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Attitudes Of Teachers Of Students With Learning Disabilities Towards Training Programs Based On Artificial Intelligence

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Abstract:

The research aimed at identifying the attitudes of teachers of students with learning disabilities towards artificial intelligence-based training programs, the descriptive approach was followed by the development of a questionnaire with 23 items, and the sample included 78 male and female teachers of students with learning disabilities, they were chosen randomly from Jazan region. The findings demonstrated an improvement in the attitudes of teachers of students with learning disabilities towards artificial intelligence-based training programs.

Keywords: Attitudes, Teachers, Special Education, Learning Disabilities, Training Programs, Artificial Intelligence (AI).

Introduction:

With the electronic revolution of the twenty-first century and the technological global trend imposed by the Corona pandemic (Covid-19) in all fields, particularly education, artificial intelligence applications have become a cornerstone that creates a way to keep pace with educational conditions and developments in order to achieve the goals of sustainable development in education.

Artificial intelligence is a computer science that simulates human mind in decision-making and problem-solving by combining computer science with powerful data sets (Cheng et al., 2023), it is also defined as a machine's ability to read and quickly analyze massive amounts of complicated data (Rahmatizadeh, 2020; Sira, 2023), as well as learn from that data and utilize it to accomplish specified goals and activities through flexible adaptation (Kaplan & Haenlein, 2019), It is also characterized as a machine that performs human functions such as reasoning, generalization, classification, and problem solving (Chaka, 2023; Entezari et al., 2023), as well as it is the machine's processing of data and making certain decisions (Leichtmann et al., 2023; Maghami & Mutambara, 2023), in addition to recognizing images and distinguishing sounds (Borgesius, 2023; Jarrahi et al., 2023). Artificial intelligence aims at understanding the nature of human intelligence by creating computer programs that capable of simulating intelligent human behavior, which makes it an effective tool in dealing with issues and problems, through its ability to produce solutions or make decisions and increase interaction and response between human and machine. The most important goal of AI is to preserve the accumulated science, knowledge, and human experience by transferring it to smart machines (Al-Mutairi, 2022; Al-Yagazi, 2019; Bahado-Singh et al., 2023; Coan et al.,

2023; Davenport et al., 2020; Atteya, 2020; Musa & Bilal, 2019; Ocaña-Fernández et al., 2019; Southgate et al., 2019). Artificial intelligence also attempts to lessen a person's hazards and psychological stressors by minimizing his tasks and behaviors, particularly repetitive actions, and refocusing him on more important and compassionate things. what we need today and in the future; to face possible issues and hence make planning decisions that are compatible with human potential and capabilities (Alsanad, 2020). Despite the intriguing developments of artificial intelligence and the predictions of its prosperity, it is still small, which may be related to the AI gap (Citerio, 2022), according to UNESCO (2021), it is critical to recognize that artificial intelligence is still in its infancy, and that current applications such as machine journalism, weather forecasting, smart cities, robots, self-driving war machines, and other applications are examples of narrow artificial intelligence, as AI scientists started with dreams about the general or strong type, as AI has three types; The narrow type, the general or strong type, and the super or superlative type.

Today's artificial intelligence is narrow , this type includes machines that are capable of performing specific tasks for which they were designed, as their efficiency and effectiveness in performing those tasks exceed human performance, but they do not have the general scope of behavior that humans possess, also, general or strong intelligence that manifests the same intelligence as a human with its skills and passion, and super or superintelligence that exceeds human intelligence with more rational decisions, making art, and forming mutual social relationships; They currently only exist in science fiction , where the generic and super-genre are the aspirations of the AI community, and research is still ongoing about them, and we may see them in the future (Al-Mahdi, 2021; Kaplan & Haenlein, 2019, 2020; Mira & Kata, 2019; Radwan, 2023; Southgate et al., 2019; UNESCO, 2021). Although applications based on narrow AI are specific to certain tasks, they are incredibly good at those specific tasks. They are quite reliable and have accurate performance. This disproves the impression that these applications are useless. Utility in general, like the robots used in the manufacturing process are very intelligent because of the accuracy, and the fact that they perform very complex actions that may seem incomprehensible to the average human mind, we do not want cars that ponder the meaning of life or virtual assistants who learn to hate us, so narrow artificial intelligence which was built on purpose is a wonderful solution to many problems and will not disappear (Murphy, 2019; Musa & Bilal, 2019), accordingly, the applications of artificial intelligence will become one of the most important technological issues in education over the next twenty years. Tools, services and applications based on artificial intelligence have high potential and capabilities to support all members of the educational process (Zawacki-Richter et al., 2019), furthermore, these applications will enable the discovery of new frontiers for learning and result in the development of innovative technologies (Saadallah & Chettouh, 2019), among the most important artificial intelligence applications that may be used in the educational process: Smart Content, Virtual Learning, Augmented Reality, Smart Assessments, Intelligent Tutoring Systems, Intelligent Agent, Adaptive Learning, Administrative Tasks Automation, and Chatbots (Ahmed, 2022; Cantú-Ortiz et al., 2020; Chaka, 2023; Khalida, 2023; Luo, 2018; Qiu et al., 2022; Sumutny & Schreiberova, 2020).

Alfarani & AL-Hujaili (2020) predicted that the future of education with artificial intelligence applications in the Kingdom of Saudi Arabia will achieve complete automation of administrative tasks in public and higher education, as artificial intelligence will make it easier for the Ministry of Education to preserve collected educational human experiences by transferring them to expert systems and employing them to address

comprehensive educational challenges. It is quick, accurate, and extremely efficient. It will also be feasible to use these robots to perform administrative tasks that demand rapid and decisive choices that do not tolerate error or delay. Artificial intelligence applications will also be applied in the Ministry of Education's or its educational departments' decision-making because, these applications are independent, objective, and accurate, decisions will be free of error, bias, or external or personal interference.

Despite the importance of artificial intelligence applications, the challenges associated with their use should not be overlooked, such as the high costs of implementing many artificial intelligence applications in education, the expected high unemployment rate among teaching staff, the possibility of virus penetration and self-replication that may invade robots, and the absence of social interaction without artificial intelligence. The class atmosphere of cooperation and harmony supplied by the teacher to the pupils, as well as the students' lack of motivation to learn and feeling bored; Because of their continual interaction with the machine and the difficulty in interacting with robots, the most serious of these flaws is the harmful impact on human behavior as a result of his constant interaction with technology (Alghamdi & Alfarani, 2020). According to Al-Mahdi (2021) artificial intelligence applications may result in the dispensation of many human manpower as a result of relying on artificial intelligence applications rather than humans; however, the researcher disagrees with that , as it is not possible to dispense with the human aspect that is unique to humans, especially in the education process, as one of the goals of artificial intelligence in the field of education is to support teachers only, whether by training them (Murphy, 2019), or by assisting them in fulfilling the requirements of their work as required, it is not, as some teachers think, that artificial intelligence takes their jobs, or limits their roles. While artificial intelligence can teach students academic skills or enhance difficult concepts for them, it cannot replace the human teacher in many tasks, A human teacher will be needed to manage the classroom environment and encourage students, where a large part of the educational process includes emotional social skills as well as moral reasoning, as teaching social, emotional, and moral skills remains more complex, as this type of learning requires a human touch that can only be provided by a human teacher (Musa & Bilal, 2019). Technology will not completely replace teachers or play the function of learning, because the learning process is complex and related to humans and the ideas that result from dialogues, discussions, brainstorming, and innovation, the reason for merging technology is simply to improve human thought, just as artificial intelligence in the present strongly pushes us to what serves the future of humanity and keeps pace with its accurate scientific and technological efforts, and mitigate challenges, dangers, and crises, and it never means that machines replace humans, or that they exceed their capabilities and intelligence the human mind's limitations, it means imagining infinite brilliant technical frontiers that we can manage and steer with our ideas and minds as a fully integrated way of life in the twenty-first century, Nonetheless, technical advancement must be maintained. Rationally, so that the educational process is free of negative features, which it will inevitably have (Bariedh & Alsine, 2022; Chen et al., 2020; Fahimirad & Kotamjani, 2018; Huang et al., 2019).

In light of the artificial intelligence revolution, because it is one of the innovations attracting educators' attention, and as a continuation of technological progress in order to achieve the 2030 vision for education in the Kingdom of Saudi Arabia; it has become imperative to expand its applications in the educational process, in response to the recommendations of the United Nations Educational, Scientific, and Cultural Organization (UNESCO) through the conference it held in Beijing in 2019 on

artificial intelligence and education, in addition to some conferences such as the international conference and exhibition of the Ministry of Education in the Kingdom of Saudi Arabia (icee, 2022), and the Conference on Innovation and Artificial Intelligence in education, which was held in Jeddah in February of 2022. Many studies also recommended the use of artificial intelligence technology in the field of education, because of its effectiveness in achieving learning outcomes of high efficiency and quality, such as the study of Bariedh & Alsine (2022), the study of Abdel-Mawgood & Gharib (2022), the study of Allam & Salhoub (2022), as well as the study of Qiu et al. (2022), the study of Al-Astal et al. (2021), the study of Abdel Latif et al (2020), the study of Al-Yagazi (2019), and the study of Luo (2018). Despite notable advances, artificial intelligence is still in its infancy (UNESCO, 2021), particularly in the educational process. It has been found that studies linked to artificial intelligence in education are still in their early stages; this is due to a lack of empirical studies on the subject, indicating that there is a big area for conducting related research in terms of improving the educational process (Hwang & Chang, 2021; Kuhail., et al., 2022), Furthermore, while still in their infancy, programs based on artificial intelligence are beneficial in educating and preparing teachers professionally (Gunawan et al., 2021; Lampos et al., 2021).

This technological transformation necessitates that teacher, including teachers of students with learning disabilities, shift their traditional role to one of technology adoption, as it has become a duty for educational institutions to advance a renewed vision that allows for continuous innovation, enhanced education, and improved teacher efficiency. To effectively perform his function, as the quality of his performance is dependent on his capacity to specialize and improve his numerous talents connected to technology and educational methodologies (Elatrebi, 2022).

One of the most common concepts in the humanities and social sciences is the concept of attuites , because it is a systematic way of thinking and feeling that is tied to an individual's reactions to a specific circumstance around him, whether it is individuals or specific social concerns (Alghamdi & Kotb, 2020), Furthermore, it is important in the individual's various responses to the stimuli he is exposed to in his life, because it regulates the emotional, perceptual, and cognitive processes and works to direct the individual to take the appropriate behavior or decision in different situations, where its significance is enhanced by the fact that it plays a significant influence in his behavior. As a result, scientists are interested in assessing attitudes and adjusting them in the desired direction. When a person has a favorable attitude towards a subject, he turns towards it and communicates this attitude by numerous behavioral approaches, and vice versa. Clear responses emerge from the individual's activities and the social relationships that exist between him and the members of the group to which he belongs (Al-Fahd, 2023; Roca & Bernabeu., 2020). Teachers' attitudes towards technology innovations influence their willingness to use them in the educational process, and thus learners' attitudes and responses to the technology they observe their teachers employing (Bii et al., 2018; Estrada et al., 2018; Ewing et al., 2018; Roca & Bernabeu., 2020), as well as teacher plays an important role in educating his students; It is critical to improve teachers' attitudes and skills regarding this technology; In line with the transformations of the times in the educational process, and, as confirmed by the study of Semerci & Aydin (2018), teacher training through technological advances increased his attitudes and beliefs towards them.

Attitudes are also related to being acquired and learned, as they are formed through past experience to direct an individual's behavior in current or future situations, and are linked to the culture of society, as they can be measured by observing positive, neutral, or negative behavior (Al-Fahd, 2023; Poole, 2022;

Roca & Bernabeu., 2020; Savolainen et al., 2022), It consists of a cognitive aspect that includes mental processes, previous knowledge, beliefs, and viewpoints towards the situation, and an emotional aspect that consists of the individual's feelings and emotions towards that situation, and a behavioral aspect that consists of clear expressions and responses that direct the individual to act in some way towards the situation, or to make a decision (Ewing et al., 2018; Vaz et al., 2015). The current research aims at revealing the attitudes of teachers of students with learning disabilities towards training programs based on artificial intelligence.

Research problem:

The applications of artificial intelligence in the field of education are of great importance, especially in light of the Corona pandemic, which caused a real shift and a scientific boom, as Li et al (2023) mention that artificial intelligence will be of great value in the foreseeable future, just as the importance of oil In the past, as El-Dahshan (2019) pointed out, the development of the education system to keep pace with the technological boom in light of the artificial intelligence revolution has become an urgent necessity; To achieve education reform, which is one of the pillars of sustainable development; This puts the responsibility on the education system to provide learners with technology skills and artificial intelligence skills in particular, for which the demand will increase with the increasing reliance on robots.

Accordingly, the interaction between humans and artificial intelligence is a kind of solution that helps all categories of learners, and the use of artificial intelligence attracts the attention of both the teacher and the learner and motivates them to participate more in the educational process, in addition to achieving the desired educational goals and managing them better, and analyzing data every apprentice or learner; To facilitate access to and motivate his strengths and weaknesses, AI also facilitates dealing with large numbers of learners (Fahimirad & Kotamjani, 2018), According to AL-Hujaili & Alfarani (2020) artificial intelligence is a future instrument with immense potential. Its creation, use, and employment must be mastered in the Kingdom of Saudi Arabia's education, with the collaboration of education officials, teachers, and students, In light of a strict mechanism and standards governing the use and employment of artificial intelligence in the Kingdom's education, a balance must be achieved when using it in educational practices and striving to arm learners with productive technological minds capable of dealing with artificial intelligence applications.

Artificial intelligence-based programs are distinguished by increased opportunities for self-learning, particularly because applications based on artificial intelligence are flexible and modern, in addition to being accurate in setting standards and goals and would also support learners to innovate and create by working to ensure high quality outputs, furthermore, investing in this technology offers a platform for constant connection between the teacher and the learner. It also aids in learning in the quickest and most efficient manner possible. This is what makes education guarantee many great consequences that benefit both the teacher and the learner alike, and thus this is reflected in the quality of educational programs in particular and on educational institutions in general (Zerrougui & Falta, 2020), as well as artificial intelligence is important in the educational process, such as designing training programs for teachers and learners, adapting educational content according to the characteristics and skills of each learner, collecting and storing data for use in developing other programs, managing learning times in an ideal and accurate way, increasing interaction with educational content by conducting smart conversations with a chatbot, In addition to developing creative and productive capabilities through learning in three-dimensional environments, assisting the teacher in

developing his professional capabilities in line with educational innovations, and automating most of the teacher's tasks such as correction, classifying documents, responding to learners' inquiries, and planning lessons; to ease his burden and buy him more time (Alsubhi & Alfarani, 2020; Mohammed & 'Nell'Watson, 2019; Mu, 2019; Murphy, 2019; Razaka et al., 2023; Subrahmanyam & Swathi, 2018), education in the Kingdom of Saudi Arabia is striving to be among the finest international educational standards, despite a little delay in the process of advancement. However, it will be among the best levels of education in the world not long ago, but artificial intelligence must be embraced, which major countries want to achieve in their education, relying on it in a balanced manner in the educational process (Alanzi & Alhalafawy, 2022a, 2022b; Alhalafawy & Tawfiq, 2014; Alhalafawy & Zaki, 2019, 2022; Alhalafawy, Najmi, Zaki, & Alharthi, 2021; Alshammary & Alhalafawy, 2022, 2023; Alzahrani & Alhalafawy, 2023; Alsubhi & Alfarani, 2020; Alzahrani & Alhalafawy, 2022; Alzahrani, Alshammary, & Alhalafawy, 2022; Najmi, Alhalafawy, & Zaki, 2023; Zeidan, Alhalafawy, & Tawfiq, 2017; Zeidan, Alhalafawy, Tawfiq, & Abdelhameed, 2015).

In response, this study contributes to uncovering the attitudes of teachers of students with learning disabilities regarding artificial intelligence-based training programs. Given the importance of this technology in supporting teachers, as the studies of (Al-Khateeb, 2015; Alfarani & AL-Hujaili, 2020; Bariedh & Alsine, 2022; El-Dahshan, 2019; Elatrebi, 2022) recommended activating training programs based on artificial intelligence for teachers, including special education teachers, especially a teacher with learning disabilities; Keeping pace with the era of digital transformation in teaching and learning, motivating teachers to activate educational technology innovations, and addressing the challenges and teaching burdens they face.

Furthermore, recent conferences recommend the necessity of integrating artificial intelligence applications into training teachers of students with learning disabilities and making them aware of employing them in a way that suits the needs and characteristics of learners, such as the Conference on Integrative Growth and Development in Special Education in the Kingdom of Saudi Arabia, which was held in its first and second editions, and which was renewed in its third edition during the period 25- 27 Rabi` al-Awwal 1444 AH , October 21-23, 2022 AD, the First International Conference on Special Education and Medical Rehabilitation, which started on January 25, 2022 and lasted for 3 days, and the Sixth International Conference on Disability and Rehabilitation: which was held from 4-6 December 2022 to complement the five conferences which contributed to the development of the field of special education.

This research aimed at revealing the attitudes of teachers of students with learning disabilities towards training programs based on artificial intelligence.

The foregoing was a motive for conducting the current research, and in light of this, the problem can be formulated through the following main question:

- What are the attitudes of teachers of students with learning disabilities towards training programs based on artificial intelligence?

literature review

1-Students with Learning Disabilities:

(Adly & Abd-Elsalam, 2023; Bishara, 2023) referred to them as learners who do not suffer from a mental or sensory disability (audio or visual) and do not suffer from cultural or environmental deprivation or emotional disorder, but rather suffer from a disorder in mental processes Or basic psychology that includes attention, perception, concept formation, remembering, and problem solving,

and its echo appears in the inability to learn reading , writing , or calculating, and the resulting deficiencies in learning the various subjects, whether in primary school or later, so parents and teachers notice that this child does not achieve the same level of education as his classmates of the same age, despite his mental abilities and an average or above-average IQ.

Learners with learning disabilities have a substantial gap between their performance on achievement tests and their expected performance on IQ tests. This divergence appears in the form of difficulties, whether in reading, writing, reasoning, performing mathematical operations, or speaking and oral expression, as a result of a disorder in basic cognitive processes such as attention, perception, remembering, and thinking, by excluding those with sensory, auditory, visual, and motor disabilities, the emotionally disturbed, the mentally retarded, and the culturally or environmentally disadvantaged (Al-Khuraisi, 2020; Atanga et al., 2020).

Alqafari & Alotaibi (2023) also defined them as learners who have a clear decrease in academic and non-academic skills, as well as a decrease in employing learning strategies that cause them to be unable to keep pace with their peers in academic achievement, without the presence of any type of disability or family circumstances. Furthermore, general education methods did not work for them, necessitating their enrollment in learning difficulties programs.

2-Artificial Intelligence:

According to Lei et al (2023) artificial intelligence is described as one of the disciplines of computer science that is represented by human awareness and artificial thinking that makes proper judgements based on reality.

Al-Arini et al (2022) defined artificial intelligence as: "an attempt to make a machine perform tasks like a human, which includes human characteristics such as mental operations such as thinking, generalizing, and learning from past experiences." (p. 354).

Artificial intelligence, according to the UNESCO Global Committee on the Ethics of Scientific Knowledge and Technology (COMEST, 2019) is a simulation of human cognitive capacities such as perception, learning, reasoning, language interaction, problem-solving, and even creativity.

The World Intellectual Property Organization (Wipo, 2019) defines AI as machines that can perform human actions better than him, with limited or no human intervention.

Given the variety of definitions, the researcher concludes that artificial intelligence is a pre-programmed intelligent system. To replicate the human mind by having it carry out the necessary orders and tasks.

Methodology

1-Methods

The descriptive method was used. Because it was appropriate for the nature of the study, it revealed the attitudes of teachers of students with learning disabilities towards artificial intelligence-based training programs by electronically distributing the questionnaire to the sample members, monitoring and analyzing their responses, and answering the research question.

2-Research population and sample:

The research population included all teachers of students with learning disabilities in the Jazan region, and the study was conducted on a random sample of (78) male and female teachers.

3-instrument

According to the nature of the research and for achieving its goal, which seeks to reveal the attitudes of teachers of students with learning disabilities towards training programs based on artificial intelligence, after evaluating the

relevant educational literature, a questionnaire was created as a tool for data collection. It began with (19) items, comprising attitudes with all of their cognitive, emotional, and behavioral components. The questionnaire also used a triple Likert scale to establish the degree of response scores (agree - neutral - disagree), where the distribution of scores for positive statements is graded from (3) to (1) and vice versa for negative scores.

To validate the questionnaire's indicators of validity and reliability, the researcher presented the questionnaire in its initial form to four arbitrators from the Department of Educational Technologies at the University of Jeddah, to express their opinion on the soundness of the wording of the paragraphs, their clarity in terms of meaning, and any appropriate amendments and proposals, and after taking into account the observations and suggestions of the arbitrators, the questionnaire became in its final form, it consists of (23) items, the internal consistency of the questionnaire's items was calculated by calculating the Pearson correlation coefficient between the score of each item and the total score of the questionnaire, as shown in table(1)

Table (1): Pearson's correlation coefficient between the score of each paragraph and the total score of the dimension to which it belongs

No	correlation coefficient	No	correlation coefficient	No	correlation coefficient
1	.510**	9	.328**	17	.562**
2	.521**	10	.618**	18	.361**
3	.334**	11	.697**	19	.697**
4	.543**	12	.682**	20	.736**
5	.476**	13	.238*	21	.727**
6	.614**	14	.225*	22	.748**
7	.562**	15	.261*	23	.760**
8	.318**	16	.691**		
*Statistically significant at the level of significance less than (0.05).					
** Statistically significant at a significance level less than (0.01).					

Table (1) shows that all of the correlation coefficient values between the score of each item and the total score of the questionnaire are statistically significant, indicating the correlation of these items and their applicability to the study sample.

Cronbach alpha equation was also used to confirm the questionnaire 's reliability. This is shown in Table (2), where the questionnaire 's reliability value is statistically acceptable. According to Abu Hashim (2003), the stability coefficient is statistically significant if it is greater than 0.80.

Table (2): shows Cronbach's alpha equation's coefficient of the questionnaire 's reliability

Dimension/Axle	Number of Items	Cronbach's alpha

the entire questionnaire	23	.863

The research tool was produced electronically after its validity and reliability were confirmed. The electronic replies were gathered and unloaded to conduct the appropriate analyses for ease of distribution to the research community via an electronic link publicized on social networking applications in the month of Ramadan of the academic year 1444 AH.

Findings and Discussion

Table (3) shows the arithmetic mean, standard deviation, ranking, and score estimate were used, to answer the research question, which states: "What are the attitudes of teachers of students with learning disabilities towards training programs based on artificial intelligence?

Table (3): The arithmetic mean, standard deviation, ranking, and degree estimation of the attitudes of teachers of students with learning disabilities towards training programs based on artificial intelligence

	Item	Mean	Standard Deviation	Rank	Degree
1	I have previous knowledge about the concept of artificial intelligence.	2.59	0.633	11	High
2	I have a perception of artificial intelligence application in the educational field.	2.41	0.711	15	High
3	self-trained by a program based on artificial intelligence.	1.56	0.766	23	low
4	I see that I have technical experience that enables me to develop my professional skills through a training program based on artificial intelligence.	2.23	0.836	21	Medium
5	I have a sufficient idea about the areas of employing artificial intelligence in the educational process.	2.03	0.837	22	Medium
6	I feel satisfied about training with a program based on artificial intelligence.	2.53	0.751	14	High
7	I feel happy while participating in training programs based on artificial intelligence.	2.63	0.626	10	High
8	I am annoyed by participating in training programs based on artificial intelligence.	2.58	0.712	12	High
9	It bothers me to use a training program based on artificial intelligence when developing my professional skills.	2.56	0.713	13	High
10	I feel proud when I train with an AI-based programs.	2.74	0.495	4	High
11	I believe that I will take the initiative to participate in training programs based on artificial intelligence in the future.	2.81	0.485	1	High
12	training programs based on artificial intelligence provide training content according to my training needs.	2.64	0.581	9	High

13	I prefer regular search over chatbots.	2.32	0.730	18	Medium
14	Relying on training programs based on artificial intelligence slows down the development of my skills that are required for transformation technology.	2.29	0.775	20	Medium
15	Using artificial intelligence in my training and developing my skills restricts my freedom of thinking.	2.31	0.827	19	Medium
16	I encourage other teachers on training by programs based on artificial intelligence.	2.79	0.466	2	High
17	I can help my colleagues train on programs based on artificial intelligence.	2.38	0.760	16	High
18	Training programs based on artificial intelligence do not develop the skills of teachers of students with professional learning difficulties.	2.35	0.770	17	High
19	I find that training programs based on artificial intelligence save a lot of my time and effort.	2.73	0.551	6	High
20	training programs based on artificial intelligence enable me to train with great freedom.	2.67	0.574	8	High
21	train me through an artificial intelligence program contributes to the development of my professional skills.	2.69	0.565	7	High
22	My training through programs based on artificial intelligence helps me keep pace with developments in education in the current era.	2.73	0.527	5	High
23	Training programs based on artificial intelligence facilitate the feedback process for trainees in appropriate methods.	2.76	0.514	3	High
	The entire questionnaire	2.49	0.335		High

The researcher attributes the high score of item (11) “I believe that I will take the initiative to participate in training programs based on artificial intelligence in the future” by (2.81), followed by item (16) “I encourage other teachers on training by programs based on artificial intelligence" with an average of (2.79), then item (23) “Training programs based on artificial intelligence facilitate the feedback process for trainees in appropriate methods” with an average of (2.76); to the awareness of the respondents about the vision of the future towards technology and artificial intelligence in the field of education and the digital expansion that has taken place and is still going on. This is consistent with Luo's study (2018) which concluded that reliance on a teaching system based on artificial intelligence was more effective and educational than the traditional teaching system, the result is also compatible with the result of (AL-Hujaili & Alfarani, 2020; Han, 2018; Kengam, 2020) which indicates that artificial intelligence will have a great impact and long-term value towards innovative and smart education, and that artificial intelligence represents the tool of the future, as it turns out Positive trends towards training programs based on artificial intelligence through some items, such as item (22) “My training through programs based on artificial intelligence helps

me keep pace with developments in education in the current era" as its arithmetic average was (2.73), item (19) "I find that training programs based on artificial intelligence save a lot of my time and effort" which had an average of (2.73), in addition to item (20) "training programs based on artificial intelligence enable me to train with great freedom" with an average of (2.67), as well as item (12) "training programs based on artificial intelligence provide training content according to my training needs" with an average (2.64), The rise of these items can be explained by recognizing the advantages of artificial intelligence and seeking the benefits it provides to meet the needs of each individual and adapt to his capabilities.

The results also indicated that The high score of some items, such as item (10) "I feel proud when I train with an AI-based programs" with an average (2.74), item (7) "I feel happy while participating in training programs based on artificial intelligence" with an average (2.63), as well as item (8) " I am annoyed by participating in training programs based on artificial intelligence" with an average of (2.58), in addition to item (9) "It bothers me to use a training program based on artificial intelligence when developing my professional skills" with an average (2.56), and item (6) "I feel satisfied about training with a program based on artificial intelligence" with an average (2.53), The researcher explains the high value of the arithmetic averages for the previous items to the fact that training with programs based on artificial intelligence enhances some psychological feelings such as feeling happiness, confidence, satisfaction and pride. This result is consistent with the results of (Hsieh et al., 2020; Kim et al., 2021) which found the effectiveness of programs based on artificial intelligence in enhancing the sense of confidence during learning, and even the study Yang & Shulruf (2019) concluded that The performance of the respondents was better and their confidence was higher during the training with programs based on artificial intelligence, but it differs with Haseski (2019) which indicated the emergence of negative feelings and anxiety towards artificial intelligence among most of the respondents.

The high score of items (21) "train me through an artificial intelligence program contributes to the development of my professional skills" with an average of (2.69), and item (18) "Training programs based on artificial intelligence do not develop the skills of teachers of students with professional learning difficulties" with an average of (2.35), are interpreted by the researcher. That artificial intelligence-based programs are effective in developing educational and learning skills and preparing teachers, this result is consistent with the results of (Abdel Baky, 2022; Abdel-Gawad et al., 2019; Ahmed, 2022; Al-Astal et al., 2021; Al-Mutairi, 2022; Allam & Salhoub, 2022; Daoud et al., 2022; Elnaggar & Habib, 2021; Khalaf, 2023; Quora & Elmansi, 2023) and but it differs with the result of Han et al (2022) which did not show statistically significant differences between the control and experimental groups on which an artificial intelligence-based program was applied.

The high score of items (17) "I can help my colleagues train on programs based on artificial intelligence" with a mean of (2.38), may be attributed to the respondents' compatibility with technology and their support for the advancement of the field of education through the use of artificial intelligence applications.

The researcher attributes the high score of item (1) "I have previous knowledge about the concept of artificial intelligence" with an average of (2.59), as well as item (2) "I have a perception of artificial intelligence application in the educational field" with an average of (2.41), to the boom in artificial intelligence applications in all areas of life, especially after the technological transformation imposed by the Corona pandemic; Thus, the concept of artificial intelligence was formed, and the basic conception of its applications in the field of education among the research sample, and this

result is consistent with one of the results of the study of Alkahtani & Aldayel (2021) which indicates a high awareness of the concepts of artificial intelligence, However, this result differs from the result of the study of Zawacki-Richter et al (2019) which indicated a lack of awareness of the educational effects of artificial intelligence applications in education.

While some of the items came with a moderate degree, such as item (4) “I see that I have technical experience that enables me to develop my professional skills through a training program based on artificial intelligence” with an average (2.23), item (5) “I have a sufficient idea about the areas of employing artificial intelligence in the educational process” with an average of (2.03), as well as item (13) “I prefer regular search over chatbots” with an average of (2.32), item (15) “Using artificial intelligence in my training and developing my skills restricts my freedom of thinking” with an average of (2.31), in addition to item (14) “Relying on training programs based on artificial intelligence slows down the development of my skills that are required for transformation technology" with an average of (2.29), The researcher relates this result to a lack of relevant expertise and understanding in the areas of educationally applying artificial intelligence and technological capabilities, This finding is congruent with the findings of Alfageeh & Alfarani's (2023) study which showed that respondents' awareness of artificial intelligence applications was moderate, It also consistent with one of the findings of Alghamdi & Alfarani's (2020) study which found that the level of knowledge and skill associated with the use of educational artificial intelligence applications for the research sample was neutral, however, it differs with Chiu et al (2023) which indicates that teachers do not have A sufficient understanding of technology, which limits its effective application, as it differs with the result of Atteya (2020) which showed weak skills in employing artificial intelligence applications in the educational process among its sample, It also differs with the result of Hajjaj’s (2022) study which concluded that students and teachers do not have sufficient previous experience in dealing with educational technology tools, as well as it differs with the result of Aldosari (2020) which showed a low level of awareness of the mechanisms of applying artificial intelligence, and that there is a need for more spreading awareness in the Saudi environment about the possibilities of using artificial intelligence applications in education, and this result may also be attributed to the age factor or years of service, and may be attributed to some beliefs and fears that believe that there will be complete reliance on artificial intelligence in the future, which may reduce the jobs of human cadres and total dependence on machines, as Terzi (2020) study found that some teachers are concerned about future job opportunities in light of The rapid development of artificial intelligence applications.

Accordingly, item (3) “self-trained by a program based on artificial intelligence” had an average of (1.56), and a low degree, indicating that the majority of the respondents had not previously been trained in programs based on artificial intelligence; the result of this item in the current research may be due to a lack of training programs based on artificial intelligence that target the research sample. The results of (Chew & Chua, 2020; Kim et al., 2021; Koc-Januchta et al., 2020; Palasundram et al., 2019; Vazquez-Cano et al., 2021) noting that self-learning provided by artificial intelligence applications is still in its experimental stages, as the lack of appropriate learning resources constitutes a major challenge, and this result may lead to a decrease in the desire to continuously interact with applications of artificial intelligence. This is consistent with one of the findings of the study by Huang et al (2019) which found that the participants' desire to spend more time with the chatbot was negative, in contrast to the findings of the study by Bii et al (2018) which found that 90% of the teachers who participated in the research experiment were willing to chat with

the chatbot again, This result may also be attributed to a lack of pre-qualification to deal with these programs, as well as the job burdens faced by teachers of students with learning disabilities, in addition to the lack of time that may be required to diagnose this category of students, identify their skills, and draw individual plans for the goals and capabilities of each student individually, This result may also lead to continued reliance on traditional methods. In line with the nature of teaching in this field and relying heavily on traditional methods and strategies. This is consistent with the findings of Mahmoud's (2020) study, which suggests a lack of interest in educating teachers to use technological advancements and a reliance on traditional paper instruments in the educational process. According to the report, despite the trends and benefits of artificial intelligence, there is still a need for additional awareness and training to obtain the most profit and benefit.

In general, the findings of this research indicated that teachers of students with learning disabilities had positive attitudes towards artificial intelligence-based training programs, as shown in Table (3) with an arithmetic mean of (2.49), and thus the research question was answered. In this regard, the result of this research was consistent with the results of some studies, such as the study of (Abbas, 2020; Alfarani & AL-Hujaili, 2020; Alghamdi & Alfarani, 2020; Alkahtani & Aldayel, 2021; Bii et al., 2018; El Desouky, 2022; Huang et al., 2019; Kim et al., 2021; Mendoza et al., 2022; Mira & Kata, 2019; Ocaña-Fernandez et al., 2019) which indicated positive attitudes of respondents towards the use of artificial intelligence applications in the field of education, on the other hand, it differs from the findings of the study Haseski (2019) which revealed the emergence of negative attitudes towards the applications of artificial intelligence in education, and by revealing the attitudes of teachers of students with learning disabilities towards artificial intelligence-based training programs; the researcher discovers that these programs can play a very effective role in training teachers, leading to an increase in their productivity. According to the study (Gunawan et al., 2021; Wood et al., 2021) most teachers indicated that technology improved their work efficiency and teaching efficiency, and they saw that teaching with programs based on artificial intelligence technology was fun and interesting, and they expressed a desire to learn more about this technology.

Limitation:

- Objective limits: trends towards training programs based on artificial intelligence.
- Human limits: teachers of students with learning disabilities.
- Temporal limits: the third semester of the academic year 1444 AH / 2023 AD.
- Spatial limits: teachers of students with learning disabilities in Jazan.

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