



# American Journal of Education and Technology (AJET)

ISSN: 2832-9481 (ONLINE)

Volume 3 Issue 1(2024)



PUBLISHED BY

E-PALLI PUBLISHER, DELAWARE, USA



## The Role of Artificial Intelligence in Developing Digital Transformation Skills Language Communication, and Scientific Trends among Students of the College of Education at Al Ain University

Asmaa Jumah Almahdawi<sup>1\*</sup>

### Article Information

**Received:** December 18, 2023

**Accepted:** January 19, 2024

**Published:** January 22, 2024

### Keywords

*Artificial Intelligence Integration,  
Digital Transformation  
Competencies, Data-Driven  
Curriculum, Al Ain University*

### ABSTRACT

A scientific subject called artificial intelligence (AI) aims to create computer systems that function as efficiently as a skilled human does. Such effectiveness can substantially improve education by utilising the most cutting-edge technologies. To determine the level of AI awareness among Al Ain University faculty members and to investigate the connections between AI awareness, the digital transformation scale (DTS), and the technological, scientific scale (TSS), this study set out to measure that awareness. The descriptive-correlational research technique of the study included three analyses, with a particular focus on AI, DTS, and TSS. 101 academics, or 43.5% of the College of Education faculty, were represented in the sample from all departments. They were chosen using a simple random sampling technique. The quantitative data analysis revealed that the faculty members exhibited a medium level of awareness, with a mean score of 3.05 on a 5-point scale. A correlation value of 0.139 and a significance coefficient of 0.165 indicated no statistically significant correlation between faculty members' awareness of AI and DTS. With a correlation of 0.568 and a significance level of  $P < 0.01$ , the study found that among faculty members, there was a direct and statistically significant positive link between AI awareness and TSS. It is essential to prepare faculty members for using AI in the classroom and to modify their perspectives on it by holding seminars and providing them with the training they need to do so.

### INTRODUCTION

Integrating artificial intelligence (AI) into education represents a ground-breaking shift that has redefined teaching and learning methodologies and fundamentally transformed the relationship between students, knowledge, and information (Alenezi, 2023). This (Alamri *et al.*, 2021). This paper aims to delve into the intricate interplay between AI and education, specifically honing in on its pivotal role in cultivating digital transformation skills, augmenting language communication proficiencies (Górriz *et al.*, 2020), and molding an understanding of scientific trends among students enrolled within the College of Education.

In the contemporary context, where rapid technological advancements permeate every facet of society, education cannot remain impervious to these changes. AI, often described as the "Intelligence of machines," has emerged as a catalyst for reshaping traditional educational paradigms (Deslandes, 2023). It empowers educators and learners with tools and strategies that transcend conventional instructional methodologies (Megahed *et al.*, 2022). AI has disrupted the conventional "one-size-fits-all" approach to education, paving the way for highly personalised, interactive, and engaging learning experiences (Rudovic *et al.*, 2018).

This paper, as an exploration of the symbiotic relationship between AI and education, specifically targets three domains paramount to students' holistic development: digital transformation skills, language communication proficiencies, and scientific trends awareness (Holmes *et*

*al.*, 2021). Digital transformation skills, in this context, encompass the ability to navigate and leverage the array of digital tools, technologies, and platforms that characterise modern professional environments (Smith *et al.*, 2020). Integrating AI into education facilitates cultivating these skills by offering tailored learning paths, real-time feedback, and immersive experiences that mimic real-world scenarios (Zhang, 2023).

Language communication, a cornerstone of effective human interaction, is also undergoing a metamorphosis with AI's integration (Gross). Natural language processing (NLP) algorithms and AI-powered language learning platforms revolutionise language acquisition by offering instant corrections, personalised lessons, and even cross-lingual translation capabilities (Pokrivcakova, 2019). This dynamic approach to language learning enhances linguistic aptitude and equips students to engage with a globally diverse community and transcend cultural boundaries (Wu *et al.*, 2022).

Moreover, the paper underscores AI's role in shaping an understanding of scientific trends among College of Education students (Ouyang *et al.*, 2022). As AI-driven advancements propel scientific discovery, students need exposure to these trends to remain relevant and adaptable in their future careers (Tolmie, 2020). By incorporating AI concepts into educational curricula, educators foster analytical thinking and cultivate a mindset of innovation, ensuring that students are prepared to contribute meaningfully to scientific progress in an AI-driven world (Ng *et al.*, 2023).

<sup>1</sup> Al-Ain University, United Arab Emirates, UAE

\* Corresponding author's e-mail: [doctorsahiba123456@outlook.com](mailto:doctorsahiba123456@outlook.com)

Integrating AI into education signifies a seismic shift that transcends technological enhancement. It reshapes education into a dynamic and adaptive ecosystem where students are empowered to acquire skills, hone their communication abilities, and comprehend scientific trends in previously inconceivable ways. As industries evolve, propelled by AI-powered innovations, students within the College of Education are poised to thrive in this interconnected, AI-driven world. Through its exploration of recent techniques and their profound implications, this paper seeks to illuminate how AI's influence on education is about imparting knowledge and instilling the tools necessary for a lifelong journey of learning and adaptation.

### LITERATURE REVIEW

The literature study highlights the revolutionary potential of AI in education, particularly in cultivating knowledge of scientific trends, improving language communication skills, and developing digital transformation skills. Recent innovations like personalised learning, NLP-powered language tools, and AI-driven research tools show how incorporating AI into education has changed teaching practises and given students the skills they need to succeed in a connected, AI-powered world. The investigation of these methods reveals how the educational landscape is changing and how AI is a technology tool and a key factor in better learning outcomes and skills.

#### Digital Transformation Skills

##### AI-Enhanced Personalised Learning

Personalised learning systems that adjust to each student's learning pace, style, and needs have emerged due to the integration of AI into education (Katz *et al.*, 2022). Adaptive algorithms use data on student performance to create personalised learning routes that maximise engagement and skill development (Kerres & Buntins, 2020). By providing specialised tutorials and exercises in subjects like coding, data analysis, and digital design, these platforms have successfully imparted skills for the digital transition.

##### Intelligent Tutoring Systems (ITS)

Intelligent tutoring systems use AI to offer tailored advice and support to students, simulating the experience of a real tutor. In order to overcome these issues, these systems analyse student replies to find misconceptions and knowledge gaps and then provide targeted explanations and activities (Chrysafiadi & Virvou, 2021). By adjusting content delivery and guidance to meet the individual needs of each learner, ITS has proven effective in advancing digital literacy abilities (Kochmar *et al.*, 2020).

##### Gamified Learning Environments

Another emerging method is gamification, which uses AI algorithms to create fun instructional games that encourage the development of digital transformation skills (Alomair & Hammami, 2020). Gamified platforms encourage students to immerse themselves in interactive

settings that call for the use of digital skills by including elements of competition, success, and reward (Alsadoon *et al.*, 2022). This strategy improves motivation and skill retention, resulting in a deeper comprehension of digital tools. Created to align with academic objectives and encourage meaningful learning. In order to maintain the primary goal of learning, educators must balance game characteristics and educational material when creating these environments (Tlili *et al.*, 2019).

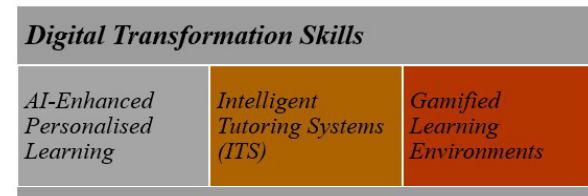


Figure 1: Basics of Digital Transformation Skills

#### Enhancing Language Communication

##### Natural Language Processing (NLP) Applications

NLP-powered programmes that offer real-time language correction, feedback, and individualised training have transformed language learning. These tools examine linguistic patterns and make recommendations for better syntax, vocabulary, and grammar (Chowdhary & Chowdhary, 2020). The importance of NLP in improving language communication is highlighted by its capacity to provide contextual feedback that is in line with each student's unique demands and academic development (Deng & Liu, 2018).

##### Language Translation Tools

By enabling students to interact with content in several languages, AI-driven language translation systems help to bridge linguistic divides and promote intercultural understanding (Ari *et al.*, 2020). Students may now access a wide variety of educational resources and perspectives from around the world thanks to the use of tools that use deep learning and neural machine translation to produce precise and contextually relevant translations.

##### Conversational Agents and Chatbots

Chatbots and virtual assistants are examples of

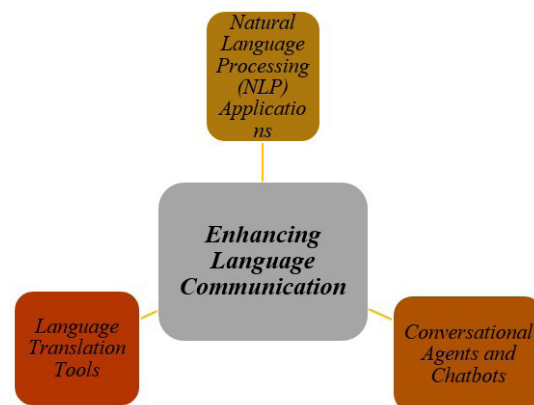


Figure 2: Basics of enhancing language communication skills

conversational AI that give pupils a chance to practise their language skills in authentic situations. These representatives interact with the pupils and provide language practise in a safe and encouraging setting (Hussain *et al.*, 2019). AI-driven conversational agents imitate human interactions as they advance in sophistication, helping trainees improve their language communication abilities.

**AI’s Influence on Understanding Scientific Trends  
AI Integrated Tool**

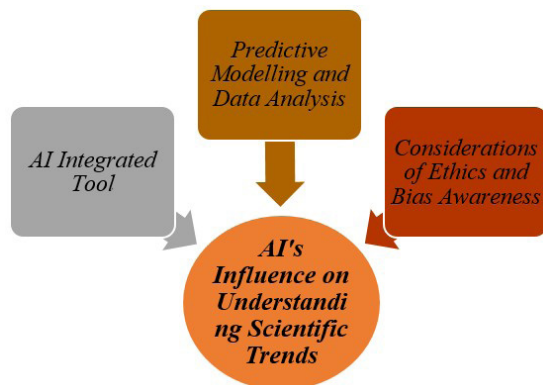
With the use of AI-driven research tools, students may interact with large datasets and gain an understanding that is similar to that of AI experts (Touretzky *et al.*, 2019). These tools use machine learning algorithms to find patterns, correlations, and anomalies in data, giving students a hands-on, data-driven way to investigate scientific trends and occurrences.

**Predictive Modelling and Data Analysis**

Students gain knowledge and abilities that are essential for comprehending and contributing to scientific trends as a result of the integration of AI-powered predictive modelling and data analysis into curricula (Qasim *et al.*, 2020). Students get a greater knowledge of the processes underlying AI-driven scientific discoveries by learning how to use algorithms to analyse data and generate informed predictions (Gardner *et al.*, 2019).

**Considerations of Ethics and Bias Awareness**

Education must emphasise ethical considerations and prejudice awareness as AI influences scientific trends more and more. The ethical ramifications of AI’s influence on research, data analysis, and decision-making must be understood by students (Villegas-Galaviz & Martin, 2023). Education in this area makes sure that students examine scientific developments critically and take into account any potential moral dilemmas and societal repercussions of AI-driven technological progress (Shin, 2021).



**Figure 3:** Basics of AI’s Influence on Understanding Scientific Trends Previous Studies

**Previous Studies**

Here are a few earlier investigations into the use of AI in education and its effects on various facets of learning in various nations.

**Study 1. “Promises and Implications for Teaching and Learning from Artificial Intelligence in Education” (2021)**

Authors: Maria Zenios and Charoula Angeli

Country: Cyprus

Summary: This study focused on the implications of AI for teaching and learning in Cyprus as it looked at the possibilities of AI in education. It covered how AI may support student engagement, individualised instruction, and effective administrative procedures. The study also called attention to privacy and ethical problems.

**Study 2. “Integration of Artificial Intelligence in Higher Education: Perspectives from India” (2021)**

Authors: Vishnu Narayanan Namboodiri and Rakesh Chandra Panda

Country: India

Summary: The employment of AI in higher education in India was the study’s main topic. It covered how AI may facilitate personalised learning, aid in research, and improve administrative procedures. The report also emphasised the importance of strong infrastructure and faculty development.

**Study 3. “A New Zealand Perspective on AI in Education” (2020)**

Authors: Dan Milward and Michael Verhaart

Country: New Zealand

This study investigated the use of artificial intelligence in education in the setting of New Zealand. It covered how data analytics and chatbots, two AI-driven tools, might promote learning analytics and student engagement. The report also emphasised how crucial it is to train teachers to integrate AI successfully.

**Study 4. “A Review of the Literature on Artificial Intelligence in K–12 Education” (2020)**

Author: William R. Watson and Sunny L. Munn

Country: United States

Summary: This review concentrated on AI applications in American K–12 education. It looked at how AI is being used to support instructors, promote personalised learning, and enhance student results. In order to overcome educational issues and advance equity in education, the study addressed the possible advantages of AI.

**Study 4. “A Review of Artificial Intelligence in Education from the UK” (2019)**

Authors: Vera Kuzmina, Alexey Vinel, and others.

Country: The United Kingdom

Summary: This review looked at how AI is being used in education in the UK. It covered how AI can personalise learning experiences, help teachers create effective classes, and raise the standard of instruction. The difficulties of using AI ethically and responsibly were also covered in the paper.

The strength, level, and quality of a university are determined by its faculty members, and they have

to accomplish the desired educational development goals, particularly in light of the rapid advancement of technology that enables universities to compete on a global scale (Gaber *et al.*, 2023). Technical education can improve instructors' abilities to develop teaching competencies and improve teaching methods in the university education system. It is a natural reaction to the educational opportunities afforded by the information and communications revolution (Zaki & Zangan, 2023). One of the many modern duties and roles that teachers today play is the masterful use of knowledge sources like information networks, computer programmes, and applications, the capacity to directly influence attitudes and design activities and experiences based on technology, and the innovation of the use of educational technologies and knowledge sources. A faculty member needs to possess numerous educational and technical competencies in order to fulfill these duties (Martin *et al.*, 2019).

Al Ain University aims to use contemporary technologies to manage the educational process, provide beneficiaries with education in line with the needs and expectations of the present, and improve its effectiveness as a learning centre. However, students enrolled in the educational rehabilitation programmes, some have bachelor's degree, and some of them are teachers at Al Ain University, have observed a variance in faculty members' opinions towards their artificial intelligence, language communication, digital transformation and scientific trends. Additionally, there are not enough forums, seminars, programmes, training sessions, or workshops where faculty members may gain the skills necessary to use modern technology and comprehend its significance for the future of education.

In light of the factors mentioned earlier, it is crucial to analyse the difficulties that develop in educational systems and to prepare people for the new technological era. According to Ahmed (2020), there are still issues with digital education in the Arab world at various levels, and additional research is urgently needed to address this problem and all of its components. As a result, the current study's difficulty became apparent, and the following research questions were addressed:

RQ1: What level of knowledge do Al Ain University professors have on artificial intelligence (AI)?

RQ2: What is the correlation between the level of awareness of artificial intelligence (AI) and digital transformation Scale (DTS) among faculty members at Al Ain University?

RQ3: What is the correlation between the level of awareness of artificial intelligence (AI) technological and scientific scale (TSS) among faculty members at Al Ain University?

## METHODOLOGY

The descriptive-correlational approach was determined to be the best strategy for the current study after examining the study's difficulty concerning the study's subject and nature, objective, and questions. The researchers developed a thorough description and precise diagnosis of the issue because of the method's capacity to uncover specific information about the phenomenon under study. Faculty from Al Ain University's College of Education in the United Arab Emirates were included in the study sample. A straightforward random sampling procedure chose them. To gauge the degree of faculty members' cognitive and performance awareness of AI in developing digital transformation skills, linguistic communication, and scientific trends, a 5-point Likert scale was developed for the study. After that, their responses were examined.

### Study Population and Sample

The study population comprised all 232 faculty members employed by Al Ain University's College of Education as of the end of the 2022–2023 academic year. 101 members from various institution departments answered the study instruments, constituting 43.53% of the faculty at the institution of Education.

### Study Instruments

#### Artificial Intelligence Awareness

The students and teachers developed a 5-point Likert scale to assess faculty members' AI awareness after studying the educational literature and many AI-related measures. A group of experts in educational technology were shown to determine the validity of the measure. The scale's appropriateness, clarity, grammatical soundness, and any other observations were required of the arbitrators.

In the end, there were 12 items on the scale, measuring cognitive awareness of AI and performance awareness of AI. The linguistic formulations of the four items were changed. The faculty members used the 5-point Likert scale approach to reply to the items (strongly agree = 5, agree = 4, neutral = 3, dislike = 2, strongly disagree = 1). A high score demonstrated a high degree of knowledge of artificial intelligence, whereas a low score demonstrated a poor level of knowledge. The researchers determined the scale's stability using Cronbach's alpha coefficient to confirm its psychometric effectiveness. The study found that performance awareness of AI had a Cronbach's alpha coefficient of 0.940, while cognitive awareness had a coefficient of 0.915. The Cronbach's alpha coefficient was 0.9522 for both dimensions. Each item had a positive correlation coefficient with its linked dimension, confirming its endogenous consistency, reliability, and validity. All correlation coefficients were statistically significant at 0.01, demonstrating the scale's internal consistency and applicability.

**Table 1:** The outcomes of each statement's association with the overall score of the dimension to which it belongs

Dimension	No.	Correlation coefficient	Sig.
Cognitive awareness of AI	1	0.861**	< 0.001
	2	0.886**	< 0.001

Performance awareness of AI	3	0.933**	< 0.001
	4	0.894**	< 0.001
	5	0.818**	< 0.001
	6	0.907**	< 0.001
	7	0.826**	< 0.001
	8	0.783**	< 0.001
	9	0.872**	< 0.001
	10	0.886**	< 0.001
	11	0.787**	< 0.001
	12	0.837**	< 0.001

**Table 2:** The results of each statement's correlation coefficient with its respective dimension's overall score

Dimension	Correlation coefficient	Sig.
Cognitive awareness of AI	0.895**	< 0.001
Performance awareness of AI	0.974**	< 0.001

\*\* $p < 0.01$

### Digital Transformation Scale (DTS)

The students and teachers created a 5-point scale to assess the level of Digital Transformation (DTS) among College of Education faculty members. Experts in educational technologies, curricula, and teaching methods evaluated the scale. After modifications, the scale now has 14 items, assessing technical knowledge skills, technical performance competencies, and technical production competencies, based on the arbitrators' observations and changes made to the scale. The researchers used Cronbach's alpha coefficient to validate the psychometric validity of a scale.

The scale's stability was calculated using 0.862, 0.888, and 0.860 coefficients for technical cognition, technical performance, and technical productivity capabilities, respectively. The Cronbach's alpha coefficient was 0.938 for all dimensions. The correlation coefficient values showed a positive correlation between each statement and the overall score of the dimension, demonstrating the scale's reliability and validity. All correlation coefficients were statistically significant at 0.01, confirming the scale's internal consistency. (see Table 4).

**Table 3:** The results of each statement's correlation coefficient with its respective dimension's overall score

Dimension	No.	Correlation coefficient	Sig.
Technical knowledge competencies	1	0.815**	< 0.001
	2	0.783**	< 0.001
	3	0.878**	< 0.001
	4	0.904**	< 0.001
Technical performance competencies	5	0.769**	< 0.001
	6	0.855**	< 0.001
	7	0.819**	< 0.001
	8	0.870**	< 0.001
	9	0.750**	< 0.001
	10	0.803**	< 0.001
Technical productivity competencies	11	0.775**	< 0.001
	12	0.877**	< 0.001
	13	0.890**	< 0.001
	14	0.824**	< 0.001

**Table 4:** Results of the coefficient of correlation between the scale's dimensions and overall score

Dimension	Correlation coefficient	Sig.
Technical knowledge competencies	0.896**	< 0.001
Technical performance competencies	0.924**	< 0.001
Technical productivity competencies	0.892**	< 0.001

\*\* $p < 0.01$

**Technological Scientific Scale (TSS)**

The students and teachers created a 5-point Likert scale to evaluate the level of Total Social Security (TSS) among College of Education faculty members. The scale, which included 16 items evaluating predictability of benefit, attitude towards use, and convenience of use, was adjusted based on educational literature and factors related to TSS. The scores ranged from 16 to 80, with high scores indicating high TSS and low scores indicating low TSS. The study found that the ease of use predicts benefits, happiness, and usage attitudes. The Cronbach's

alpha coefficients were 0.814, 0.900, and 0.895, with a Cronbach's alpha coefficient of 0.931 for all dimensions. Each item had a positive correlation coefficient with its corresponding dimension, demonstrating the scale's accuracy and dependability. This outcome is significant at a significance level of 0.01 or below. The correlation coefficient values between each scale dimension and the overall score, which were all statistically significant at 0.01, demonstrated the scale's internal consistency and applicability. (See Table 6).

**Table 5:** The results of each statement's correlation coefficient with its respective dimension's overall score

Dimension	No.	Correlation coefficient	Sig.
Ease of use	1	0.744**	< 0.001
	2	0.788**	< 0.001
	3	0.882**	< 0.001
	4	0.813**	< 0.001
Expected benefit	5	0.769**	< 0.001
	6	0.769**	< 0.001
	7	0.778**	< 0.001
	8	0.823**	< 0.001
	9	0.760**	< 0.001
	10	0.812**	< 0.001
	11	0.782**	< 0.001
	12	0.721**	< 0.001
Satisfaction and attitude toward the use	13	0.848**	< 0.001
	14	0.911**	< 0.001
	15	0.929**	< 0.001
	16	0.805**	< 0.001

**Table 6:** The results of the correlation between the scale's dimension and overall score

Dimension	Correlation coefficient	Sig.
Ease of use	0.836**	< 0.001
Expected benefit	0.937**	< 0.001
Satisfaction and attitude towards the use	0.798**	< 0.001

\*\* $p < 0.01$

**RESULT**

**Result for Research Question 1**

**The First Research Question Asked: What Level of Knowledge Do AI Ain University Professors Have on Artificial Intelligence (AI)?**

The survey respondents' average and standard deviation were computed. Table 7 presents the outcomes.

The study found that faculty members have a medium level of cognitive awareness of AI, with the highest rating for "sufficient knowledge of AI programmes and applications" at 3.32 and the lowest rating for "knowledge of the fundamentals of designing and implementing lessons using AI programmes and applications" at 3.01 and a standard deviation of 1.14.

**Table 7:**

No.	Item		Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Mean	Std. Deviation	Rank
1	I know enough about AI software and applications.	Freq.	10	37	30	23	1	3.32	0.97	1
		%	9.9	36.6	29.7	22.8	1			

2	I am sufficiently knowledgeable about how faculty members use AI in the classroom.	Freq.	11	37	27	23	3	3.3	1.03	2
		%	10.9	36.6	26.7	22.8	3			
3	I am familiar with the fundamentals of planning and executing lessons utilising software and tools that use AI.	Freq.	9	34	26	22	10	3.01	1.14	3
		%	8.9	33.7	25.7	21.8	9.9			
4	I am aware of how artificial intelligence technologies have been used to evaluate student work.	Freq.	11	27	30	27	6	3.1	1.1	4
		%	10.9	26.7	29.7	26.7	5.9			
<b>Mean* for total</b>								<b>3.2</b>	<b>0.95</b>	

**Table 8:** Statistical descriptions of respondents’ performance awareness in relation to AI (n = 101)

No.	Item		Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Mean	Std. Deviation	Rank
5	Using AI software, I may produce a wide range of files.	Freq.	12	32	26	26	5	3.2	1.1	1
		%	11.9	31.7	25.7	25.7	5			
6	I am able to develop course material using AI tools.	Freq.	9	31	21	33	7	3.02	1.13	4
		%	8.9	30.7	20.8	32.7	6.9			
7	I can use AI programmes to summarise lengthy documents.	Freq.	9	29	28	30	5	3.07	1.07	2
		%	8.9	28.7	27.7	29.7	5			
8	I can answer questions from kids by using chatbots.	Freq.	12	29	19	31	10	3.02	1.22	5
		%	11.9	28.7	18.8	30.7	9.9			
9	I can use AI (sound-producing) software to turn the course's written words into audio files.	Freq.	8	25	24	34	10	2.87	1.14	7
		%	7.9	24.8	23.8	33.7	9.9			
10	I am capable of using AI programmes that are based on tension, difficulty, and scientific. Competition in the educational process.	Freq.	6	31	25	26	13	2.91	1.15	6
		%	5.9	30.7	24.8	25.7	12.9			
11	I can use AI applications to transform printed images or text into editable text files.	Freq.	7	32	25	31	6	3.03	1.072	3
		%	6.9	31.7	24.8	30.7	5.9			
12	I can use AI software to convert written texts into instructional films.	Freq.	4	21	23	42	11	2.65	1.05	8
		%	4	20.8	22.8	41.6	10.9			
<b>Mean* for total.</b>								<b>2.97</b>	<b>0.94</b>	

Table 8 shows that the performance awareness dimension had an overall mean of 2.97 and a standard deviation of 0.94. These findings demonstrated that the professors believed their personal performance awareness of AI to be at a medium level. Item 5, “Using AI software, I may produce a wide range of files,” was scored as having the highest quality, with a mean score of 3.20 and a standard deviation of 1.10. Item 7, “I can use AI programmes to summarise lengthy documents,” came in second with a mean score of 3.07 and a standard deviation of 1.07. Item 9: “I can use AI (sound producing software) to convert the course’s written words into audio files,” came in seventh overall with a mean score of 2.87 and

a standard deviation of 1.14. Item 12, “I can use AI software to convert written texts into instructional films,” was ranked the lowest, with a mean score of 2.65 and a standard deviation of 1.05.

Table 9 shows that the scale’s overall mean was 3.05, and its standard deviation was 0.89. These findings indicated that the participants’ level of AI awareness was moderate. The first component, cognitive awareness of AI, was rated higher, with a mean score of 3.20 and an SD of 0.95. The performance awareness of the AI factor, which had a mean score of 2.97 and a standard deviation of 0.94, came in last with a score of 2.97.

**Table 9:** The general findings of the study sample's level of knowledge of AI (n = 101)

Dimensions	Mean	Std. Deviation	Rank
Level of cognitive awareness related to AI	3.20	0.95	1
Level of performance awareness related to AI	2.97	0.94	2
<b>Overall score</b>	<b>3.05</b>	<b>0.89</b>	

**Results for Research Question 2**

**The Second Research Question Asked: What is the Correlation between the Level of Awareness of Artificial Intelligence (AI) and Digital Transformation Scale (DTS) among Faculty Members at Al Ain University?**

The correlation between the respondents' AIAS and DTS scores was evaluated using the Pearson correlation coefficient. The outcomes are displayed in Table 10.

**Table 10:** Between the respondents' ratings on the two scales, there is a Pearson correlation coefficient

		DTS
AI	Pearson correlation coefficient	0.139
	Sig.	0.165
	No.	101

The value of the correlation coefficient between the faculty members' AIAS and DTS scores was 0.139, as shown in Table 10. Since the significance value was 0.165, which is more than 0.05, there is no statistically significant relationship between DT and AI awareness in the study group.

**Result for Research Question 3**

**The Third Question Asked: What is the Correlation between the Levels of Awareness of Artificial Intelligence (AI) Technological, and Scientific Scale (TSS) among Faculty Members at Al Ain University?**

Table 11 shows a correlation coefficient of 0.568, which is positive and denotes a positive direct association between the faculty members' AIAS and TSS scores. Given that the significance level was less than 0.001, the association is statistically significant. As a result, among the study sample, TSS and AI awareness are highly and positively correlated.

**Table 11:** Pearson correlation coefficient between the respondents' scores on the two scales

		TSS
AI	Pearson correlation coefficient	0.568**
	Sig.	<0.001
	No.	101

**DISCUSSION**

Artificial intelligence (AI) has become a disruptive technology in recent years, with the potential to alter many facets of education significantly. The development of digital transformation skills, improving language communication skills, and keeping students up to date with scientific advances are some of the important areas where AI can have a significant impact (Williams, M. D. (2021)). This conversation examines the advantages and disadvantages of incorporating AI into the learning process for college students at Al Ain University's College of Education. The College of Education at Al Ain University

has great potential to improve student's educational experiences with the help of artificial intelligence. AI can assist in producing well-rounded and future-ready instructors by promoting digital transformation skills, enhancing language communication capabilities, and increasing interaction with scientific trends (Qiao, M. S., & Chu, S. K. W. (2023)). However, a well-thought-out strategy that tackles issues and maximises the advantages of AI in education is needed for successful integration (Guo, M. (2020)). Educational institutions must adapt as AI develops and take advantage of its potential for the benefit of students and the education industry as a whole. Students can explore many technology tools first-hand by using AI to simulate real-world circumstances (Karsenti, T. (2019)). For instance, AI-powered virtual laboratories can give education students a chance to practise teaching in a supervised setting, enhancing their ability to integrate technology into future classrooms. For educators, staying current with scientific advances is crucial (Hartman, R. J., Townsend, M. B., & Jackson, M. (2019)). By compiling and analysing enormous amounts of scientific material, spotting new trends, and summarising intricate ideas, AI can help in this area. Education students can more easily locate pertinent papers and articles with the use of AI-powered research tools, allowing them to incorporate the most recent findings into their lesson plans (Eysenbach, G. (2023)). They hypothesise that the sample's level of AI awareness may be average due to a dearth of forums and seminars outlining what artificial intelligence is and how to use it in the teaching and learning process, as well as a lack of initiatives, courses and workshops aimed at educating faculty members on AI-related topics. The high expense of the majority of AI applications used in the education industry may also be to blame for the lack of awareness.

Additionally, there are not many Arab educational websites that focus on using AI in the field of education (Martins, R. M., & Gresse Von Wangenheim, C. (2022)). The study's findings also revealed a direct relationship between scientific trends, digital technologies, and AI awareness. Faculty members have some reservations about the application of AI technology. However, Wisskir *et al.* (2017) noted that young people in developing nations are upbeat about their future careers and confident in their capacity to advance professionally in relation to AI and their technological skills. Faculty members must, therefore, comprehend how new technological developments enable them to utilise the benefits of AI in education fully.

**CONCLUSION**

In conclusion, with the incorporation of AI, the College of Education at Al Ain University is poised to usher in a new age of profound change in the field of education. A new generation of educators with strong digital skills, cross-cultural communication skills, and knowledge of scientific trends can be fostered at the institution by embracing AI's capabilities. The College has the

chance to take the lead in creating an engaging learning environment that equips students for the opportunities and challenges of the future as AI continues to advance. This necessitates a continual dedication to adaptation and innovation, ensuring that AI is used fully for the benefit of both students and the larger field of education.

## RECOMMENDATIONS

The students and teachers suggest hosting seminars to improve faculty attitudes toward AI technology and prepare them for its use in education. Training seminars and workshops should educate faculty on AI developments and skills. Universities should have the necessary tools and conduct research to educate faculty on AI, DTS, and TSS.

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