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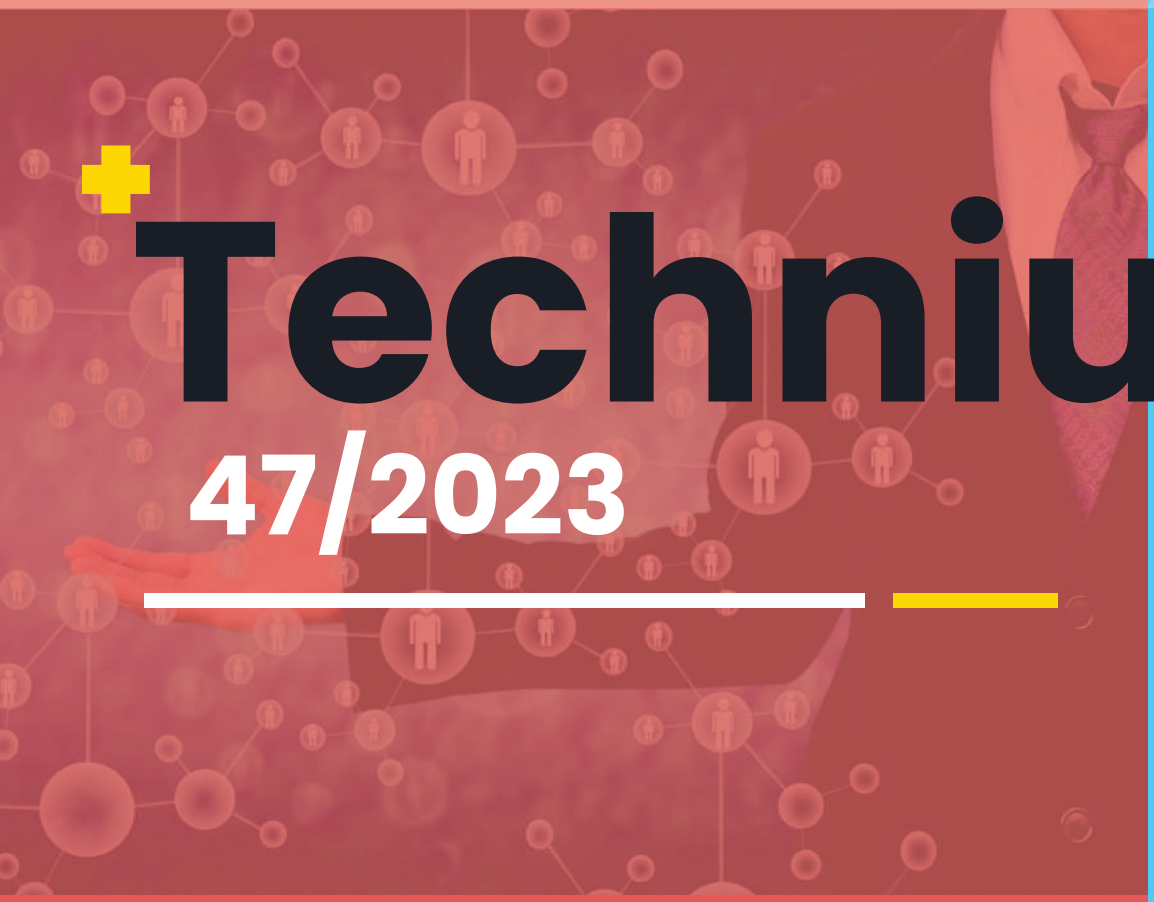

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Requirements For the Introduction of Artificial Intelligence Technology in Teaching Kuwaiti Universities Students from The Point of View of Faculty Members

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Abstract. The study aims to identify the requirements for the introduction of artificial intelligence technology in the teaching of teaching Kuwaiti universities students from the point of view of faculty members. (28) paragraphs and the sample consisted of (149) faculty members in teaching Kuwaiti universities, and the results showed that the study sample agreed with the requirements for introducing artificial intelligence technology in teaching university students with a degree (I agree), and the results showed statistically significant differences for the requirements for introducing Artificial intelligence technology in teaching university students is due to the variable of gender and years of experience. The most important recommendation of the study came to the need to develop the educational environment in teaching Kuwaiti universities to provide requirements for the introduction of artificial intelligence technology in the educational process in teaching Kuwaiti universities to keep pace with global developments.

Keywords. Requirements, artificial intelligence technology

Introduction

Our world is witnessing many developments in all fields of knowledge, accompanied by the great development in the technological and technical field, which showed many concepts for dealing with data, and artificial intelligence is one of the most prominent of these concepts, as it is considered one of the innovative sciences for dealing with databases, which depend on the computer and its programs.

Artificial intelligence technology is the cornerstone of making programmed and computerized machines perform functions similar to human intelligence represented mainly by learning and making appropriate decisions, and thus works to simulate the human mind by programming it to interpret external data and then learn from this data and use it to achieve specific goals and tasks through Flexible adaptation (Mahmoud, 2020).

Artificial intelligence is described as a branch of computer science that is concerned with simulating human intelligence, human skill, or the human mind, or the expertise of specialists in various fields, developing programs to solve problems and making the appropriate

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decision by processing data and information in a non-algorithmic way, in addition to that it uses computer systems in operations. The nature of dialogue with humans is similar to educational programs that are designed in the form of a dialogue in which the computer plays the role of an expert teacher who has the correct answer and corrects the user's answers by analyzing and displaying errors (Al-Attal et al., 2021).

Therefore, dealing with technological changes requires the need to bring about changes in university teaching methods, because traditional methods are no longer able to absorb the huge amount of information and modern developments, so that universities can achieve the desired goals.

Universities are one of the most important educational institutions that work to qualify students and provide them with the skills necessary for the labor market. The introduction of artificial intelligence technology works to improve the education system and keep pace with development, contributes to opening new horizons in teaching strategies, and works to find practical teaching curricula that help students expand Their thinking horizons (Al-Subhi, 2020).

Based on the above; The impact of technology on the educational process is not only achieved by the availability of modern technologies in universities such as computers connected to the Internet, but also by the knowledge of the teaching staff of these technological innovations, and their effective employment in educational systems on the one hand, and their possession of skills that are in line with the tremendous scientific and technological progress on the other hand. Providing the requirements of artificial intelligence in universities has become an urgent need at the present time, hence this study came to find out the requirements for introducing artificial intelligence technology in teaching Jordanian university students from the point of view of faculty members.

the study Problem

In view of the rapid developments that the world is witnessing at the present time, in all fields, especially in the field of educational technology, and the many problems it has caused, such as the inflation of information and the increase in the number of students and learners, in addition to helping the emergence of new innovations such as artificial intelligence.

It is noted that Kuwaiti universities are striving to develop and keep pace with global changes and developments, to improve the quality of education in them, and this was confirmed by the study (fryer, 2019), as it indicated the need to employ e-learning and its applications in university education, because the ranking of advanced universities depends on the use of emerging applications of artificial intelligence. About e-learning.

And since artificial intelligence technology seeks to facilitate the educational process and save time and effort for the learner, in addition to that it solves all problems related to the lack of qualified teachers and helps the learner to develop his abilities and change the educational environment to a safe and enjoyable learning environment, and many studies indicate that providing the requirements of artificial intelligence technology and employing it In university education, it is very important, like Al-Mahdi's study (2020).

Based on the foregoing, the current study seeks to reveal the requirements for the introduction of artificial intelligence technology in the teaching of Kuwaiti university students from the point of view of faculty members.

Study questions

1. What are the requirements for the introduction of artificial intelligence technology in the teaching of Kuwaiti university students from the point of view of faculty members?

2. Are there statistically significant differences at the level ($\alpha \leq 0.05$) for the requirements of introducing artificial intelligence technology in the teaching of Kuwaiti

university students from the point of view of faculty members due to the variables (gender, years of experience)?

Study objectives

The study seeks to identify the requirements for the introduction of artificial intelligence technology in the teaching of Kuwaiti university students from the point of view of faculty members. gender, years of experience)?

the importance of studying

The importance of the study is that it seeks to identify the requirements for introducing artificial intelligence technology in the teaching of Kuwaiti university students from the point of view of faculty members, as artificial intelligence is one of the modern applications of information technology that contribute effectively to the development of the educational process and improving its outputs, in addition to that the study seeks To provide recommendations on the requirements needed to introduce artificial intelligence technology in teaching, The importance of the study also stems from the novelty, vitality and importance of the subject it raises, as it is expected that the introduction of artificial intelligence technology in education will be one of the most common educational trends in the near future.

The limits of the study

- Objective limits: Requirements for the introduction of artificial intelligence technology in the teaching of Kuwaiti university students from the point of view of faculty members.

- Human limits: The study limits are limited to faculty members in Kuwaiti public universities.

- Spatial limits: The limits of study are limited to public universities in Kuwait.

- Temporal limits: The study was implemented during the first semester of the academic year 2022-2023.

Terminology of study

- Requirements: These are the principles that must be available in organizational inputs or processes (Al-Bahr, 2019).

- Artificial intelligence (idiomatically): It is one of the branches of computer science, which is based on simulating human intelligence, human skills and experiences, by creating devices and preparing programs that can carry out operations that parallel human intelligence in a programmed way. It is a science that searches for computer simulation of human behavior (Ahmed, 2022).

- Artificial intelligence (procedural): It is the science that is based on computer simulation of human behavior, by placing specific programming on hardware and software that resembles human behavior, and requires several requirements to be applied and introduced to teaching, including technical requirements, human requirements and financial requirements.

Previous studies

Previous studies related to the subject of the study will be presented, and they will be arranged in descending order from the newest to the oldest, and then comment on them and identify the extent of their benefit and indicate the differences and similarities between them and the current study as follows:

Al-Hindi Study (2022) The aim of this research is to identify the requirements for employing artificial intelligence in university education from the point of view of faculty members at the Faculty of Graduate Studies in Education - Cairo University. The questionnaire consisted of (31) phrases, and it was applied to a sample of faculty members at the Faculty of Graduate Studies in Education at Cairo University, consisting of (67) faculty members who

were chosen randomly, with a rate of (63.81%) from the original community of members of (105) faculty members. Teaching in the academic year 2021/2022 AD. The research came up with some proposals necessary to employ artificial intelligence in university education in order to reach the necessary employment requirements in university education, represented in: providing a flexible and advanced infrastructure of wireless communications, computers, and software, and providing highly qualified specialists for technical support to address network malfunctions before applying intelligence. artificial in teaching.

Al-Subhi (2020) study, which aimed to identify the reality of the use of artificial intelligence applications by faculty members at Najran University; that can be employed in the educational process, and the challenges facing its use. The study used the analytical descriptive approach and the descriptive survey approach, and the questionnaire was used as a tool for analyzing the study data, and it was applied to a sample of (301) faculty members at Najran University. The study found that the use of artificial intelligence applications by faculty members at Najran University was very low, and that there was remarkable agreement on the existence of challenges that prevent the use of artificial intelligence applications.

Studying hummans (2020) This study aimed to identify the requirements for employing artificial intelligence applications in teaching Saudi university students, and the challenges facing its application from the point of view of experts. Building a list of the requirements for employing artificial intelligence applications in teaching in Saudi universities, consisting of two axes: the first contained (3) requirements: (organizational, human, and financial), which included (25) requirements indicative of them, and the second contained (12) phrases for challenges that might Saudi universities face when applying artificial intelligence in teaching. The research presented a number of proposals, the most important of which are: developing the educational environment in Saudi universities to help apply artificial intelligence in the teaching process, and facilitate the interaction of the rest of the educational process elements.

The study malik (2019) attempted to identify the impact of artificial intelligence on higher education, especially the change that artificial intelligence brings about in higher education, in addition to the role of higher education in developing artificial intelligence. The research used the qualitative approach through action research and providing solutions to problems. The research concluded to the contribution of artificial intelligence in supporting higher education and solving its problems.

Maryam Tura (2019) conducted a study aimed at the requirements for introducing artificial intelligence technology into Egyptian pre-university education, and the researcher used the synthetic analytical approach, by identifying what artificial intelligence is, identifying the types of artificial intelligence, and the requirements of artificial intelligence in pre-university education to achieve sustainable development. .

Comment on previous studies and the location of the current study

It is noted from the review of previous studies that they focus on the subject of artificial intelligence and its requirements in education, and the extent of its contribution to improving the educational process. For the research efforts carried out by the researchers in the previous studies, except that they pertain to a sample of faculty members in Kuwaiti public universities, In addition, the current study is considered one of the first studies - according to the knowledge of the researchers - that examines the issue of requirements for the introduction of artificial intelligence technology in the teaching of Kuwaiti university students. The researchers benefited from the previous studies in finding Arab and foreign sources related to the subject

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of the current study, which helped the researchers in formulating the study problem, developing the study tool, and assisting in discussing the results of the study.

Study Approach:

The study adopted the survey descriptive approach used to describe the phenomenon, because it is the most appropriate approach for the current study that seeks to reveal the requirements for the introduction of artificial intelligence technology in the teaching of Kuwaiti university students from the point of view of faculty members, as the descriptive approach studies the phenomenon, describes it accurately, and expresses it quantitatively. And digitally.

Study population:

The study population consisted of faculty members in Kuwaiti public universities.

The study sample:

The sample of the study was chosen intentionally, and it numbered 160 from the total population of the study, and the number of retrieved persons reached 149, and thus the study sample amounted to 149 faculty members from Kuwaiti public universities. Table (1) shows the distribution of the study sample members by gender and years of experience. It is clear from it that the number of males and females in the study sample is close, noting that the percentage of males (53%) exceeds the percentage of females (46%), and the percentage of years of experience is less than 10 years in the sample (55%) compared to the percentage of years of experience of more than 10 years that reached (45%).

Table (1) Characteristics of the study sample according to the variables of gender and years of experience

variable		the number	percentage
sex	male	80	%53.7
	female	69	%46.3
Years of Experience	Less than 10 years old	82	%55
	10 years and over	67	%45
Total		149	%100

Study tool:

To achieve the objectives of the study, the researchers adopted the questionnaire as a tool for the study, and based on the theoretical literature and previous studies such as the study of hummans (2020) and the study of Turah (2019). The tool consisted of three fields (technical, human, financial) distributed over 23 items. The response was designed on the study tool according to the five-point scale of the five-point Likert model as follows: an answer that strongly agrees with (5) degrees, agrees with (4) degrees, neutral with (3) degrees, disagrees with (two degrees), and strongly disagrees with it. (One degree) only.

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The gradient presented in Table (2) was used, which was extracted according to the following equation: 5-1 = 4 / 3 = 1.33. Where (5) represents the upper limit of the alternatives, (1) represents the lower limit of the alternatives, and (3) indicates the evaluation levels of the arithmetic means (high, medium, low).

Table (2) estimates of the relative importance of the arithmetic mean values

average value	Relative importance
2.33-1	low
3.67-2.34	Medium
5-3.68	High

Validity of the tool:

The tool was presented in its initial form to a group of experienced and specialized faculty members from the fields of curricula and teaching, educational leadership and fundamentals, who numbered (10) members; They were asked to determine the appropriateness of the paragraphs, their degree of clarity, and their linguistic integrity, to mention any proposed amendments and to suggest paragraphs they deem necessary, and to delete unnecessary paragraphs. An agreement criterion (80%) was approved by the arbitrators' committee to allow for modification, deletion and addition, and after returning the tool, the suggested amendments that the arbitrators mentioned in their recommendations were made.

Tool stability:

Stability means accuracy and consistency in the performance of individuals, and stability in results over time. A fixed test gives the same results if applied to the same group of individuals again, as Cronbach's Alpha was calculated for internal consistency, and the result is considered statistically acceptable if its value is greater. of (0.60), and the researcher calculated the indicators of stability by applying the tool on an exploratory sample of (15) faculty members in Kuwaiti public universities. Reliability was calculated by extracting the internal consistency of the tool based on the Cronbach alpha coefficient, and the tool of this study can be described as stability, as the value of the internal consistency coefficient for the resolution as a whole was (0.79), and therefore the data obtained through it is suitable for measuring variables, and is subject to a high degree of reliability.

Study variables:

First: the independent variables:

- Estimates of faculty members in Kuwaiti public universities for the requirements of introducing artificial intelligence technology.

Second: intermediate variables:

- Gender: It has two categories: male and female
- Years of experience: It has two levels: less than 10 years, 10 years and more.

Third: dependent variables:

- The reality of the requirements for the introduction of artificial intelligence technology.

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Study procedures:

The study followed the following steps in order to reach the results:

- Collecting theoretical literature for the study by reviewing sources and references.
- Description of the study population, its sample, the study tool and the necessary statistical treatments.
- Preparing the study tool, and extracting indications of its validity and reliability.
-The study tool was applied to the study sample of faculty members in Kuwaiti public universities, and the questionnaire was distributed electronically to the sample, and it took 3 weeks to distribute and collect the tool.
- After completing the application of the tool and collecting copies, the data was dumped on special lists, then the data was entered into the computer and processed statistically using the (SPSS) program.
- Interpreting and discussing the results and making recommendations.

Statistical processing

The study relied to process the study data on a number of statistical methods that are consistent with the nature of the study questions, as follows:

- Cronbach alpha coefficient to measure the stability of the study tool.
- Arithmetic means and standard deviations in order to assess the relative importance of the answers of the study sample, and thus answer the first question.
- Test (T) to determine the differences in the estimates of faculty members.
- A one-way test of variance (ANOVA) to determine differences in the estimates of faculty members
- The scale levels will be divided into three levels (strongly disagree, agree, and strongly agree) according to the following formula:

The higher value of the alternative - the lower value of the alternative / number of levels

5- 1 / 3 = 1.33

The Results

The following is a presentation of the findings of the study by answering its questions, as follows:

The results related to the first question, which states: What are the requirements for introducing artificial intelligence technology in the teaching of Kuwaiti public university students from the point of view of faculty members?

To answer this question, the arithmetic means and standard deviations were extracted for the fields of artificial intelligence employment requirements, and Table (3) shows this.

Table (3)

The arithmetic means, standard deviations, and the rank and degree of the study sample's estimates about the requirements for the introduction of artificial intelligence technology in Kuwaiti public universities from the point of view of faculty members are arranged in descending order according to the arithmetic means of the fields of the tool

The number	the field	Arithmetic average	standard deviation	arrangement	grade
1	artistic	3.07	0.74	3	Medium
2	Humanity	3.18	0.73	1	Medium

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3	Finance	3.14	0.82	2	Medium
total		0.76	3.13		**Medium**

Table No. (1) shows that the overall degree of the requirements for the introduction of artificial intelligence technology came to a medium degree with an arithmetic mean (3.13) and a standard deviation (0.76), while the human requirements came in the first place with an arithmetic mean (3.18) and a standard deviation (0.73), followed by the financial requirements with an arithmetic mean (3.14), standard deviation (0.82), and technical requirements in the last degree, with an arithmetic mean (3.07) and a standard deviation (0.74).

The following is a presentation of the results according to the fields of the study tool, as follows:

First: technical requirements

To answer the paragraphs related to this field, the arithmetic averages, standard deviations, rank and degree were calculated, and Table (4) shows that.

Table (4)

The arithmetic means, standard deviations, rank and degree of the study sample's estimates of the requirements for introducing artificial intelligence technology in Kuwaiti public universities from the point of view of faculty members in the field of technical requirements are arranged in descending order according to the arithmetic means

The number	Paragraph	arithmetic mean	standard deviation	rank	grade
6	Training workshops are held for faculty members on artificial intelligence systems	3.90	1.005	**1**	Medium
4	**E-learning service is available at the university.**	3.35	1.026	**2**	Medium
7	**The sources, references and information that the student needs are available from the university's database**	3.28	1.096	**3**	Medium

8	**Training courses are held for faculty members specialized in artificial intelligence**	3.17	1.038	**4**	Medium
9	**The university seeks to spread the culture of artificial intelligence among faculty members and students.**	3.02	1.199	**5**	Medium
3	**Programs for the application of artificial intelligence are developed by the university**	2.97	1.182	**6**	Medium
5	**The university seeks to set laws governing the process of introducing and applying artificial intelligence technology in teaching**	2.90	1.173	**7**	Medium
2	**The university seeks to change teaching systems to comply with**	2.88	1.224	**8**	Medium

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	artificial intelligence technology				
1	**Regulations are put in place that oblige faculty members to apply artificial intelligence technology**	2.23	1.258	**9**	**low**
	Total	3.07	0.746		**Medium**

It is clear from the results in Table (4) that the total degree of availability of technical requirements is medium, as the value of the arithmetic mean was (3.07) with a standard deviation of (0.746), and the paragraph that states “training workshops for faculty members regarding artificial intelligence systems will be held.” In the first rank with a high degree, with an arithmetic mean (3.90) and a standard deviation (1.00), Followed by the paragraph stating "The e-learning service is available at the university." With an arithmetic mean (3.35) and a standard deviation (1.00). It is noted that all the paragraphs came with an average score, except for the paragraph that states: “Systems are put in place that oblige faculty members to apply artificial intelligence technology.” Which came in the last place with a weak score, with an arithmetic mean (2.23) and a standard deviation (1.25), and these results indicate that individuals The study sample agrees with the technical requirements for the introduction of artificial intelligence technology in universities.

Second: human requirements

To answer the paragraphs related to this field, the arithmetic averages, standard deviations, rank and degree were calculated, and Table (5) shows that.

Table (5)

The arithmetic means, standard deviations, rank and degree of the study sample's estimates of the requirements of introducing artificial intelligence technology in Kuwaiti public universities from the point of view of faculty members in the field of human requirements arranged in descending order according to the arithmetic means

The number	**Paragraph**	**arithmetic mean**	**standard deviation**	**rank**	**grade**
7	Providing technicians for maintenance operations for laboratories at the university	3.58	1.17	**1**	Medium

6	**The faculty members are highly skilled in dealing with computers**	3.52	1.18	**2**	Medium
9	**The presence of a university administration that adopts the introduction of artificial intelligence technology**	3.44	1.19	**3**	Medium
8	**Providing experts to design artificial intelligence applications in line with university study plans**	3.43	1.18	**4**	Medium
5	**Providing trainers to train faculty members on artificial intelligence technology**	3.11	1.09	**5**	Medium
3	**The presence of distinguished students trained in the use of artificial intelligence technology**	3.08	1.07	**6**	Medium
2	**The presence of employees in administrative departments 1specialized in artificial intelligence**	3.07	1.11	**7**	Medium
1	**The faculty member and students have the**	3.03	1.25	**8**	Medium

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	ability to use artificial intelligence technology in acquiring, processing and storing information				
4	**The faculty member is keen to integrate computerized curricula with regular teaching**	2.97	1.14	**9**	**Medium**
	Total	3.18	0.73		**Medium**

The results in Table (5) indicate that the total degree of availability of human requirements is medium, as the arithmetic mean value was (3.18) with a standard deviation of (0.73), where the paragraph that states "providing technicians for maintenance operations for laboratories at the university came in the first rank with a medium degree with an arithmetic mean (3.58) and a standard deviation (1.17), and in the last rank came the paragraph that states "the faculty member is keen to integrate computerized curricula with regular teaching" with a moderate degree, with an arithmetic mean (2.97) and a standard deviation (0.73), and the results indicate the degree of agreement of the study sample. On the human requirements for the introduction of artificial intelligence technology indicate (I agree).

Third: Financial requirements

To answer the paragraphs related to this field, the arithmetic averages, standard deviations, rank and degree were calculated, and Table (6) shows that.

Table (6)

The arithmetic means, standard deviations, rank and degree of the study sample's estimates of the requirements of introducing artificial intelligence technology in Kuwaiti public universities from the point of view of faculty members in the field of financial requirements are arranged in descending order according to the arithmetic means

The number	Paragraph	arithmetic mean	standard deviation	rank	grade
5	**Develop a budget for training faculty members and students on artificial intelligence technology**	3.43	2.55	**1**	**Medium**

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7	**Setting financial allocations to provide computers**	3.35	1.20	**2**	**Medium**
9	**Allocating part of the budget for the maintenance of computers**	3.31	1.08	**3**	**Medium**
8	**Allocate incentives and rewards for faculty members who use artificial intelligence technology**	3.30	1.148	**4**	**Medium**
1	**Allocating sums of money to specialists and providers of consulting in the field of artificial intelligence**	3.26	1.231	**5**	**Medium**
4	**Organizing competitions for students at the university level in the field of artificial intelligence**	3.15	1.093	**6**	**Medium**
10	**Offering rewards to outstanding students in the field of artificial intelligence**	3.07	1.256	**7**	**Medium**
2	**Increasing the universities' budget to cover the costs of introducing AI technology**	3.04	1.058	**8**	**Medium**
3	**Encouraging cooperation between different universities**	2.79	1.260	**9**	**Medium**

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6	**Participation in international competitions specialized in artificial intelligence.**	2.77	1.322	**10**	**Medium**
	Total	3.14	0.82		**Medium**

The results in Table (6) indicate that the overall degree of availability of human requirements is medium, as the arithmetic mean value was (3.14) with a standard deviation of (0.82). The paragraph that stipulates "setting a budget for training faculty members and students on artificial intelligence technology" ranked first with a medium score, with an arithmetic mean (3.43) and a standard deviation (2.55), and the paragraph that states "participation in international competitions specialized in artificial intelligence." In the last rank, with a moderate degree, with an arithmetic mean (2.77) and a standard deviation (1.32), and the results indicate the degree of agreement of the study sample with the financial requirements for the introduction of artificial intelligence technology (I agree).

The results of the second question, which states: Are there statistically significant differences at the level ($\alpha \leq 0.05$) in the estimates of the study sample on the items of the study tool due to the variables of gender and years of experience?

Arithmetic means and standard deviations were calculated at the level of the groups in order to monitor the apparent differences in the values of the averages of the respondents' responses to the items of the scale as a whole depending on the variables of gender and years of experience. The (T) test was also used in order to determine the significance of the differences in the averages of the groups, and the results are shown in Table (7):

Table (7)

Differences in the respondents' estimates of the requirements for introducing artificial intelligence technology in Kuwaiti universities

variable	category	the number	SMA	standard deviation	degrees of freedom	value (v)	significance level
Sex	**Male**	80	3.20	0.68	147	1.37	0.174
	Female	69	3.06	0.62			
experience	**less than 5 years**	82	3.22	0.60	**147**	1.61	0.110
	10 years and over	67	3.04	0.77			

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It is noted from Table (7) that the apparent differences between the arithmetic averages for the two categories of gender (male and female) are not significant, as they amounted to (0.146), and the same is the case with regard to the apparent differences between the arithmetic averages for the two categories of years of experience (less than 10 years, 10 years and more), which amounted to (0.172). In terms of the significance of the differences, the results showed that there were no statistically significant differences in the estimates of the respondents on the items of the study tool in terms of gender, program and years of experience. Significance (0.11), which is greater than the level of significance (0.05).

Discuss the results of the study

Discussing the results of the first question, which states: "What are the requirements for introducing artificial intelligence technology in the teaching of Kuwaiti public university students from the point of view of faculty members?"

The results of the study showed that the members of the study sample (faculty members in Kuwaiti public universities) agree on the need to meet the requirements for introducing artificial intelligence technology, which are technical, human and financial requirements. The arithmetic mean was (3.13), which indicates (I agree) according to the study tool.

Human requirements came in the first place, and researchers may attribute this result to the importance of qualifying the human element and providing it with the technological, technical and scientific requirements of the age to serve the educational process, as providing technicians, experts and faculty members with experience and skill in e-learning based on artificial intelligence contributes to setting the first step to introducing Artificial intelligence technology in the teaching process, and this result is consistent with the study of Al-Astal (2022), which emphasizes the importance of having effective administrative leaders in educational institutions, seeking to introduce artificial intelligence technology and stressing the need to provide all its requirements due to its importance in education, Also, the study of Al-Atl, Al-Anazi, and Al-Ajami (2021) indicates that the most important challenges facing the application of artificial intelligence in education is the lack of availability of specialists and experts in this field, in addition to the lack of experience of faculty members in dealing with this artificial intelligence technology. This result is also consistent with the study of hummans (2020), which indicated the need to activate the role of human requirements such as administrators in educational institutions and faculty members to be able to deal with artificial intelligence applications. The results of the study indicated that the financial requirements came in second place, and the researchers may attribute this result to the importance of allocating a budget for universities for the introduction of artificial intelligence technology, because our current era requires keeping pace with technical developments and global changes in the field of technology and education, as it is necessary to link inputs and outputs The educational process meets the requirements of the innovation-based labor market today. In addition, the introduction of artificial intelligence technology requires a financial cost to create the appropriate infrastructure, and this is consistent with Mahmoud's study (2020), which indicated that artificial intelligence needs infrastructure, the most important of which is the provision of computers and the allocation of funds for training workers in educational institutions.

Paragraph No. (26) obtained the highest arithmetic average in the field of financial requirements, which states: "Developing a budget for training faculty members and students on artificial intelligence technology." This result is attributed to the importance of setting a special budget for training faculty members and students on artificial intelligence technology. And that it needs a high cost resulting from the use of artificial intelligence systems, updating,

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maintaining and training on them, and this result is consistent with the study of Al-Mahdi (2020).

The results of the study also indicated that the technical requirements ranked third with an arithmetic average of (3.07), and this result is attributed to the importance of providing the technical requirements for the introduction of artificial intelligence technology, in terms of holding workshops for workers in universities and training them, in addition to providing databases for artificial intelligence, and these The result is consistent with the study in hummans (2020).

Based on the foregoing, the researchers believe that these requirements must be fully met to introduce artificial intelligence technology into teaching, starting with qualifying administrative workers, academics, and students in universities and training them to use artificial intelligence technology, followed by providing financial allocations and technical requirements for developing academic and research facilities, and training specialists. and those working on artificial intelligence.

Discussing the results of the second question, which states: "Are there statistically significant differences at the level ($\alpha \leq 0.05$) of the requirements for the introduction of artificial intelligence technology in the teaching of Kuwaiti public university students from the point of view of faculty members due to the variables (sex, years of experience)?"

The results of the study indicated that there were no statistically significant differences in the students' estimates on the items of the questionnaire due to gender and years of experience. This is due to the agreement of the study sample with the gender difference regarding the provision of requirements for the introduction of artificial intelligence technology. This indicates the awareness of the faculty members of the importance of introducing artificial intelligence technology in the process of teaching students. Aware of the requirements of artificial intelligence, especially human requirements, which face many challenges in providing them.

Study recommendations

In light of the findings of the researchers, the study came out with the following recommendations:

- Working on holding workshops for university administrators and academics.
- Training faculty members and students on the use of artificial intelligence technology in teaching.
- Allocating a budget for universities to develop infrastructure in line with the requirements of artificial intelligence.
- The need to spread the culture of artificial intelligence in Kuwaiti universities.
- The need to increase interest in providing computers and encourage faculty members to use them.
- Coordinating with the competent authorities to design technological applications within the university to work on creating appropriate software for artificial intelligence.
- The need to develop the educational environment in Kuwaiti universities to provide the requirements for introducing artificial intelligence technology into the educational process in Kuwaiti universities to keep pace with global developments.
- Benefiting from international experiences in universities through field visits to find out the reality of using artificial intelligence technology in them.

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