EXPLORING THE UNEXPECTED EFFECTS OF ARTIFICIAL INTELLIGENCE APPLICATIONS ON STUDENT MOTIVATION FROM THE PERSPECTIVE OF COLLEGE STUDENTS WITHIN THE GREEN LINE

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INTRODUCTION

In an attempt to improve the whole college student experience, higher education has adopted modern techniques and technologies more and more in recent years. A few instances of how technology improves college students' educational planning and participation include the usage of games, learning management systems, virtual and augmented reality, artificial intelligence applications, and video-assisted learning. There are worries about how technology may affect students at colleges, universities, and other higher education institutions, despite the fact that it has significantly improved education.

Given the popularity of online learning and the growing amount of educational content available online, many traditional universities and colleges are worried about their future (Wang, Wei, Lin, Wang, & Wang, 2022). Because of this, a lot of colleges are searching for ways to adjust and remain relevant in the digital age. They also want assistance in order to keep up with the quick advancements in technology (Poole & Mackwor, 2010). Artificial intelligence applications have a lot to offer in terms of education and student motivation, but there are drawbacks and difficulties that need to be taken into consideration (Abu Zaid, Adel, Zarrouk, Sayed, Al-Desouki, & Muhammad, 2022). According to Rufaydah, Al-Qahtani, and Siraa (2024), guaranteeing that all college students, irrespective of their financial situation or geographic location, have access to AI-powered tools and platforms is one of the major problems. Concerns have also been raised regarding the potential for AI to... reinforce current prejudices and discrimination in the educational system. A lot of college students worry that artificial intelligence (AI) tools could take the place of human interaction and lower the standard of instruction at colleges. In the upcoming years, it will be crucial to make sure artificial intelligence is applied in a way that enhances rather than substitutes human educators. Jia and Tu (2024).

Speaking of artificial intelligence applications in education opens up a world of prospects and challenges, as Abdel Salam (2023) pointed out. According to Abdul-Aal and El-Arabi (2023), artificial intelligence, which encompasses technologies like machine learning and data analysis, might have unanticipated consequences on motivation and the learning process. Enhanced personalisation and adaptability are two of the primary effects of AI applications in education (Salama, & Hossam Ali, 2023). Artificial intelligence has made it feasible to create educational experiences that are customised to meet the needs of each unique university student, whether that means offering guidance or personalised instructional content. Mackworth and Poole, 2010). Students that use artificial intelligence applications are more motivated because they believe that their education is tailored to their individual needs and skill levels (Abdel-Al and El-Arabi, 2023). According to Abdel Salam (2023), there are drawbacks to this increasing personalisation, such as the possibility of rising isolationism. There are situations when placing an excessive amount of focus on technology personalisation might keep students apart from their teachers and peers, which lowers the amount of social interaction and stimulation that comes from group learning. Personalised learning is crucial, but socialising and working with others are also very vital for inspiring students and improving their educational experience (Jia, & Tu, 2024).

According to Rufaida, Al-Qahtani, and Siraa (2024), mentoring college students with artificial intelligence apps can lessen obstacles and learning difficulties. While this could be advantageous in certain situations, it can also lessen the incentive and satisfaction that come from conquering challenges (Abu Zaid, Adel, Zarouk, Sayed, Al-Desouki, and Muhammad, 2022). Students' ability to overcome obstacles and develop self-confidence are key factors in their motivation to learn and grow as individuals. According to Abdul-Al and El-Arabi (2023), pupils may experience unanticipated consequences regarding their motivation when artificial intelligence technologies are utilised in the classroom. When creating AI-powered learning experiences, educators and educators must take these factors into account to ensure that students are motivated and that the experience is enhanced. While AI can increase personalisation, adaptability, and reduce challenges, it can also increase isolation and lower the level of self-motivation. Instructive (Abdel-Al, El-Arabi 2023).

Applications of artificial intelligence (AI), such as those that automate work, give feedback, and customise learning, are quickly changing the educational scene. Although there is no denying the potential advantages for improving student accomplishment, the effect on motivation has received less attention. This study digs further In the unanticipated effects of artificial intelligence in education, particularly how these tools may affect students' desire to learn, interaction with the content, and perseverance in the face of difficulties. By identifying these unforeseen consequences—both good and bad—we can make sure artificial intelligence is used wisely. not only to improve learning outcomes but also to increase students' enthusiasm for learning.

OBJECTIVES OF THE STUDY

This study aimed to identify the unexpected effects of artificial intelligence applications on student motivation from the point of view of university students within the Green Line. It also aimed to reveal statistically significant differences at the level of significance ($\alpha = 0.05$) between the averages of the responses of study individuals regarding the contribution of applications. Artificial intelligence helps motivate students in education, due to variables (gender, academic program, family income level, and specialization) from the point of view of university students within the green line.

STUDY PROBLEM

Artificial intelligence (AI) applications are being adopted by the educational sector at a never-before-seen pace. Although these applications hold great promise for improving academic achievements and personalising learning, there is a crucial knowledge gap about how these apps affect student motivation. Research has typically concentrated on the anticipated advantages of AI in education. The possibility of unforeseen effects on student motivation, however, is yet mostly unstudied. These effects may be favourable, like more engagement through game-based learning, or unfavourable, such lower motivation as a result of an excessive dependence on AI for tasks or sentiments of inferiority towards algorithms. This ignorance leads to a serious issue. Teachers run the risk of unintentionally impeding the very learning process they are trying to promote if they do not fully comprehend the extent of AI's impact on student motivation. One particular setting that affects how students interact with artificial intelligence is the residential region inside the Green Line, which denotes physical borders in ancient Palestine. These could include the pupils' socioeconomic status, cultural perspectives on technology, or the particular learning difficulties they are facing in that subject. By concentrating on this group, we hope to learn more about how, from the viewpoint of college students, AI apps unintentionally affect student motivation inside the Green Line.

STUDY QUESTIONS:

The current study sought to answer the following two questions:

1. Do artificial intelligence applications make a statistically significant contribution to student motivation in education from the point of view of university students within the Green Line?

2. Are there statistically significant differences at the level of significance ($\alpha = 0.05$) between the averages of the responses of study individuals regarding the contribution of artificial intelligence applications to motivating students in education, due to variables (gender, academic program, family income level, and specialization) from the point of view University students looked inside the green line?

SIGNIFICANCE OF STUDYING :

This study addressed a very important topic in the current era characterized by digitization and the growth of technical systems that have imposed themselves on all sectors and institutions. Accordingly, the current study constitutes a new addition to the theoretical literature through its study of the unexpected effects of artificial intelligence applications on student motivation from the point of view of university students within the Green Line. Although the potential benefits of AI in education are readily discussed, the unintended consequences on student motivation remain less understood. This research delves into these unexpected influences, both positive and negative, and provides important insights for improving the implementation of AI in the classroom. This research contributes to the broader discourse on AI in education. By exploring unexpected influences on student motivation, it provides valuable knowledge for developing responsible AI practices that prioritize student well-being and learning success. This research has the potential to significantly improve understanding of how artificial intelligence applications impact student motivation within a specific university context. By revealing the unexpected, this research can pave the way for the development of AI tools that enhance not only academic achievement, but also the intrinsic motivation to learn in all students.

The practical importance of the current study came from its results, and the researcher hopes that what the results of this study will lead to is revealing the unexpected effects of artificial intelligence applications on student motivation from the point of view of university students within the Green Line, which may be useful in directing and drawing the attention of educators who want to improve the process. Educational, and to take into account the tremendous development in the field of artificial intelligence applications, and researchers in the field of the educational environment, educational planners and educational decision-makers also benefit from this in working on preparing plans, training programs, and guidance that enhance the ability of teachers to motivate students, as well as raise the level of their effectiveness. Educational education, which has a positive impact on the student, which in turn is reflected in the educational outcomes. The researcher also hopes that the recommendations of the current study will contribute to drawing attention to the importance of artificial intelligence applications in the educational process.

TERMINOLOGICAL AND PROCEDURAL DEFINITIONS

This study adopted the following terms:

Artificial Intelligence Applications: “AI applications refer to the use of artificial intelligence systems and tools to improve, personalize, and motivate the learning experience for students (Salama and Hossam, 2023). These applications include a wide range of technologies, including:

• Adaptive learning systems: which can customize educational materials and difficulty level to suit each student’s individual needs and abilities.

• Chatbots: which can provide support to students, answer their questions, and provide feedback on their work.

• Educational games: which can make learning more interactive and attractive, and motivate students to participate more.

• Evaluation systems: which can evaluate students' progress and automatically identify their strengths and weaknesses.

• Virtual teacher assistants: who can help teachers with tasks such as grading papers, developing lesson plans, and providing support for students with special needs.

THE LIMITS OF THE STUDY

This study was limited to the following limits:

• Objective limit: Identifying the unexpected effects of artificial intelligence applications on student motivation from the perspective of university students within the Green Line

• The human limit: This study was limited to a sample of university students within the Green Line.

• Spatial limit: This study was limited to universities within the Green Line.

• Time limit: This study was implemented during the second semester of the year (2023/2024).

LITERATURE REVIEW

Artificial intelligence (AI) applications are sweeping through several industries, including education, and bringing about a tremendous technological transformation. This study is to investigate the unanticipated impacts of artificial intelligence applications on the motivation of university students inside the Green Line, given the significance of student motivation as a critical component in the success of the educational process. Applications of artificial intelligence (AI) are regarded as contemporary technological advancements that have started to have a greater influence on a number of spheres of life, including education. The theoretical literature and earlier research on the impact of AI on education and student motivation are the main topics of this part (Jia, & Tu, 2024).

Future breakthroughs in new technologies and the computing power of new intelligent machines will have a significant impact on higher education. Artificial intelligence advancements present both new opportunities and difficulties for higher education's teaching and learning processes, and they have the power to fundamentally alter the internal organisation and administration of these establishments (Amal and Tahrir 2019). There isn't much consensus on a single definition of artificial intelligence because responses to the question are influenced by philosophical stances adopted since Aristotle (Poole, & Mackworth, 2010). Alan Turing offered a response to the query of what constitutes a "intelligent" human-designed system in the 1950s. Turing introduced the imitation game, which tests a listener's capacity to distinguish between a human and a machine. If the listener is unable to make this distinction, we can acknowledge the existence of artificial intelligence (AI), also known as an intelligent system. John McCarthy provided one of the earliest and most significant definitions of artificial intelligence in 1956, saying, "The study of [artificial intelligence] is to proceed on the basis of the conjecture that every aspect of learning or any other feature of intelligence can in principle be so accurately described that a machine can be made to imitate it." It is important to note that the focus on artificial intelligence solutions dates back to the 1950s. (Adel, Hussain, and others, 2022).

Since 1956, a variety of theoretical AI notions influenced by linguistics, biology, chemistry, and mathematics have been proposed as answers for artificial intelligence. The variety of interpretations and definitions is still hotly debated, though. The majority of theories either neglect the political, psychological, and philosophical dimensions of the concept of intelligence or concentrate on narrow perspectives on cognition. We offer a simple definition based on a literature assessment of some earlier definitions in this field for the purposes of our analysis of the effects of AI on teaching and learning in higher education (Wang, Wei, Lin, Wang, & Wang, 2022).

Therefore, computer systems that are able to do human-like functions including learning, adapting, tuning, self-correcting, and employing data for complicated processing tasks can be classified as artificial intelligence (AI). The profound nature of services provided by higher education is already being impacted by the rapid advancement of AI. For instance, the IBM supercomputer Watson is already being used by colleges to simulate a basic type of artificial intelligence. Students at Deakin University in Australia can get help from this solution at any time of day, 365 days a year (Salama and Hossam, 2023).

The employment of Watson is an example of how artificial intelligence (AI) will affect the administrative workforce profile in higher education in the future, even if it depends on practical algorithms to do relatively repetitive and predictable duties. As a result, the workforce's composition, the university's time dynamics, and the quality of services' structure all alter

(Mohamed, 2023). Having a supercomputer that can give customised feedback at any time saves hiring the same amount of administrative workers to do the same task. It's also crucial to remember that "machine learning" is a promising area of artificial intelligence in this literature. While some AI systems still rely on programming, others are built with the innate capacity to recognise patterns and anticipate outcomes. An illustration of this is the programme AlphaGo, created by Google's artificial intelligence subsidiary DeepMind, which beat the world's top Go player in the incredibly difficult board game (Mohamed & El-Arabi, 2023). According to Mansour and Saad et al. (2024), "machine learning" is an area of artificial intelligence that contains software that can identify patterns, forecast outcomes, and apply recently found patterns to scenarios that were not anticipated or addressed in its original design.

EDUCATION AND MOTIVATION THEORY

In education, motivation theory focuses on what drives students to learn and succeed academically. The theory of intrinsic and extrinsic motivation, which holds that students are motivated to learn either by their internal desire to do so or by external rewards like praise or good grades, is one of the fundamental theories in this field (Hussain and Nasreen, et al., 2024). Artificial intelligence applications can have a variety of effects on these two motivational categories (Hamdan, Khair, et al., 2023). Since motivation is crucial in encouraging students to learn and meet academic objectives, it is a crucial component of the educational process. The goal of motivation theories in education is to comprehend why students take an interest in their studies and want to succeed. According to Hamdan, Khair, et al. (2023), these theories address a broad spectrum of psychological and social elements that affect academic motivation. Although there are many different kinds of motivation, there are two primary categories into which motivation in education falls: intrinsic and extrinsic. In terms of internal motivation, it comes from within the person and is fueled by an innate curiosity and desire to learn. Students who are intrinsically driven learn because they are interested and appreciate the subject matter. Curiosity, inventiveness, and independence are encouraged by this kind of incentive (Ismail, Abdel-Raouf, et al., 2024).

Curiosity, or the drive to learn more and investigate novel subjects, is one of the elements influencing internal motivation. Furthermore, independence is the capacity for autonomous decision-making regarding schooling as well as a sense of control. It involves not just the challenge but also looking for assignments that are challenging intellectually and suitable for the student's level. According to Popenici and Kerr (2017), extrinsic motivation is driven by rewards from outside the individual or a desire to avoid penalties. Relying on outside incentives teaches students how to accomplish specific objectives, like earning good grades or receiving recognition from peers and teachers. Rewarding factors that influence external motivation include accolades, prizes, and good grades. Punishments: dread of being punished again or failing. Social pressure: the need to live up to one's parents', instructors', and peers' standards. Among educational motivation theories are: The Expectancy-Value Theory postulates that an individual's motivation is contingent upon the expectations he has for his performance and the significance he attaches to it. A learner will be more motivated if he feels capable of completing a task and values his accomplishment (Cox, 2021). Goal Theory: According to this theory, a student's motivation is influenced by the kinds of goals he aims to accomplish. Objectives can be classified as performance goals (achieving high marks or surpassing peers) or mastery goals (gaining the necessary skill or knowledge). In the long run, students who concentrate on mastering objectives tend to be more motivated. (Tahrir and Amal, 2019).

Self-Determination Theory: This theory emphasises the significance of satisfying the demands for independence, competence, and belonging—three fundamental psychological needs—in order to boost internal motivation. Students' intrinsic motivation rises when they believe they have competence, are a member of a supportive learning community, and are in control of their education (autonomy, belongingness). (Khair Hamdan et al., 2023). According to the theory of attribution, students' motivation in the future is influenced by the explanations they provide for their achievements and shortcomings. Their motivation will rise if they credit internal elements like skill and effort for their accomplishment. Their motivation may decline if they blame uncontrollable, outside forces for their failure.

Teachers can use ideas from these theories to improve academic motivation in their classrooms. Encouraging curiosity and intrinsic drive in pupils by presenting tasks that are appropriate for their level. and utilising incentives in ways that strengthen intrinsic drive as opposed to solely depending on outside drive. and strengthen the feeling of acceptance by creating a welcoming learning environment. Giving pupils constructive criticism enables them to recognise and grow in their competencies (Ismail, Abdel Raouf, et al., 2024). Education-related motivation theories offer a framework for comprehending the elements that motivate children to study and support educators in creating successful instructional plans. Student motivation can be increased and a more fulfilling and fruitful educational experience can be attained by concentrating on intrinsic and extrinsic motivation and putting the ideas from theories like expectancy-value theory, goal theory, self-determination theory, and attribution theory to use (Hussain, Adel, et al., 2022).

APPLICATIONS OF ARTIFICIAL INTELLIGENCE IN EDUCATION:

Applications of artificial intelligence in education include personalized learning systems, adaptive assessment, and intelligent assistants. These applications aim to improve the learning experience by providing personalized content to each student based on their needs and performance (Mohamed, 2023). Theoretical literature suggests that artificial intelligence can enhance motivation by providing immediate and accurate feedback, motivating students to interact with educational materials in new and innovative ways. Artificial intelligence is defined as "the ability of machines to perform tasks that typically require human intelligence, such as learning, problem solving, and decision making."

(https://en.wikipedia.org/wiki/Artificial_intelligence) Artificial intelligence is characterized by the ability to analyze huge amounts of data, discover patterns, and provide intelligent predictions and recommendations. In the educational field, artificial intelligence applications are used in various aspects of the educational process, from assessment and feedback, to personalizing learning and providing individual educational support. (https://www.unesco.org/en/digital-education/artificial-intelligence)

Artificial intelligence (AI) is one of the most prominent technologies that has revolutionized many fields, including education. The use of artificial intelligence technologies in education contributes to improving the educational process by providing innovative tools and solutions that contribute to enhancing learning and achieving better results. There are many applications of artificial intelligence in education:

1. PERSONALIZED LEARNING

Personalized learning is one of the most important applications of artificial intelligence in education. Through it, artificial intelligence techniques are used to analyze students' performance and identify the strengths and weaknesses of each student individually. This data is then used to customize educational content to suit the needs of each student (Ismail, Abdel-Raouf, et al., 2024). Examples of personalized learning tools include:

• E-learning platforms such as Coursera and edX use artificial intelligence algorithms to recommend courses that suit students' interests and levels.

• Learning management systems (LMS) such as Moodle and Blackboard use predictive analytics to deliver personalized learning materials.

VIRTUAL ASSISTANTS

Virtual assistants are used to provide academic support and answer student inquiries quickly and effectively. Virtual assistants can work around the clock, providing constant assistance to students (Jia, & Tu, 2024). Examples of virtual assistants include:

• Education chatbots such as ELSA for self-learning languages offer interactive exercises and pronunciation correction.

• Artificial intelligence virtual assistants such as Edthena that help provide feedback on teachers' educational performance.

AUTOMATED GRADING

Automated assessment is used to mark assignments and tests quickly and accurately, which saves teachers' time and effort and contributes to providing immediate feedback to students (Wang, Wei, Lin, Wang, & Wang, 2022). Examples of automated assessment systems include:

• Test marking systems such as Proctorio, which provides automatic marking of tests over the Internet.

• Writing assessment tools such as Grammarly that correct grammatical errors and provide feedback on style.

2- SMART CONTENT

Artificial intelligence technologies are used to create interactive and smart educational content, such as digital books and virtual classrooms, which contribute to improving the learning experience (Salama and Hossam, 2023). Examples of smart content include

• Interactive digital books such as Kindle that contain features such as annotations and interactive notes.

• Virtual classroom platforms such as Google Classroom, which combine traditional education with digital technologies.

Machine Learning and Learning Analytics

Machine learning and educational analytics help in analyzing educational performance data to identify patterns and predict future performance levels of students. Examples of the use of machine learning and educational analytics are

• Educational analytics systems such as those used at universities such as Arizona State University, where performance data is analyzed to identify students who need additional support.

• Machine learning algorithms to develop predictive models that help improve teaching and learning strategies.

Applications of artificial intelligence in education offer tremendous potential to improve the educational process and provide a personalized and effective learning experience. By taking advantage of these technologies, better results can be achieved and student engagement in the educational process can be increased. The future holds more opportunities to develop these applications and make education more comprehensive and effective (Mohammed, 2023).

THE IMPACT OF ARTIFICIAL INTELLIGENCE ON ACADEMIC MOTIVATION

Previous studies have shown that using AI in education can improve student motivation in multiple ways. For example, a study by Chen et al. (2018) showed that adaptive learning systems can increase student motivation by providing learning challenges tailored to each student's level. On the other hand, Jones's (2019) study indicated that smart assistants that provide immediate feedback can motivate students to improve their academic performance.

UNEXPECTED EFFECTS OF ARTIFICIAL INTELLIGENCE

Despite the expected benefits of artificial intelligence in education, there are unexpected effects that may appear. Smith et al.'s (2020) study found that some students may feel stressed or stressed by the constant and frequent assessments provided by intelligent systems. Also, the study of Muhammad and Al-Arabi (2023) indicated that students may face challenges in interacting with smart systems due to the lack of human interaction.

ARTIFICIAL INTELLIGENCE APPLICATIONS WITHIN THE GREEN LINE

In the local context, few studies have addressed the effects of AI in education within the Green Line. Najm's (2022) study examined the use of intelligent learning systems in Israeli universities and noted improvements in the academic performance of Arab students but did not focus specifically on aspects of motivation. Therefore, there is an urgent need for more research to understand the specific effects of AI on student motivation within this cultural and educational context.

UNEXPECTED EFFECTS

Mansour, Saad, et al. (2024) stated that despite the reliable benefits of AI applications in motivating students, there are also some unexpected effects that should be considered. Impact on social interaction: Excessive reliance on artificial intelligence applications may reduce social interaction between students and teachers, which may negatively affect their motivation. Privacy Concerns: AI applications may raise concerns about data privacy, especially as vast amounts of student personal data are collected and analyzed. Ethical issues: Some ethical issues may arise around the use of AI applications in education, such as bias and discrimination (Mansour and Saad, et al. 2024). Theoretical literature and previous studies indicate that AI applications can significantly impact student motivation, both in expected and unexpected ways (Hussain, Nisreen, et al., 2024). This study combines these data with the aim of providing a deeper understanding of how artificial intelligence affects student motivation from the perspective of college students within the Green Line, focusing on the unexpected aspects of these effects. This study is an important step towards developing educational strategies that suit the needs and aspirations of students in this unique context (Muhammad, 2023).

EMPIRICAL STUDIES

In the study Popenici and Kerr (2017) addressed the phenomenon of integrating artificial intelligence into teaching and learning in higher education. He investigates the educational impacts of emerging technologies on student learning and institutional pedagogies and their evolution. By exploring recent technological developments and the rapid adoption of new technologies in higher education, the paper aims to predict the future landscape of higher education in a world where AI is an integral part of universities. It identifies the challenges faced by higher education institutions and student learning in adopting these technologies for teaching, learning, student support and administration, and suggests directions for further research.

Holmes, W. (2023) stated: As has become clear in recent months, artificial intelligence (AI) is increasingly impacting many aspects of our daily lives. This is no less true in the field of education (AI&ED). However, it is still uncertain how AI will impact education, how it will impact teaching and learning and how it might change the roles of teachers and learners. Accordingly, they conducted research that aimed to provide an analysis of the current state of artificial intelligence and education, including its potential benefits and risks, as well as the role of teachers and teachers' unions in ensuring that teaching using and related to artificial intelligence is consistent with social development principles. Justice and human rights.

Cox (2021) stated that artificial intelligence (AI) and robotics are likely to have a significant long-term impact on higher education (HE). The scope of this influence is difficult to understand, partly due to the isolation of the literature, as well as the changing meaning of the concepts themselves. But developments are surrounded by disagreements about what is technically possible, what is practical to implement, and what is educationally desirable or for the benefit of society. Design imagination that clearly imagines future scenarios of artificial intelligence or robotics in use provides a way to explain and inquire about technological possibilities. The paper describes the use of a large-scale narrative literature review to develop eight such design narratives that capture the range of potential use of artificial intelligence and robotics in learning, management, and research. It prompts broader discussion by raising issues such as how to enable the teaching of higher-level skills or change staff roles, as well as exploring the impact on human agency and the nature of data transformation.

The aim of the study conducted by Hamdan, Khair, and Mohammed (2023) was to explore how the Classera platform could improve the training of secondary school science teachers in Taif and Makkah. A questionnaire was distributed to 50 female science teachers from private schools as part of the descriptive survey approach. From the teachers' point of view, the results showed an increase in the platform's role in teaching science and in supporting education management. As for the role of the platform, there were no noticeable differences in science teachers' comments based on their years of experience, specialization, or quantity of training courses. Regarding credentials and years of experience, there were no notable differences in responses. From the perspective of secondary school science teachers, the survey also showed an increase in barriers to adopting the Classera science education platform. A number of proposals and recommendations were presented in light of the results with the aim of enhancing the platform's ability to teach science. The study findings provide insight into the difficulties secondary school science teachers face when using the Classera platform.

The study by Ismail, Abdel Raouf and Al-Dahasi (2024) examined the effect of using the "Reading Progress" tool based on artificial intelligence analysis via the Microsoft Teams platform on developing reading skills among primary school students. The study included 32 students, who were randomly divided into two groups: the experimental group that used the tool, and the control group that studied in the traditional way. The researchers used the experimental treatment material and the reading skills observation card as the main tools. The study found that there were statistically significant differences in the post-measurement among the experimental group. The researchers recommend providing training and guidance to teachers on using artificial intelligence-based reading development tools and motivating them to use technology and educational techniques to enhance reading skills. The research also suggests research topics and variables to increase the functional impact of artificial intelligence applications and tools in the educational process and develop the field of teaching and learning technologies.

The study by Mansour Saad et al. (2024) aimed to identify the role of King Khalid University in stimulating radical innovation in e-learning to achieve sustainability. The research sample consisted of 348 university faculty members in the Kingdom of Saudi Arabia. The study used a questionnaire consisting of 39 statements divided into three axes: the reality of e-learning at King Khalid University, the advantages of radical innovation in e-learning, and the role of radical innovation in achieving sustainability. The results showed that all members agreed on the reality of e-learning at King Khalid University to a high degree, the advantages of radical innovation in e-learning to a moderate degree, and the role of radical innovation in e-learning. There are also statistically significant differences between the averages of the sample's responses regarding the role of King Khalid University in stimulating radical innovation in e-learning to achieve sustainability according to the academic qualification variable (scientific) and the (experience) variable for the benefit of the members. The study recommended the need to provide specialized training programs in the field of innovation for faculty members at King Khalid University to stimulate creativity and innovation. It also encouraged cooperation and communication between scientific departments to exchange ideas and experiences to ultimately achieve sustainability at the university.

Hussein, Nisreen, and others (2024) conducted a study to evaluate the level of organizational intelligence practice among female general education school principals. The research used the descriptive survey method and questionnaire to survey 385 male and female teachers in the primary, middle and secondary levels. The results showed that the practice of organizational intelligence was high. However, there were statistically significant differences in the responses due to the educational stage variable in favor of primary school teachers and the academic qualification variable in favor of teachers holding a bachelor's degree. No statistically significant differences appeared due to the years of service variable. The study highlights the importance of understanding the factors influencing the practice of organizational intelligence among female managers.

CONCLUDING REMARKS

This commentary, which deals with a group of studies on research exploring the unexpected effects of artificial intelligence applications on student motivation from the perspective of university students within the Green Line, can address the following points:

1. Student Benefit and Pedagogical Challenges: Bubensi and Carr's (2017) study highlights the potential benefits of AI technologies in higher education, from improving the learning experience to developing innovative teaching methods.

However, the study also highlights the challenges associated with this rapid adoption of technology. These challenges can include a lack of adequate technical infrastructure or a lack of proper training for teachers.

2. Benefit and risk analysis: According to Holmes (2023), AI in education should be evaluated with caution. While AI holds huge potential to improve teaching and learning, there must be awareness of potential risks such as over-reliance on technology or impact on the traditional teacher role. Holmes stresses the need to include principles of social justice and human rights in the development and implementation of AI technology in education.

3. Future Planning and Imaginative Design: Cox (2021) discusses the importance of imaginative thinking and future design for envisioning how AI and robotics will be used in education. This vision allows us to understand and evaluate technological possibilities from a pedagogical and social perspective, which helps in making informed decisions about how to adopt these technologies in line with the goals of higher education.

4. Improving training and professional development: Hamdan, Khair, and Mohammed's (2023) study shows how technology such as the Classera platform can improve science teacher training. Despite the benefits shown by the study, it also highlights the obstacles that teachers may face in adopting this technology effectively. Therefore, it is essential to provide ongoing support and training to teachers to ensure they make the most of these technologies.

5. Developing reading skills using artificial intelligence: A study by Ismail and Abdel Raouf Al-Dahasi (2024) shows the impact of using artificial intelligence tools in improving the reading skills of primary school students. The encouraging results of this study emphasize the importance of training and guidance for teachers in using these tools to improve educational performance.

6. Stimulating innovation and sustainability in e-learning: A study by Mansour Saad et al. (2024) illustrates the role of radical innovation in e-learning in achieving sustainability. King Khalid University is an example of how to stimulate innovation among faculty members to support e-learning. It is necessary to provide specialized training programs to enhance creativity and innovation in educational institutions.

7. Practicing organizational intelligence: Finally, the study of Hussein, Nisreen, et al. (2024) highlights the importance of organizational intelligence among school principals. The results indicate that the practice of organizational intelligence is high, which reflects the vital role played by university leaders in improving the educational environment. The differences revealed by the study reinforce the need to understand the factors influencing organizational intelligence to develop effective management strategies.

Overall, these studies offer multiple insights into the impact of AI in education, from improving student skills to stimulating innovation and achieving sustainability. Achieving these benefits requires a comprehensive approach that includes appropriate training and ongoing support for teachers, as well as the development of educational policies aligned with pedagogical and social goals.

STUDY METHODOLOGY:

The researcher followed the descriptive analytical approach with the aim of exploring the unexpected effects of artificial intelligence applications on student motivation from the point of view of university students within the Green Line, in order to collect data from members of the study sample, using the study tool (the questionnaire) to achieve the purpose of this study.

Study population and sample: The study population consists of all university students within the Green Line in the Northern District, and their number reached approximately (16,920) male and female students. This study was limited to a sample of university students within the Green Line in the Northern District, and (1560) questionnaires were distributed, i.e. a percentage of (11% of the study population.

Table (1), distribution of sample members

Percentage	No	Variable Levels/Categories	Variable
51%	790	male	Gender
49%	770	feminine	
100%	1560	Total	
62%	965	Bachelor's	Qualification
22%	345	Master's	
16%	250	Ph.D	
100%	1560	Total	
18%	280	Low	Family income level

62%	980	Moderate	
20%	300	High	
100%	1560	Total	
57%	890	Humanities majors	
43%	670	Scientific specializations	specializations
100%	1560	Total	

Table (1) shows the distribution of study sample members according to the gender variable: Male: 790 (51%) Female: 770(%49) And the study program variable: Bachelor's: 965 (62%) Master's: 345 (22%) Doctorate: 250(%16) Family income level variable: Low: 280 (18%) Medium: 980 (62%) High: 300(%20) And the specialization variable: Humanities majors: 890 (57%) Scientific majors: 670(%43)

STUDY INSTRUMENTS: A questionnaire was developed to achieve the objectives of this study through the use of standard tools with proven credibility and reliability, and these measures were adapted according to the requirements of the study, as it benefited from: educational literature such as the Esplin 2017 study, the Al-Quraini study (2018), and the Al-Rashidi study (2021). As well as the standards of the International Society for Technology in Teaching (International Society for Technology in Teaching), and the study instruments consisted of:

(34) paragraphs in their initial form, and were modified to become (28) paragraphs in two sections of questions. The first section: It included the primary data (according to the gender variable, the academic program variable, the family income level variable, and the specialization variable). The second section: included the questionnaire and its paragraphs. The researcher used a five-point Likert scale, where each paragraph of the questionnaire was corresponding to a list bearing (to a very great degree, to a moderate degree, to a small degree to a very little degree). The researcher also developed a scale for each paragraph of the study tool so that the scale contained five levels, which are: As follows**:**

Means	Level
1.80	very low
1.81 – 2.60	Low
2.61 – 3.40	Medium
3.41 – 4.20	High
4.21- upper	very high

VALIDITY OF THE INSTRUMENT: The researcher designed the questionnaire in its initial form, and then verified the validity of the study tool by presenting it to a group of specialists with experience in the field of study, the number of whom was (8) arbitrators from Al-Quds Open University, Palestine Technical University, Al-Quds University Abu Dis, and Yarmouk University). They were asked to express their opinion on the paragraphs of the questionnaire in terms of the clarity and integrity of the language of the paragraphs, the extent to which the paragraphs cover the aspect studied, and to add any information, amendments, or paragraphs they deem appropriate. According to these observations, the questionnaire was produced in its final form. On the other hand, the researcher verified the validity of the tool by calculating the correlation coefficient (Pearson) for the questionnaire items with the total score of the tool, and it became clear that there was statistical significance in all the questionnaire items, which indicates the presence of internal consistency between the items, and the following table shows this

Table (2): Results of the Pearson Correlation **Coefficient for the correlation matrix of items exploring the unexpected effects of artificial intelligence applications on student motivation from the point of view of university students inside the green line.**

The corrected correlation coefficient between the item score and the total score for its field	Pearson correlation coefficient between the item score and the total score for its field	Item	Domain
.61	.69**	1	First Domain : the field of supporting the process of motivating students to learn.
.72	.78**	2	
.68	.76**	3	
.76	.83**	4	
.70	.78**	5	
.73	.81**	6	
.75	.80**	7	
.74	.80**	8	
.78	.84**	9	The second Domain: the field of interaction and participation in the educational environment.
.77	.84**	10	
.78	.85**	11	
.82	.88**	12	
.83	.88**	13	
.68	.76**	14	
.76	.83**	15	
.78	.85**	16	
.82	.88**	17	
.86	.91**	18	
.75	.80**	19	The third Domain: the field of practical employment of technology in the learning environment.
.78	.85**	20	
.73	.78**	21	
.71	.76**	22	
.75	.79**	23	
.78	.85**	24	
.82	.88**	25	
.73	.78**	26	
.75	.80**	27	
.79	.84**	28	

•Statistical significance at 0.001
•Statistical significance at 0.050

RELIABILITY OF THE STUDY INSTRUMENT: The researcher verified the stability of the tool by calculating the stability of the total score of the reliability coefficient for the fields of study according to the Cronbach Alpha reliability equation, and the total score was about exploring the unexpected effects of artificial intelligence applications on student motivation from the point of view of university students within the green line (0.973), and this result indicates that this tool has stability that meets the purposes of the study.

STATISTICAL PROCESSING: After collecting the questionnaires and ensuring their suitability for analysis, they were coded in preparation for entering their data into the computer to perform the appropriate statistical processing, and analyzing the data according to the study's questions and data. Statistical processing of the data was conducted by extracting the arithmetic means and standard deviations for each paragraph of the questionnaire, and a t-test. (t) test), one way ANOVA test, Pearson correlation coefficient, and Cronbach Alpha reliability equation using the Statistical Package For Social Sciences (SPSS)

RESULTS:

Results related to the first question: Do artificial intelligence applications make a statistically significant contribution to motivating students in education from the perspective of university students within the Green Line?

To answer this question, the researcher calculated the arithmetic averages and standard deviations of the responses of the study sample members to the three areas of the questionnaire that express the exploration of the unexpected effects of artificial intelligence applications on student motivation from the point of view of university students within the Green Line.

THE RESULTS OF THE FOLLOWING TABLE SHOW THIS:

Table (3) Arithmetic means and standard deviations to explore the unexpected effects of artificial intelligence applications on student motivation from the perspective of university students within the green line in the three areas:

Level	Rank	Standard deviation	Means	Domain
High	1	.60	4.59	First Domain : the field of supporting the process of motivating students to learn.
High	2	49.	3.94	The second Domain: the field of interaction and participation in the educational environment
High	3	.56	3.26	The third Domain: the field of practical employment of technology in the learning environment
	High			Total

It is also noted from Table 3 that the arithmetic means of the study sample's estimates for the three fields ranged between (3.26-4.59), with a degree of medium to high, as the field of supporting the process of motivating students to learn came in first place with an arithmetic mean of (4.56), and a deviation Standard (.600), with a high degree of practice. The field of interaction and participation in the digital educational environment came in second place, with a mean (3.94) and standard deviation (.49), with a high degree of practice. The field of practical use of technology in the learning environment came in third place. With a mean (3.26), standard deviation (.56), and an average degree of practice.

I also calculated means and standard deviations to explore the unexpected effects of artificial intelligence applications on student motivation from the point of view of university students within the green line, for each field separately, and tables (4-9) show this

The first Domain: the field of supporting the process of motivating students to learn.

Table (4): Arithmetic means and standard deviations of the study sample's estimates in the field of supporting the process of motivating students to learn.

Level	**Rank**	**Standard deviation**	**Means**	**Item**	**No**
High	**1**	**0.64**	**4.18**	It is considered that artificial intelligence systems are able to provide individual support tailored to the needs of teachers in the areas of developing teaching skills.	**7**
High	**2**	**0.62**	**4.15**	I have the necessary knowledge to deal with artificial intelligence applications for cloud computing services in the school.	**5**
High	**3**	**0.71**	**4.13**	Through applications of artificial intelligence, I have the skill to apply copyright and licensing rules to protect intellectual property products of academic materials.	**6**
High	**4**	**0.72**	**4.12**	Using artificial intelligence applications increases my motivation towards learning.	**3**

High	**5**	**0.8**	**4.04**	Artificial intelligence applications support my learning of difficult topics.	**4**
High	**6**	**0.96**	**3.99**	Using AI applications encourages me to take notes during the lesson.	**1**
Medium	**7**	**1.19**	**3.32**	Artificial intelligence applications help me identify my strengths and weaknesses.	**8**
Medium	**8**	**1.17**	**3.33**	Using AI applications facilitates easy retrieval of information in my lessons.	**2**
High		**.650**	**4.19**	**Total**	

It is noted from Table (4) that the arithmetic means of the study sample's estimates in the field of supporting the process of motivating students to learn ranged between (3.33-4.18), with a degree of medium to high, and the practice items were (1,3, 6, 4, 5, 7) , to a high degree, while the practice of paragraphs (8, 2) came to a moderate degree. Paragraph (7) ranked first, while Paragraph (2) came last.

Table (5): Arithmetic means and standard deviations of the study sample's estimates in the field of interaction and participation in the educational environment

Level	Rank	Standard deviation	Means	Item	No
High	1	.310	4.32	Inconvenient artificial intelligence applications in the lesson.	**14**
High	2	.450	4.28	The use of artificial intelligence applications allows the exchange of information between friends.	**10**
High	3	.520	4.22	I feel embarrassed when using AI applications in lessons.	**18**
High	4	.570	4.20	I get bored in lessons when I learn using AI applications.	**16**
High	5	1.22	3.62	Artificial intelligence applications allow me to track my achievement status in the lesson.	**13**
High	6	1.19	3.60	Artificial intelligence applications make me answer questions in lessons very quickly.	**11**
High	7	1.17	3.59	The use of artificial intelligence applications increases competition in the lesson.	**9**
High	8	1.01	3.58	Artificial intelligence applications are flexible to use in the lesson.	**15**
Medium	9	1.45	3.32	Using artificial intelligence applications is not effective in my lessons.	**17**
Medium	10	1.23	3.17	Artificial intelligence applications help me distinguish between fact and opinion in a lesson.	**12**
High		1.25	**3.67**	**Total**	

It is noted from Table (5) that the arithmetic means of the study sample's estimates in the field of interaction and participation in the educational environment ranged between (3.17-4.32), with a high degree, and the paragraphs (9,11,10,,16,15,14,13, 13), to a high degree. Paragraph (14) ranked first, while paragraphs (12, 71) ranked last with a moderate degree.

Table (6): Arithmetic means and standard deviations of the study sample estimates in the field: practical use of technology in the learning environment.

Level	Rank	Standard deviation	Means	Item	No
High	1	.470	4.41	Applications of artificial intelligence provide me with an opportunity to study my lessons more.	**24**
High	2	.520	4.21	Artificial intelligence applications improve my skill in identifying key ideas.	**25**
High	3	.740	4.14	I hate using AI applications in lessons.	**21**

High	4	.830	4.01	Using artificial intelligence applications increases my interest in lessons.	**22**
Medium	5	.940	3.13	Artificial intelligence applications help me understand lessons better.	**23**
Medium	6	.910	3.12	Artificial intelligence applications help me manage digital identity.	**28**
Medium	7	.870	3.14	Artificial intelligence applications improve my skill in deducing meanings.	**19**
Medium	8	.940	3.21	Applications of artificial intelligence improve my skill in identifying information.	**26**
Medium	9	.970	3.26	Artificial intelligence applications help me use search engines effectively.	**27**
Medium	10	.970	3.26	Using AI applications is fun.	**20**
Medium		**.890**	**3.32**	**Total**	

Table (6) shows that the practice of paragraphs (25,24,22,21) came in with a high degree, and the arithmetic means of the study sample's estimations in the field of practical use of technology in the learning environment ranged between (4.11-3.32), with a moderate to high degree. In contrast, there was a moderate use of paragraphs 23, 28, 26, 27, and 20. First place went to paragraph (24) and worst place went to paragraphs (27, 20).

It is evident that students feel artificial intelligence applications greatly support the process of motivating them to learn. The arithmetic average of student responses in this field was high, indicating that the applications significantly support the process of motivating students to learn. The low standard deviation suggests that students' attitudes about artificial intelligence's beneficial role in inspiring them to learn are homogeneous. Regarding engagement and communication within the classroom, the arithmetic mean: The findings demonstrated that students' answers in this region had a positive arithmetic average, suggesting that AI applications help to improve engagement and involvement in the learning environment. There was some difference in the students' opinions, but overall, they agreed that artificial intelligence improves interaction and engagement. The standard deviation was moderate. The arithmetic average of students' responses in the area of the practical application of technology in the learning environment was found to be average. This indicates that students believe artificial intelligence applications are generally helpful in the practical application of technology in the learning environment. The low standard deviation suggests that students were generally in agreement with this concept. From the perspective of university students inside the green line, artificial intelligence applications statistically considerably contribute to student motivation in education, according to the analysis of the arithmetic means and standard deviations of student responses. Enhancing engagement and involvement in the classroom, encouraging students to learn, and utilizing technology in a useful way are all made possible with the help of artificial intelligence.

According to the researcher, this result is at a high enough level for acceptance, and this can be explained by the fact that, in comparison to traditional techniques, smart applications help to make learning more interactive and personalized, which stimulates students more. These apps can also offer interactive learning resources, rapid feedback, and curriculum customization based on individual student needs, all of which boost students' enthusiasm and drive to learn. The low standard deviation also explains this result: This suggests that the majority of students concur that AI apps effectively boost their motivation, possibly as a result of the fact that they are all practical and easy to use.

The findings revealed that the arithmetic average of the students' answers in the area of interaction and participation in the educational setting was positive, suggesting that artificial intelligence applications help to improve interaction and participation in the educational setting. This can be explained by the fact that these programmes offer fresh channels of engagement and communication, like online collaboration, educational forums, and live chats, which improve student-teacher engagement. This discrepancy can arise from the pupils' varying degrees of technology proficiency or their individual inclinations towards utilising apps.

According to the researcher, on average, pupils think that artificial intelligence applications facilitate the practical application of technology in the classroom. This can be explained by the possibility that although students have profited from applications in some areas of their education, they are still unable to fully and effectively employ technology in all subject areas. This consensus shows that although most students recognize the obvious advantages of using technology in the classroom, there may be certain obstacles preventing them from fully utilizing it, such as the requirement for more training or more technology resources. From the perspective of university students inside the green line, artificial intelligence applications statistically considerably contribute to student motivation in education, according to the analysis of the arithmetic means and standard deviations of student responses. Through interactive and personalised apps, artificial intelligence helps to support the

process of inspiring pupils to learn. fostering new forms of cooperation and communication to improve engagement and participation in the learning environment. Practically utilising technology in the classroom, even though there is still need for improvement in order to fully utilise it.

The results of Popenici and Kerr's (2017) study, which examined artificial intelligence's integration into higher education and its beneficial effects on teaching and learning, are consistent with the findings of the current study, which show that artificial intelligence applications improve interaction and participation in the classroom and support students' motivation to learn. The study highlighted the difficulties educational institutions have in using new technologies, which is in line with some divergent views among students regarding how artificial intelligence affects participation and engagement.

The results of the Holmes (2023) study, which examined the growing influence of artificial intelligence on education and its advantages and disadvantages, are in line with the findings of the current study, which show that artificial intelligence plays a role in encouraging student motivation and improving classroom interaction. I disagreed with her because the study addressed the role of teachers' unions and the education system in guiding the use of AI, which adds a different perspective from the current study, which focuses on the perspective of the students, rather than on how students reacted to AI applications. The results of Cox's study from 2021, which examined the effects of robotics and artificial intelligence on higher education as well as related challenges, are consistent with the findings of the current study, which show that artificial intelligence facilitates the useful application of technology in the classroom. The study covered technological capabilities and real-world implementation problems, which aligns with a few words demonstrating mediocre technology use results. The present study diverged by concentrating on particular impacts on student motivation and interaction within the educational setting, whereas the previous study covered a broad spectrum of potential future scenarios and applications of artificial intelligence. The results of the study by Hamdan, Khair, and Muhammad (2023), which looked at the Classera platform's effects on science education and education management, are consistent with the findings of the current study, which show that artificial intelligence applications can improve student engagement and motivation in the classroom. The study's findings, which highlighted difficulties in the practical application of technology, are consistent with the rise in hurdles to the adoption of educational innovations. The focus of the current study is on university students' perspectives, whereas the previous study concentrated on science teachers in secondary schools. The study by Ismail, Abdel-Raouf, and Al-Dahasi (2024) demonstrated that employing artificial intelligence improved primary school children' reading abilities. This is in line with findings that suggest artificial intelligence improves interaction and helps motivate pupils. In line with the need for more training in the usage of artificial intelligence applications, the study also suggested that teachers receive training and direction. The new study, however, focuses on university students, whereas the previous study concentrated on elementary school pupils.

The study conducted by Mansour Saad et al. (2024) examined how King Khalid University promoted radical innovation in e-learning, which aligns with the results that highlight the significance of utilizing technology in the classroom. The study underlined the significance of providing faculty members with specialized training, which is in line with the requirement that students receive additional instruction in the application of artificial intelligence. But if the current study concentrates on the effect of artificial intelligence on student motivation at universities inside the Green Line, the previous study concentrated on the radical innovation in e-learning at King Khalid University. According to Hussein, Nisreen, et al.'s (2024) study, it's critical to comprehend the variables influencing school principals' use of organizational intelligence. These findings align with the findings of the current study, which suggest that AI applications can improve engagement and inspire students. The current study, however, focuses on university students' perspectives on AI applications, whereas the previous study concentrated on female general education school principals and the degree of organizational intelligence practice.

The results of the current study and those of the previously listed studies generally concur that artificial intelligence improves student motivation and increases engagement and participation in the classroom. They also concur on a few of the difficulties that come with integrating new technologies into the classroom. The primary variations are found in the particular applications of AI and the specific focus of each study (e.g., varying educational levels or roles for administrators and teachers).

RESULTS RELATED TO THE SECOND QUESTION:

Are there statistically significant differences at the level of significance ($\alpha = 0.05$) between the averages of the responses of the study individuals regarding exploring the unexpected effects of artificial intelligence applications on student motivation from the point of view of university students within the green line, attributed to the variables (gender, program Academic level, family income level, and specialization) from the point of view of university students within the Green Line?

To answer this question, I calculated the means and deviations to explore the unexpected effects of artificial intelligence applications on student motivation from the point of view of university students within the green line in the three areas individually (scale areas) according to the variables (gender, academic program, family income level, and specialization) and the table (7) shows this.

Table (7): Arithmetic means and deviations Exploring the unexpected effects of artificial intelligence applications on student motivation from the point of view of university students within the green line due to one of the variables (gender, academic program, family income level, and specialization) in the three areas individually (scale areas) According to variables (gender, academic program, family income level, and specialization).

Standard deviation	Means	Variable Levels/Categories	Variable	
0.559	3.949	male	Gender	First Domain : the field of supporting the process of motivating students to learn
0.659	3.719	feminine		
0.559	3.959	Bachelor's	Qualification	
0.719	3.909	Master's		
0.649	3.999	Ph.D		
0.449	4.079	Low	Family income level	
0.629	4.159	Moderate		
0.559	3.889	High		
0.659	3.649	Humanities majors	specializations	
0.609	4.129	Scientific specializations		
Standard deviation	**Means**	**Variable Levels/Categories**	**Variable**	
0.64	4.17	male	Gender	The second Domain: the field of interaction and participation in the educational environment
0.6	4	feminine		
0.62	4.15	Bachelor's	Qualification	
0.76	3.99	Master's		
0.69	4.04	Ph.D		
0.49	4.12	Low	Family income level	
0.67	4.2	Moderate		
0.76	3.99	High		
0.7	3.76	Humanities majors	specializations	
0.65	4.17	Scientific specializations		
Standard deviation	**Means**	**Variable Levels/Categories**	**Variable**	
.470	4.10	male	Gender	The third Domain: the field of practical employment of technology in the learning environment
.650	4.18	feminine		
.580	3.98	Bachelor's	Qualification	
.740	3.97	Master's		
.670	4.02	Ph.D		
.470	4.10	Low	Family income level	
.650	4.18	Moderate		
.580	3.98	High		
.470	4.10	Humanities majors	specializations	
.670	4.02	Scientific specializations		

It is noted from Table (7) that there are apparent differences between the mathematical settings exploring the unexpected effects of artificial intelligence applications on student motivation from the point of view of university students within the green line due to the variable (gender, academic program, family income level, and specialization) in the three areas individually (areas the scale) . To determine the statistical significance of the apparent differences, a three-way multivariate analysis of variance (without interaction) (three-way MANOVA) was used, using the Hotelling's Trace test. Table (00) shows this.

Table (8): Results of the (Hotelling's Trace) test according to the variables (gender, academic program, family income level, and specialization), in the estimates of the study sample members for the degree to which the unexpected effects of artificial intelligence applications on student motivation were explored from the point of view of university students inside the green line. Attributable to variables (gender, academic program, family income level, and specialization) in the three areas

ETA box	Statistical significance	Degrees of freedom of error	Degrees of freedom	F	Value	Source
.012	.307	236.000	3.000	.392	.007	Gender
.004	.329	236.000	3.000	.658	.016	Qualification
.009	.980	236.000	3.000	.490	.009	Family income level
.016	.779	236.000	3.000	.851	.005	specializations

The results of the Hotelling's Trace test showed that there was a statistically significant effect of the variables, the gender of the respondent, and the study program, on the estimates of the study sample members to explore the unexpected effects of artificial intelligence applications on student motivation from the point of view of university students within the green line in the three areas combined. While no There is a statistically significant effect of the variable of family income and specialization in the estimates of the study sample on exploring the unexpected effects of artificial intelligence applications on student motivation from the point of view of university students within the green line.

It can be seen from Table (8): The results of the study showed that there were statistically significant differences ($\alpha = 0.05$) due to the effect of gender and academic program in all fields. The differences were in favor of females and doctoral students in the estimates of the study sample members to explore the unexpected effects of artificial intelligence applications on motivation. Students from the perspective of university students within the Green Line in the three areas combined. While there is no statistically significant effect of the family income and specialization variables on the estimates of the study sample on exploring the unexpected effects of artificial intelligence applications on student motivation from the point of view of university students within the green line. The researcher also attributes this result to the fact that initiatives to use artificial intelligence are integrated and directed equally to all specializations, which reduces differences in impact based on specialization. The researcher also attributes this result to the fact that students in all majors have the same level of support and training from teachers and university administration regarding the use of artificial intelligence applications. The researcher also attributes this result to the fact that there is a clear directive from teachers and university administration regarding the necessity of using technology and artificial intelligence in all majors, so students may respond equally. The researcher also attributes this result to the fact that all specializations face common challenges that may be related to infrastructure, lectures, or any other obstacles. This may lead to uniformity of reactions. The researcher also attributes this result to the fact that the culture of students and teachers enhances technology and emphasizes its role in educational improvement in general, and this can be reflected in the teachers' uniform response.

The results showed that there were statistically significant differences between the computational circles regarding exploring the unexpected effects of artificial intelligence applications on student motivation from the point of view of university students within the green line in the three areas individually, according to the academic qualification variable, and in favor of (doctorate).

The researcher attributes this result to the fact that applications of artificial intelligence in education can have an unexpected impact on student motivation, as it is noted that its impact on female students may be greater than its impact on male students. This difference can be explained by several factors: Response to interactive educational methods: Female students may have greater interaction with interactive applications provided by technology compared to male students. Technology using artificial intelligence often delivers personalized learning experiences, which can be more aligned with the learning methods that female students prefer. Emotional support: AI applications that provide warmer interaction and emotional support could be more attractive to female students, who may be more sensitive to psychologically and emotionally supportive educational environments. Skill development: Apps that help develop organizational and planning skills can be more beneficial for female students, as some studies show that female students tend to benefit more from this type of support compared to male students. Social interaction: Female students may be more willing to benefit from collaborative and group activities facilitated by AI applications, which increases their motivation compared to male students who may prefer to learn individually. Technological bias: In some cultures or societies, there may be social perceptions about traditional gender roles in the use of technology. If female students are more encouraged to use technology in educational contexts, they may benefit more from AI applications.

The researcher also attributes this result to the fact that students studying for a doctorate are more specialized in certain fields, which makes them more influential in those fields, and they may have a deeper understanding of how to use technology and artificial intelligence to develop teaching and learning skills in those fields. The researcher also attributes this result to the fact that PhD holders can enjoy greater training in the field of research and development, and this may contribute to their ability to better adopt and integrate modern technology in improving their performance. The researcher also attributes this result to the fact that students studying for a doctorate degree may be more interactive with and able to use technology in a way that meets their needs effectively. The researcher also attributes this result to the fact that doctoral students may be more familiar with the latest technological innovations and research in the field of education, which makes them more able to use artificial intelligence effectively. The researcher also attributes this result to the fact that students studying for a doctorate may be more able to critically analyze new technologies, which contributes to their deep understanding of the benefits and challenges of using artificial intelligence in education. The researcher also attributes this result to the fact that doctoral students may have received greater training in the fields of technology and artificial intelligence during their academic path. The current study is consistent with the study of Popenici and Kerr (2017), as the study addressed the integration of artificial intelligence into higher education and its positive impact on teaching and learning, which is consistent with the results indicating that artificial intelligence applications support students' motivation to learn and enhance interaction and participation in the educational environment. The study pointed out the challenges facing educational institutions in adopting these technologies, which is consistent with some disparity in student opinions about the impact of artificial intelligence on interaction and participation.

The current study is consistent with the study of Holmes (2023), as the study discussed the increasing impact of artificial intelligence on education, including its benefits and risks, which is consistent with the results that indicate the contribution of artificial intelligence in motivating students and enhancing interaction in the educational environment. I disagreed with her, as the study did not focus specifically on students' response to artificial intelligence applications, but rather addressed the role of teachers and teachers' unions in directing the use of artificial intelligence, which adds a different dimension from the current study, which focuses on the students' point of view.

The result of this study is consistent with the result of the study of Al-Harr (2022), the study of Al-Khatib (2021), the study of Karakoz and Polat (2020), and the study of Al-Sarayrah and Abu Hamid (2016), which showed that there were no statistically significant differences ($\alpha = 0.05$) due to the effect of the variable of specialization and level. Family income, and showed that there were statistically significant differences ($\alpha=0.05$) due to the effect of the variable gender and level of study, each of which showed that the unexpected effects of artificial intelligence applications on student motivation from the point of view of university students within the green line resulted in high scores on the tool. As a whole. This result differed from the study of Al-Shudaifat (2020), the study of Al-Anzi (2018), and Al-Sarayrah and Abu Hamid (2016), which showed the presence of statistically significant differences ($\alpha = 0.05$) due to the effect of the region variable, the level of family income, and specialization, and showed that there were no significant differences. Statistical significance ($\alpha = 0.05$) is due to the effect of the variables of gender, specialization, and educational qualification, which showed that the degree of use of public school principals for artificial intelligence applications and administrative technology was moderate. The current study is consistent with the study of Cox (2021), as the study addressed the impact of artificial intelligence and robotics on higher education and the challenges surrounding it, which is consistent with the results indicating that artificial intelligence helps in the practical employment of technology in the learning environment. The study discussed technological capabilities and practical challenges in implementing it, which is consistent with some paragraphs that showed average results regarding the use of technology. It differed in that the study addressed a wide range of future scenarios and uses of artificial intelligence, while the current study focused on specific effects on student motivation and interaction in the educational environment.

CONCLUSION:

In conclusion, AI plays a transformative role in education by providing helpful tools to students. AI enables students to be more productive and active in their learning and pedagogical work by supplementing educational work, improving access to resources, providing educational development insights, and supporting effective classroom learning methods. It also provides personalized educational support. As technology evolves, it will be necessary to carefully integrate AI and monitor continued educational growth to ensure that it complements human education rather than taking its place as a substitute. Today's students can learn more effectively through the use of artificial intelligence, which will ultimately help create a better environment for learning and achievement.

Artificial intelligence has diverse effects on student motivation from the perspective of college students within the Green Line. With its ability to improve classroom management, enhance personalized learning, complement administrative activities, enrich educational resources, and enhance educational development, artificial intelligence (AI) has the potential to completely transform the educational landscape. But there are obstacles and ethical issues related to the use of AI in education that need to be resolved. It is necessary to strike a balance between maintaining the fundamental human components of education and using artificial intelligence to support students. As AI serves as a valuable partner in improving the quality of teaching and learning, careful implementation and ongoing educational development are essential to ensure that teachers

remain at the center of the educational process as AI evolves and becomes more integrated into the educational landscape, and this is to the benefit of students.

In sum, although AI in education offers great potential to improve teaching and learning, students must overcome a number of obstacles to successfully integrate AI. Students play an essential role in overcoming these challenges, which range from the necessity of comprehensive training and ethical considerations to overcoming technological inequalities and integrating artificial intelligence into diverse educational contexts. To overcome these obstacles and ensure that AI improves the educational landscape, collaboration between students, educators, legislators, and technology developers is critical as the education industry continues to adopt AI.

REFERENCES

[1] Amal Kazem Mira, edited by Jassim Kati. (2019). **Applications of artificial intelligence in education from a university teaching point of view**. Psychological Science, (22).

[2] Cox, A. M. (2021). Exploring the impact of Artificial Intelligence and robots on higher education through literature-based design fictions. International Journal of Educational Technology in Higher Education, 18(1), 3.

[3] Hamdan Musalat Al-Baqmi, H., Khair Mahmoud Al-Salamat, M., & Muhammad. (2023). The role of the Classera platform in activating the educational process from the point of view of secondary school science teachers. Journal of the College of Education (Assiut), 39(2.2), 260-309.

[4] Hussein Abu Zaid, A. Dr.. A., A. Dr. Adel, Muhammad Zarrouk, A. M. Dr. Sayed, Ahmed Mohamed El-Desouki, & Mr. Mohamed. (2022). Modern trends in developing spatial intelligence and positive thinking. Scientific Journal of Educational and Qualitative Studies and Research, 7(21), 157-180.

[5] Hussein Hassan Aliwa, A. Nisreen, Ahmed Abdul Rahman Al-Ghamdi, & Dr. Manal. (2024). Organizational intelligence in general education schools in light of the Karl Albrecht Model. Journal of Educational and Human Studies, 16(1), 369-410.

[6] Ismail, A. M., Abdul Raouf Muhammad, & Al-Dahasi. (2024). The effect of employing a tool. Journal of Artificial Intelligence and Information Security, 2(3), 79-167.

[7] Jia, X. H., & Tu, J. C. (2024). Towards a New Conceptual Model of AI-Enhanced Learning for College Students: The Roles of Artificial Intelligence Capabilities, General Self-Efficacy, Learning Motivation, and Critical Thinking Awareness. Systems, 12(3), 74.

[8] Mansour Al Rufaida, Saad Saad Omair Al Qahtani, & Saraa. (2024). The role of King Khalid University in stimulating radical innovation in e-learning to achieve sustainability from the point of view of faculty members. Journal of the College of Education (Assiut), 40(2), 69-113.

[9] Mohamed Mahmoud Abdel-Al, M. A. A., & Muhammad Awad Al-Arabi/. (2023). Rebuilding the competencies of government human resources in localities from the perspective of digital transformation policies: a comparative study between the Arab Republic of Egypt and the Kingdom of Saudi Arabia. Journal of the Faculty of Economics and Political Science, 24(1), 263-304.

[10] Mohamed Sharif Abdel Salam, A. (2023). Value change among Assiut University students in light of some contemporary changes. Journal of the College of Education (Assiut), 39(10.2), 494-568.

[11] Poole, D. L., & Mackworth, A. K. (2010). Artificial Intelligence: foundations of computational agents. Cambridge University Press.

a. Popenici, S. A., & Kerr, S. (2017). Exploring the impact of artificial intelligence on teaching and learning in higher education. Research and practice in technology enhanced learning, 12(1), 22.

[12] Salama, H. A., & Hossam Ali. (2023). Employing artificial intelligence techniques in developing the productions of media students in Gulf universities. Journal of the Association of Arab Universities for Media and Communication Technology Research, 2023(11), 1-70.

[13] Wang, Y. M., Wei, C. L., Lin, H. H., Wang, S. C., & Wang, Y. S. (2022). What drives students' AI learning behavior: A perspective of AI anxiety. Interactive Learning Environments, 1-17.