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Extent to using Artificial Intelligence Applications under Corona Pandemic in King Abdullah II Schools for Excellence from Point of View of Teachers of Talented Students

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Abstract

The aim of the study is to know the extent of using Artificial Intelligence Applications under the corona pandemic in King Abdullah II Schools for Excellence from viewpoint of teachers of talented students. The population of the study consisted of all teachers of talented students in King Abdullah II Schools for Excellence in the Hashemite Kingdom of Jordan and the sample of the study consisted of (192) male and female teachers. The descriptive analytical method was used in this study and the questionnaire was used as a measurement for it. The results indicated the arithmetic average of the answers of the study sample members about using artificial intelligence applications under the corona pandemic in these schools (3.38) with a standard deviation (0.82) at the neutral level. While the obstacles to using artificial intelligence applications under the corona pandemic came with an average was (3.74) and a standard deviation (0.78) at a high level, also revealed that there were no statistically significant differences in significance ($\alpha \leq 0.05$) for using of artificial intelligence applications by teachers of talented students in the variable of gender. While the results revealed that there were differences due to the variable of experience, when calculating the arithmetical means, it appears that the use of artificial intelligence applications by teachers whose experience is less than ten years has an arithmetic average (3.63), while it reached for teachers with an experience more than ten years (3.59). The study recommended the adoption of curricula for talented students based on artificial intelligence, providing the necessary funding to improve the infrastructure needed to utilize artificial intelligence techniques in the service of education, to holding training and qualification courses for teachers of talented students to improve their attitudes, concepts, and their use of artificial intelligence techniques in the educational method.

Keywords: *Artificial Intelligence Applications, Corona Pandemic, King Abdullah II Schools for Excellence, Teachers of Talented Students.*

1. Introduction

The world is witnessing huge development in communication and information technologies fields, and among the future technologies that attract the attention of educators are artificial intelligence techniques and their applications. Whereas, the Intelligence of Artificial is a simulation of human intelligence by machines, especially computer systems. Since the future is the era of joint teaching between man and machine, so you must continue to teach and improve and learn to use our teaching skills and experience. In addition to actively adapting to changes in information technology,

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thinking seriously about the ability of (machines and humans) to act and focus on improving education.

New patterns of artificial intelligence have emerged from smart teaching systems, adaptation learning environments, and expert systems. These patterns have formed an integrated system through which the educational process is developed and benefits from a modern technique that has emerged through the application of e-learning in the educational process (Fahimirad & Kotamjani, 2018). Applications can also be used in education through content, student communication, evaluation, automation of administrative tasks, and support for talented students.

Given the crises the world is facing, one of the most difficult of these crises is the outbreak of the coronavirus, which swept many countries of the world because the nature of this virus is transmitted mainly from one person to another. Most countries of the world demanded their citizens adhere to domestic isolation to prevent the coronavirus spread. This isolation has affected all areas of life, as this impact of this pandemic has strictly affected the educational process. Since the declaration of a state of emergency to address this sudden situation due to the spread of this virus which has threatened human life forced educational institutions to stop studying and closed schools. This changed the system of the educational process, and confused students and educators themselves, both personally and professionally (Al-Dahshan, 2020).

Therefore, the systematic integration of AI and its applications in education has now played a significant role in facing the impact of this crisis in education, and in planning teaching and learning practices in a way that contributes to achieving the desired educational and learning goals.

Using AI is a new way of learning that has appeared as a result of the introduction of technique technologies into life. Recent guidance and research in AI education indicate that the more learning space with modern applications, the more opportunities exist to improve the education system and keep pace with development. Artificial intelligence has multiple important roles in educational institutions, especially schools for the talented because it contains elements that can be done (Atribi, 2019).

From this point of view, and in view of the global health crisis the coronavirus pandemic, which invaded our lives. The employment of artificial intelligence and its applications in the educational process has become an urgent necessity for all countries of the world to achieve the goals of the teaching and learning processes and to achieve the maximum benefit from them, especially for talented students.

The crisis and spread of the coronavirus had a significant impact on the educational process. So, to preserve human life the educational process stopped. Therefore, it is imperative to confront this crisis and its challenges, limit its negative effects, research how to benefit from it in developing the teaching, and learning process, and ensure that all learners have equal opportunities.

The coronavirus crisis, with its challenges that hit various fields, is still enhancing the efforts of the human mind toward innovative thinking and accelerating the use of modern technology in its maximum stages, especially since the stage of coexistence with the virus began without specifying an end date. At the forefront of modern technology is artificial intelligence as the most influential factor in meeting the challenges of the virus (Salama, 2020). AI can open up new horizons in the curriculum, teaching strategies, and technologies of education for all areas of knowledge, and this is a reason for educators to seize these facilities and the distinctive benefits provided by AI applications for the education process (Al Saud, 2017).

Despite the efforts made to nurture the gifted by providing them with enrichment programs and various educational services, what is provided to gifted students is still below expectations. As there is an urgent need for them to receive appropriate educational

care for them, and differentiated services that challenge their abilities and meet their needs that are not currently available in programs traditional to regular schools.

There are many problems that impede talented students from accessing the educational services available to them (Mukhaimer, 2013). The study of Uzunboy et al. indicates an increase in the rate of studies associated with the use of educational technologies in teaching talented students in the world (Uzunboy et al., 2019). While, the review of previous literature conducted by Ali and Alrayes indicates that it is still below expectations in terms of quantity and quality (Ali & Alrayes, 2019). While Muhammad's study indicated the lack of enrichment programs for the category of talented (Muhammad, 2019).

In light of the above, and in light of the lack of studies that dealt with the use of the intelligence of the artificial techniques and applications in the centers and schools of gifted education in the Kingdom, and the necessities imposed by the developments of the modern era that require the use of these applications, to raise the level of talented, which certainly affect the development process in the country. This study comes to represent an addition to the literature that examines the use and application of education techniques in general and artificial intelligence techniques and applications in particular in the programs offered in centers and schools of talent in the Kingdom.

2. Theoretical framework

AI is one of the most important outcomes of the revolution of the fourth industrial because of its several uses in military, technical, economic, medical, and educational uses. It is probably to open the door to unlimited inventions and lead to further revolutions in the industry, leading to a fundamental change in the life of the human. With the enormous and accelerating technological development and transformations, the world is witnessing under the revolution of the fourth industrial, artificial intelligence will be the engine of development, improvement, and prosperity over the next few years. (Majed, 2018).

AI is a new field of the science of technology that studies and develops methods, techniques, and application systems to simulate and expand human intelligence. The primary task of AI is to build a structure of behavior that can imitate the functions of the human brain and be organized by a human-computer system. The application of this technique develops the types of educational resources and offers a more diverse education method (Lufeng, 2018).

2.1 Artificial intelligence

AI creates a problem-solving mechanism within organizations that depends on objective judgment and careful valuation of solutions. In addition, raising the level of information of the officials of the organization by providing solutions to many difficult problems to be analyzed by the human element in a short time. Artificial intelligence includes studying the logical thinking processes of the human element and then trying to perform it via computers, the most important thing that distinguishes it is its relative stability. Where it is not exposed to the factors that affect the human element, such as forgetfulness (Zarrouqi, 2020).

AI is the capability of machines to learn, infer, and offer choices. Accordingly, it is not far from incoming the field of education, as teachers may use it to align lessons with each student's personality. Where the software of education powered by artificial intelligence can keep the data of the mental abilities of the students, the speed of its response, and its scientific, personal, and traditional preferences. This enables the machine to provide the lesson and conduct tests according to these experiences, and this indicates that this technique will never replace the human element. But it will be devoted to teaching

students theoretical lessons, while the teacher will get more time to connect with his students (Imam, 2020).

The AI technique provides a different field that cannot be found in the traditional stereotypical environment of the school in our current time due to the digital and dynamic nature of it. AI applications in education will allow the find of new learning frontiers and accelerate the creation of innovative technologies. Among the applications of artificial intelligence in education, we mention them as follows (Al-Maarifa, Almarifa 2020):

1- Smart Content

A set of current digital companies and platforms are attracted to generating (smart content) by transforming traditional educational books into smart books that are closely correlated to the educational process. In this context (Content Technologies, Inc.) are an artificial intelligence improvement company focusing on business process automation and smart learning styling which is a group of smart content services for education. Other companies are generating integrated smart content platforms by integrating content with training and assessment exercises.

Intelligent Tutoring Systems (ITS)

ITS is a computer system designed to assist and develop knowledge learning and education and provide direct lessons without the need for intervention from a human teacher. Also, it aims to simplify learning in a meaningful and effective manner by using different computing and artificial intelligence technologies. Among these systems, we mention, for example, (Bayesian Knowledge Tracing, CIRCSIM-Tutor, ZOSMAT, and Auto Tutor).

2- Virtual Reality (VR) Technique and Augmented Reality (AR) Technique

VR technique is an interactive simulation that permits the worker to do different experiences such as participating in a football match or visiting certain places while he sitting at home. While AR technique differs from its predecessor in that it transmits the scenes in a two- or three-dimensional view in the user's surroundings, where these scenes are collective in front of him, to create a composite display reality.

2.2 Positive effects of artificial intelligence on education

UNESCO Director-General Audi Azoulay noted that: AI will bring about a radical change in education, and we will see a revolution in pedagogical tools, ways of learning, the utilization of knowledge, and the teacher training process. Artificial intelligence can help accelerate the process of realizing global education goals by reducing obstacles to learning, automating administrative procedures, and obtaining the best ways to develop learning outcomes (Azoulay, 2019).

Among the most important positive effects of AI in education, Karsenti mentioned (Karsenti, 2019)

1- Providing customized learning for teachers and learners according to their needs.

2- Automatic correction of certain types of study work saves teachers time to perform other tasks.

3- Continuous evaluation of teachers helps to track learners' experiences along the real-time learning path to carefully measure skill acquisition over time.

4- Providing smart teaching platforms for distance learning, in addition to the quick expansion of mobile technology opens exciting opportunities for learners and teachers alike.

5- Increasing interaction between learners and academic content, by knowing the language of learning and simulating a real conversation.

It is clear from the above that there are contributions that artificial intelligence can make in education if it is used and its potential is invested in education, especially talented education. As it is clear what this requires in the qualification of cadres specialized in systems and AI applications in education.

2.3 Challenges facing the applications of artificial intelligence in education

The Alisher study indicated the challenges facing the application of AI in teaching. The most important of which is the lack of readiness of the hardware and software in schools and universities necessary to apply AI in the teaching process, the lack of experience of teachers and lecturers in the field of AI applications in teaching, the weak infrastructure of schools and universities, and the high financial costs needed to implement artificial intelligence (Alisher, 2020).

The coronavirus pandemic has shown some problems in the educational process, including (Mahmoud, 2020):

1- Increasing the number of learners in school classrooms in a way that does not allow effective communication between the teacher and the learners.

2- Weak digital infrastructure, weak and sometimes nonexistent internet service.

3- Relying completely on the educational method on paper books, which are difficult to modify and develop quickly, in line with the nature of the current era.

4- Lack of attention to training teachers and learners to use modern technological technologies.

5- The low standard of living of some parents, and their weak ability to deal with technology affect the inequality of educational opportunities among learners.

The use of AI applications in emergencies imposed by the coronavirus pandemic in a planned manner for it, and considering it an important part for educational institutions to play their role, is an imperative necessity that works to obtain greater efficiency and new opportunities to develop the educational process. With artificial intelligence, educational institutions can achieve more goals in less time by supporting its various modern applications of the education system and developing the curriculum with its multiple elements. Then the teaching and learning processes will take place more effectively in the new teaching environment.

2.4 Previous studies

A study Al-Omari aimed to find out the extent to which artificial intelligence applications are used in Al-Namas education schools from the viewpoint of female teachers. The descriptive analytical method was relied upon, as the study sample contained (41) female teachers who taught and trained during the period of the spread of the corona pandemic. The questionnaire was used as a measure for the study, and the results showed that the extent of the application of artificial intelligence applications and the obstacles came by a medium degree. The study recommended the necessity of integrating face-to-face education with AI applications in the educational process (Al-Omari, 2022).

The study by Wang aimed to reveal the extent to which faculty members in the universities of Anhui Province in the People's Republic of China use AI applications in education and the study used the descriptive survey approach. The results showed that the use of AI applications by faculty members in education came to a low degree, while a comparative advantage, perceived trust, compatibility, and experience are the contributing factors in determining faculty willingness to use AI applications in education (Wang, 2020).

The study by Siau aimed to identify the effect of AI on higher education and to know the extent of the variation that AI causes in higher education. In addition to the role of higher education in the development of AI. The study used the qualitative approach and the

researcher found that the degree of artificial intelligence's contribution to supporting higher education and solving its problems was high (Siau, 2019).

A study by Mira aimed to define the applications of AI in education from the viewpoint of faculty members at the University of Baghdad. The study sample consisted of 200 faculty members who were drawn by the stratified random method. The researchers made a scale consisting of 25 items distributed into 5 applications. The results showed that the applications of AI have an impact on education and that the application of immediate assessment is more effective (Mira, 2019).

3. Methodology

Built on what was offered in the study's theoretical framework in which he provided scientific deliberations, studies, and previous research on the subject of the study. This part of the study highlights the scientific methodology followed in this study where the researcher tried to achieve the study's objective, and the researcher reviews the study's methodology, identifying its community and sample, as well as a presentation of the study tools with a description of how to verify their validity and stability, It also provides a detailed account of the procedural steps that have been implemented during the study's application and the identification of appropriate statistical treatments.

3.1 Study population and sample

The study community consists of all teachers studying at King Abdullah Schools for Excellence in the Hashemite Kingdom of Jordan in the year 2021-2022. The sample of the study involved (200) teachers male and female selected randomly from the study community. The questionnaires were distributed to the study sample members and (192) questionnaires were restored and all were valid for statistical analysis. The retrieved questionnaires accounted for (96%) of the questionnaires distributed to members of the study sample. and Table (1) displays the distribution of the study sample depending on their variables.

Table (1): Distribution of the sample of the study depending on their variables.

Variable	Variable Categories	Number	Percentage%
Gender	Male	103	53.65%
	Female	89	46.35%
	Total	192	100.00%
Experience	Less or equal to ten years	98	51.04%
	More than ten years	94	48.96%
	Total	192	100.00%

3.2 Study Tool

Several scientific research tools used for the collection of information and data, built on the data nature which is collected, and on the study's approach, have shown that the most suitable tool for achieving its objectives is: a questionnaire which is designed after a review of the literature, methods of scientific research and field studies relevant to the subject of the study.

The tool consisted of paragraph (31), interested in knowing the degree to which intelligence applications are used and the obstacles to their use under the coronavirus pandemic this school under-investigated, and paragraphs (14) were interested in knowing the degree of use of artificial intelligence (AI) applications under the coronavirus pandemic the school under-investigated, and before each paragraph 5-options: (always,

often, sometimes, rarely, and never), and the scores were given as (5, 4, 3, 2, and 1) respectively, the scale was divided into 5 categories: (high negative, it\s classified (1-1.8), negative and it's classified (1.81-2.60), neutral and it's classified (2.61-3.40), positive and it's classified (3.41-4.20), and finally high positive and it's classified (4.21-5). While paragraphs (17) measured the obstacles to using AI applications under the coronavirus pandemic in King Abdullah II schools for excellence from the viewpoint of talented students' teachers and each paragraph has five options: (Strongly agree, five degrees given, agree, four degrees are given, neutral, three degrees are given, disagree, two degrees are given, and strongly disagreed one degree is given), The scale was divided into five categories: (a very weak degree and its category of (1- 1.8), a weak degree and it's classified of (1.81-2.60), a medium degree and it's classified of (2.61-3.40), a high degree and its classified of (3.41-4.20), and finally a very high degree and its category of (4.21-5)).

3.3 Validity of the study tool

The tool was displayed on (9) specialized and experienced arbitrators to get their opinions on the compatibility, clarity, and comprehensiveness of the questionnaire, including the affiliation of the paragraph with the scale as a whole. Questions have been modified and drafted on the reference of the arbitrators. In the light of the arbitrators' proposals for modification, the modifications agreed upon by the arbitrators had been made, and a number of them had been modified and canceled, also, redrafting a few paragraphs to refer directly and briefly to the purpose of the paragraph, thus reaching its apparent validity.

3.4 Stability of the study tool

The stability of the internal consistency of the tool is verified, and Cronbach's Alpha coefficient was calculated on an exploratory sample similar to the study sample consisting of (18) teachers (male and female). The reliability coefficient value of the scale was (0.85), which shows high stability of the resolution, which is suitable for the study.

4. Results

The results related to answering the first question: What is the degree of using artificial intelligence applications in light of the Corona pandemic in King Abdullah II schools for excellence from the viewpoint of teachers of talented students?

This question was answered by calculating the arithmetic average and standard deviations of the responses of the member's sample, and Table (2) displays the results.

Table (2): The arithmetic average and standard deviation of the responses of the member's sample to the applications of artificial intelligence

No.	Paragraph	Arithmetic average	Standard deviation	Level
1	Use artificial intelligence (AI) techniques permanently and continuously	2.91	0.89	neutral
2	Encourage the development of meditative and critical thinking among talented students through (AI) technologies	4.10	1.01	positive
3	Provide the opportunity to invest the actual abilities of talented students in presenting new ideas and solutions through (AI) technologies	3.07	0.89	neutral
4	Use AI techniques t to develop the	3.25	0.88	neutral

	problem-solving strategy of talented students			
5	I enrich the programs offered to talented students through (AI) techniques to develop their scientific research skills	3.28	0.72	neutral
6	Encourage imagination and authenticity in thinking and innovation among talented students through (AI) technologies	3.44	1.02	positive
7	I use (AI) techniques to facilitate access to educational problems in educational material	3.38	0.99	neutral
8	I enrich the educational material provided to talented students through (AI) techniques to develop their leadership skills.	3.30	0.89	neutral
9	I enrich the awareness programs offered in the school through (AI) technologies	3.25	0.94	neutral
10	I enrich the programs offered to students through (AI) technologies according to the STEM curve	2.92	1.11	neutral
11	Use (AI) techniques in methods of evaluating talented students	3.67	1.02	positive
12	(AI) applications are used to share information among talented students	3.43	0.99	positive
13	Use AI applications to deliver feedback from talented students	3.35	0.87	neutral
14	Use AI applications in scientific activities for talented students	3.99	0.97	positive
Total degree		3.38	0.82	neutral

Table (2) displays the arithmetic averages of the responses of the study member's sample to the use of AI applications under the coronavirus pandemic in King Abdullah II schools for Excellence from the viewpoint of teachers of talented students which ranged from positive and neutral levels, with an arithmetic average ranged from (2.91- 4.10). The tool's total score was at a neutral level, with the arithmetic average and standard deviation were (3.38) and (0.82) respectively. The top of the paragraph was "Encourage the development of meditative and critical thinking among talented students through AI techniques", followed by "Use AI applications in the scientific activities of talented students, while the paragraph "Use AI techniques permanently and continuously", received the lowest arithmetic average (2.91), and a deviation (0.89).

This study agrees with (Al-Omari, 2022) study, (Al-Habib, 2022) study, and the study (Wang, 2020), which showed a low and medium degree of the extent to which artificial intelligence applications are used in the educational process.

The results showed that the use of artificial intelligence applications under the coronavirus pandemic the school under-investigated from the viewpoint of talented students' teachers got a neutral level and the author attributes the result to the study sample did not fully use artificial intelligence applications, and one of the reasons is that the Corona pandemic made distance education and alternating so that teachers were not able to practice AI applications in schools because of the lack of students in them

permanently and continuously. In addition, the coronavirus pandemic has caused teachers and students to be in their homes, which has led to them not using AI applications for lack of availability in homes for their high cost and lack of knowledge in using them, while teachers recognize the importance of AI applications and encourage their use because of their great effectiveness in the educational process, especially in developing meditative, critical and creative thinking for talented students, and that the sample members can use artificial intelligence applications in educational activities for the readiness of activities using artificial intelligence applications and training them on them, while the teachers of talented students do not use artificial intelligence applications permanently and continuously due to the lack of the necessary tools to use them and their lack of training and practice.

Results related to answering the second question: What are the obstacles to using AI applications in light of the Corona pandemic in King Abdullah II Schools for Excellence from the viewpoint of teachers of talented students?

This question was answered using the arithmetic average and standard deviations of the responses of the member's sample, and Table (3) displays the results.

Table (3): Arithmetic average and standard deviation of the responses of the member's sample of the study to the obstacles facing teachers

No.	Paragraph	Arithmetic average	Standard deviation	Level
1	Weak technical support for AI techniques in the event of any problem	3.95	0.98	high
2	Lack of training courses needed in the field of AI applications and their educational uses	3.46	0.97	high
3	Lack of equipment and capabilities to use and employ AI techniques	4.25	0.87	very high
4	Lack of incentives to encourage the use and employment of AI techniques	3.83	1.05	high
5	Weak infrastructure and lack of modern equipment for communications and the Internet	4.23	0.79	very high
6	Lack of funding to support students' educational programs in talented schools that do not provide AI technologies	3.35	0.69	medium
7	Scarcity of guides showing how AI technologies are used and employed in talented students' enrichment programs	4.00	1.14	high
8	Teachers' lack of knowledge of the services offered by AI applications regarding the educational process	4.01	0.98	high
9	Poor technical skills for AI applications in talented students' teachers	4.03	0.77	high
10	Taking AI techniques time to consume the specific period of educational material	4.05	0.67	high
11	A large number of talented students in the school constitutes a burden to the use of AI techniques	2.95	0.82	medium

12	The fear and dread of teachers of talented students from changing teaching strategies for fear of mistakes or embarrassments	4.16	0.75	high
13	The lack of feasibility of using AI techniques in educational material	2.55	0.90	weak
14	Talented students do not accept the use of modern technologies like the smart board and virtual labs, which led to their non-use	2.30	0.63	weak
15	The lack of a clear vision for teachers to apply AI applications in the educational process	4.08	0.60	high
16	The high material cost of applying AI applications	4.30	1.01	very high
17	The weakness of the technological and digital level of teachers of talented students	4.11	0.87	high
Total degree		3.74	0.78	high

Table 3 displays the responses of the member's sample study to the obstacles to the use of AI applications under the coronavirus pandemic in King Abdullah II Schools for Excellence from the viewpoint of talented students' teachers, and the arithmetic average ranged from medium to very high, with an arithmetic average ranged from (2.30- 4.25), and the tool's overall score was high, with arithmetic average (3.74) and a standard deviation (0.78). At the top of the paragraph was "The high material cost of applying AI applications", followed by "Lack of equipment and capabilities to use and employ AI technologies, while the paragraph "The unacceptability of talented students to the use of modern technologies such as smart fountain and virtual coefficient resulting in its non-use", received the lowest arithmetic average (2.30), and a deviation (0.63).

The current work agrees with (Al-Omari, 2022) study, (Al-Habib, 2022) study, and (Al-Dahshan, Al-Sayed, 2020) studies, which showed a high and medium degree of obstacles that limit the use of artificial intelligence applications.

The results revealed that obstacles to using AI applications during the coronavirus pandemic the school under-investigated from the viewpoint of talented student teachers came to a high degree and the author attributes the insufficient training of teachers in the use of AI applications to their reduced ability to use it, especially in the light of the coronavirus pandemic, which has limited facial education and training that has affected the development and training in artificial intelligence applications for teachers because they are unable to take AI training programs to be able to practice them. This led to the fear and awe of talented students' teachers to change teaching strategies for fear of mistakes or embarrassments that limit the utilize of AI applications, Obstacles to the use of AI applications include the high material cost of applying artificial intelligence applications and the lack of the equipment and capabilities needed to use AI technologies and their use contribute not to the use of AI applications in the educational process, as well as the lack of technical support specialists for AI applications within schools, for these reasons the obstacles are high.

To answer the third question: Is there a significant difference at the level of significance ($\alpha \leq 0.05$) in the use of artificial intelligence applications in light of the corona pandemic in King Abdullah II Schools for Excellence from the viewpoint of teachers of talented students depending on the variable (experience, gender)?

This question answering by using Tow Way Anova analysis was used to detect the differences in the use of artificial intelligence applications by teachers of talented students depending on the variable (experience, gender) and Table (4) displays the results of that.

Table (4): Two-way analysis of variance revealed the differences in the use of artificial intelligence applications by teachers of talented students according to the variable (experience, gender)

variance source	sum of squares	degrees of freedom	mean squares	p- value	Significance level
Experience	1.444	1	1.444	8.121	0.0000*
Gender	0.0030	1	0.0030	0.0170	0.8970
The error	20.451	190	0.1780		
Total	1681.545	192			

* Significant at ($\alpha \leq 0.05$) level

Table (4) appeared that there are no statistical differences significant at the level ($\alpha \leq 0.05$) in the use of AI applications by talented student teachers according to a variable (gender). This may be because the use of artificial intelligence applications by teachers in both gender male and female workers in the same school, receive the same training programs, deal with the same target group and fall under the umbrella of a single educational department that does not differentiate between males or females through its targeted programs and activities that promote the development of different skills, including technical and most important artificial intelligence applications. While the results showed differences attributable to the variable of experience and when arithmetic averages were extracted, the use of AI applications by teachers who have experienced less than ten years (3.63) while teachers with more than ten years of experience (3.59) showed that differences in favor of teachers with less than ten years experience. This finding can be recognized in the fact that teachers with less than 10 years of experience have interacted with and practiced technology elements significantly because this generation is the generation of technology, information, and technology, practicing different technological applications whether it be social, luxury through electronic games, training, and educational, in which applications of artificial intelligence. Their attitudes and tendencies towards them make them practice well, especially under the coronavirus pandemic when they imposed curfews and made them use and practice these electronic apps significantly, making them motivated and willing to learn artificial intelligence applications in the educational process.

5. Recommendations

1. Adopting curricula for talented students based on artificial intelligence.

2. Providing the necessary funding to improve the infrastructure needed to use artificial intelligence techniques in the service of education.

3. Holding training and qualification courses for teachers of talented students to improve their attitudes, concepts, and uses of artificial intelligence techniques in the educational process.

4. Coordinating efforts with educational colleges in universities to add specialized courses in the field of artificial intelligence techniques and applications for male and female teachers during the undergraduate level.

5. Studying the creation of special sections for artificial intelligence techniques in the ministerial structure that serves public education..

References

Al Saud, Sarah (2017). Educational Applications of Artificial Intelligence in Social Studies, Behavior folder, Laboratory of Quantitative and Qualitative Data Analysis of Psychological and Social Behavior, Faculty of Social Sciences, University of Abdelhamid Ben Badis, Algeria, 3 (3), 133-163.

Al Saud, Sarah (2015). Educational applications of artificial intelligence in social studies, Behavioral Journal, Abdelhamid Badis University, Algeria, (73), 133-163.

Imam, Amani (2020). Artificial Intelligence in Education, by the Digital Giving Initiative (9/13/2020), www.attaa.sa/library/view/652

Ozley, Audrey (2019). The Role of Artificial Intelligence in Advancing and Strengthening Education, Journal of Educational and Psychological Sciences, 2(4). 36-59.

Al Bishr, Mona (2020). Requirements for employing artificial intelligence in teaching Saudi university students from the point of view of experts, Journal of the College of Education, Kafr El-Sheikh University, 20(2), 27-92.

Al-Habib, Muhammad (2022), Employing artificial intelligence applications in training faculty members in Saudi universities. Journal of the Islamic University of Educational and Social Sciences. 9, 276-317.

Al-Khalidi, Jamal Muhammad, and Al-Warekat, Mansour Ahmed (2013) The reality of the use of the educational robot by information technology teachers in the second cycle 5-10 of basic education in the Sultanate of Oman. Journal of the Islamic University of Educational and Psychological Studies, 21(2), 50-83.

Dahshan, Jamal (2020). The Arabic language and artificial intelligence How can artificial intelligence techniques be used to enhance the Arabic language? Educational Journal, Sohag University, May, 73, 1-9.

Zerrougui, Riad (2020). The Prospect of Artificial Intelligence in Improving the Quality of Higher Education, The Arab Journal of Specific Education, The Arab Foundation for Education, Science and Arts, Academy of Scientific Research, Egypt, 12, 1-12.

Zerrougui, Riad and Valt, Amira (2020). The role of artificial intelligence in improving the quality of higher education, the Arab Journal of Specific Education, the Arab Foundation for Education, Science and Arts, (12), 1-12.

Salama, Hassan (2020). The Corona Virus Crisis and Artificial Intelligence Applications, Journal of Educational Sciences, 2(3), 23-65.

Al-Salami, Yasser (2014). The reality of using educational techniques in developing the skills of talented people in the city of Jeddah from the point of view of field workers. Arab Studies in Education and Psychology, (55), 50-131.

Shapiro, Jordan (2021). Instructional technology in the classroom: how and why? , (available at: www.abhathna.com/?=node/710571

Shaaban, Amani (2021). Artificial intelligence and its applications in higher education. Educational Journal: Sohag University - College of Education, 84, 1-23.

Al-Omari, Zazar (2022). The extent of using artificial intelligence applications in Al-Namas schools from the point of view of female teachers, Journal of the Faculty of Education - Tanta University. 66(2), 66-98.

Maged, Ahmed (2018). Artificial Intelligence in the United Arab Emirates, Department of Economic Studies and Policies, Ministry of Digital Economy, United Arab Emirates.

Mohamed, Manal Mahrous (2019). The reality of discovering and nurturing gifted students in public schools in the Kingdom of Saudi Arabia from the point of view of those in charge of

the educational process in the Eastern Province. Journal of the College of Education, 35(3), 531–55

Mukhaimer, Samir Kamel (2013). Psychological, social, and educational needs of gifted students from their point of view and the point of view of their teachers in Gaza City. Al-Aqsa University Journal, Human Sciences Series, 17(1) 107-5.

Al-Maarifa, Mahmoud (2020) Applications of Artificial Intelligence in Education, Journal of Human Sciences, 4(3). 25-67.

Mira, Amal (2019). Applications of artificial intelligence in education from the perspective of university teachers, the first international scientific conference for human studies (intelligence and mental abilities), the Ministry of Education and Scientific Research, Psychological Research Center, Baghdad, Iraq.

Al-Yajzi, Faten (2019). Using Artificial Intelligence Applications to Support University Education in the Kingdom of Saudi Arabia, Arab Studies in Education and Psychology, Arab Educators Association, 11, 257-282.

Ali, H. & Alrayes, A. (2019). The role of technology in gifted and talented education: a review of descriptive and empirical research. KnE Social Sciences & Humanities, 3(4). 26-38.

Atribi, Sherif (2019). Education by Imagination, The Arab for Publishing and Distribution, Cairo.

Fahimirad.M. & Kotamjani, S. (2018). A Review on Application of Artificial Intelligence in Teaching and Learning in Educational Contexts, International Journal of Learning and Development, 8(4), pp.106-118.

Kakish, K., & Pollaciam, L., (2018). Adaptive to Improve Student Success and Instructor Efficiency in Introductory Computing Course, Proceedings of the Information Systems Education Conference, San Antonio, Texas, USA.

Karsenti, T., (2019). Artificial intelligence in education: The urgent need to prepare teachers for tomorrow's schools. Formation et profession, 27(1), 105-111.

Liu, E. (2010). Early adolescent's perceptions of education robots and learning of robotics. British Journal of Education Technology. 41(3). 7-44.

Lufeng, H. (2018). Analysis of New Advances in the Application of Artificial Intelligence to Education Advances in Social Science. Education and Humanities Research, 220, 3rd International Conference on Education E-learning and Management Technology, Atlantis Press, pp. 608-611,

Mahmoud, A., (2020). Artificial intelligence applications: An Introduction to Education Development in the light of Corona Virus Pandemic COVID-19 Challenges. International Journal of Research in Educational Sciences. 3(4), 173-227.

Saavedra, Jaime (2020). Education in the Time of the Corona Virus: Challenges and Opportunities, The World Bank Blog.

Siau, K (2019). Artificial intelligence impacts on higher education. Association for information systems conference, 17-18.

Uzunboylu, H., Ozcinar, Z., Kolotushkin, S. M., Kalugina, O., A. and Zulfugarzade, T. E. (2019). Research and trends in technology and gifted child: results of content analysis. International Journal of Emerging Technologies in Learning, 14(22), 56-69.

Wang, S. et al (2020). Participant or spectator? Comprehending the willingness of faculty to use intelligent tutoring systems in the artificial intelligence era. British Journal of Education Technology in Higher, 16-39.