

Reconfiguring Student Motivation and Academic Success Through AI-Supported Interventions: The Role of Contingent Self-Esteem and Teacher Mediation in Modern Educational Systems

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Abstract: AI-mediated interventions have changed the landscape of the educational setting by increasing student motivation and academic achievement due to individualized learning tools, yet psychological and pedagogical aspects like contingent self-esteem and teacher mediation remain to be comprehended to enhance the AI use in the education setting. This study aims to explore the role of AI-supported interventions in shaping student motivation, examine the influence of contingent self-esteem on academic success in AI-enhanced environments, and analyze the role of teacher mediation in maximizing AI effectiveness. The qualitative method was selected in the form of a Systematic Literature Review (SLR), which included studies published within the period between 2020 and 2025. The review evaluated the association between AI, self-esteem, motivation, and teacher mediation through databases such as JSTOR, WOS, and SpringerLink. The results indicate that AI can make students motivated and engaged, particularly in the self-esteem factor. Low self-esteem is a barrier to using AI tools, and teacher mediation is an important factor in achieving emotional and cognitive needs that helps in increasing academic success. The research highlights the significance of taking into account such psychological aspects as self-esteem and the importance of teacher support in ensuring that AI can perform to its fullest as a tool in education.

Keywords: Student Motivation, Self-Esteem, Teacher Mediation, Educational Systems, AI-Supported Interventions.

Received: 05-02-2026

Accepted: 20-06-2026

1. Introduction

The application of interventions with the help of Artificial Intelligence (AI) has gained global widespread popularity in the field of education in recent years. Implementation of AI practice in teaching and learning activities can change the educational sector by allowing students to be more motivated, enhancing the educational process by making it more personal, and enhancing the performance (Habib et al., 2025). With AI-based

systems, including adaptive learning technologies, learning analytics, and automated feedback systems, it is possible to have personalized learning paths that adapt to the needs of particular students, which makes the education process more efficient and engaging (Jiang, 2024). Such AI solutions are regarded as a reaction to the growing need to offer scalable and personalized learning solutions that could serve the needs of various groups of students and facilitate self-directed learning (Xiong, 2025).

Nevertheless, AI intervention effects on student motivation and academic achievement are not that unambiguous. Studies have already shown that AI may improve the learning experience; however, it depends on numerous psychological and environmental factors, including contingent self-esteem and teacher mediation (Wasiyola et al., 2024). A contingent self-esteem, in which the self-worth of the student is pegged to their academic performance, is a major factor in the reaction of the student to the AI-assisted environments of learning. Low self-esteem students can be the hardest hit when using artificial intelligence tools, particularly when these tools point out the perceived weaknesses or inefficiency. Conversely, high self-esteem students can be affected by AI intervention more positively since they can face learning challenges with confidence (Ju et al., 2025).

Teacher mediation is another important issue in the successful implementation of AI in education. With the incorporation of AI, the role of teachers is changing as they will no longer have to teach the students in a classic way, but act as facilitators who will lead students through the learning process that has been improved by AI. It is also emphasized in the studies that the efficiency of the use of AI-supported tools, in turn, can be enhanced extensively through emotional support by teachers, personalized feedback, and making students feel engaged with their learning setting (Gamao, 2024). Teachers also have a chance to mediate emotional and motivational issues that use AI-based learning (anxiety, frustration, or the sense of inadequacy, etc.), and in this way improve the overall learning process and increase student performance (Elsayed et al., 2024).

In such a way, even though AI assisted interventions have massive potential, they might not achieve success in influencing student motivation and academic achievement due to the lack of understanding of how the interaction between such psychological factors as self-esteem and pedagogical practices adopted by the teacher affect the outcome (Cablaida & Delfino, 2025). The combination of technology, psychology, and pedagogy shown in the intersection provides a compelling opportunity to make academic systems in the modern world more effective and efficient by making sure that AI tools are applied to create a constructive, encouraging, and efficient learning environment.

The effect of interventions with the involvement of AI in the motivation of students is an unexplored area, despite the increasing involvement of such technologies in educational activities. Although AIs are viewed to offer individualized learning, they are not equally effective in all cases, especially among students whose self-esteem is determined by their level of academic performance. In this case, the disengagement and lack of motivation among such students can be attributed to the data generated by AI-driven tools, which may point to failures (Vidal et al., 2024). Also, the teacher's mediation in an AI-based learning environment has not been tackled enough. Emotional assistance, feedback, and assistance provided by teachers play a significant role in alleviating the possible adverse outcomes of AI on the academic performance of students (Xu et al., 2021). This knowledge gap indicates that there is still a need not only to learn more about how psychological and pedagogical factors determine the success of AI interventions in education, but also the significance of emotional and cognitive support, in addition to technology.

1.2. Research Objectives

- To Explore the Role of AI-Supported Interventions in Shaping Student Motivation
- To Examine the Influence of Contingent Self-Esteem on Student Academic Success in AI-Enhanced Educational Environments
- To Analyze the Role of Teacher Mediation in Maximizing the Effectiveness of AI-Supported Educational Interventions

The research is vital in establishing the importance of psychological variables in AI-based interventions within the education sector, student motivation, and student performance. Even though AI applications in education have tremendous potentials as concerns one-on-one studying, their usage is limited by the psychological health of the learners and the support that is offered to the learners by the instructors. The artificial intelligence has the potential to increase the motivation and interest, although its efficiency is conditioned by the interaction with the technology, in the majority of cases, requiring the self-esteem and the engagement of instructors (Fan et al., 2025). These dynamics are necessary in the analysis of the said AI to be optimized in meeting the needs of different students and providing supportive and engaging learning environments (Wu et al., 2024). The study provides information to teachers and policymakers on how AI-based interventions can be designed to improve academic performance and the psychological well-being of the students.

2. Literature Review

2.1. Role of AI-Supported Interventions in Shaping Student Motivation

Artificial Intelligence (AI) is a technology that is drawing attention to education, particularly in medicine, with regard to its use in improving student motivation. AI-driven applications, including large language models like ChatGPT, provide personalized feedback, adaptive learning, and real-time performances actively involving students and improving performance. According to Verghese et al. (2025), AI may robotize work and, at the same time, engage the student more fully, personalizing the learning process and making it more captivating. A study by Alsultan et al. (2025) on the perceptions of AI by healthcare students showed that although education about AI is becoming more accepted as something that may positively influence educational results, the effect of AI on student motivation is even more complicated. A great number of students perceived AI as an effective way of positively influencing patient outcomes and deepening their clinical knowledge that would consequently enhance motivation with more interesting and relevant learning experiences.

Tang et al. (2025) state that educational changes are necessary, and AI should be introduced not only in technical education but also in the enhancement of critical thinking and problem-solving. Waivers made students think critically, regardless of whether by a problem-based learning (PBL) system or through AI-enhanced simulations, can motivate students by making the process of learning more interactive and rewarding. According to Tang et al. (2025), AI tools and active involvement of students in solving problems can be used in conjunction and may be quite effective in eliciting motivation by encouraging autonomy and a sense of accomplishment. In the scoping review, Lee et al. (2021) also discuss the concept of integrating AI into undergraduate medical education and

emphasize that though AI has the potential to enhance the learning process through the use of high-quality learning support, the motivating effect of AI is influenced by its perception by students and educators. According to them, in order to motivate students successfully, AI should be seen as the means by which the educational experience will be enhanced, and traditional pedagogical approaches will not be substituted.

Zinab et al. (2025) pay attention to the attitude of AI adoption among medical students and faculty at the University of Zawia and state that, although the former is enthusiastic about the possibilities offered by AI to learners, the deficit in the training level and the familiarity with these tools can decrease their motivation. The support of the faculty and proper implementation of AI in the curriculum are important to maintain the motivation, as students are more motivated when they find instructions on how to utilize these tools offered by their instructors. Tsopra et al. (2023) outline a new teaching approach that involves students entering into the role of the AI Clinical Decision Support System (AI-CDSS) designers. This has been found to be effective in stimulating critical thinking and motivation, as students were active participants in the learning process. The practicality of the learning process when students design AI tools can not only assist them in getting acquainted with the technology but also enhance their involvement with the topic and allow them to learn more and be more motivated.

2.2. Contingent Self-Esteem on Student Academic Success in AI-Enhanced Educational Environments

The influence of contingent self-esteem, in which self-worth is conditioned upon validation by the external world, leads to a high rate of academic success, particularly in AI-enhanced environments. It has been demonstrated by Ibrahim et al. (2024) that high-self-esteem students have better academic results, and low-self-esteem students are more susceptible to negative emotional reactions in AI-based systems. The use of AI, which provides personalized feedback that highlights the weaknesses of students, may unknowingly discourage students, prompting them to stay uninterested, especially demotivated, low self-esteem students. Dang et al. (2025) note that self-esteem and readiness to use the AI tools influence the academic outcomes among students studying healthcare. Students whose self-esteem is contingent can be difficult to work with using AI tools when their success relies on constant validation. The unaffirmed people might feel demotivated, and this do not allow them to succeed. These results indicate that AI-driven courses involve not only technological but also psychological factors of student engagement and support in order to attain success in the academic domain.

Kassaw et al. (2024) state that self-esteem is one of the most reliable indicators of academic performance in Ethiopian higher education. Students who learn through the reinforcement of alien concepts, such as grades or computer AI, to construct their self-worth may fail when AI applications cannot reinforce or maintain their esteem. This may decrease motivation and interest, and it is necessary to take into account self-esteem to design AI educational tools to help people effectively. As Kassab et al. (2022) note, student engagement in medical education is associated with self-esteem. It is also possible that students with higher self-esteem would rather use AI tools positively, and those with low self-esteem might disengage because of the sense of inadequacy they feel. Personal interaction and teacher support can contribute to building the motivation difference in AI-driven environments, which can be especially adverse in low-self-esteem students.

Shrestha et al. (2022) state that the levels of self-esteem among medical students indicate that a significant number of students report having low self-esteem, which adversely impacts their grades. The outcomes of AI-upgraded educational ones that do not consider such emotional factors can contribute to the worsening of academic performance by such learners unintentionally. This creates the necessity of AI systems that do not merely evaluate academic progress, but also support the emotional needs of creating a positive learning experience, particularly for students who base their self-esteem on academic achievement. Tomas and Poroto (2023) discuss the effects of self-regulation, learning flow, and self-esteem on the academic success of blended learning in educational settings. They find that students who have high self-esteem can handle stressful situations, and they are willing to invest in AI tools that yield better academic performance. Conversely, contingent self-esteem students were discouraged by AI feedback, which in turn impedes their activity and academic results.

2.3. Teacher Mediation in Maximizing the Effectiveness of AI-Supported Educational Interventions

In order to maximize AI mediated educational interventions, especially in blended learning environments, teacher mediation is important. Ballouk et al. (2022) emphasize that educators who are capable of guiding, supporting emotionally, and assisting students in navigating AI-driven content enable themselves to self-regulate and improve the academic performance. AI tools provide individualized learning, though in the absence of teacher mediation, students might have difficulties with the technology, and become dissociated with the information and not as effective in their learning process. Chen (2025) touches upon the process of acclimatization of Chinese university English teachers to the usage of AI tools in the classroom. In addition to the instruction, teachers are involved in emotional and academic support as mentors. This analysis focuses on the fact that teacher mediation also stretches to the development of a productive environment in the consumption of AI.

Arroyo-Bello et al. (2025) discuss the issues and possibilities of AI tools such as the ChatGPT application in health sciences education. They believe AI could assist with personalized learning because it should be mediated by a teacher to help with situational accuracy, misinformation, and ethical questions. The critical thinking skills of students may be undermined by overreliance on technology, and as such, the critical ability of teachers to critically engage with the outputs of AI is critical in avoiding excessive overreliance on technology. Masih et al. (2025) delve into the means and opportunities of enriching adaptive learning with the integration of AI and social media, heeding to the role of teacher mediation. Teachers play a key role in AI-driven classes in ensuring collaboration between peers, providing direct feedback, and being emotionally attached to students. These aspects contributes to maintaining motivation and avoiding the development of AI tools as impersonal entities to make sure they are still tied to the learning processes of the students.

Feedback and interaction all developed by teachers are the most important concepts that should be promoted in the relevance of professionalism in medical education (Berger et al., 2020). This is needed in the situations where AI technologies cannot provide understanding of professional ethics that a teacher can provide, as it is required in the case of AI-enhanced settings. The teacher mediation strategies should be implemented to make sure that AI tools are utilized according to the educational values and standards that can enable the students to acquire ethical practices and

a sense of responsibility. Yang et al. (2023) also state that teacher mediation is very valuable in the curriculum of the longitudinal clinician educators, in which the educators orient the students on critical thinking and acclimate them to emerging technologies. Their research emphasizes that the intervention of a teacher is the crucial factor in improving technical skills as well as emotional engagement with AI tools.

2.4. Literature Gap

Although AI-assisted educational interventions are becoming increasingly popular and attract attention, there are still major gaps in the need to comprehend how teacher mediation can bring greater effectiveness, especially emotional and cognitive engagement. Although AI has been cited to make the learning process personal and give students motivation (Dang et al., 2025; Verghese et al., 2025), there has been little understanding of the role of teacher mediation in filling the gap existing between technology and emotional resonance. Previous studies show that self-esteem and student engagement in AI-based learning are crucial factors to consider (Ibrahim et al., 2024; Kassaw et al., 2024), but little work focuses on how educators can work with students, especially those with low self-esteem or uninspired by the AI systems. Moreover, although teacher feedback plays an effective role in achieving professionalism and critical thinking (Berger et al., 2020), the role of AI-based feedback and its effects on academic achievements in the long run remains undefined (Masih et al., 2025). Further studies are needed on the topic of teacher mediation to effectively facilitate AI-enhanced learning when it comes to different kinds of students.

3. Methodology

3.1. Research Methods and Design

The research approach employed was a Qualitative Research strategy, including a Systematic Literature Review (SLR) to explore the impacts of AI-supported interventions on student motivation, academic achievements, and teacher mediation. SLR methodology incorporated the inclusion and exclusion criteria that were the most useful, as well as the estimation of the quality of the study chosen, the analysis of the peer-reviewed articles that were published in the years 2020-2025, specialized in AI in education, self-esteem, motivation, and mediating the teacher.

3.2. Data Collection Methods

3.2.1. Searching Techniques

The search of the literature was based on the main concepts such as AI-assisted interventions, student motivation, contingent self-esteem, teacher mediation, and outcomes in education. All research objectives were fully covered with such keywords as AI in education, student motivation, and teacher mediation.

3.3. Databases

A number of databases were identified to inquire about the necessary data because they contained a large number of peer-reviewed papers covering the topic of education and technology. The databases were JSTOR, Web of Science (WOS), SpringerLink, and Research Gate. These databases were selected because they provide a broad

array of scholarly articles, journals, and conference papers with respect to the topic being researched, and this provides a comprehensive coverage of data.

3.4. Boolean Operators

To enhance the efficiency and relevance of the search, Boolean operators (AND, OR, NOT) were used. Boolean operators allowed for more advanced search strategies, such as combining keywords with AND to narrow down results (e.g., “AI AND motivation AND education”) or using OR to broaden the search to include similar terms (e.g., “self-esteem OR academic success”). The NOT operator was employed to exclude irrelevant studies, thus refining the search results further.

3.5. Inclusion and Exclusion Criteria

The following inclusion and exclusion criteria were applied to select relevant studies for the review. A summary table outlining the criteria is presented below Table 1:

Table 1: Inclusion and Exclusion Criteria.

Criteria	Inclusion	Exclusion
Publications	Peer-reviewed articles, journals, and conference papers from 2020 to 2025	Non-peer-reviewed articles, unpublished papers before 2020.
Research Type	Qualitative and quantitative studies.	Theoretical papers without empirical data.
Language	Articles published in English and Chinese	Articles in other languages, such as Russian, Malaysian, and Indonesian.
Focus	Studies on AI in education, motivation, self-esteem, and teacher mediation.	Studies outside the scope of AI and student motivation.

3.6. Selection of Papers Through the PRISMA Framework

The search resulted in 120 articles, which were first filtered according to the inclusion and exclusion criteria. The abstracts and complete texts of the articles were read and re-read several times to ascertain that the chosen papers were addressing the objectives of the given research. Having analyzed these papers, 12 of them were selected to be analyzed. One of the most common products employed to facilitate systematic and transparent data collection and selection was the PRISMA (Preferred Reporting Items to systematic Reviews and Meta-Analyses) framework, followed by when choosing the appropriate options. This was done to enable purposive sampling in such a way that only the most applicable and quality studies that gave a clear insight into the research objectives were incorporated.

3.7. Data Analysis Methods

The data collected from the selected papers were analyzed using thematic analysis, a widely used method for identifying, analyzing, and reporting patterns (themes) within the data. The steps involved in the thematic analysis process are as follows in Table 2:

Table 2: Data Analysis Method.

Step	Description
Familiarization with Data	Reading and re-reading the selected papers to immerse in the data and identify initial ideas.
Coding	Highlighting and coding relevant sections of the data based on recurring themes related to AI interventions, motivation, self-esteem, and teacher mediation.
Theme Development	Organizing codes into themes related to the research objectives and ensuring they align with the study’s aims.

Step	Description
Reviewing Themes	Refining themes and ensuring they accurately represent the data and address the research questions.
Defining and Naming Themes	Finalizing themes and providing clear definitions and labels for each theme to facilitate understanding.
Writing Up	Presenting the findings in a structured and coherent manner, linking the themes back to the literature review and research objectives.

3.8. Ethical Considerations

The consideration of ethics was given importance by referring to proper referencing and credit to the original authors. The reference to all sources was done with precision and with regard to academic integrity. Informed consent was not used since there were no human participants. Peer-reviewed articles were only included, making sure that academic standards were high, transparency, and respect for intellectual property.

4. Results

The findings are consistent with the research goals, and they reveal the influence of AI-based interventions on student motivation and the significance of contingent self-esteem in academic achievement, as well as the value of teacher mediation. The literature analysis indicates the major themes using the thematic analysis, and it includes the influence of AI tools, self-esteem, and teacher involvement, which results in the overall picture of their interaction, to improve the capabilities of AI in the educational process (Table 3).

4.1. Thematic Analysis

Table 3: Theme Extraction.

Research Objective	Main Theme	Sub-Themes	Illustrative Codes (from literature/reports)	Expected Contribution to Analysis
To Explore the Role of AI-Supported Interventions in Shaping Student Motivation	AI and Student Motivation	Personalized learning, engagement	“AI tools for personalized learning” (Verghese et al., 2025), “AI as motivator” (Alsultan et al., 2025), “AI-enhanced learning experiences” (Tang et al., 2025)	Provides insights into how AI influences motivation through personalized learning paths, fostering engagement and achievement. Highlights the key components of AI-driven motivation.
To Examine the Influence of Contingent Self-Esteem on Student Academic Success in AI-Enhanced Educational Environments	Contingent Self-Esteem and Success	Emotional responses, student engagement	“Low self-esteem impacts engagement” (Ibrahim et al., 2024), “AI tools as sources of stress” (Dang et al., 2025), “Self-esteem and academic performance” (Shrestha et al., 2022)	Clarifies how self-esteem influences how students interact with AI interventions, affecting their academic success and motivation in AI-driven environments.
To Analyze the Role of Teacher Mediation in Maximizing the Effectiveness of AI-Supported Educational Interventions	Teacher Mediation in AI Learning Environments	Teacher feedback, emotional support	“Teacher mediation improves AI engagement” (Ballouk et al., 2022), “Teacher support for AI tools” (Chen, 2025), “Critical thinking in AI environments” (Yang et al., 2023)	Explores the crucial role of teacher mediation in ensuring AI tools are used effectively, addressing emotional and cognitive needs, and improving student outcomes in AI-enhanced settings.

4.2. Theme 1: AI and Student Motivation

Table 4: AI and Student Motivation for Personalized Learning Engagement.

Authors	Objectives	Methods	Findings	Conclusion
Bhavani et al. (2025)	To review how AI tools enhance personalized learning and student engagement.	Systematic Literature Review (SLR)	AI tools such as chatbots, adaptive learning systems, and NLP personalize learning paths, enhance student motivation, and increase engagement. These tools are becoming integral in fostering deeper understanding and long-term engagement.	AI tools are critical in personalized learning and student engagement, with broad support for their use in curricula. The findings indicate that AI's integration significantly boosts student motivation and academic achievement.
Kabir et al. (2025)	To explore how personalized AI-based learning systems impact cognitive overload and student motivation.	Quantitative research (survey, SPSS analysis)	AI-based tools reduce cognitive overload and improve academic motivation. Personalized learning systems were shown to alleviate mental strain, enhancing focus and performance.	AI-based learning tools positively impact academic motivation, lowering cognitive overload, and fostering an engaging and supportive learning atmosphere for students.
Akram et al. (2025)	To examine the impact of AI tools on personalized learning and engagement in university students.	Quantitative research (questionnaire, statistical analysis)	AI tools are associated with increased student engagement and motivation, particularly in personalized learning environments. The tools' adaptability enhances learning experiences and academic performance.	AI tools significantly improve student engagement and learning outcomes by providing tailored experiences, and their potential is further enhanced by ethical policies in education.
Hussain et al. (2025)	To study the effects of AI tools on student motivation and academic self-concept.	Quantitative research (questionnaire, regression analysis)	A positive correlation exists between AI tool use and student motivation. Teacher support further amplifies the motivational effects of AI tools. AI tools help improve academic self-concept by providing personalized and interactive learning experiences.	AI tools are crucial for improving student motivation and self-concept. Teacher support is key to maximizing these tools' effectiveness in enhancing learning outcomes and motivation.

Bhavani et al. (2025) found that AI tools like chatbots and adaptive learning systems enhance personalized learning, engagement, and motivation, leading to better academic performance. Kabir et al. (2025) showed that personalized AI tools reduce cognitive overload, boosting motivation. Akram et al. (2025) emphasized AI's role in increasing engagement and performance. Hussain et al. (2025) concluded that AI, with teacher support, significantly improves motivation and academic self-concept (Table 4).

4.3. Theme 2: Contingent Self-Esteem and Academic Success

The articles discuss the effect contingent self-esteem has on academic success in AI-based settings. As it is stressed by Otterpohl et al. (2021) and Li et al. (2025), self-esteem and external validation mutually affect each other, influencing motivation and well-being. Hou (2025) and Xiao et al. (2024) emphasize that self-esteem is a significant factor in academic success and enjoyment, proving the importance of self-esteem and emotional management to promote good results in the AI-based studies (Table 5).

Table 5: Contingent Self-esteem and Academic Success for Emotional Responses, Student Engagement.

Authors	Objectives	Methods	Findings	Conclusion
Otterpohl et al. (2021)	To examine the relationship between parental conditional regard and adolescents' contingent self-esteem over time.	Longitudinal study, cross-lagged analysis	Findings showed that adolescents' contingent self-esteem (CSE) and parental conditional regard (PCR) have a reciprocal relationship, where high CSE leads to increased PCR from parents. This impacts academic motivation.	The study suggests that children with high contingent self-esteem may provoke greater parental conditional regard, emphasizing the need to address this dynamic in educational settings to reduce the negative impact on academic success.
Li et al. (2025)	To investigate the relationship between child-invested contingent self-esteem and parental maltreatment, focusing on emotional dysregulation.	Longitudinal Actor-Partner Interdependence Mediation Model (APIMeM)	Contingent self-esteem in children predicted parental maltreatment, and emotional dysregulation mediated this relationship, impacting children's psychological well-being.	The study underscores how parental contingent self-esteem influences child maltreatment behaviors, which indirectly affects children's emotional and academic outcomes. Emotional dysregulation plays a key role in this process.
Hou (2025)	To explore the interplay between self-esteem, academic mindfulness, and academic achievement in AI-supported learning environments.	Quantitative approach, Structural Equation Modelling (SEM)	High self-esteem and academic mindfulness were linked to positive test emotions, psychological wellness, and higher academic achievement, indicating that students' self-esteem can positively impact their engagement and success in AI-supported environments.	The study highlights the necessity of integrating socio-emotional skills in AI-based education to improve students' academic outcomes, emphasizing the importance of self-esteem and academic mindfulness in fostering positive academic experiences.
Xiao et al. (2024)	To examine the effects of self-esteem, cognitive-emotion regulation, and academic enjoyment in AI-supported online language learning.	Structural equation modeling, confirmatory factor analysis	The results revealed that students with higher self-esteem and better cognitive-emotion regulation had higher levels of academic enjoyment and success, underlining the role of self-esteem in AI-driven learning contexts.	The study emphasizes that self-esteem is a crucial factor in AI-enhanced online learning environments, contributing significantly to academic enjoyment and success, which ultimately supports improved learning outcomes in language education.

4.4. Theme 3: Teacher Mediation in AI Learning Environments

The studies highlight AI's role in enhancing educational outcomes. Pertuz Altamiranda et al. (2025) found that adaptive learning in flipped classrooms improved student competencies. He (2025) emphasized AI's impact on fostering learner autonomy. Albakry et al. (2025) showed AI's role in boosting creativity and critical thinking in digital media, while Liu (2025) demonstrated how AI tools like ChatGPT support language teacher development and student engagement (Table 6).

Table 6: Teacher Mediation in AI Learning Environments: Teacher Feedback, Emotional support.

Authors	Objectives	Methods	Findings	Conclusion
Pertuz Altamiranda et al. (2025)	To investigate the impact of the flipped classroom approach with adaptive learning on student competency in higher education in a developing country context.	Quasi-experimental study	The flipped classroom approach combined with adaptive learning improved student competencies, fostering deeper engagement and academic performance, especially in diverse and resource-limited contexts.	The study concludes that the integration of adaptive learning in flipped classrooms significantly enhances student competency and learning outcomes in higher education, particularly in developing countries.
He (2025)	To predict learner autonomy through AI-supported self-regulated learning, using a social cognitive theory approach.	Quantitative, social cognitive theory model, regression analysis	AI-supported self-regulated learning was positively linked to increased learner autonomy. Students exhibited improved academic performance and motivation when they had control over their learning paths.	The study emphasizes the importance of AI in fostering learner autonomy and self-regulation, which are critical for improving academic motivation and success in AI-enhanced learning environments.
Albakry et al. (2025)	To explore the integration of AI in design thinking to enhance student creativity and critical thinking in digital media learning.	Qualitative case study, thematic analysis	AI tools enhanced students' creativity and critical thinking abilities, especially in digital media contexts, where personalized AI feedback and design thinking processes led to more innovative solutions and higher engagement.	The study concludes that AI tools play a crucial role in developing creativity and critical thinking skills, making them invaluable in digital media education for enhancing student engagement and academic outcomes.
Liu (2025)	To investigate the role of AI in language teacher professional development through collaboration with AI tools like ChatGPT.	Qualitative analysis, case study, interviews with educators	Teachers' collaboration with AI tools, particularly ChatGPT, improved their teaching effectiveness, pedagogy, and student engagement. AI-assisted learning environments foster professional growth.	The study concludes that AI tools like ChatGPT significantly contribute to language teacher professional development, improving teaching strategies and fostering more interactive and engaging language learning environments.

4.5. Interpretation of the Findings

The findings of the selected publications underline the huge significance of AI-related interventions in terms of the construction of student motivation and academic success. In one of the studies, Pertuz Altamiranda et al. (2025) were able to formulate that the adaptive learning technologies integrated with a listed flipped classroom could improve student competencies, engagement, and academic performance significantly, especially in situations when there were limited resources. This is consistent with the aim of the research, as it aims to examine the effect of AI on student motivation. Moreover, He (2025) has shown that self-regulated learning with the support of AI promotes learner autonomy, without which motivation and academic success are incredible. These results lead to the inference that AI can offer tailored learning experiences to learners that can improve their motivation.

In addition, contingent self-esteem also influences the success of students, as shown by the findings of Otterpohl et al. (2021) and Li et al. (2025), who found that external validation provided by AI systems will either drive students to succeed or they will be prevented

based on the level of self-esteem. This result is connected with the second research question that investigates the effect of contingent self-esteem on student achievement in AI-enhanced settings. Finally, studies such as Liu (2025) and Albakry et al. (2025) outline the significance of teacher mediation in AI learning settings and address that emotional support and feedback provided by teachers are essential to make AI tools as useful as possible, which justifies the third goal of the research to analyze the role of teacher mediation in AI interventions. The participation of the teachers is paramount in the process of making sure that AI tools may actually not only assist in increasing the academic performance but also in creating a favorable emotional and mental involvement of students.

5. Discussion

The present findings are in correspondence with the earlier research, including Verghese et al. (2025) and Alsultan et al. (2025), which highlight the importance of AI in the process of individualized learning and improved engagement. These papers have pointed out the flexibility of AI to the needs of students, which is aligned with the latest results that AI technology has a positive influence on student motivation, especially in the form of personalized learning. Nevertheless, the current research adds the important psychological facet of self-esteem that determines the reaction of the students to AI-based feedback, a field that has not been studied thoroughly in previous studies.

Ibrahim et al. (2024) and Dang et al. (2025) found that low self-esteem was likely to affect how the students would interact with AI tools, which is in line with how contingent self-esteem would interfere with motivation and academic performance in an AI-enhanced learning setting. On the contrary, students who have a greater self-esteem seem to gain more from AI-provided personalized feedback and interaction. This is in line with other studies in the past about the influence of emotional regulation and self-esteem on academic success (Shrestha et al., 2022).

In addition, Ballouk et al. (2022) and Chen (2025) identified the importance of teacher mediation in AI settings, and both referenced the fact that teacher support is essential to minimizing possible obstacles that AI systems cannot eliminate. This is also aligned with the existing evidence, in which teacher feedback and emotional support are essential in order to maximize the usefulness of AI in student motivation and academic achievement.

However, one of the key differences of the current research is the significance of the psychological considerations, such as contingent self-esteem, when using the AI tools by the students. These researchers discuss emotional issues, including anxiety or frustration, within the framework of AI-enhanced learning, although Xu et al. (2021) focus more on the psychological context of the issue, which contributes to understanding the mechanism by which these internal processes contribute to the effectiveness of AI better.

The results are validated and add to the existing studies that have pointed to AI as a means to improve the motivation and academic performance of students. Nevertheless, they also highlight the significance of such psychological variables as self-esteem and teacher mediation role and fill in the gaps in previous research (Ballouk et al., 2022; Ibrahim et al., 2024). These factors guarantee that AI interventions will be efficient and helpful to diverse groups of students to maximize learning potential.

5.1. Theoretical Implications

The theoretical implications of the study focus on the interrelation between such psychological variables as self-esteem and AI-assisted learning. Although some past

studies point to the potential of AI to increase motivation and academic achievements, the present study puts a stronger emphasis on the importance of contingent self-esteem, in which the self-worth depends on external confirmation, in the context of interaction with AI tools among students. The lack of engagement may be caused by low self-esteem because the AI mostly emphasizes the aspect of weakness that discourages students (Dang et al., 2025; Ibrahim et al., 2024).

Another contribution of the study to teacher mediation theories is that emotional support and feedback provided by the teacher are instrumental in making sure AI tools do not worsen the emotional stress due to perceived failure (Ballouk et al., 2022). With AI taking over the teaching job of a teacher, he or she needs to do more than just teach the students, but also help them emotionally. Its results indicate that teacher mediation, together with AI, is the best motivation and academic performance through its focus on emotional and cognitive needs that guarantees a healthy, comprehensive learning process (Gamao, 2024).

6. Conclusion

This research was a critical analysis of the role of AI-based interventions, contingent self-esteem, and mediation among teachers in deciding student motivation levels and academic success. The findings add to the significance of personalized learning using AI and its ability to achieve student attention and enhance their grades. Further, the value of self-esteem in defining how students interact with the AI tools was brought out, together with the crucial role of teacher mediation in satisfying the emotional and cognitive needs, which would make the use of AI tools not be in vain to promote various learning opportunities.

6.1. Limitations of the Study

A limitation of the study is that it uses available literature, which might not comprehensively address all possible applications of AI in various learning contexts. Also, self-esteem and emotion as subjective factors may add variability to the performance of students concerning AI interventions.

6.2. Future Work

Future studies should discuss the problem of longitudinal research that could assess the effects of AI interventions in terms of student motivation and success in the long term. Furthermore, additional researches are needed in the framework of which specific strategies may be implemented by educators to make AI-driven learning environments available along with various disciplines.

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