Examining the Relationship between E-learning and Academic Performance: A Psychological Perspective

Govindaraj M¹, Rashmi Mehrotra², Saroj Kumar Ranjan³

1Associate Professor, Department of Marketing, CMS Business School, JAIN (Deemed to-be University), Bangalore, India.

2Professor, Faculty of Education, Teerthanker Mahaveer University, Moradabad, Uttar Pradesh, India.

3Assistant Professor, Department of Management Studies, Vivekananda Global University, Jaipur, India.

Abstract

The global COVID -19 outbreaks forced governments to close schools to halt the spread of the disease, which had a momentous effect on the academic pursuits of students both at home and abroad. This sudden shift from conventional classroom teaching to online learning has affected students psychologically. E-learning (E-L) is distinguished by the use of digital platforms, online courses, and virtual classrooms. The goal of this research is to utilize the theory of emotion directive to examine the impact of E-L and emotional intelligence (EI) on the stress, burnout, and academic performance (AP) of Pakistani students. The data (N = three hundred and eighty-seven) is based on distant students registered at ten different Chinese institutions. This study aims to explore the relationship between E-L and AP from a psychological perspective. E-L has become increasingly prevalent in educational settings, providing learners with flexible opportunities to access educational resources and engage in learning activities through digital platforms. Understanding the impact of E-L on AP requires examining various psychological factors that influence learning outcomes. The research demonstrates that students' feelings of study stress, burnout, and AP have been significantly influenced by both E-L and EI. According to these findings, EI and E-L may have an impact on students' AP, study stress, and burnout. The study concludes that EI has a considerable collision on a student's psychological stress. By understanding the psychological factors at play, educators can leverage the advantages of E-L while addressing its limitations, ultimately promoting student achievement and enhancing the quality of online education.

Keywords: E-L, Study Stress, AP, Emotional Intelligence, Burnout

1. Introduction

As technology has continued to alter the nature of education, there has been a noticeable rise in interest in the connection between E-L and AP in recent years. Students can access educational materials whenever and wherever they choose thanks to E-L. It is characterized by the utilization of online courses, digital platforms, and virtual classrooms. It is currently an essential part of educational institutions, providing opportunities for both formal and informal learning (Aldhahi et al., 2022). Students may design learning paths that are unique to their needs and interests by using E-L. Students have the opportunity to explore additional resources, review challenging content again, and engage with the material at their own pace thanks to the capacity to tailor the information. Because it provides students more control over their learning and lets them tailor it to suit their individual learning preferences, E-L has a positive impact on academic attainment (Rodríguez-Ardura & Meseguer-Artola 2021). E-L offers chances for more involvement and engagement. Multimedia components, interactive simulations, and gamified aspects are often used in online platforms, and these features may increase student engagement and interest. E-L can boost students' focus, involvement, and ultimately academic success by creating a stimulating learning environment (Marlina et al., 2021). However, it is crucial to take into account any possible difficulties with E-L that can affect academic achievement. Students who study online must have the ability to self-regulate since they are ultimately accountable for their learning outcomes. Examples of these abilities include self-control, time management, and goal planning. Without enough direction and assistance, students may find it difficult to maintain concentration, efficiently manage their time, or ask for help when they

need it, which may negatively affect their academic achievement (Mohammed et al., 2022). Some students could find it difficult to study in E-L settings since there isn't any face-to-face connection or social presence. Human connection and social support are essential to learning because they promote teamwork, peer feedback, and a feeling of community. The lack of these components may cause children to feel lonely, lose motivation, and perform worse in class (Lin & Nguyen 2021). The link between E-L and academic achievement may be strongly impacted by the digital divide and access to technology. Disparities in students' capacity to fully participate in online learning may be created by unequal access to technology and dependable internet connections. While E-L may promote engagement and provide tailored learning experiences, it also necessitates that students have self-control abilities and may lack some of the characteristics of conventional classroom interactions. Educators, policymakers, and researchers need to address the difficulties and capitalize on the advantages of this educational strategy to maximize the impact of E-L on AP. This includes ensuring equitable access, offering sufficient support, and promoting effective pedagogical strategies in digital learning environments (Wu et al., 2020). The term "E-L," sometimes known as "digital learning," describes the utilization of electronic gadgets and instructional tools. It includes anything from online courses to virtual classrooms to educational applications and other digital technologies that make it easier to study outside of the confines of the conventional classroom. Several variables may affect the connection between E-L and academic success (Torun, 2020). (i.e.: Flexibility and accessibility, Personalized learning, Multimedia and interactive content, Immediate feedback and assessment, Collaboration and communication, Self-regulated learning). Multimedia components included in E-L systems, such as movies, interactive simulations, and gamified exercises, are often used. These tools may increase participation, encourage active learning, and boost understanding. Better academic results may result from pupils who are engaged and motivated. Platforms for online learning often provide immediate feedback on tests, tasks, and evaluations. Students can instantly see their strengths and limitations thanks to this rapid feedback, allowing them to concentrate on what needs to be improved (Hasan & Bao 2020). Students are responsible for their learning progress, and E-L calls for a certain amount of self-discipline and drive. E-L may encourage the development of self-regulated learning abilities such as goal-setting, time management, and introspection. By encouraging productive study habits and a growth attitude, these abilities may help students do better academically. The success of E-L may be influenced by elements including student motivation, digital proficiency, and access to technology. Academic achievement may also be strongly impacted by the quality of instructional design and teaching methods used in E-L platforms (Guven Ozdemir & Sonmez 2021). For students to completely benefit from E-L possibilities, educational institutions must provide enough assistance, resources, and direction. Educational institutions may develop a setting that fosters increased academic achievement via digital education by using the benefits of E-L and resolving any difficulties (Al-Adwan et al. 2022). The goal of this research is to utilize the theory of emotion regulation to examine the impact of E-L and EI on the stress, burnout, and AP of Pakistani students.

2. Related works

Younas et al., (2022) investigated the online learning affecting factors among Pakistani university students throughout the Pandemic. The findings showed a connection between AP and happiness with E-L and Pakistani students who utilised E-L during the epidemic greater phases of both. In the context of an academic E-L environment at a university, Kim et al., (2019) looked at how university students interpret E-L in light of their personal experiences, & the mediating impacts of educational appointment and digital willingness. The results are significant because they show how important it is for students to be engaged in their academic work and to be technologically ready as intermediaries in their perception of E-L, which is predicted by educational accomplishment. Yang et al., (2021) investigated the connection between learning engagement and perceived proximity, perceived control, and peer referent. This research indicates that apparent proximity, apparent control, and looking closely referent in E-L contain a beneficial impact on students' self effectiveness & well-being, increasing their motivation to learn. The goal is to help academics, educators, designers, and others find efficient ways to conceive and gauge student participation in online learning. Alameri et al., (2020) evaluated how students see online education. The University of Jordan utilises the digital knowledge platforms, Microsoft Teams, and Zoom. Additionally, it looks at how students' understanding of the Moodle and Zoom platforms impacts their ability to study independently and succeed academically. Gao et al., (2021) examined the link

between college students' professed relations support and their participation in E-L, & the impacts of E-L awareness and behaviors, as well as self-efficacy. The results add to and broaden their knowledge of the variables affecting students' E-L engagement. Yavuzalp & Bahcivan (2021) investigated the links between self-regulation abilities, academic accomplishment, and preparation for E-L among university students enrolled in remote learning for campus-based courses. According to the study's findings, university students' preparation for online learning had an encouraging collision on their ability to personality normalize, contentment with their lives, and academic success. The study results and conclusions are aligned with the implementation recommendations. By taking E-L interaction as the predecessor build of the technology acceptance model (TAM), this research was evaluated by Girish et al., (2022). To better understand the mindset and behavioral intents of students towards the usage of E-L, the COVID-19 construct of hesitation evading and professed risk was also introduced. The findings showed that E-L has a high degree of engagement, which affects how easily it is used, how valuable it is seen to be, and how positively it affects students' attitudes. Zhao et al., (2021) examined the literature on the treatment of primary school kids, as well as the effects of ecological psychology, learning preferences, and school layout on elementary school students' behavior. The results of the study demonstrated how environmental psychology affects elementary pupils' behavior. Additionally, the authors concluded that primary students' desire to use E-L has a substantial impact on how they conduct and behave.

3. concept-based structure and development for hypotheses

3.1 EI

The ideas of EI were residential in the 1920s, but it only gains attractiveness after being correctly classified. "The ability to observe one's own and other people's mental states and sentiments, distinguish between them, and put this knowledge into practice to inform people's thinking and actions," they wrote. EI aims to provide psychological comfort and a sense of accomplishment in areas including academic achievement, job performance, and stress from the workplace. By investigating the relationship between EI and psychological strain, it can be shown that emotionally intelligent people are more self-assured, content, and outgoing and that this harms academic stress in students. A high degree of EI considerably helped pupils cope with psychological pressure stress, according to research on the relationship between EI and psychological pressure coping strategies. According to their findings, those with higher EI had a better tolerance for psychological stress. Although there has been much research on how EI affects various employment outcomes, Pakistan has given little thought to how EI affects student performance, burnout, and study stress.

3.2 EI, Burnout, Work Stress, and Performance

The capacity for a person to comprehend and control their sensitive behaviors and emotions is known as EI. EI is a collection of non-cognitive talents and abilities that lessen the demands and stresses of the environment. Researchers discovered that those with more EI are better at handling stressful circumstances. Given how difficult and demanding academic standards are, it seems sensible to recommend EI to help students deal with psychological strain and improve their performance. Students must manage academic obligations, such as tests, presentation, maintaining and desire for an intellectual occupation, in calculation to other environmental and emotional pressures. Positive educational growth is correlated with strong EI features. They asserted that EI has an impact on a student's well-being and academic progress. A student's academic career is linked to significant occupational stress and burnout. Stress levels and student burnout worsen in a developing nation like Pakistan because of a lack of resources, a bad work environment, energy shortages, and inadequate management. As a result, a student's physical and mental issues have a severe impact on their ability to study and academic achievement. Studies show that moods and emotions play a major role in the entire response to combat stress and burnout. Students with high EI levels may experience less burnout and stress at work while still developing professionally. EI increases students' resistance to psychological strain, overall well-being, and AP. Despite the coronavirus pandemic closing Chinese universities more than 15 months ago, student physical absenteeism increased as a result of being stuck at home. This led to psychological pressure, lower AP, and enormous gaps in practical skills, and development, among other things. EI effectively reduces student stress and fatigues, improving AP. Average intellectual abilities perform better under pressure from the environment and the mind.

A high level of EI was thus highly connected with students' AP since it had a direct influence on lowering burnout levels among them in demanding circumstances. It is reasonable to assume that various researchers investigated the impact of nurses' EI on their professional results. However, this research looks at how EI affects students who are trapped in Pakistan because of the COVID-19 problems in terms of their AP, study stress, and burnout. Therefore authors hypothesized:

H1: EI and AP at work are significantly positively correlated in pupils.

H2: Students' study stress and EI have a considerable negative association.

H3: Burnout among students and low EI has a strong negative correlation.

3.3 Study Stress, Online Classes, Performance, and Burnout

The increased utilization during this COVID-19 shows how far the educational institution has come in recent years. There are several online learning systems accessible. An educational institution found it difficult to arrange its instructional program online. But no school was ready for a full transition to online learning. According to empirical studies, students believe that online courses are more beneficial to their learning than physical education; however Pakistani students' responses are different. Online learning platforms are insufficient since they face several difficulties. It is impossible to properly adapt to a network, particularly in rural places where there are few Internet services, and online learning is quite different from attending real classrooms. The psychological strain of online learning for Pakistani students during COVID-19. Their research showed that, in less developed nations like Pakistan, internet education might have a detrimental impact on intended AP. Their psychological strain affects other educational resources including experimental labs, technological problems, financial problems, and the inability to use the Internet. All of this has caused instructors and students to experience burnout and psychological stress. Less physical activity and spending the majority of time at home have a severe detrimental effect on kids' AP. Online learning intensifies academic pressure, which negatively affects students' health, ability to make decisions, psychosomatic symptoms, sleeping issues, fear about the future, anxiety, despair, workload, etc. The COVID-19 pandemic caused a lot of psychological shocks and had a bad impact on student's mental health, which immediately caused severe job stress and anxiety. They discovered a detrimental effect on AP and significant psychological stress on the kids. The earlier investigations confirmed that students' psychological strain and academic progress are significantly impacted by uncertainty. Due to prejudice against improved family amenities, online courses inhibited students' ability to study. The question of "how this approach benefits students from lower-income families and remote areas" emerges when colleges implement online courses. Students from remote areas and low-income families often have no way to participate in online courses due to a lack of necessary lab equipment. A related issue is the cost of enrolling in online courses. The abrupt switch to online classrooms was a major cause of stress and burnout. Therefore, we constructed the following hypothesis:

H4: The AP of students who take online courses is significantly negatively correlated with their work.

H5: Stress associated with studying is positively correlated with taking online programs.

H6: Burnout among students and online education are positively correlated.

3. 4 Theoretical framework

EI is regarded as a cornerstone for research in management, psychology, and education. The theory's foundations lie in the ability to comprehend one's own emotions, emotional reactions, and encounters with various feelings and thoughts. The capacity to deal with emotional setbacks, modifies habits, prevent emotional stress and burnout, and develop a strategy for avoiding negative feelings and emotions are also included. People with high levels of EI are better at managing their stress, preventing burnout, and enhancing their performance.

People with strong EI skillfully use their emotional competencies to lessen pandemic-related stress and exhaustion. There is proof that online learning and a student's EI are related. In comparison to pupils with low EI levels, kids with EI are likely to respond more successfully. Students' psychological strain is decreased by

their emotional abilities, which positively impacts their learning. Students' AP may be enhanced. Better stress management is associated with having a high EI. An EI person is capable of handling challenging circumstances and overcoming them in the classroom. EI has been linked to psychological management in a variety of professions, including student learning and academic achievement, according to earlier research on the topic. EI talents help students respond appropriately to uncertain situations and encourage them to find creative solutions, which may have an impact on their intellectual ability and result in average academic achievement. AP in online and distant learning courses is heavily influenced by EI. High EI levels reduce work-related stress and burnout while boosting AP. According to the study's findings, EI has a significant impact on lowering psychological stress, resolving interpersonal and environmental problems, and boosting productive behavior at work. Stress levels are known to decrease when EI levels rise. Researchers in Spain studied a sample of pupils and discovered a strong correlation between academic success and greater EI. Psychologists believe that people with EI abilities are more successful than those without EI, as was already said. Few types of research have been done on EI as a predictor for performance in online education, despite its benefits to success in other domains. Due to COVID-19, which has a bigger impact on student's academic programs, the online lessons continue. Figure 1 illustrates how the authors' investigation into the potential moderating impact of EI in online courses, burnout, AP and study stress,.
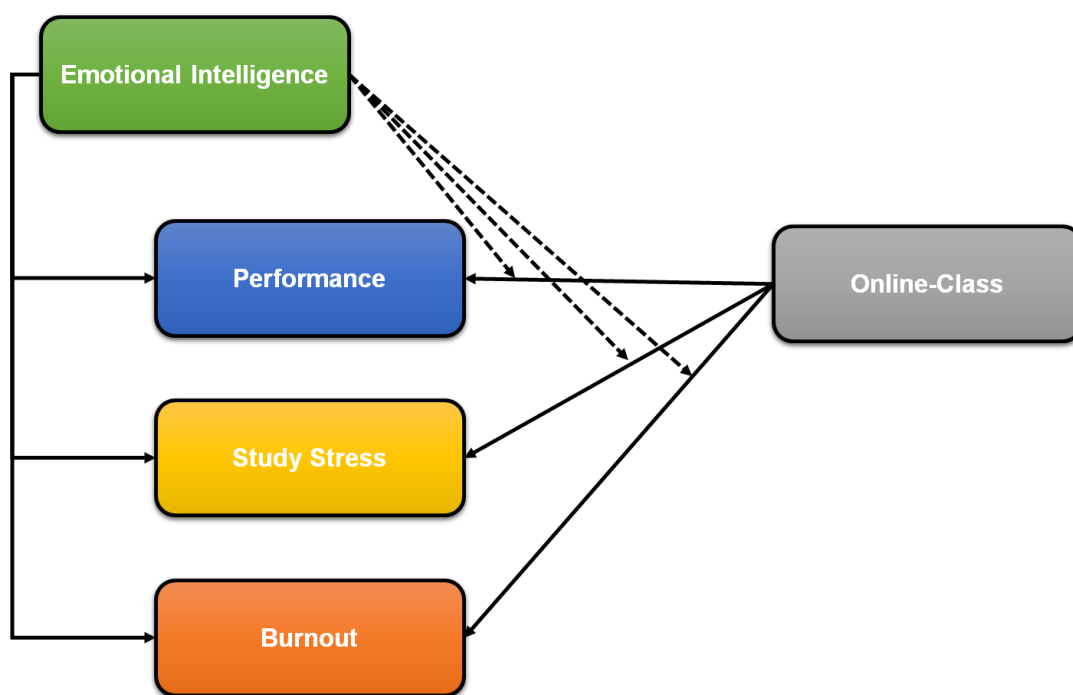

Figure 1: Theoretical framework

H7: The performance of students who take online courses is monitored by EI.

H8: The consequence of online classrooms on students' study stress is moderated by EI.

H9: Emotional dissonance's negative impact on student fatigue is moderated by EI.

4. RESEARCH METHODS

4.1 Data Collection Process

Due to COVID-19 and restrictions on cross-border travel, the research employed a quantitative technique to gather data from Pakistani students studying at different institutions in China who were stuck because of these restrictions. It is divided into 2 sections:

(a) The build dimension items and the associated dimension scales, and

(b) Demographic information is provided in Table 1.

Table 1: Demographic information of respondents

Variables		Frequency (N=387)	Percentage (%)
Education	Undergraduate	103	26.5
	Master	190	48.9
	PhD	97	24.9
Marital category	Single	170	43.8
	Married	213	54.9
	Others	7	1.6
Age of Respondents	18–25	149	38.1
	26–30	165	42.5
	30–35	63	17
	36–40	14	3.5
environmental demonstration	Eastern	190	48.84
	Western	68	17.32
	Northern	84	21.6
	Northern	49	12.5
Gender	Male	297	76.6
	Female	92	23.6

This sampling design is appropriate since it enables the theoretical extension of the results. The authors used skilled research assistants who utilized a variety of social platforms to gather the data. Participants were requested to provide their informed permission to participate in this research before completing the questionnaire. The authors discovered 387 valid and usable surveys for the current research out of the 429 completed questions.

4.2 Data analysis

To determine the discriminant validity of student reports of E-L, EI, study stress, burnout, and AP, we ran confirmatory factor analyses (CFAs) before examining the research hypotheses. The typical criterion of the different model robust indices must be taken into account to evaluate the model fit of CFA. It has been recommended that root means the square error of approximation (RMSEA) values less than 0.001, NFI equal to 0.914, CFI equal to 0.943, IFI equal to 0.952, RMR equal to 0.01, and RMSEA equal to 0.04] better results as compared with four-factor model shaped by linking study stress and burnout (χ^2 (116) equal to 585.6, p less than 0.05, NFI equal to 0.825, CFI equal to 0.847, IFI equal to 0.838, RMR equal to 0.04, and RMSEA equal to 0.08) and enhanced compare to a single aspect model (CFI equal to 0.517, NFI equal to 0.567, IFI equal to 0.518, and RMSEA equal to 0.12).

4.3 EI

EI was evaluated with the use of the EI Scale. This test had thirty-two questions that required the student to self-report their answers. Students were given a Likert scale with five points to rate their level of conformity with each of the thirty-two items, with one being the greatest degree of agreement and five representing the greatest degree of dissent. You may write something like, "When I'm in a good mood, I motivate myself, and solving problems comes naturally" as an example. The Cronbach's alpha for the EI scale came in at 0.88.

4.4 Stress

The psychosomatic stress measures were carefully created to assess the effects of stress on pupils during the coronavirus epidemic. Seven items range from 0 to 4 on a 5-point Likert scale. The stress-related emotional and psychological models served as the foundation for the construction of the instrument. Each question was created

to address a different stressor that was impacted by the COVID-19 epidemic, such as the amount of work required, social separation, relationships with peers and professor, and on-campus corporal activity. I feel frustrated since there is too much work and not enough resources, according to an example item. This scale's Cronbach's alpha was 0.83.

4.5 Burnout

The level of student burnout was determined using a fifteen-item scale that has three distinct dimensions: weariness, depersonalization, and personal success. Examples of questions include "How often do you feel emotionally drained during the classes?" and "Do you feel exhausted because of your online classes." The burnout scale's total Cronbach's alpha value was 0.87.

4.6 Performance

Students' AP is evaluated using 12-item assessments that measure their emotionality, self-control, social skills, and general well-being. The questions were developed based on the relationships between EI and AP (for example, I can effectively control my emotions). The Likert scale has four options, from "poor performance" to "high-AP score" (0). This scale's Cronbach's alpha was 0.89.

5. Results

The amount to which the measurements do not reflect various other aspects may be shown by low correlations between the measure of interest and the measures of other constructs, which are essential for establishing discriminant validity. The correlation between the variables, as well as their mean and standard deviation, are shown in Table 2, figure 2 and 3.

Table 2: Correlations analysis

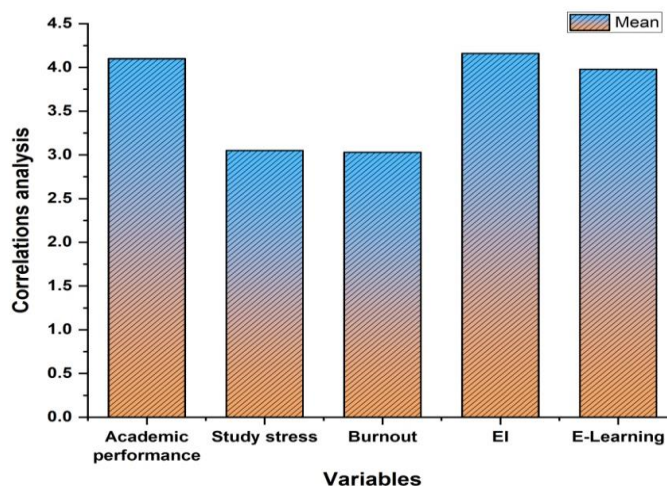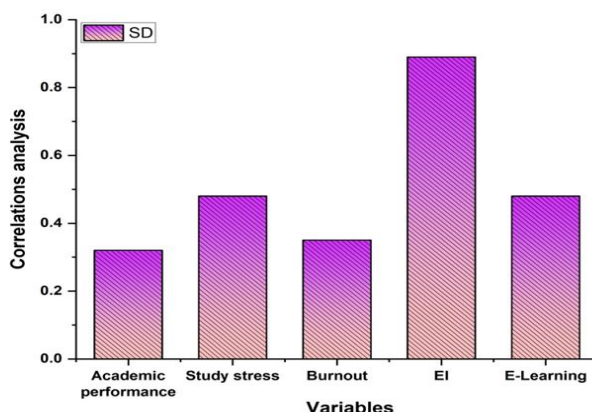| Correlations analysis								
Variables	Mean	(SD)	α	1	2	3	4	5
1. EI	4.16	0.90	0.87	0.49**	−0.40*	−0.36**	2	
2. Academic performance	4.10	0.33	0.90	2				
3. Burnout	3.03	0.36	0.88	−0.23*	0.28*	2		
4. E-Learning	3.98	0.49	0.87	−0.37**	0.44**	0.42***	−0.24**	2
5. Study stress	3.05	0.49	0.84	−0.18	2			

Figure 2: Correlations analysis for mean

Figure 3: Correlations analysis for SD

EI and AP have a substantial positive link, according to the correlation data (0.48, p less than 0.01), while study stress has a significant negative relationship (0.39, p less than 0.05). The relationship between EI and burnout is also correlated (-0.35, p less than 0.01). There is a substantial negative link between E-L and AP (-0.36, p less than 0.01), study stress (-0.43, p less than 0.01), and burnout (-0.41, p less than 0.001).

5.1 Structural model

To investigate the correlation between the desired variables, the structural model measurement was performed. Table 3 displays the results of the parameter routes' conventional regression analysis.

Table 3: Results for statistical analysis

Hypothesis	p-value	Decision	Beta
AP ←EI	0.01	Accepted	0.38***
Study stress ← EI	0.01	Accepted	-0.19***
Burnout← EI	0.02	Accepted	-0.26**
AP ← E-Learning	0.02	Accepted	-0.22**
Study stress ← E-Learning	0.02	Accepted	0.42***
Burnout← E-Learning	0.06	Accepted	0.36*
AP ←EI *E-Learning	0.06	Accepted	0.22*
Study stress ←EI *E-Learning	0.02	Accepted	-0.16**
Burnout← EI * E-Learning	0.02	Accepted	-0.18**

The consequences of the investigation reveal that EI has a favorable and substantial impact on AP (β equal to 0.37, p less than 0.001). Our findings confirmed Hypotheses 1, 2, and 3 since the EI has a negative and substantial influence on study stress (β equal to 0.18, p less than 0.001) and burnout (β equal to 0.25, p less than 0.01). In addition, E-L has a positive significant relationship with AP (β equal to 0.21, p less than 0.01), supporting Hypothesis 4. However, it has a significantly negative relationship with study stress (β equal to 0.45, p less than 0.001) and burnout (β equal to 0.35, p less than 0.05), supporting Hypotheses five and six, respectively.

5.2 Moderation Analysis

The current research also expected that EI's interaction (moderation) with E-L would influence students' academic achievement, burnout, and study stress. As indicated in Table 3, the findings of the moderation analysis demonstrate a substantial effect of EI with E-L on AP (β equal to 0.21; p less than 0.05); so, hypothesis 7 is acceptable. Our conclusion confirmed Hypotheses 8 and 9, respectively, since Table 3 also shows a

substantial moderating influence of EI with E-L on study stress (β equal to -0.15; p less than 0.01) and burnout (β equal to -0.17; p less than 0.01). This demonstrates that EI combined with online learning reduces academic outcomes like stress and burnout while increasing success in the course material. An average-centered communication term was developed using the output of E-L and EI and utilized for the interaction to map it. As seen in Table 3, when two standard factors are taken into account concurrently, their interaction is a substantial key predictor. The interaction term specifically predicted AP (β equal to 0.21, 1 in R^2 equal to 0.06, p less than 0.05), study stress (β equal to -0.15, 1 in R^2 equal to 0.04, p less than 0.01), and burnout (β equal to -0.17, 1 in R^2 equal to 0.05, p less than 0.01), providing strong evidence for the moderating effect in the proposed model. In particular, EI regulated the association between E-L and AP, making the negative correlation between E-L and AP lower among those with high levels of EI. On the other hand, those with low EI showed a higher inverse correlation between E-L and academic achievement. According to our findings, EI has a moderating effect on the association between E-L and study stress. Students with low EI showed a substantial correlation between E-L and study stress, while students with high EI showed a modest correlation. Additionally, comparable findings were discovered regarding burnout; E-L and burnout have a higher association with students who have low levels of EI.

5.3 Discussion

E-L is the practice of delivering educational materials and facilitating learning outside of the conventional classroom environment using electronic technology, such as computers and the internet. To properly use technology for educational objectives, it is essential to comprehend how e-learning affects AP. One aspect revolves around the advantages that E-L can offer. E-L platforms provide students with access to a wide range of educational resources, including multimedia materials, interactive simulations, and online forums. These resources can enhance students' understanding of complex concepts, promote active learning, and provide additional practice opportunities. Furthermore, the flexibility of E-L allows students to learn at their own pace and schedule, accommodating individual learning preferences and needs.

There are also concerns and challenges associated with E-L and its potential impact on AP. One common concern is the lack of direct face-to-face interaction between students and instructors. This can result in reduced opportunities for immediate feedback, clarification of doubts, and social interaction, which are considered important factors in effective learning. Additionally, the self-discipline and time management skills required for successful e-learning may pose challenges for some students, potentially leading to lower academic performance if not properly addressed. E-L has the potential to address issues of accessibility and inclusivity, particularly for students in remote areas or those with physical disabilities. By providing equal access to educational resources and opportunities, E-L can contribute to narrowing the educational divide and improving academic performance for marginalized students.

The effectiveness of E-L on AP is influenced by several factors. The quality of instructional design and the integration of interactive and engaging learning activities are crucial in promoting effective learning outcomes. Additionally, students' technological skills and their ability to navigate and utilize E-L platforms can impact their AP. providing adequate training and support for both students and instructors can enhance the effectiveness of E-L initiatives.

It is crucial to remember that E-L should be considered a supplementary strategy rather than a substitute for conventional classroom learning. Blended learning, which combines elements of face-to-face teaching with E-L components, has shown promising results in terms of improving academic performance. By integrating both modalities, students can benefit from the advantages of technology while still having access to valuable in-person interactions with instructors and peers.

6. Conclusion

The relationship between e-learning and AP is influenced by various factors and requires careful planning and implementation. When utilized effectively, e-learning has the potential to improve academic performance by enhancing student engagement, motivation, and self-directed learning. However, it is important to recognize the

limitations of E-L and consider its integration with traditional instruction for optimal learning outcomes. Further research and continued exploration of best practices are essential to harness the full potential of e-learning in improving academic performance. The current research investigates the links between E-L, burnout, EI, study stress, and AP of students during the worldwide pandemic. Our results provide strong evidence that EI is capable of efficiently coping with the stress and negative effects of the COVID-19 epidemic. Similar to what we discovered, Estrada et al. (2021) data corroborate our conclusion that EI improves AP and lowers student stress levels.

EI training and development programs may improve a student's capacity to manage and lessen stressful circumstances (Drigas & Papoutsi, 2020), and promote the pupils' AP and social adjustment (Wang, 2019). As a consequence, this may improve students' capacity to deal successfully with ambiguous circumstances, which will eventually improve their academic achievement. This research has several restrictions. Firstly, e-learning has the potential to positively impact academic performance. Many studies have shown that E-L can enhance student engagement, motivation, and self-directed learning, all of which are crucial factors in improving academic performance. The flexibility and accessibility offered by e-learning platforms also allow students to learn at their own pace and accommodate their learning styles, which can lead to improved learning outcomes.

Therefore, it would be intriguing to see how other factors (such as IQ and cultural intelligence) affected the results. The sample size of the current research is a drawback. The sample size was three hundred and eighty-seven students, which is not a lot of data, and we only collected and evaluated information from 10 Chinese University students who were stuck in Pakistan. A significant sample of data collected from several nations may be taken into account in future research. Furthermore, it's critical to understand that E-L is not a universally applicable solution. The efficiency of E-L may range across various disciplines and academic levels, and different learners may react to E-L techniques differently. Therefore, careful consideration must be given to the selection and implementation of E-L strategies to ensure that they align with the specific needs and contexts of the learners.

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