Educational Psychology and Learning: Does Mental Abilities and Self-regulated Learning Influence Learning Performance: A Survey Study on Vietnamese Educational Institutions

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Abstract

Uncertain environmental conditions that impact children's cognitive abilities and self-learning capacities have created a number of challenges for student education today. These challenges require the attention of the researchers. Consequently, this paper investigates the influence of cognitive talents and self-regulated learning on students' academic performance in Vietnamese educational institutions. This study also examines the moderating effect of educational psychology on the relationships between mental abilities, self-regulated learning, and learning performance in Vietnamese educational institutions. The article collected primary data from chosen students via questionnaires. In addition to employing the smart-PLS statistical technique to analyze the reliability and validity of the questions and variables, the study also tested its hypotheses. The results suggested that cognitive ability and self-regulated learning favorably influence academic success. The data also demonstrated that educational psychology strongly moderates the relationship between mental talents, self-regulated learning, and students' academic achievement in Vietnamese educational institutions. The article aids in developing regulations for increasing student performance by enhancing their cognitive and learning capacities.

Keywords: Mental abilities, self-regulated learning, educational psychology, learning performance, Vietnamese educational institutions

Introduction

Education is the cornerstone of a nation's success. Every country pays special attention to its education system to produce educated and competent human resources who will contribute to the nation's success (S. Chen, 2019). Any country's education system's improvement depends on the students' learning. Educational institutions make every attempt to improve the academic performance of their students. There are numerous causes for poor academic achievement. 1) lack of concentration and focus. Typically, students lack attention to their studies and engage in other hobbies, such as gaming, negatively impacting their academic achievement. Fear of failing is an additional factor that influences the learning performance of kids. Fear of failure affects a student's cognitive capacities and academic performance. 3) emotional issues; frequently, emotional factors impede learning performance improvement. 4) personal reluctance, 5) lack of support, 6) psychological issue, 7) mental capabilities, and 8) educational support (Hwang et al., 2020; Romero & Ventura, 2019; Thanyaphongphat & Panjaburee, 2019). Thus, the present study will investigate the effect of cognitive ability and self-regulation on learning performance.

Education is currently a global problem that receives considerable attention. Vietnam is severely affected by this issue due to the alarming drop in the caliber of its students. In reality, there are already sufficient reasons for alarm. The Education Development Index (EDI) ranks Vietnam 79thout of 129 countries (Dinh & Nguyen, 2020). Despite an increase in the government's annual education spending, this number declined by nine compared to 2004. The outcome regarding the educational foundation's quality was disturbing. However, overcoming this issue requires time and a comprehensive grasp of multiple elements. Vietnam's growth will increasingly depend on its human resources in an era of accelerating industrialization, modernization, and international integration. Education is essential for fostering a new generation of Vietnamese who can meet the needs of social and economic development. Education is necessary because it generates professionally trained individuals and teaches new workers required by the modern business world (Patrinos et al., 2018). According to the Vietnamese Education Development Strategy from 2009 to 2020, educational networks and scopes are developing to satisfy society's training needs better. In addition, the quality of education is improving across all levels of activity, and educational quality management has recently gained increased attention. Although the Vietnamese government is committed to enhancing the education system, many initiatives are required to improve its performance (Nguyen & Trent, 2020). One of the primary consequences

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is to increase the number of schools in the nation so that more children and youth enroll.

Similar to other studies, the present study will address gaps in the prior literature, such as 1) Improving student performance is the primary objective of any nation's education system. The improvement in educational achievement is contingent on the effectiveness of learning. Therefore, learning performance is crucial. 2) Constantinescu et al. (2018), worked on the rotation of mental capacities, whereas the current study will examine its effect on learning performance. Additionally, the moderations effect of educational psychology Vietnam perspective with a new data set will be examined. 3) model consisting of cognitive capacities, self-regulated learning, educational psychology, and learning performance in Vietnam has not been tested with a new data set. 4) Daker et al. (2022) examined university students' mental abilities regarding creativity and attitude. The current study will examine mental abilities and self-regulatory effects on learning performance and the moderations effect in Vietnam. 5) Weiss et al. (2021) worked on skills and personality. Still, using a new data set, the current study will examine the association between abilities and learning performance by applying educational psychology as a mediator in Vietnam, UAE. 6) Wininger et al. (2019) examined the association between educational psychology and learning styles, whereas the present study will use educational psychology as a moderating variable. The significance of the present study from a theoretical and practical standpoint is that 1) it will highlight the value of learning performance for students and educational institutions in Vietnam. And 2) the study will assist the Vietnamese government and private sector education-related professionals in reviewing, upgrading, and implementing corporate-related policies to enhance students' learning performance; and 3) it will also assist researchers in exploring novel aspects of learning performance in Vietnam.

The study's framework is broken into distinct phases. The first chapter of the study will provide an introduction to the overall investigation, focusing on learning performance in Vietnam, the study gap, and its significance. In the second phase of the study, evidence regarding cognitive abilities, self-regulated learning, educational psychology, and learning performance will be discussed in previous research. In the third chapter of the study, the methodology will be provided, i.e., collecting data on cognitive capacities, self-regulated learning, educational psychology, and learning performance, followed by an analysis of the data's validity. The data analysis results will be presented in the fourth chapter of the study. The conclusion, consequences, and future recommendations for scholars will be shown in the final portion of the study.

Literature Review

Human capital is viewed as the lifeblood of any organization. Human resources have been one of the most significant stakeholders of the company since their talents and competencies help the company to fulfill its goals. It is a collaboration that binds all of a company's departments together. Thus, there is a strong relationship between human resources skills and competencies and the performance of businesses. Any individual's abilities allowed him to advance in one career. The firms compensate individuals by following their skills. Individual and organizational performance is affected by a person's or an organization's skills. Bogomolova et al. (2021) investigated the relationship between talents and performance in 2D and 3D media. For surgical trainees, learning and executing spatially complex operations that require mental and spatial awareness may be challenging. Consequently, residents frequently lack confidence when administering more challenging therapies. Those with inferior visual-spatial skills (VSA) have difficulty learning spatially complex approaches. The findings indicated that abilities have a significant and powerful influence on performance in the media area. Both the team's effectiveness and performance are enhanced by its efficiency. Thus, Sanderson et al. (2022) also examined if the abilities affected the efficacy of team performance. According to the research, four of the five KSAs, except collaborative problem solving, appear to have a positive and substantial effect on STE. Again, excluding the collaborative problem-solving KSA, it was observed that master class learning results mitigated the adverse effects of these KSAs on STE. Likewise, Hanh (2020) examined learning performance from an aptitude standpoint. The research revealed that quality assurance and quality authorizations are crucial components and the primary concern of educational institutions. Through quality assurance exercises, colleges can achieve their goals of addressing the challenges of learners, the community, and students in their academic training, thereby enhancing the college's reputation. The ideal framework for estimating the quality of education administrations comprises quality assurance and certification standards. Quality assurance can aid in discovering and resolving restricted concerns before execution. The utilization of quality assurance and quality certification is the secret to the success of most higher education institutions

worldwide; consequently, quality assurance and quality certification are the concern of colleges in Vietnam in general and local colleges in particular, particularly colleges in the most impeded regions of Vietnam. His study addressed a portion of the theoretical issues of quality assurance and quality certification; identified the relationship between quality assurance and quality learning and the goals, quality level, and utilization of higher education in Vietnam; and offered a few suggestions to expand the use of quality assurance and quality certification in Vietnam's higher education institutions. Thus, the hypothesis drawn from the preceding discussion is as follows:

H1: Mental abilities significantly affect learning performance.

The performance of the student is the ultimate goal of the country's education system. A youth that is educated and skilled will lead the nation to prosperity. Students learning strategies, such as self-regulated learning, is one of the variables that differentiate them. The improved performance of students who can self-regulate their learning. Accordingly, El-Adl and Alkharusi (2020) suggested investigating the relationships between self-regulated learning methods, students' motivation, and academic accomplishment. The evaluation adopted a transparent investigation plan. The members were 238 pupils in the Sultanate of Oman's tenth grade. Utilizing the Motivated techniques for administering the questionnaire, we surveyed the participant's use of self-regulated learning procedures and motivation. The total score obtained in science showed academic achievement. Results revealed highly reliable associations between self-regulated learning and intrinsic motivation, external motivation, task esteem, control of learning beliefs, self-viability, and academic success. There was a negative relationship between test anxiety and self-regulated learning. The evaluation provides the most effective way to develop robust information systems to enhance students' self-regulated learning skills. Kim et al. (2018) demonstrated the significance of self-regulated learning (SRL) in asynchronous online courses. More recent research has explored what SRL approaches imply for student learning in various learning situations. However, little research has been conducted on the longitudinal profiles of kids with varying SRL profiles, which hinders the provision of individualized educational support. To answer the research gap, they utilized a learning evaluation to analyze log data from 284 pupils enrolled in an unconventional online measures course. Specifically, we identified student SRL profiles and examined the authentic student SRL learning designs.

Three self-regulated learning profiles were identified by the k-medics grouping: self-guideline, fractional self-guideline, and non-self-guideline. Self-regulated pupils had more excellent review learning and help-seeking than the other two groups. Their self-announced time usage scores were significantly lower. Analyzing each week's log factors using an arbitrary calculation revealed that self-regulated students focused on course satisfaction before tests and sought assistance during the entire test period. In contrast, non-self-regulated students focused on course satisfaction during the whole test period. In light of discoveries, educational strategies can assist SRL students.

Similarly, the implications of this review for advanced learning investigation research and the design of sustainable concurrent online courses were discussed. Saint et al. (2022) provide a systematic literature review of records-driven self-regulated learning (SRL) that highlights the methodological significance of temporality and series as antagonistic to standard statistical analysis. This study examined the corpus of work in which SRL and its associated dimensions were investigated sequentially to address this problem. Based on these outcomes, the researcher proposed a framework of instructions and questions for resource researchers who wish to advance the field. The study revealed a positive relationship between SRL and learning performance. Thus, the hypothesis drawn from the preceding discussion is as follows:

H2: Self-regulated learning significantly affects learning performance.

Any employee or student's abilities and capabilities are determined by their psychological strength. Modern educational institutions pay particular attention to employee and student psychology positivity and how job insecurity (JI) influences employees' subjective well-being (SWB) and, consequently, their job performance (JP), particularly in the hotel industry. In addition, Darvishmotevali and Ali (2020), utilizing the transactional theory of stress and coping, investigate the buffering role of psychological capital as a strategy by which employees circumvent the negative impacts of JI on SWB and JP. The poll included 250 employees of four- and five-star hotels in Tehran, Iran. The results confirmed that JI has a detrimental effect on employees' JP by decreasing their SWB and that SWB plays a mitigating role. In addition, the data indicate that employees with high Skycap levels may effectively manage JI. Specifically, hotel management teams should avoid or eradicate JI in the workplace, which has been shown to have severe mental, emotional, and behavioral effects.

Consequently, psychological capital served as a moderator. Similarly, the entire country of Italy has been affected severely by the COVID-19 scenario. During a pandemic, those with considerable health anxiety are more likely to experience adverse mental health outcomes, such as traumatic distress and mood instability. Psychological flexibility is the foundation of psychological health and resilience. Acceptance and commitment therapy means acting consistently with one's chosen principles even in the face of emotional and mental hardship (ACT). Therefore, Landi et al. (2020) examined the moderating effect of psychological flexibility. The findings demonstrated that psychological flexibility did not modify the association between trait health anxiety and mental health outcomes. Instead, enhanced psychological flexibility was responsible for reducing COVID-19-induced pain, anxiety, and depression. Two psychological flexibility mechanisms that specifically influence decreases in the adverse effects of trait health anxiety on all mental health outcomes are diffusion (observing negative thoughts without taking them literally) and committed action (performing values-based action). Conversely, increases in bad mental health outcomes are mediated by acceptance, a psychological flexibility process that necessitates being open to inner sorrow. Thus, the hypotheses drawn from the preceding discussion are as follows:

H3: Educational psychology moderates the relationship between mental abilities and learning performance.

There are a variety of elements that influence the educational careers of teachers and students alike. One of the most influential things is their psychological behavior. The success or failure of a student depends on both the teacher and the student's mental state. Guo et al. (2018) investigated the relationships between anxiety, defensive silence, authoritarian leadership, and employee innovation. In addition, the effect of employee psychological capital on these mediated interactions was examined. Our projected model was examined through two studies of employee-supervisor dyads working in Africa and Asia. Study 1 demonstrated that employee protective quiet mediated the conflict between authoritarian leadership and innovation. The study extended these findings in a three-wave investigation, and our results revealed a more subtle relationship. Fear and defensive silence sequentially buffered the link between authoritarian leadership and employee innovation, as evidenced by our findings. In addition, the study revealed that employee psychological capital governed this mediated relationship.

People's reckless behavior is a significant contributor to workplace accidents. Less emphasis has been paid to the influence of safety-related stress on safety performance compared to the impact of job-related stress on work performance. D. Wang et al. (2018) examined the relationship between safety-related stress and behavior and the predictive power of safety-related focus and psychological capital. The responses of 359 Chinese construction workers to a questionnaire were gathered. The results revealed that high levels of safety-related stress would negatively affect safety participation, but not safety compliance. In addition, psychological capital had a more significant impact on safety compliance than safety participation. In addition, the relationship between safety engagement and safety-related stress was attenuated. Thus, the hypothesis drawn from the preceding discussion is as follows:

H4: Educational psychology moderates the relationship between self-regulated learning and learning performance.

Research Methodology

This article investigates the impact of mental abilities and self-regulated learning on students' learning performance and the moderating effect of educational psychology on the relationship between cognitive abilities, self-regulated learning, and learning performance in Vietnamese educational institutions. The article collected primary data from chosen students via questionnaires. The study variables are measured utilizing item-based scales derived from previous research. Mental abilities have eight items from Ganzach and Patel (2018), self-regulated learning has five items from De Smul et al. (2018), and educational psychology has seven items from DeCuir-Gunby and Schutz (2014). Learning performance has six items from C.-M. Chen and Wu (2015).

Students from Vietnamese educational institutions have been selected as the study's respondents. Students were chosen using a primary random sampling method. The researchers distributed the survey questionnaires via personal visits to the institutions. The researchers mailed roughly 514 surveys, but only 290 were returned, representing a response rate of approximately 56.42 percent. In addition to employing the smart-PLS statistical technique to analyze the reliability and validity of the questions and variables, the study also tested its hypotheses. This program efficiently manages small and large data sets and executes sophisticated models (Purwanto et al., 2020). The study included two predictors, including the cognitive ability (MA) and self-regulated learning (SRL), as well as one moderating variable, educational psychology (EPY), and one dependent variable, learning performance (LP). This is seen in Figure 1.

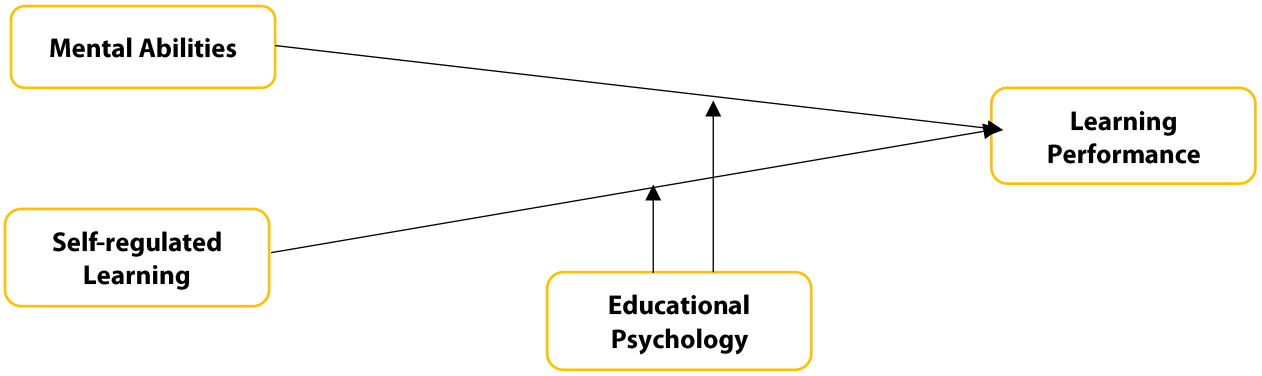

Figure 1: Theoretical model

Research Findings

The study assessed convergent validity or the association between items. The convergent validity has been analyzed using factor loadings and extracted average variance (AVE). Both test scores are more significant than 0.50, indicating valid convergent validity. Additionally, the dependability was evaluated using Alpha and composite reliability (CR). Both test scores are more important than 0.70, indicating good trustworthiness. These results are shown in Table 1.

Table 1

Convergent validity

Constructs	Items	Loadings	Alpha	CR	AVE
Educational Psychology	EPY1	0.849	0.912	0.931	0.663
	EPY2	0.581			
	EPY3	0.854			
	EPY4	0.860			
	EPY5	0.863			
	EPY6	0.861			
	EPY7	0.792			
Learning Performance	LP1	0.805	0.886	0.916	0.647
	LP2	0.856			
	LP3	0.827			
	LP4	0.864			
	LP5	0.862			
	LP6	0.574			
Mental Abilities	MA1	0.811	0.920	0.934	0.639
	MA2	0.842			
	MA3	0.792			
	MA4	0.815			
	MA5	0.773			
	MA6	0.794			
	MA7	0.796			
	MA8	0.772			
Self-regulated Learning	SRL1	0.958	0.970	0.976	0.892
	SRL2	0.923			
	SRL3	0.964			
	SRL4	0.965			
	SRL5	0.912			

In addition, the study assessed the discriminant validity of the association between variables. Initially, the discriminant validity was tested using the Fornell Larcker and cross-loadings procedures. The values of both tests reveal that the values indicating the construct's association with itself are more significant than those showing the association with other constructs. These values demonstrated discrimination validity. These results are presented in Tables 2 and 3.

Table 2

Fornell Larcker

	EPY	LP	MA	SRL
EPY	0.814			
LP	0.410	0.805		
MA	0.442	0.452	0.800	
SRL	0.429	0.394	0.477	0.945

Table 3

Cross-loadings

	EPY	LP	MA	SRL
EPY1	**0.849**	0.333	0.323	0.353
EPY2	**0.581**	0.234	0.256	0.192
EPY3	**0.854**	0.318	0.371	0.359
EPY4	**0.860**	0.301	0.396	0.371
EPY5	**0.863**	0.343	0.408	0.375
EPY6	**0.861**	0.402	0.401	0.398
EPY7	**0.792**	0.368	0.346	0.357
LP1	0.377	**0.805**	0.401	0.330
LP2	0.315	**0.856**	0.357	0.296
LP3	0.354	**0.827**	0.373	0.317
LP4	0.364	**0.864**	0.401	0.322
LP5	0.331	**0.862**	0.349	0.298
LP6	0.209	**0.574**	0.282	0.344
MA1	0.348	0.445	**0.811**	0.437
MA2	0.385	0.357	**0.842**	0.352
MA3	0.347	0.298	**0.792**	0.324
MA4	0.350	0.279	**0.815**	0.321
MA5	0.378	0.423	**0.773**	0.451
MA6	0.342	0.285	**0.794**	0.325
MA7	0.336	0.358	**0.796**	0.394

	EPY	LP	MA	SRL
MA8	0.336	0.368	**0.772**	0.387
SRL1	0.418	0.357	0.464	**0.958**
SRL2	0.395	0.370	0.445	**0.923**
SRL3	0.403	0.387	0.453	**0.964**
SRL4	0.409	0.382	0.457	**0.965**
SRL5	0.401	0.362	0.437	**0.912**

The discriminant validity was evaluated using the Heterotrait-Monotrait (HTMT) ratio. The ratio values are less than 0.90, indicating discriminant validity. These results are shown in Table 4.

Table 4

Heterotrait Monotrait ratio

	EPY	LP	MA	SRL
EPY				
LP	0.447			
MA	0.479	0.485		
SRL	0.451	0.429	0.494	

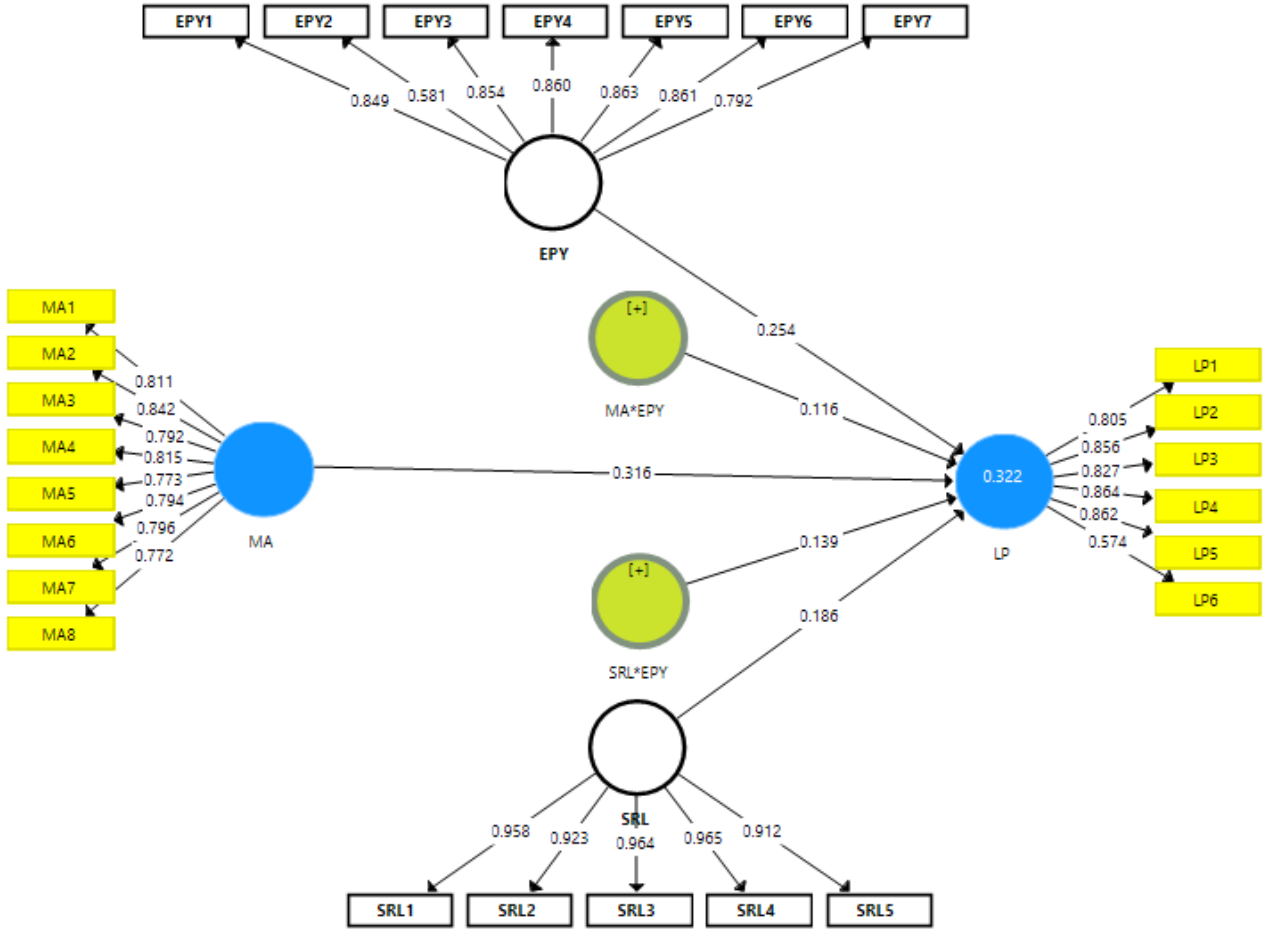

Figure 2: Measurement model assessment

The findings suggested that cognitive ability and self-regulated learning enhance learning performance and support hypotheses H1 and H2. In addition, the data reveal that educational psychology significantly moderates the relationship between mental talents, self-regulated learning, and learning performance among students in Vietnamese educational institutions and accepts hypotheses H3 and H4. These relationships are listed in Table 5.

Table 5

A path analysis

Relationships	Beta	Standard Deviation	T Statistics	P Values
EPY -> LP	0.254	0.060	4.251	0.000
MA -> LP	0.316	0.071	4.475	0.000
MA*EPY -> LP	0.116	0.055	2.098	0.019
SRL -> LP	0.186	0.073	2.555	0.006
SRL*EPY -> LP	0.139	0.057	2.436	0.008

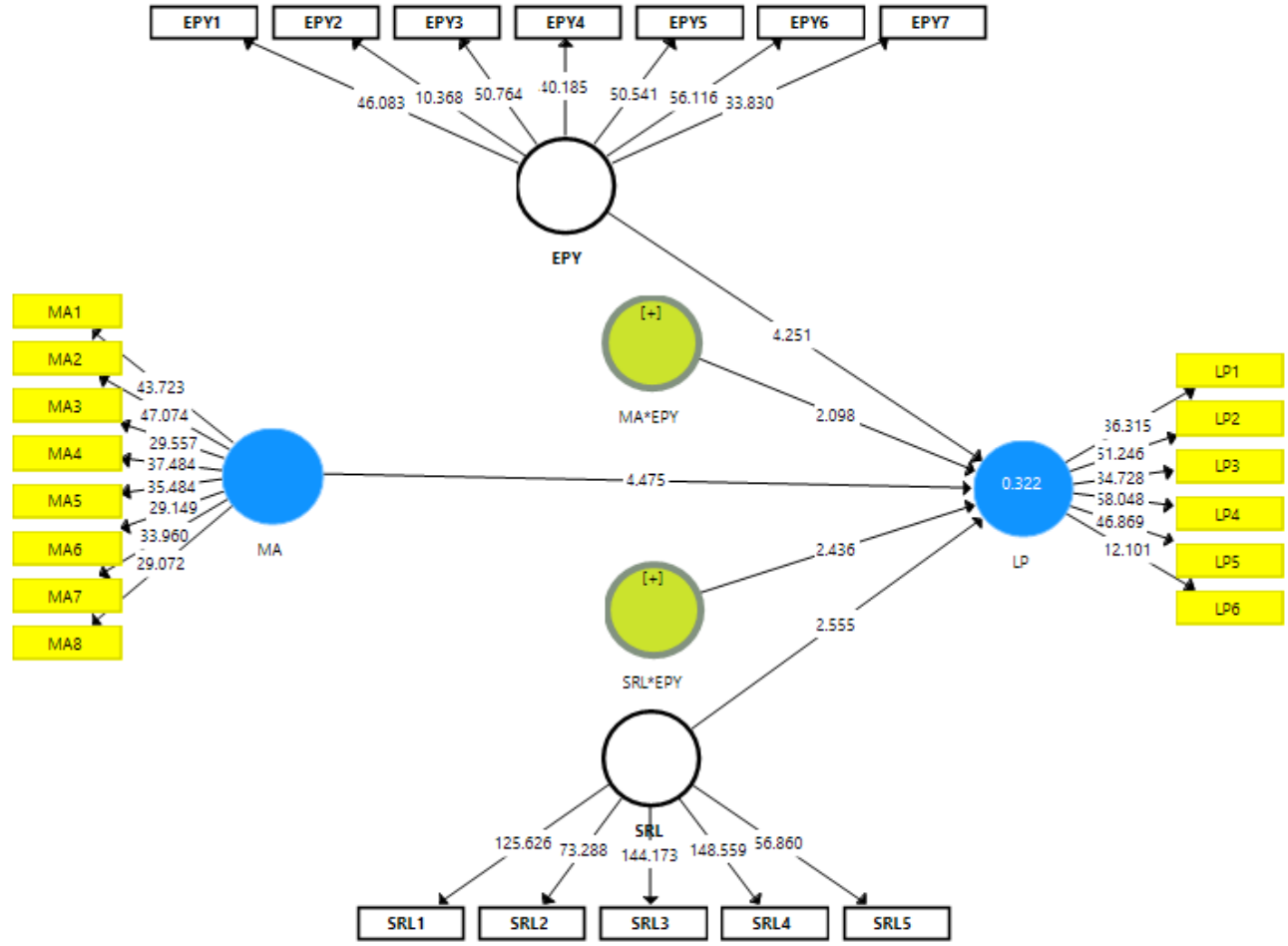

Figure 3: Structural model assessment

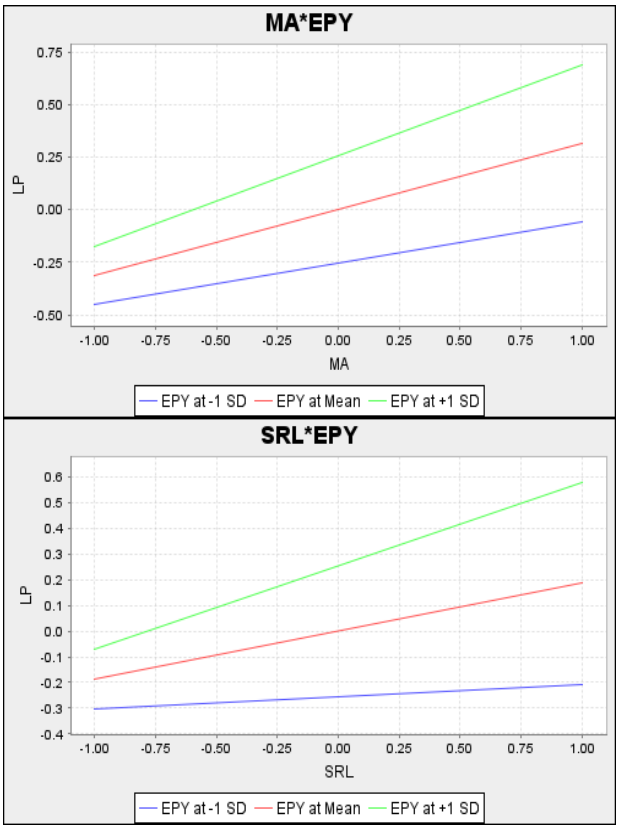

Figure 4: Moderation analysis

Discussions

The results demonstrated a correlation between cognitive abilities and academic success. These findings are corroborated by Miola et al. (2021). They show that the mental talents of the learners determine their capacity to acquire the subject and demonstrate their mastery of it on tests and exams. The study indicates that when students have mental talents, they can comprehend a topic and its dimensions through reading or lectures, memorize the most critical parts, manage their time well, and demonstrate superior learning performance. According to Jiang et al. (2018), students with mental abilities such as verbal comprehension, computation, reasoning, perceptual quickness, memorization, and presentation can do better in regular classes, learn more, and demonstrate superior performance. Therefore, mental abilities contribute to the academic achievement of kids. These findings are consistent with C. Wang, Fang, and Gu's (2020) assertion that students with mental abilities such as analytical skills, reasoning, and memory do not rely solely on what their instructors have lectured on. They conduct an in-depth analysis of the term's meaning, ask pertinent questions, confer with the seniors, and utilize digital learning resources so that they might achieve success in learning.

The results demonstrated a correlation between self-regulated learning and learning performance. Granberg et al. (2021), who study the learners' self-regulation and learning performance, support these findings. The results demonstrated that the institutions and tutors administer the students' education; they take the initiative to establish a comfortable and effective learning environment. In addition, students who self-regulate via scheduling, self-motivation, self-learning, and self-evaluation can improve their comprehension, increase their knowledge, and complete their academic program. Therefore, self-regulation enhances academic success. These findings are also consistent with Li, Chen, Xing, Zheng, and Xie's (2020) assertion that students with the ability to self-regulate their learning can continue their studies even when regular education classes are not in session. They can independently develop and implement the learning techniques necessary to accomplish the activities within the allotted time. The results are also consistent with Xiao and Yang's (2019) assertion that students must practice and memorize the material after receiving a lecture. If kids can self-regulate their learning, this is conceivable. Therefore, they grasp and learn more effectively. Consequently, self-regulated learning enhances pupils' academic achievement.

The results demonstrated that educational psychology is an essential modulator between cognitive capacity and learning performance. These findings are supported by Sanaie et al. (2019). They demonstrate that when education institution management and tutors consider education psychology when dealing with education issues and interacting with students, they can foster the development of students' cognitive abilities, thereby enhancing their learning performance. These results concur with Benson et al. (2019), who studies the effect of educational psychology on the development of students' mental capacities and learning performance. The study hypothesizes that teachers with expertise in educational psychology are aware of the mental abilities children must possess to be good learners, as well as how to foster these abilities. Teachers can cultivate the cognitive capacities of their students. According to Baker et al. (2021), to teach students properly, tutors and students must have a suitable understanding, which is attainable through educational psychology. When tutors understand educational psychology, they may assist students in developing the cognitive skills necessary for learning, improving the learning environment. Consequently, the pupils will have enhanced mental capacities and do better in the course.

In addition, education psychology enables tutors to increase students' academic achievement. Therefore, mental capacities can enhance learning skills with a background in psychology. The findings indicated that educational psychology is an essential modulator between self-regulated learning and learning performance. These findings are corroborated by Zhu and Mok (2018). They note that a grasp of educational psychology enables tutors to engage in persuasive and inspiring interactions with students and motivate them to engage in self-regulated learning. In addition, psychological growth contributes to the enhancement of the teaching/learning environment, resulting in enhanced student learning performance. Therefore, education enhances the psychological relationship between self-regulated learning and learning performance.

Furthermore, Hensley et al. (2022) corroborate the current study by explaining the significance of educational psychology in enhancing the contribution of self-regulated learning to students' learning performance. When tutors understand and utilize educational psychology, they can establish learning skills and drive students to engage in self-regulated learning, according to the authors. With knowledge of educational psychology, tutors can instruct pupils more successfully. Consequently, when educational psychology is used, students' self-regulated learning can be utilized to enhance their learning performance. The results are also corroborated by Eitel et al. (2020). They demonstrate that educational psychology reinforces the association between self-regulated learning and learning performance by enhancing self-regulated learning and learning performance.

Implications

With its addition to education literature, the present study serves as a guide for future authors. This study investigates the effects of cognitive talents and self-directed learning on students' academic achievement. Compared to the previous literature, this article contributes by simultaneously analyzing the function of cognitive ability and self-regulated learning in students' learning performance. In previous research, the relationship between educational psychology and students' mental talents, self-regulated learning, and learning performance was studied without considering the moderating effect of educational psychology on these variables. This study is the first to investigate the moderating effect of educational psychology on the relationship between cognitive ability, self-regulated learning, and student learning performance. The Vietnamese education system survey analyzing the link between the components also contributes to the body of knowledge.

The present study has several empirical implications for the education systems in emerging economies, such as the education system in Vietnam, because its primary purpose is to enhance student performance. If education management and teaching staff wish to improve student performance, they must promote and help students strengthen their mental capacities. The article aids in developing regulations for increasing student performance by enhancing their cognitive and learning abilities. This study instructs educational administrators and tutors on promoting the development of self-regulated learning skills in students. In this way, students can study beyond the limitations of time and geography and demonstrate improved performance. In addition, the study suggests evaluating educational psychology to promote cognitive capacities and self-directed learning. Therefore, mental abilities and self-regulated learning can contribute more effectively to academic performance.

Conclusion

This study aims to investigate the effects of cognitive ability and self-regulated learning on students' academic performance. It also seeks to examine the moderating effect of educational psychology on the association between cognitive capacities, self-regulated learning, and students' academic achievement. A questionnaire-based survey was administered to Vietnamese educational institutions to collect data on educational psychology, mental abilities, self-regulated learning, and learning performance. The questionnaire results revealed a positive correlation between cognitive ability, self-regulated learning, and academic success. The pupils must possess strong cognitive skills, including verbal comprehension, fluency, numeric aptitude, spatial vision, inductive reasoning, perceptual speed, and memory. With excellent mental talents, kids can do better in regular classrooms, study more outside class, and demonstrate enhanced performance. Therefore, cognitive abilities contribute to the academic achievement of kids. Students who are skilled in self-regulated learning, such as the capacity to create a schedule for completing the course, learning motivation, self-evaluation, and learning more, can acquire a deeper understanding, increase their knowledge, and achieve superior learning outcomes. Educational psychology is a strong moderator between cognitive ability and self-regulated learning on student learning performance, according to this study. Educational psychology outlines how a person may acquire and retain knowledge and which procedures and instructional strategies are efficient in enhancing students' motivation, comprehension, reasoning, and memory. Therefore, educational psychology aids in the development of cognitive abilities and promotes self-regulated learning. Educational psychology promotes the role of mental talents and self-regulated learning in the academic achievement of pupils in this manner.

Limitations and Future Recommendations

The current study is of great importance to the field of study. However, it does have certain restrictions. To offer quality research, authors must consider these restrictions when writing on a similar subject. The emphasis of the study is on cognitive capacities and self-regulated learning to determine students' academic achievement. In addition to institutional culture, education policy, tutoring abilities, and parental conduct influence pupils' academic performance. Therefore, the present text provides insufficient instructions for enhancing students' academic performance. For improved advice, it is suggested that scholars study additional aspects affecting learning performance. This study investigates a moderator, such as educational psychology, between cognitive ability, self-regulated learning, and student learning performance. To better understand the contribution of cognitive skills and self-regulated learning to student learning performance, the authors must take at least one mediator and moderator into account. The writers have combed the Vietnamese educational system empirically to examine the investigated parameters' link. To develop generalizability, future authors should explore the same factors and their relationships in other school systems.

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