

The Level of Utilisation of Artificial Intelligence Applications at the Intermediate Stage from the Perspective of Arabic Language Teachers

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Abstract

The study was conducted at the University of Babylon, Faculty of Basic Education, and aims to identify “the extent to which artificial intelligence applications are utilised in lower secondary education from the perspective of Arabic language teachers”. To achieve the research objective, the researchers prepared a questionnaire comprising 25 items. After verifying its validity by presenting it to a number of referees and specialists in teaching methods, its reliability was then confirmed through retesting and application to a sample of 25 Arabic language teachers. A three-point Likert scale was used, with three response options provided for each item: ‘Strongly agree’, ‘Agree’ and ‘Disagree’. The highest score for a statement was 3 and the lowest was 1. The questionnaire was administered to a research sample of 50 teachers. The findings revealed that the teachers expressed a desire to learn about and apply artificial intelligence applications in the field of Arabic language teaching. The researchers recommended encouraging Arabic language teachers to utilize artificial intelligence applications by offering both financial and non-financial incentives.

Keywords: the use of artificial intelligence applications, lower secondary level, Arabic language teachers.

1. Introduction:

Considering recent technological developments, our educational institutions must not merely remain at a certain stage of this progress; rather, they are required to keep pace with it so that they can benefit from it across all aspects of the educational process. We must therefore prepare those involved in the educational process for this development. We are thus faced with significant challenges, not least of which is the challenge posed by artificial intelligence applications.

As a result of rapid digital transformation, it has become essential for Arabic language teachers to possess the necessary skills to utilize artificial intelligence applications (such as educational robots, automated assessment and smart aids) in the educational process. However, reality indicates a disparity in their knowledge of these tools, as well as significant variation in the extent to which they are used and integrated with traditional teaching methods. This raises questions about their proficiency in using them, the difficulties they face, and the extent to which their academic background and pedagogical experience influence their use.

Education faces major challenges in improving the quality of Arabic language teaching, particularly in keeping pace with modern technology. The application of artificial intelligence in education has demonstrated significant potential for improving the effectiveness and efficiency of teaching, despite these challenges, which include a lack of infrastructure, the need for teacher training, and resistance to change among some teachers. The integration of ChatGPT into education can alleviate the administrative burden on teachers, allowing them to engage directly with students and undertake creative activities. However, issues of privacy and algorithmic bias must be addressed to ensure the optimal use of AI in education (Saproni & Rahmah, 2024, 1).

2. Theoretical framework:

AI applications in education can be used in key areas such as content, teaching methods, assessment and communication. Artificial intelligence refers to the knowledge and information possessed by Arabic language teachers and the content they expect their students to acquire, as well as the teaching methods and ideas they use in delivering educational content to their students. (Chassignolet et al., 2018, p. 18).

Despite the importance of the Arabic language teacher's role in the educational process in general, and in the deployment of modern technologies and AI applications in teaching in particular, this role remains ineffective and insufficiently prominent. This has been confirmed by numerous studies conducted in this field, such as the study by (Hassanein, 2023) and the study by (Saproni & Rahmah, 2024). Many studies have indicated that their role ranges from average too weak in the deployment and use of technologies and artificial intelligence applications. This study confirmed that the reason lies in the limited resources available for the use of modern technologies, including artificial intelligence in teaching, and the low willingness of teachers to use them.

Based on this, the researchers decided to conduct a study to determine the extent to which artificial intelligence applications are utilized at secondary level from the perspective of Arabic language teachers.

Artificial intelligence aims to understand the nature of human intelligence by creating computer programmers capable of simulating intelligent human behavior. This also includes the ability of a computer programmer to solve a problem or make a decision in a specific situation based on a description of that situation. The programmer determines the appropriate method to follow to solve the problem or reach a decision by referring to the various inferential processes with which it is fed. This is considered a significant turning point that goes beyond what is known as information technology, where humans perform the process of inference. The most important reason for using computers is their exceptional speed. Although we cannot define human intelligence in general terms, we can highlight several criteria by which it can be judged. These criteria include the ability to generalize and abstract, to recognize similarities between different situations, to adapt to new situations, and to detect errors. (Bonnet, 1990: 11)

Precise systems based on artificial intelligence have contributed to its effective production and utilization, given its importance in serving education within educational institutions and the benefits it brings; through it, educational work can be enhanced. A new trend in artificial intelligence has emerged in both the branches of smart educational systems and expert systems, and the variety of these models can be utilized to develop and modernize the excellent educational and administrative methods that have emerged through the application of e-learning in teaching and the administrative software systems for staff and all information relating to them (Azmy, 2014, 241) .

Amidst the transformations witnessed in education, Arabic language teaching has gone through various stages. It began with traditional teaching before the technological revolution; then traditional and technological approaches merged after the revolution in the 1950s. This integration was evident in

language teaching through the language laboratories of which many institutes and universities prided themselves, alongside the implementation of the audio-lingual method, which gained significant momentum during this development. The situation soon changed again within a short period with the advent of the personal computer era, followed by multimedia in the 1970s and 1980s respectively, heralding the emergence of a new term for this trend known as CALL (Computer-Assisted Language Learning). With the advent of the internet at the dawn of the new millennium, numerous attempts emerged to capitalize on this major digital revolution in communication, the most prominent of which was language teaching via social media platforms such as Facebook and YouTube. (Al-Dahshan 2020: 2).

Arabic is one of the natural languages in which researchers are active in the field of artificial intelligence in general, and natural languages in particular; it is one of the most widely used languages in the contemporary world, ranking fourth in terms of the number of speakers, after Chinese, Urdu-Hindi and English. It is also one of the most widely used natural languages in the world; suffice it to say that it rose from sixth place in the mid-2000s to fourth place in the mid-2010s, with the number of its users approaching half a billion. This growth and prominence give us a glimpse of what we can achieve in the near future, and so it is amenable to automated processing. It is on the verge of reaching very advanced levels, provided it is given the necessary resources and capabilities, and appropriate support. This is because it is a largely standardized language, particularly in its phonological structure and morphological rules.

At the same time, it is an inflected language, characterized by a generative derivational system, and it also has its own grammar. These are issues that represent problems, not physical entity. These problems will only be successfully resolved if the necessary means and tools are made available. (Al-Sa'id et al., 2023: 14) .

This study aims to determine: (the extent to which artificial intelligence applications are utilized in lower secondary education from the perspective of Arabic language teachers)

To achieve this research objective, the researchers formulated the following question:

To what extent are artificial intelligence applications utilized in lower secondary education from the perspective of Arabic language teachers?

The scope of this study is defined as follows:

- 1- Time frame: The academic year(2025–2024) .
- 2- Geographical scope: The General Directorate of Education in Babil Governorate, at the governorate headquarters.
- 3- Target group: Arabic language teachers at the secondary level.
- 4- Scientific scope: A questionnaire comprising several items relating to artificial intelligence applications

Definition of terms:

Artificial intelligence applications: These are known to:

Ramadan (2024) defines it as: "A suite of software that users can interact with, which mimics the human mind with speed and autonomy, and enables them to obtain immediate, coherent and harmonious results." (Ramadan, 2024:143)

Al-Anqoudi (2019): "The science of inventing machines and computer programmers characterised by intelligence to simulate human thinking, and their ability to perform intelligent tasks in projects and systems involving advanced human intellectual processes." (Al-Anqoudi, 2019: 44)

Al-Amri, (2024): "A set of applications, tools and computer programmers that can be used by teachers in any subject within the educational process, whether in planning, teaching or assessment, for the purpose of achieving the desired objectives and thus delivering more effective education." (Al-Amri, 2024:24)

The researchers assessed the extent to which Arabic language teachers utilise artificial intelligence applications when teaching Arabic language subjects, based on the questionnaire that was prepared.

3. Artificial intelligence in the educational process.

Generative artificial intelligence is revolutionizing educational technology by providing highly personalized and adaptive learning environments within Intelligent Teaching Systems (ITS). This report examines the integration of generative AI, particularly large language models (LLMs) such as GPT-4, into Intelligent Tutoring Systems (ITS) to enhance personalized learning through dynamic content generation, real-time feedback, and adaptive learning pathways. We explore key applications such as automated question generation, personalized feedback mechanisms, and interactive dialogue systems that cater to individual learners' needs. We also address significant challenges, including ensuring instructional accuracy, mitigating biases inherent in AI models, and maintaining learner engagement. Future trends highlight potential developments in the integration of multimodal AI and emotional intelligence into teaching systems, as well as the ethical implications of AI-driven education. (Subhankar Maity¹ and Aniket Deroy, 2024, 2).

Artificial intelligence is a somewhat old concept, having officially begun in 1956 at Dartmouth College in Hanover, USA. Initially, the aim was to simulate the various intellectual capabilities of machines, in stages beginning with understanding the complex mental processes performed by the human mind when thinking and processing these operations, then translating them into similar computational processes. Consequently, artificial intelligence was initially defined as a field of computer science specializing in programming computers to perform tasks carried out by humans that require a form of intelligence. (Muzak, 2024: 144)

The stages of artificial intelligence in education:

Oece has identified the following stages in the development of artificial intelligence within the educational process:

1. The order of design, data and modelling activities may vary depending on the artificial intelligence system:
 - The artificial intelligence system is planned and designed based on a statement of the system's concept, objectives, assumptions, context and basic requirements.
 - Data is collected and processed by conducting completeness and quality checks and documenting metadata and its characteristics.
 - The model is built and interpreted, or models and algorithms are selected for training and interpretation.
2. Model validation, tuning and deployment, including testing and performance evaluation.
3. Deployment in a live production environment for piloting, compatibility with legacy systems, and evaluation of the user experience.
4. Operating and monitoring the AI system and continuously evaluating its recommendations and impacts based on objectives and ethical considerations. This stage identifies problems and, if necessary, withdraws the AI system from production (Oece, 2019, 26).

The importance of artificial intelligence in education

The importance of artificial intelligence in education can be illustrated as follows:

- 1- It helps to assess learners' progress in order to determine an appropriate level of instruction for them .

- 2- It enables decisions to be made that are consistent with the nature of the activity required of learners during the teaching situation.
- 3- It assists with marking tests, freeing up the teacher's time to devote to other teaching tasks.
- 4- Continuous assessment of learners by monitoring their learning progress in real time and with precision as they acquire skills over time.
- 5- Providing appropriate learning systems for students with special needs, as the educational AI programmer offers a tailored approach for each student in line with their skills and circumstances.
- 6- It provides learners with diverse methods of receiving information and smart platforms tailored to their needs.
- 7- It provides learners with the ability to engage in self-directed learning with greater precision and substantial feedback.
- 8- It ensures that information and data are preserved and stored more accurately and securely, making it easier for staff to access them.
- 9- It protects information from loss, damage or leakage.
- 10- The use of artificial intelligence helps to create customized tests and games that help students engage with the material in a fun and interactive way .
- 11- It helps teachers develop lesson plans tailored to each student's weaknesses, thereby helping to improve their academic performance and raise their educational standards. (Abdul Rahim, 2023, 44)

The objectives of artificial intelligence.

The objectives of artificial intelligence include the following:

- 1- Artificial intelligence is used to create expert models capable of intelligent behavior, including tasks such as learning, interpreting, and providing explanations and advice to users, thereby enhancing the effectiveness of interaction and decision-making.
- 2- This field also relies on replicating human intelligence in machines by building systems that interact with humans, understanding their thinking and environment, and possessing the ability to perceive and act based on that perception.
- 3- Artificial intelligence aims to simulate human mental processes through models that perform cognitive tasks, based on the study of diverse cognitive patterns and their conversion into rules and operational mechanisms.
- 4- Through these models, automated plans can be designed to achieve desired objectives, whereby the machine determines the optimal steps to contribute to the attainment of those goals.
- 5- Whilst traditional systems are limited to direct programming, the primary aim of artificial intelligence is to develop self-learning intelligent devices capable of self-improvement without the need for continuous human intervention. (Tutorials Point, 2020)

Features of artificial intelligence

The features of artificial intelligence include the following:

1. The ability to respond quickly to new knowledge, developments and situations.
2. Acquiring and retaining knowledge, learning and understanding from past experiences, and applying this knowledge.
3. Gaining insights through trial and error.
4. The ability to perceive, reason and predict.
5. Solving problems clearly and dealing with difficult situations in the absence of complete information.
6. Dealing with incomplete data and non-numerical symbolic data.

7. Distinguishing between the relative importance of known elements and situations.
8. Analysing big data to support management decisions. (Al-Najjar, 2010).

4. Previous studies:

The study by Al-Tawini et al (2023) .

‘The extent to which artificial intelligence tools are used in teaching, as perceived by science and mathematics teachers in the Al-Dakhiliyah Governorate, Sultanate of Oman’

The study was conducted in the Sultanate of Oman and aimed to determine the extent to which science and mathematics teachers in schools within the Al-Dakhiliyah Governorate of the Sultanate of Oman utilise artificial intelligence applications in the classroom, as well as to identify statistically significant differences at a significance level of (0.05) in the degree of use of artificial intelligence tools in teaching from the perspective of science and mathematics teachers according to the gender variable. To achieve the research objectives, the researchers prepared a questionnaire comprising 18 items. The researchers adopted a descriptive-analytical approach, and the research sample included 132 teachers. The researchers used a five-point Likert scale; the mean and standard deviation were calculated to arrive at the research findings, which showed that the degree to which science and mathematics teachers utilised artificial intelligence applications was moderate based on these results, The researchers made several recommendations, including the need to design and adopt policies and action plans to integrate AI applications into the teaching of science and mathematics, to raise awareness of the benefits of these applications, and to provide training opportunities for teachers in this field. The researchers also recommended conducting further studies and research on the use of artificial intelligence applications in the teaching of science and mathematics. (Al-Tawini & Akharan: 2023: 44).

The Study by Al-Rawahi and Ezzat (2023)

‘Barriers to the adoption of modern technologies and artificial intelligence applications in the teaching of Islamic education from the perspective of teachers in the Sultanate of Oman’

The study was conducted in the Sultanate of Oman and aimed to identify ‘the obstacles to the use of modern technologies and artificial intelligence applications in the teaching of Islamic education from the perspective of teachers in the Sultanate of Oman’. The researchers employed a descriptive-analytical approach on a sample of 151. The research tool consisted of 21 items included in a specially designed questionnaire. The researchers used Cronbach’s alpha to ensure reliability and presented the questionnaire to a few experts to verify its validity. A five-point Likert scale was used. After the responses were analysed, the arithmetic mean and standard deviation were calculated. The researchers concluded that there is a shortage of suitable classrooms for the use of artificial intelligence applications, as well as a lack of experience in utilising such applications. The study recommended the need to make use of modern technologies and artificial intelligence applications by providing training courses and the necessary equipment. (Al-Rawahi & Azza, 2023: 62)

Hassanin’s study (2024)

“The Use of Artificial Intelligence to Support the Arabic Language from Teachers’ Perspectives”

The study was conducted in Egypt and aimed to “utilise artificial intelligence to serve the Arabic language from the perspective of teachers”. The researcher adopted a descriptive approach and developed a questionnaire comprising 30 items, which was administered to a sample of 213 teachers — 81 male teachers and 123 female teachers, all of whom teach Arabic and were selected at random. The researcher used a three-point Likert scale (agree, neutral, disagree), The statistical methods adopted by the researcher were the arithmetic mean and standard deviation to arrive at the research findings. The response rates for the questionnaire items ranged from low, medium, to high, the researcher recommended providing a flexible and advanced infrastructure comprising wireless communications,

computers and software, as well as highly competent specialists to provide technical support for network management prior to the implementation of artificial intelligence in teaching. (Hassanin, 2024: 3).

Review of previous studies:

- 1- All previous studies agreed on the use of artificial intelligence applications as their objective.
- 2- Previous studies varied in terms of where they were conducted, between Egypt and Oman.
- 3- Previous studies agreed on the use of a questionnaire as their research tool.
- 4- The studies agreed on the use of the five-point Likert scale.
- 5- Previous studies agreed on the use of the arithmetic mean and standard deviation to measure research results.
- 6- Previous studies agreed that there are weaknesses in artificial intelligence applications.
- 7- Previous studies varied in terms of sample size, as well as the participants' specialisations .

5. Research methodology

In the present study, the researchers employed a descriptive approach to ascertain the views of Arabic language teachers regarding the extent to which artificial intelligence applications are utilised at secondary level; this is because the descriptive approach "involves the study of existing events, phenomena and practices that are available for study and measurement as they are, without the researcher interfering in their course; the researcher can interact with them, describing and analysing them" (Al-Agha, 2000, p. 43).

Research community

The current research group consists of Arabic language teachers in Babil Governorate for the 2024/2025 academic year.

Research sample

A random sample of 50 Arabic language teachers was selected from the Babil Governorate Centre for the 2024/2025 academic year.

Study tool

A questionnaire was used to achieve the objective of the present study, and it was prepared in accordance with the following steps:

- 1- Reviewing the literature and studies related to the applications of artificial intelligence in education.
- 2- Putting an open-ended question to a select group of professors, educationalists, and Arabic language teachers to ascertain their views on artificial intelligence applications and using this information to draft the questionnaire items.
- 3- A questionnaire comprising 25 items was prepared.
- 4- Validity of the instrument: The face validity of the questionnaire was verified by presenting it to a group of experts and specialists in Arabic language curricula and teaching methods; based on their comments, some amendments were made to the items.
- 5- Reliability of the instrument: The concept of reliability is one of the key concepts in measurement; it refers to an instrument that yields identical or closely similar results when administered multiple times, such that an individual's ranking within their group does not change significantly upon re-administration. The reliability of the instrument was calculated using a pilot sample of 25 teachers; this sample was separate from the original sample. The test was re-administering two weeks after the first administration, and the correlation coefficient between the first and second administrations was calculated using Pearson's correlation coefficient, which was 80%. This value is significant at the 5% significance level, and thus, the research instrument was deemed reliable.

- 6- Questionnaire scoring: A three-point Likert scale was used, with three response options provided for each item: (Strongly agree – Agree – Disagree). Three points were awarded for 'Strongly agree', two points for 'Agree', and one point for 'Disagree.'
- 7- After confirming the validity and reliability of the questionnaire, it was ready for use in its final form, comprising 25 items .

Study Tool App

The questionnaire was administered to the research sample of 50 teachers on Wednesday, 15 October 2025; all members of the sample responded to the research instrument, and the questionnaires were collected, transcribed and statistically analysed.

Statistical analysis

The arithmetic means, standard deviations and percentages for each item in the questionnaire were calculated using the statistical software SPSS.

6. Analysis and discussion of the results

The researchers reviewed the findings obtained in response to the current research question, which is: To what extent are artificial intelligence applications utilised at secondary level from the perspective of Arabic language teachers?', and discussed the items as follows:

The mean, standard deviation, percentage and trend were calculated for each of the 25 questionnaire items, which were then ranked in descending order, as shown in Table 1 .

Table(1) : Shows the items, the meaning, the standard deviation, the percentage, the trend for each item, and their ranking

No.	Rank	Item	Mean	Std. Deviation	Percentage
1	24	I believe that artificial intelligence is a positive addition to the educational system	2.5	0.81	83.33
2	25	I am willing to learn artificial intelligence tools for education	2.4	0.80	80.00
3	20	I believe that artificial intelligence contributes to developing students' Arabic language skills	2.3	0.90	76.67
4	15	I am concerned about students' excessive reliance on artificial intelligence instead of independent thinking	2.24	0.97	74.67
5	10	I use artificial intelligence to provide feedback to students	2.2	0.98	73.33
6	2	Artificial intelligence can contribute to the future development of education	2.04	1.00	68.00
7	23	I trust the ability of artificial intelligence to support Arabic language skills	2.0	1.00	66.67
8	5	I use artificial intelligence to assess students' language proficiency	1.88	0.89	62.67
9	11	I am able to access artificial intelligence platforms to support the educational process	1.8	0.87	60.00
10	7	I do not have sufficient knowledge to employ artificial intelligence in lessons	1.76	0.95	58.67
11	4	I believe that artificial intelligence enhances the	1.7	0.90	56.67

		efficiency of teachers and schools			
12	17	I am able to effectively integrate artificial intelligence into lesson plans	1.68	0.93	56.00
13	16	There is a lack of training courses dedicated to artificial intelligence in education	4.18	0.80	53.33
14	3	Artificial intelligence can be used to train students in spelling skills	1.54	0.81	51.33
15	9	There are no clear ministerial guidelines for implementing artificial intelligence in the classroom	1.52	0.75	50.67
16	18	Artificial intelligence helps assess students' performance more accurately	1.5	0.81	50.00
17	19	Artificial intelligence can generate interactive exercises suitable for each academic level	1.48	0.81	49.33
18	14	Artificial intelligence contributes to developing students' written expression skills	1.44	0.80	48.00
19	12	Artificial intelligence can correct grammatical and syntactic errors	1.42	0.78	47.33
20	8	Artificial intelligence can help students summarize and analyze texts	1.4	0.80	46.67
21	22	Weak infrastructure hinders the use of artificial intelligence	1.3	0.64	43.33
22	21	I am able to design educational activities using artificial intelligence tools	1.24	0.65	41.33
23	1	I use artificial intelligence to explain grammar and literary texts and simplify their meanings	1.2	0.40	40.00
24	13	There is a shortage of smart applications supporting the Arabic language	1.18	0.48	39.33
25	6	Using artificial intelligence requires additional preparation time	1.16	0.37	38.67

Table 1 shows that the statement: 'I believe that artificial intelligence is a positive addition to the education system' ranked first, with an arithmetic mean of 2.5 and a percentage of 83.33%; The statement 'I am keen to learn about AI tools for education' came second, with an arithmetic mean of 2.4 and a percentage of 80%. Both statements received a high level of acceptance (strongly agree) .

Ten items received a 'Agree' response. These items were: 'I believe that artificial intelligence contributes to the development of students' Arabic language skills', which ranked third with an arithmetic mean of 2.3 and a percentage of 76.67%; The statement "I fear students' excessive reliance on artificial intelligence instead of independent thinking" ranked fourth, with an arithmetic mean of 2.24 and a percentage of 74.67%, The statement "Artificial intelligence is used to provide feedback to students" ranked fifth, with an arithmetic mean of 2.2 and a percentage of 73.33%, The statement 'AI can contribute to the future development of education' ranked sixth, with an arithmetic mean of 2.04 and a percentage of 68%, The statement 'I trust in the ability of artificial intelligence to support Arabic language skills' ranked seventh, with an arithmetic mean of 2 and a percentage of 66.67%. The statement 'I use artificial intelligence to assess a student's language proficiency' ranked eighth, with an arithmetic mean (1.88) and a percentage of (62.67%). The ninth-ranked item was 'I am able to access AI platforms to support the educational process', with an arithmetic mean of (1.8) and a percentage of (60%). As for the item 'I do not have sufficient knowledge to use artificial intelligence in lessons', it ranked tenth with an arithmetic mean of 1.76 and a percentage of 58.67%, The statement "I believe that AI enhances the efficiency of teachers and schools" ranked eleventh, with an arithmetic mean of 1.7

and a percentage of 56.67%. The twelfth-ranked statement was 'I am able to effectively integrate artificial intelligence into the lesson plan', with an arithmetic mean of 1.68 and a percentage of 56%.

Thirteen items received a 'disagree' response; these were: 'The lack of training courses dedicated to artificial intelligence in education' (ranked thirteenth, with an arithmetic mean of 4.18 and a percentage of 53.33%), The item 'AI can be used to train students in spelling skills' ranked fourteenth, with an arithmetic mean of 1.54 and a percentage of 51.33%, The statement 'There are no clear ministerial guidelines for the application of artificial intelligence in the classroom' ranked fifteenth, with an arithmetic mean of 1.52 and a percentage of 50.67%, The statement 'AI helps to assess student performance more accurately' ranked sixteenth, with an arithmetic mean of 1.5 and a percentage of 50%, followed by the statement 'AI can generate interactive exercises suitable for every academic level', which ranked 17th with an arithmetic mean of 1.48 and a percentage of 49.33%, The statement 'Artificial intelligence contributes to the development of students' written expression skills' came in 18th place with an arithmetic mean of 1.44 and a percentage of 48%, The statement 'Artificial intelligence can correct both spelling and grammar' ranked nineteenth, with an arithmetic mean of 1.42 and a percentage of 47.33%, The statement 'Artificial intelligence can help students summarise and analyse texts' ranked 20th, with an arithmetic mean of 1.4 and a percentage of 46.67%.

The statement 'Weak infrastructure hinders the use of artificial intelligence' ranked 21st, with an arithmetic mean of 1.3 and a percentage of 43.33%, The statement 'I can access AI platforms to support the educational process' ranked 22nd, with an arithmetic mean of 1.24 and a percentage of 41.33%, The item 'I use artificial intelligence to explain grammatical rules and literary texts and simplify their meanings' ranked 23rd, with an arithmetic mean of 1.2 and a percentage of 40%.

The item 'Lack of smart applications supporting the Arabic language' ranked 24th with an arithmetic mean of 1.18 and a percentage of 39.33%, The section on 'the use of artificial intelligence requiring additional preparation time' ranked last, in twenty-fifth place, with an arithmetic mean of 1.16 and a percentage of 38.67%.

This may be because artificial intelligence is one of the modern technological innovations that has brought about radical transformation and notable developments in the field of education; it enhances access to quality education by providing diverse and interactive content, and plays a role in developing innovative teaching strategies and expanding the scope of educational opportunities and access

7. Conclusions:

Based on the findings of the current study, the researchers concluded the following:

- 1- Teachers' desire to learn about artificial intelligence applications and apply them in the field of Arabic language teaching.
- 2- Artificial intelligence plays a positive role in developing students' talents through advanced educational activities.
- 3- Artificial intelligence applications require support from government bodies, and there is a need to provide the equipment necessary to implement them correctly, thereby benefiting the educational process.
- 4- Teachers are keen for their students to rely on artificial intelligence, whilst moving away from other types of learning that develop students' talents and increase their engagement with the subject matter.
- 5- Artificial intelligence provides clear and detailed information with examples when explaining grammatical rules, as well as analysing literary texts scientifically and clearly for students.

- 6- The use of artificial intelligence in education represents a significant development in keeping pace with modern technology .
- 7- Several respondents agreed that there are drawbacks that may hinder the application of artificial intelligence in Arabic language learning.
- 8- The lack of dissemination of artificial intelligence culture has weakened the interest of Arabic language teachers.

Recommendations:

- 1- Organize training courses for Arabic language teachers to learn how to make use of artificial intelligence applications.
- 2- Organizing discussion forums on the use of artificial intelligence applications in Arabic language learning.
- 3- Encouraging teachers to use modern teaching methods.
- 4- Establishing model classrooms in schools and equipping them with advanced devices for artificial intelligence applications.
- 5- Encouraging Arabic language teachers to make use of artificial intelligence applications by offering financial and non-financial incentives.
- 6- Consulting experts in artificial intelligence applications to resolve the problems they encounter whilst working.

Proposals

- 1- To conduct a study examining the impact of artificial intelligence applications on the development of creative thinking skills in Arabic language lessons.
- 2- To conduct a study examining the impact of the use of artificial intelligence applications and collaborative learning on students' achievement in Arabic.
- 3- To conduct a comparative study of students' achievement in Arabic when using artificial intelligence versus traditional teaching methods .

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