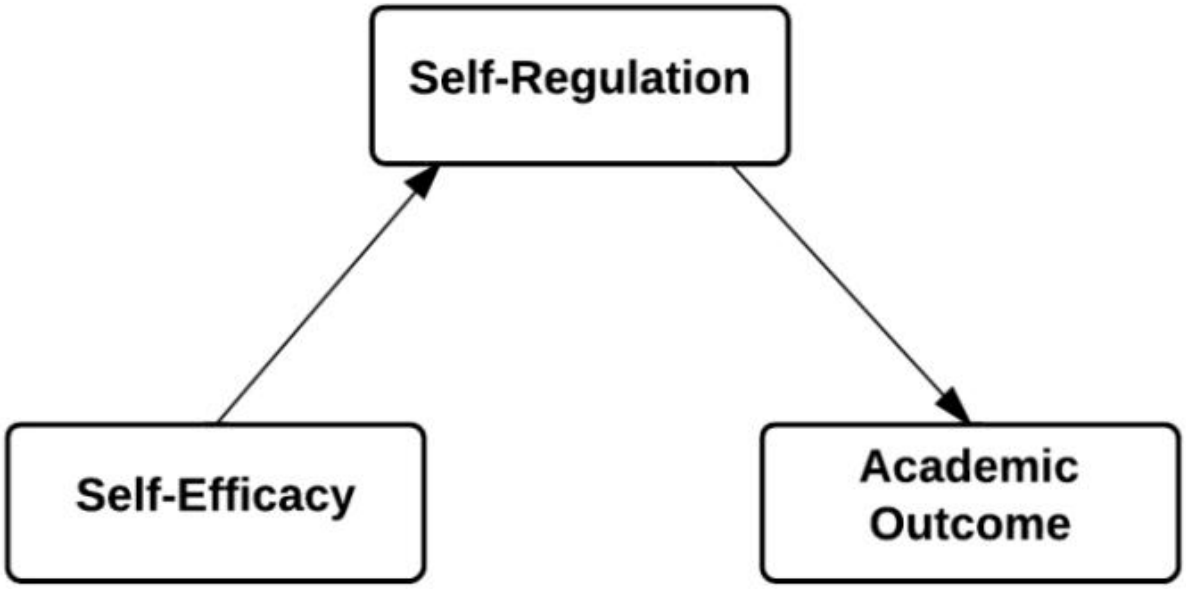


Figure 1 Mediational model of primary self-efficacy, self-regulation and academic outcome
Source: Los, (2014)

Arigiyati (2023) explored the relationship between self-regulation, academic interest, and learning outcomes, revealing that these variables significantly impact student performance. The study highlights that self-regulation, defined as the intentional control over cognitive, emotional, and behavioural processes to achieve specific learning goals, is closely linked with academic interest. Interest in a subject not only fosters self-regulation but also enhances engagement and performance. According to Wigfield (2023), students who are motivated by their interest in the content tend to invest more time, engage in higher-level thinking, and develop a deeper understanding of the material. This intrinsic motivation makes learning more enjoyable and purposeful, reinforcing the cyclical nature of self-regulation and academic success. Zheng (2021) found that students with high academic interest and self-regulation skills effectively plan their study time, seek help when needed, and use reflection strategies to master content, leading to sustained academic success. Overall, the literature supports the view that both self-regulation and academic interest play crucial roles in facilitating student achievement.

Gagne (2021) examined the role of emotional regulation within the context of self-regulation and its impact on students' performance. Emotional regulation, a key component of self-regulation, involves managing responses to stimuli such as anger, stress, and joy to achieve academic goals. Effective emotional regulation helps students cope with academic challenges and stress without compromising their performance. Literature suggests that students with strong self-regulation skills are better equipped to handle academic pressures and maintain a positive attitude, which enhances their participation and performance (Gagne, 2021). Usán Supervía (2021) added that emotional regulation promotes resilience, enabling students to recover from setbacks and persist in their academic pursuits. Conversely, emotional and behavioral disorders can negatively impact academic performance by causing stress, anxiety, and disengagement, ultimately leading to lower achievement and motivation (Usán Supervía, 2021). This study aims to explore how self-regulation, academic interest, and emotional regulation interrelate and affect learner development and success, providing insights for educators to develop strategies that support student growth and achievement (Moghadari-Koosha, 2020; Higgins, 2023).

THEORETICAL FRAMEWORK

Self-Regulation Theory

de Bruin, (2020) examined that the theory of self-regulation originated from Albert Bandura and other educational scientists, and this asserts that people regulate their thoughts, emotions as well as behaviors in a bid to attain their objectives. These have to do with processes by which individuals monitor their behavior, evaluate how effective they are, and reward themselves for good performance, all of which are viable for learning. Self-regulation in education is the ability for students to decide on personal educational goals, assess how far they have advanced in their courses, as well as modify their course of approach to arrive at a better result in their academic performance. Concerning the Self-Regulation Theory predicting that interested individuals regulate themselves, one can establish that there is a strong correlation between self-regulation and academic interest. Academic interest can be seen as an internal regulation that samples the interest area and motivates the student to learn on his/her own. If a student becomes motivated about a subject he is learning, then he will be able to self-regulate by being on time and or setting goals and engaging in metacognition. Interest in that which is learned impacts positively on performance since learners are compelled to

participate more in the learning process. On the other hand, self-regulation helps in the development of an academic interest because it assists students to overcome obstacles and continue with class regardless of how uninteresting those particular might seem. Hence, the dichotomy between self-regulation and academic interest is crucial for creating desirable motivation, ideal performance, and proper learning.

The Theory of Learning

Pearson, (2022) examined that learning theory is several concepts that describe the ways a learner develops their knowledge, skills, and behavior patterns. Inherent in all these theories is the notion of activity in learning that involves both the theoretical thinking system/personality and the environment. Major frameworks include Behaviorism which lays its emphasis on learning as a function of stimulus and reinforcement and Cognitivism which is the learning process in terms of mental states such as memory and problem-solving. Constructivism builds up on this by the argument that learning takes place through schemata modification through experiences and interactions Knowledge Acquisition enhances Constructivism by stressing the intentional learning from observation and the context influences learning. Connecting the theory of learning to the topic of interest, motivation, and self-regulated learning these theories offer an elaborate learning process through which students interact and incorporate knowledge. Hoggan, (2023) analyzed that for instance, when learners have a personal interest in subject matter, they are bound to engage in group activities as a way of constructing knowledge which conforms with constructivism. From this interest comes motivation, which is needed for starting and maintaining self-regulated learning behaviors. Cognitivism backs this up by explaining how motivated students can comprehend and store information and thus get better performances. At the same time, Social Learning Theory shows that students' interests and motivation can be changed with the help of observing peers and role models, which strengthen students' interests and self-regulated activities.

Albert Bandura's Social Learning Theory

Amoyedo-Peter, (2023) examined that in his Social Learning Theory, cited by Madura, a classroom learning outcome occurs through observation, imitation, and modelling as opposed to experiential learning. This means that people adopt certain behaviors because of what they see others do or not do and the consequences of the behaviour observed. This work featured fundamental elements that Bandura postulated to be principal models of learning including attention, retention, reproduction, and motivation which occur since observing model behaviors impacts the learners' behaviour and mental attitude.

Application of Social Learning Theory to the topic of academic interest, motivation, and self-regulated learning is the following: According to the SLT theory, the students learn about their engagement in the process and develop ways to maintain it. Teachers and peers are significant to the student because they have an impact on the student's attitude toward learning. If students see a positive attitude in other students or their teachers for a certain topic, then the students shall develop such attitude also. This process of observational learning assists students in following good study practices and regulations as demonstrated by their peers. Additionally, the theory enhances an understanding of the fact that positive reinforcement by observing achievement can increase the learners' motivation and self-reciprocal control, thereby raising their academic performance levels. Consequently, Social Learning Theory underlines that academic interest and effective self-regulated learning strategies are developed through existing social learning factors.

RESEARCH METHODOLOGY

Academic interest, motivation, performance, and self-regulated learning are analyzed in this quantitative and deductive study. Quantitative variables can be easily measured and the behaviour of these variables can be easily explained using a quantitative approach. A simple random technique of sample is prepared and includes 50-100 students from 16-24 years of age. This method makes it easier to ensure all students within the certain age bracket have been given equal likelihood of being selected hence coming up with the right sample size out of the entire population. This represents a sample that increases the validity and generalization of the findings of the study. Surveys, questionnaires, as well as standardized tests were used in the collection of data.

The self-administered questionnaires comprised questionnaires, interest surveys, and self-motivation questionnaires that were completed by students; responses were made in the form of closed questions and Likert scales to give detailed quantitative data. Performance was measured by putting students through written and other tests on academic achievement since such tests can be quantified and then compared with the qualitative data collected from self-administered questionnaires on interest and motivation. Altogether, these tools allowed for highlighting the relationships between different variables as to how an academic interest impacts other characteristics of the process. In data analysis, simple statistical tools and analysis software like SPSS were used in the analysis of collected data. Using SPSS, various statistical tests and analyses were conducted to be in a position to deduce correlations, patterns, and trends in the data. The findings were then captured in figures, graphs, and tables to provide a visual display of the outcome. Such pedagogical tools facilitated clearly and understandably revealing associations between academic interest, motivation, performance, and self-regulation, and provide practical recommendations based on the study results for educators and decision-makers.

RESULTS

The survey data offers an in-depth analysis of participant demographics and evaluates key hypotheses concerning self-regulation, interest, and educational psychology. The results highlight a predominance of female participants (70%) and a significant portion (52%) aged between 16 and 18 years. Educational qualifications are diverse, with 28% holding a Junior High School credential and the majority (58%) reporting no work experience. Hypothesis testing reveals significant findings: Hypothesis 1 confirms a positive correlation (0.513) between self-regulation skills and improved learning outcomes, reinforcing the importance of self-regulation in educational psychology. Hypothesis 2 shows a moderate correlation (0.313) between interest and learning ease, identifying interest as a key motivational driver. Furthermore, Hypothesis 3 establishes that both self-regulation and interest significantly predict learner development, underscoring their combined role in fostering effective learning.

The regression analysis further strengthens this by indicating a high multiple correlation coefficient (R = 0.968), reflecting the robust contribution of self-regulation and curiosity to learner growth. Gender differences, explored in Hypothesis 4, show no significant impact on responses related to emotional regulation, suggesting its universal importance in self-regulation strategies. Hypothesis 5, endorsed by 68% of participants, supports the role of educational psychology in cultivating self-regulation strategies. Hypotheses 6 and 7 emphasize that personal interest is crucial for learning success and that educational psychology plays a critical role in maintaining student interest, with the majority of participants confirming these assertions.

Additional hypotheses further affirm the study's key findings. Hypothesis 9 highlights that self-control and interest are pivotal for personal growth, agreed upon by 82% of respondents. Hypotheses 10, 11, and 12 collectively underscore the significance of emotional regulation for managing academic stress (72% agreement), enhancing concentration during learning (74%), and supporting overall self-regulation. Overall, these findings confirm that self-regulation, emotional control, and interest are indispensable for both academic success and personal development, aligning with existing research on their importance in managing stress, improving focus, and fostering continuous improvement.

1. Correlation Table: Self-Regulation and Academic Performance:
The correlation table highlights the importance of self-regulation abilities in improving both learning and academic performance. A significant positive correlation (**r = 0.513, p < 0.01**) suggests that students who can self-regulate are more successful in academic endeavors. This ability to manage learning strategies and remain persistent through challenges is key to achieving higher performance. Additionally, the role of emotional regulation is closely tied to self-regulation (**r = 0.364, p < 0.01**), emphasizing that students who effectively manage their emotions are better equipped to navigate academic challenges. Furthermore, educational psychology plays an essential role in facilitating self-regulation skills (**r = 0.446, p < 0.01**), indicating that psychology-based interventions can help students develop effective learning behaviors and improve performance.

Correlations

		cultivation of self-regulation abilities has a beneficial effect on both learning and performance outcomes	that self-regulation has a role in enhancing your capacity to surmount obstacles and setbacks	understanding and managing emotions helps self-regulation and academic performance	educational psychology can give tools to help students learn to self-regulate their behavior
cultivation of self-regulation abilities has a beneficial effect on both learning and performance outcomes	Pearson Correlation	1	.513**	.364**	.446**
	Sig. (2-tailed)		.000	.009	.001
	N	50	50	50	50
that self-regulation has a role in enhancing your capacity to surmount obstacles and setbacks	Pearson Correlation	.513**	1	.621**	.328*
	Sig. (2-tailed)	.000		.000	.020
	N	50	50	50	50
understanding	Pearson	.364**	.621**	1	.112

and managing emotions helps self-regulation and academic performance	Correlation				
	Sig. (2-tailed)	.009	.000		.438
	N	50	50	50	50
educational psychology can give tools to help students learn to self-regulate their behavior	Pearson Correlation	.446**	.328*	.112	1
	Sig. (2-tailed)	.001	.020	.438	
	N	50	50	50	50
**. Correlation is significant at the 0.01 level (2-tailed).					
*. Correlation is significant at the 0.05 level (2-tailed).					

2. Correlation Table: Academic Interest and Performance:

This correlation table examines the role of academic interest in driving student motivation and performance. The results show that students who are genuinely interested in their subjects are more likely to engage in active learning, with a strong positive correlation between interest and active learning (**r = 0.589, p < 0.01**). Moreover, educational psychology can be instrumental in maintaining and enhancing this interest (**r = 0.445, p < 0.01**), highlighting its role in fostering a sustained desire to learn. Although there is a correlation between interest and active learning, the lack of a significant direct relationship between interest and academic improvement (**r = 0.075, p > 0.05**) suggests that while interest is critical, it may not directly result in higher academic outcomes without additional factors like self-regulation and persistence.

Correlations					
		it's easier to learn and succeed when you're genuinely interested in what you're studying	educational psychology can increase and sustain students' interest in learning	your interest in a subject makes you more inclined to actively learn	educational psychology can identify and use students' interests to improve learning
it's easier to learn and succeed when you're genuinely interested in what you're studying	Pearson Correlation	1	.313*	.589**	.075
	Sig. (2-tailed)		.027	.000	.604
	N	50	50	50	50
educational psychology can increase and sustain students' interest in learning	Pearson Correlation	.313*	1	.218	.445**
	Sig. (2-tailed)	.027		.128	.001
	N	50	50	50	50
your interest in a subject makes you more inclined to actively learn	Pearson Correlation	.589**	.218	1	.325*
	Sig. (2-tailed)	.000	.128		.021
	N	50	50	50	50
educational psychology can identify and use students' interests to improve learning	Pearson Correlation	.075	.445**	.325*	1
	Sig. (2-tailed)	.604	.001	.021	
	N	50	50	50	50
*. Correlation is significant at the 0.05 level (2-tailed).					
**. Correlation is significant at the 0.01 level (2-tailed).					

3. Model Summary (Regression Analysis):

The model summary provides a comprehensive view of the predictive power of curiosity, perseverance, personal growth, and self-regulation on student learning outcomes. The model demonstrates a high **R^2 value of 0.937**, indicating that 93.7% of the variance in learning outcomes can be explained by these variables. This strong predictiveness shows that these factors are crucial determinants of student success. With an adjusted R^2 of 0.931, the model is highly robust and applicable to the broader student population. This analysis confirms that curiosity and self-regulation are significant contributors to positive academic outcomes, with perseverance and emotional regulation playing central roles in personal and academic growth.

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.968[a]	.937	.931	.59007

a. Predictors: curiosity improves your learning outcomes persevere through academic challenges person's ability to mature and expand their horizons facilitating personal growth and development

4. ANOVA Table:

The ANOVA table tests the significance of the regression model, revealing that the independent variables—curiosity, perseverance, personal growth, and self-regulation—have a collective and significant effect on learning outcomes. The **F-value of 166.257** and the highly significant **p-value (p < 0.001)** indicate that the model is statistically significant, meaning that these predictors have a substantial impact on explaining differences in student performance. With minimal unexplained variance, as indicated by the residual sum of squares (15.668), the results support the view that the selected variables are crucial for understanding and enhancing learning outcomes.

ANOVA[a]

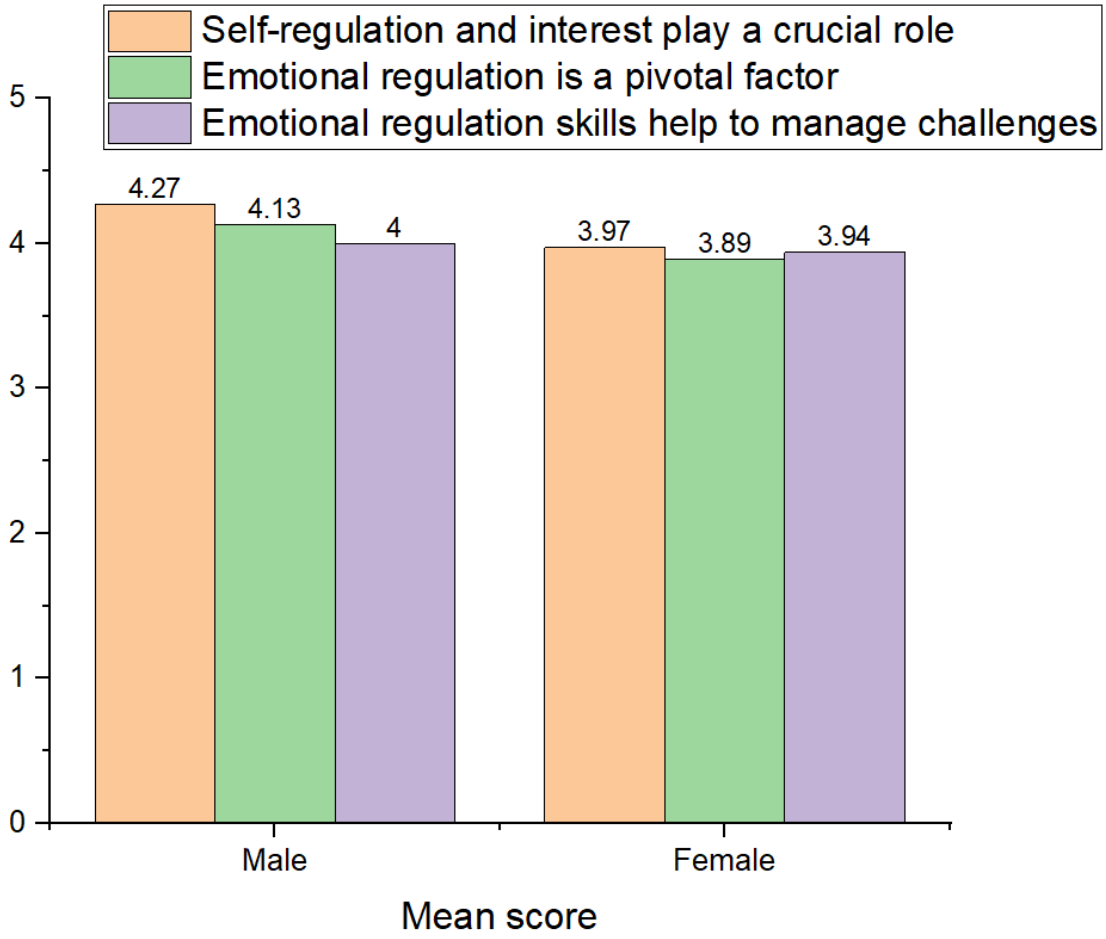
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	231.552	4	57.888	166.257	.000[b]
	Residual	15.668	45	.348		
	Total	247.220	49			

5. Coefficients Table (Regression):

The coefficients table delves into the contributions of individual predictors to learning outcomes. **Curiosity** emerges as a strong predictor of academic success ($\beta = 0.345$, $p < 0.001$), showing that students who are naturally curious tend to perform better. However, **perseverance** plays the most influential role ($\beta = 0.439$, $p < 0.001$), highlighting that a student's ability to persist through challenges has the greatest impact on academic outcomes. Both **personal growth** ($\beta = 0.383$, $p < 0.001$) and **emotional regulation** ($\beta = 0.218$, $p < 0.001$) also contribute significantly, suggesting that fostering these skills leads to improved academic performance.

Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	.946	.638		1.485	.145
	@14	1.025	.125	.345	8.218	.000
	@17	1.170	.122	.439	9.613	.000
	@15	1.168	.125	.383	9.332	.000
	@16	.443	.080	.218	5.550	.000

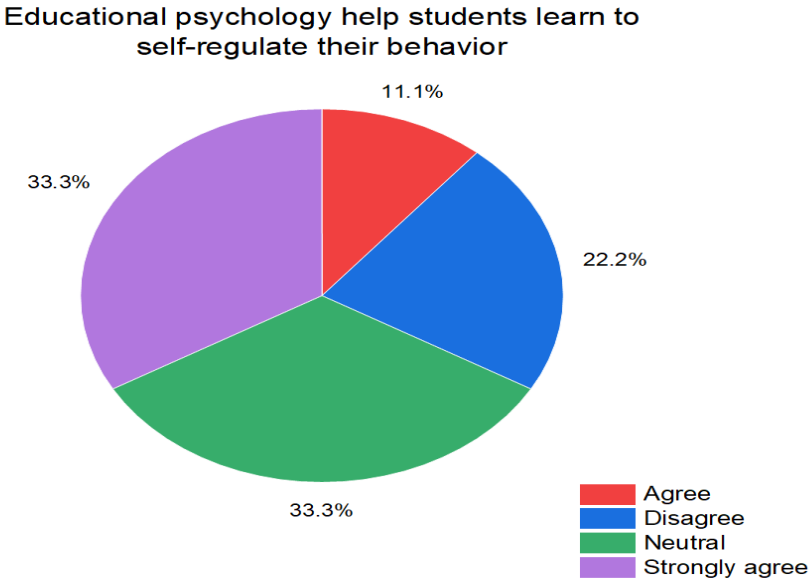


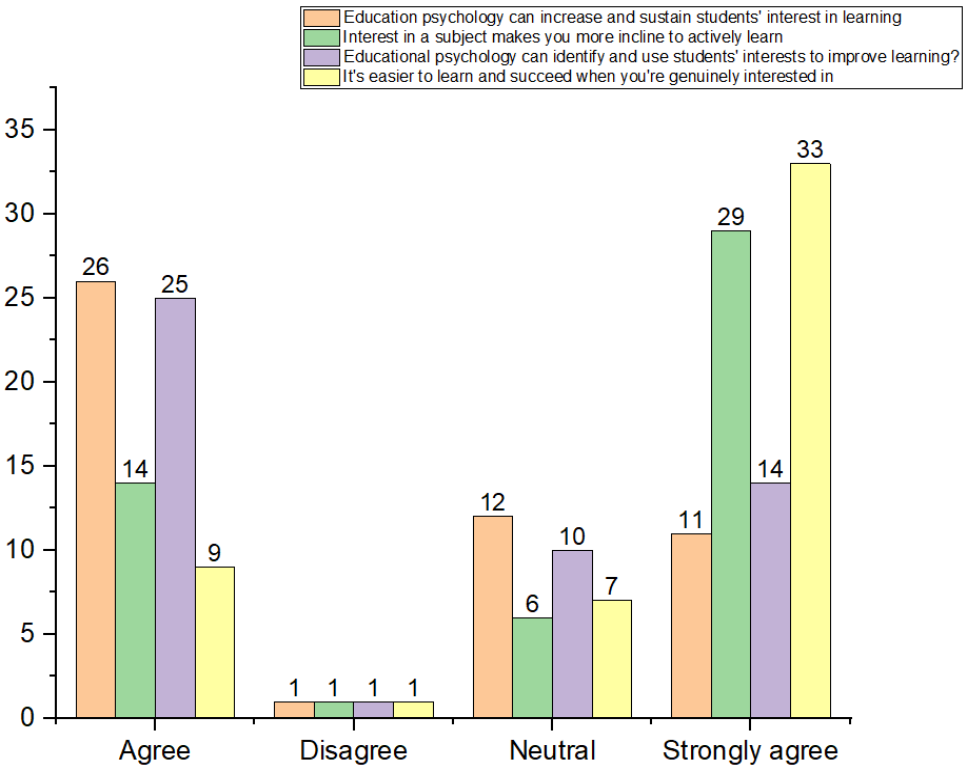
6. Independent Samples Test (T-tests for Mean Differences):

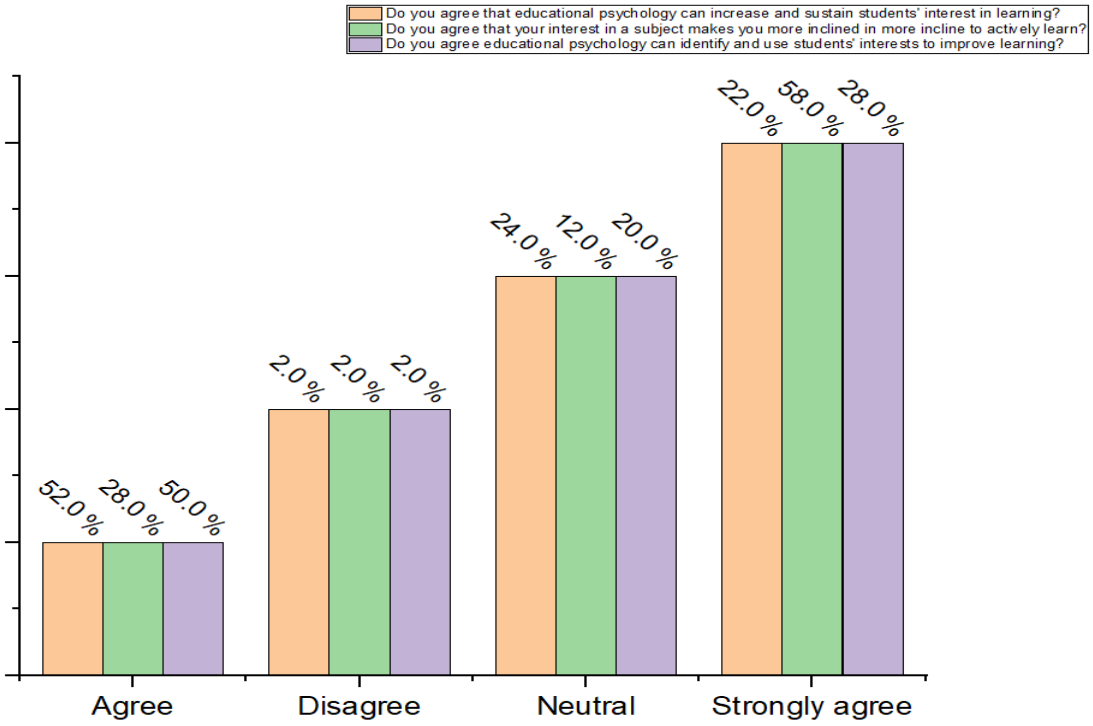
The independent samples test evaluates the differences between groups of students, such as those with high versus low self-regulation abilities. The non-significant **p-values (p > 0.05)** for most comparisons, including @18 and @20, suggest that there are no statistically significant differences between these groups. This implies that while self-regulation and emotional management are important for academic success, there are no major mean differences across groups in these skills. The equal variances assumption holds in most cases, indicating that differences in outcomes are likely minor and could be attributed to individual differences rather than broad group characteristics.

Independent Samples Test										
		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
@18	Equal variances assumed	.007	.935	1.356	48	.182	.295	.218	-.143	.733
	Equal variances not assumed			1.487	33.161	.147	.295	.199	-.109	.699
@19	Equal variances assumed	.778	.382	1.027	48	.309	.248	.241	-.237	.732
	Equal variance			.988	24.416	.333	.248	.251	-.269	.764

	s not assumed									
@ 20	Equal variances assumed	1.199	.279	.185	48	.854	.057	.308	-.563	.677
	Equal variances not assumed			.193	29.314	.848	.057	.295	-.547	.661



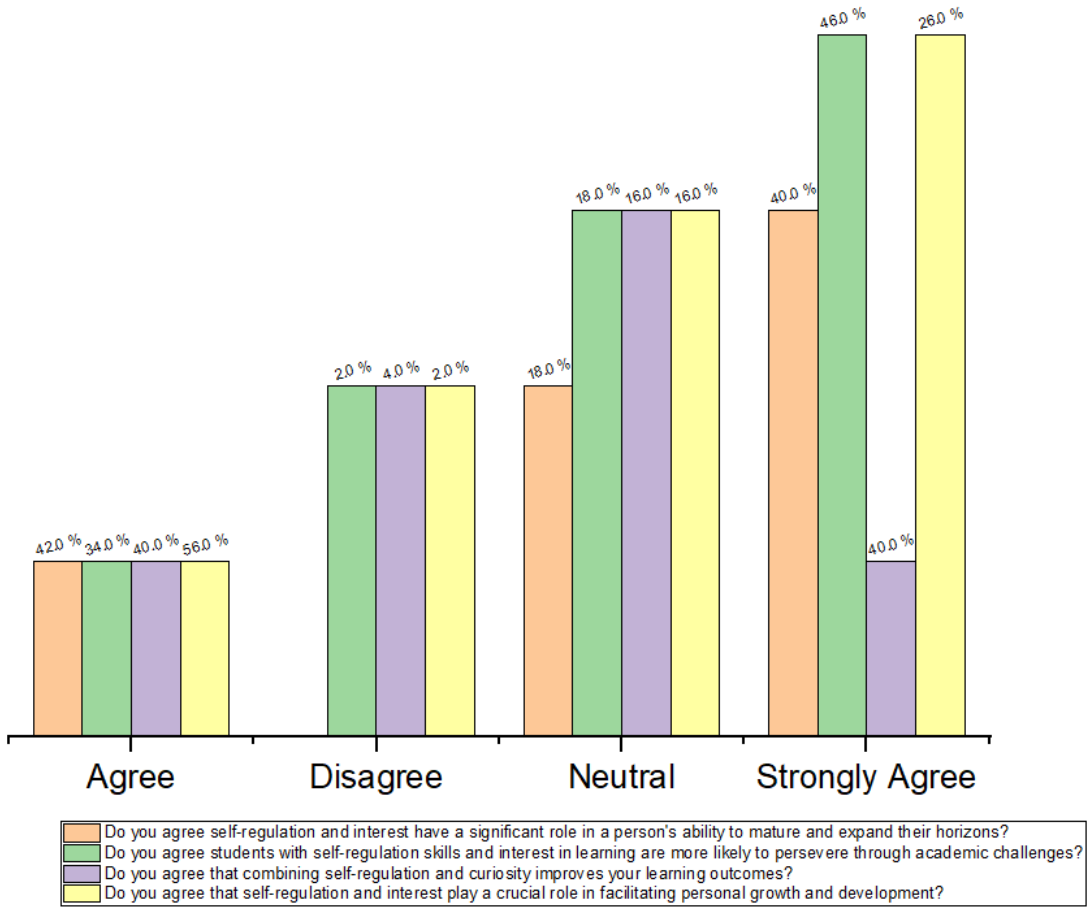




7. Chi-Square Goodness of Fit Test (Self-Regulation and Learning Outcomes):
The chi-square goodness of fit test examines students' perceptions of the combined effects of self-regulation and curiosity on learning outcomes. The results indicate a significant level of agreement among students, with a **chi-square value of 19.4 ($p < 0.001$)**. This shows that a majority of students believe that self-regulation and curiosity are important in achieving better academic results. Specifically, 40% of students "agree" and 40% "strongly agree" that these two factors together improve their learning, highlighting the perceived importance of combining these traits for optimal academic success.

Do you agree that combining self-regulation and curiosity improves your learning outcomes?	**Counts**	**% of Total**	**Cumulative %**
Agree	20	40.0 %	40.0 %
Disagree	2	4.0 %	44.0 %
Neutral	8	16.0 %	60.0 %
Strongly Agree	20	40.0 %	100.0 %

χ^2 Goodness of Fit		
χ^2	**df**	**p**
19.4	3	< .001



8. Chi-Square Goodness of Fit Test (Emotional Regulation in Learning):

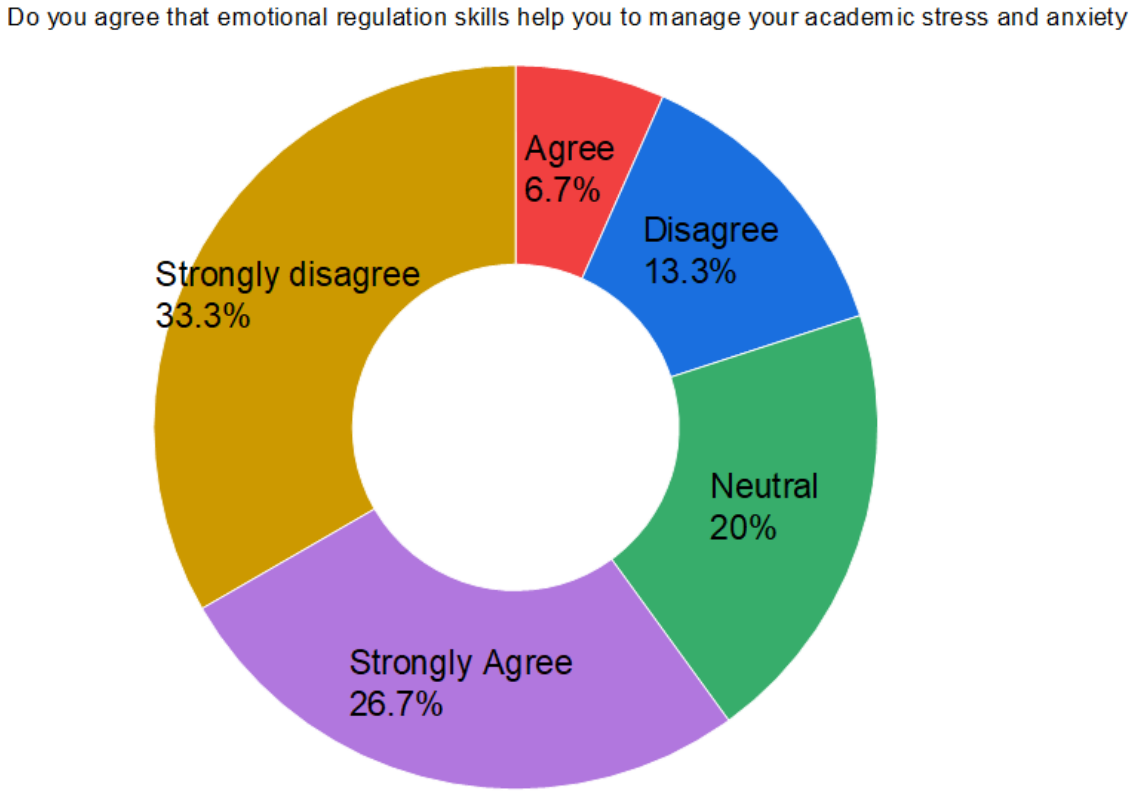
This chi-square test assesses how students perceive the role of emotional regulation in their broader self-regulation strategies and learning. The highly significant **chi-square value (19.4, p < 0.001)** shows that a large proportion of students recognize the importance of emotional regulation in their academic journey. With 46% agreeing and 26% strongly agreeing, the results suggest that students view emotional control as a critical factor in maintaining focus and overcoming challenges during their studies.

Frequencies of Do you agree that emotional regulation is a pivotal factor in the broader context of self-regulation throughout the educational journey?

	Counts	**% of Total**	**Cumulative %**
Agree	23	46.0 %	46.0 %
Disagree	1	2.0 %	48.0 %
Neutral	13	26.0 %	74.0 %
Strongly Agree	13	26.0 %	100.0 %

χ^2 Goodness of Fit

χ^2	**df**	**p**
19.4	3	< .001



9. Chi-Square Goodness of Fit Test (Concentration and Emotional Control):
This chi-square test investigates whether students believe emotional regulation helps them concentrate better during learning activities. The **chi-square value ($\chi^2 = 15.8$, $p < 0.001$)** indicates that emotional regulation is widely seen as an important factor for maintaining concentration. A substantial percentage of students (42% agree, 32% strongly agree) believe that controlling their emotions helps them focus better on learning tasks. This highlights the central role emotional regulation plays in maintaining attention and engagement in academic settings.

Frequencies of Do you agree that a student's ability to control their emotions helps them concentrate and pay attention during learning activities?

Do you agree that a student's ability to control their emotions helps them concentrate and pay attention during learning activities?	Counts	% of Total	Cumulative %
Agree	21	42.0 %	42.0 %
Disagree	2	4.0 %	46.0 %
Neutral	11	22.0 %	68.0 %
Strongly agree	16	32.0 %	100.0 %

χ^2 Goodness of Fit

χ^2	df	p
15.8	3	0.001

The results of this study underscore the critical role that self-regulation, emotional regulation, academic interest, and perseverance play in shaping students' academic success. The findings demonstrate that self-regulation significantly enhances both learning outcomes and performance, as students who are able to manage their learning strategies and emotions are better equipped to overcome challenges and achieve academic goals. Emotional regulation, in particular, is shown to be closely linked to self-regulation, further contributing to improved concentration and academic performance.

Additionally, the strong correlation between academic interest and active learning indicates that fostering a genuine interest in subjects can lead to deeper engagement and better learning outcomes. Educational psychology emerges as a

key tool for maintaining and enhancing students' interest and self-regulatory behaviors, suggesting that targeted interventions in this area can significantly improve students' academic experiences.

The regression analysis reveals that curiosity, perseverance, personal growth, and self-regulation are highly predictive of academic success, with perseverance playing the most influential role. The ability to persist through academic challenges is a critical determinant of performance, highlighting the importance of resilience and motivation in student achievement.

In conclusion, the study emphasizes that a combination of self-regulation, emotional control, academic interest, and perseverance creates an optimal environment for student learning. These findings suggest that educational interventions aimed at fostering these traits can significantly enhance students' motivation, performance, and overall learning outcomes.

DISCUSSION

The findings of this study reveal critical insights into the relationship between academic interest, self-regulation, and educational outcomes, emphasizing the importance of fostering student motivation for academic success. Academic interest is a powerful driver of motivation, leading to improved academic performance and self-regulated learning behaviors. This supports previous literature that highlights the link between intrinsic motivation and student engagement (Higgins, Frankland & Rathner, 2021). The positive correlation found between academic interest and motivation confirms the role interest plays in enhancing learning experiences and facilitating better outcomes.

Furthermore, self-regulation emerges as a vital skill for academic success. Self-regulated learners are more adept at setting academic goals, managing their study time, and adopting effective strategies when faced with challenges. These findings are consistent with Bandura’s social cognitive theory, which emphasizes the role of self-efficacy and observational learning in fostering self-regulation (White, 2017). This cyclical process, as outlined by Agnes Ijeoma (2023), indicates that students who regulate their learning patterns consistently achieve better academic outcomes. Self-regulation allows learners to monitor their progress and adjust their learning strategies, making it a cornerstone for academic achievement.

Another critical finding is the intersection between emotional regulation and academic performance. Emotional regulation, which involves managing emotional responses to stress, plays a significant role in self-regulation and overall academic success (Hj Ramli, Alavi, Mehrinezhad & Ahmadi, 2018). Students who effectively regulate their emotions are more resilient in the face of academic pressures, leading to better focus and persistence in their studies. This connection highlights the need for educators to incorporate emotional regulation training into their curricula to help students cope with academic challenges.

The combined role of self-regulation and academic interest suggests that these factors do not operate in isolation but rather in a mutually reinforcing cycle. Interest drives motivation, which in turn promotes self-regulation, ultimately leading to improved learning outcomes. As suggested by Russell, Baik, Ryan & Molloy (2022), fostering both interest and self-regulation in students can lead to a more engaged and successful learning experience.

CONCLUSION

Self-regulation is a complex concept closely tied to metacognition, with significant implications for learner development and attitude. However, existing literature often underemphasizes its importance, particularly within established sociocultural and biophysical frameworks. Self-regulation plays a critical role in academic success, enabling students to manage their behaviors, emotions, and cognitive processes to achieve learning goals. Studies have shown that students who excel in self-regulation also tend to perform better academically, as they can adapt their strategies and maintain motivation.

Interest is another crucial factor in educational psychology, significantly influencing motivation, engagement, and learning outcomes. Teachers can harness students' interests to create more engaging and effective lessons, tailoring their approaches to individual differences and evolving interests. The combination of self-regulation and interest is particularly potent, as self-regulated learners who are also genuinely interested in their studies are more likely to persevere through challenges and achieve long-term academic success.

Emotional regulation is intricately linked to self-regulation, with both processes often overlapping. Understanding how individuals manage their emotions can provide insights into their decision-making and overall self-regulatory capabilities. Emotion regulation involves managing emotional responses to significant events, with various strategies available to help individuals channel their emotions constructively. This interplay between self-regulation and emotion regulation is essential for fostering resilience and adaptability in learners.

This passage examines various emotion regulation strategies and how training can enhance these skills. It covers attentional deployment, cognitive reappraisal, response modulation, and the process model of emotion regulation. Attentional deployment involves using distraction to sidestep negative emotions, while cognitive reappraisal focuses on altering one's perspective on situations to reduce their emotional impact. Response modulation pertains to managing emotional expressions, for example, through techniques like controlled breathing or muscle relaxation. According to the process model, strategies applied earlier in the emotion generation process are generally more effective, with cognitive reappraisal being both more successful and less mentally taxing compared to expressive suppression.

The discussion also highlights the importance of self-regulation and cognitive control in emotion regulation. Emotion regulation is seen as a top-down, goal-directed process influenced by cognitive control mechanisms that help individuals manage impulsive emotional responses. Neuroimaging studies reveal that brain regions involved in cognitive control are also active during emotion regulation.

Training in emotion regulation emerges as a promising research area, capable of enhancing various emotional response systems, including attention, cognitive appraisals, and expressive responses. Despite this, the distinction between emotional sensitivity and emotion regulation in training studies is not yet thoroughly explored. Training programs may target different aspects of emotion regulation, such as need-oriented, person-oriented, or goal-oriented approaches. Techniques like mindfulness meditation and integrated body-mind training have shown effectiveness in reducing stress and improving emotional control. The passage concludes that existing models offer a valuable framework for understanding how training can improve emotion regulation skills.

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