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The Contribution of Smartphone Apps to Develop Teaching the Arabic Language "*Arabic Is My Language*'s App" as a Sample

Mohammed Abou Adel ³ ˒ ⁱᴰ , *Khalifa Boudjadi* ¹ ⁱᴰ , *Moustafa Mohamed Abouelnour* ² ⁱᴰ ,
Mohammad Issa Alhourani ³ ⁱᴰ

¹ College of Arts, Arabic Language Department, Al Wasl University, Dubai 25314, UAE

² Department of Arabic, College of Arts, University of Khorfakkan, Sharjah 00000, UAE

³ Al Ain University, Abu Dhabi 20000, UAE

ABSTRACT

This paper explores the impact of *Arabic Is My Language*'s App in teaching the Arabic language to native speakers of Arabic in the higher education field. This is a new field required by the digital age, a period characterized by rapid technological advancements and the increasing integration of digital tools in various aspects of life, including education. This paper demonstrates how artificial intelligence can be invested in developing the educational process to align with the transformations of this digital age. The paper also aims to study the scientific methodology followed by the most critical Apps in teaching Arabic, compare its learning outcomes to the traditional way, and look for new mechanisms to improve the quality of current apps. The paper problem is evident in this era's need to advance education technically. To keep pace with the developments of the times, especially with what the world has recently witnessed in terms of the invasion of the COVID-19 pandemic and the disruption of the educational process, such an approach is a necessity and an urgent need. This paper adopts inductive and analytical methods to describe this new phenomenon after collecting, classifying, and evaluating relevant data to reach accurate results that open new horizons for benefiting from smartphone Apps in developing education. The study is divided into three sections. The first one defines the importance of investing artificial intelligence in developing education in general and developing Arabic language teaching in particular. The second section studies the

*CORRESPONDING AUTHOR:

Mohammed Abou Adel, Al Ain University, Abu Dhabi 20000, UAE;
Email: mohamad.abouadel@aau.ac.ae

scientific methodology for *Arabic Is My Language*'s App, including its progression of providing information supported by interactive questions with visual and audio effects, followed by feedback. Most importantly, it includes an automatic treatment plan for users' weaknesses, as well as a detailed report about the performance of each user. The third section will reveal the various programming, cognitive, and material difficulties the academic faces in creating this educational App and how to overcome and address them.

Keywords: Arabic; Artificial Intelligence; Educational techniques; E-Learning; Smartphone Apps

1. Introduction

This paper comes in the context of research that believes in the importance of devoting artificial intelligence to serving humans in various aspects of life, the forefront of which is education. Instead of worrying about the harmful effects of smartphones on students' energies and mental health, there is reassurance about the availability of scientific material in its digital form on smartphone Apps[1]. So, academics are reformers compared to those who make efforts and enormous sums of money in the electronic games industry, for instance. Your role as educators and researchers is crucial in this process. Suppose education receives the same funding as these entertainment industries. In that case, it will achieve a qualitative leap in development, an increase in the achievement of learning outcomes, and a complete change in the concept of education from what is familiar today. In addition, the negative impression of using smartphones among young people would change to Positive.

In this context, we can add that the current generation of educated people has grown up under technological services, which have witnessed great leaps in recent decades. It is therefore not correct to isolate them from smart devices in classrooms, libraries or study times. Rather, it is necessary to invest these means to provide better education, greater returns, and better outcomes. It is the duty of today's experts, curriculum scientists and teaching methods, to work to provide educational materials, curricula, applications, lessons. And other things related to the educational process, and to be related to information technology, and to invest in all available technical services.

This study is limited to male and female students at Al Yamamah University in Riyadh, Saudi Arabia, during the first semester of the 2023–2024 academic year. Future research may explore a broader range of universities and periods.

The paper problem is evident in the need for parallel development at the technical level in teaching Arabic in this digital age. I have noticed an apparent need for studies on smartphone Apps concerned with teaching Arabic because the vast majority of smartphone Apps specialized in Arabic focus on teaching non-native Arabic speakers or are limited to the category of young Arabic-speaking children. They are prepared by non-academic individuals who need to follow a scientific methodology. They are also evaluative and experimental and lack the educational aspect this App under study is keen on.

Therefore, the first starting point for the problem of this paper is the need for the work of experts in applied linguistics, education, language engineering, computer scientists and software engineers. To work together to create specialized digital educational contents, in order to avoid the commercial educational materials currently popular in the electronic markets from non-specialists.

I did not find previous studies on smartphone Apps that meet this need, so I chose to study this pioneering experience in focusing this App on a neglected category of Arabic language learners who need help mastering the skills of speaking and writing in classical Arabic correctly so that they can overcome their weakness in writing in their mother tongue, which helps them in their lives, whether at the educational or professional level.

Although adopting this modern Approach in shifting towards education using artificial intelligence constitutes a new adventure still in the formation process, it should be studied accurately to pay off. After completing this paper, we have confirmed the effectiveness of this project, if it is adopted by specialists and curriculum experts. Achieving such a successful experience requires answering fundamental questions about using Smartphone Apps in teaching the Arabic language, the most prominent of which are:

1. What are the benefits of teaching Arabic using Smartphone Apps?
2. How does *Arabic Is My Language's App*[2] differs from previous related Apps?
3. What challenges and needs have resulted from this new educational trend, and how do we deal with it?
4. What recommendations can increase the effectiveness and return of the application among practitioners (learners and teachers)?

2. Literature Review

In this literature review, this paper focuses on structuring a flow that critically engages with the topic of smartphone applications (Apps) for teaching the Arabic language, mainly through the lens of artificial intelligence (AI), targeting both native and non-native Arabic speakers. The paper organizes these studies to illuminate their collective insights, limitations, and directions for future work in this domain.

Melhem emphasizes the demand for AI-integrated educational tools, particularly smartphone Apps, to enhance Arabic language learning. His study highlights how teachers perceive the potential of these Apps. However, he overlooks the critical perspective of students—the primary users—thus missing essential insights into student-specific needs and preferences in these Apps. This gap underscores the need for more inclusive research considering end-user views, which is vital for designing practical educational tools[3].

Abu Dhawi takes a practical approach by evaluating four specific Apps, addressing their advantages and areas needing improvement. His recommendations, such as embedding vocabulary in rich linguistic contexts and enhancing visual appeal, highlight practical design elements that could benefit educational outcomes. This critical evaluation is essential in pinpointing factors that make an App pedagogically effective and engaging for users[4]. Similarly, Alkadhi conducts an evaluative survey, focusing on scientific standards, revealing that many Apps fail to meet quality benchmarks in language education. Together, these studies present a strong case for applying rigorous evaluative criteria to Apps, which could influence future development[5].

Alkadhi's follow-up study explores how AI can enable personalized learning experiences. By analyzing how AI adjusts content based on learner abilities, he underscores the potential for Apps to deliver customized language learning pathways. This study provides a significant perspective on how AI can contribute to more adaptive, learner-centered education in the digital context, pushing for a more sophisticated integration of AI functionalities in educational Apps[6].

Meamar offers an insider perspective by analyzing his own App, Alif Bee, which he co-developed. His study goes beyond describing the App's functionalities to discuss the methodological framework, test designs, and content scaffolding to accommodate various learning stages and individual differences. This work exemplifies how an App can be structured to support a diverse learner base, setting a benchmark for developing similar tools[7]. In contrast, Al-Tamimi investigates Arabic teachers' readiness to embrace smartphone-based education, showing the psychological factors that might influence the success of implementing such Apps in real-world settings[8].

Altaf examines the broader impact of smart devices on academic achievement, specifically in university courses. He advocates for developing Apps tailored to course-specific vocabulary and outcomes, highlighting the significant educational potential of smartphone Apps beyond language learning alone. His study contributes to the discussion by framing the need for Apps that address formal educational requirements and bridge learning objectives with digital platforms[9].

Recognizing the proliferation of Arabic-learning Apps, Adel provides a selective review of two successful examples to inspire the development of innovative Apps. His study advocates for leveraging successful elements from existing Apps while calling for expansion to Arabic-speaking users, reflecting an urgent need for culturally adaptive digital learning tools. This insight draws attention to the current gap in Apps that support native Arabic speakers, emphasizing that the field could benefit from a more inclusive approach to language education learning, practicing, and refining their language skills through AI-powered platforms[10].

Despite the importance of previous studies that address this aspect, most of them were based on pure theories separate from the reality of the Apps used, and most did not study these Apps to benefit from them in developing digital learning. They also mostly focused on teaching the English language, while the available studies on its contribution to teaching the Arabic language target only non-Arabic speak-

ers. Hence, there is an urgent need to highlight the role of Apps in teaching the Arabic language to its speakers.

3. Methodology

This paper adopts the descriptive approach based on induction and analysis, to show the characteristics of this new phenomenon inductive and analytical Approach to describe this new phenomenon, education Apps, after collecting relevant information, classifying and evaluating it to reach accurate results that open new horizons for benefiting from Smartphone Apps in developing education. During this, the paper will use a survey for the study, which Applies to students at Al Yamamah University in the Kingdom of Saudi Arabia. Approximately one thousand male and female students annually use this App as an electronic reference to reinforce what they take in Arabic language courses. Still, the survey was conducted on a total sample of 43 male and female students. The survey is subjected to statistical analysis using the SPSS program to extract the arithmetic mean, standard deviation, percentages, etc. Cronbach's alpha is also extracted to measure the validity and reliability of the results, followed by their interpretation to suggest appropriate recommendations.

4. Results

Most smartphone Apps for teaching the Arabic language result from individual efforts necessitated by the need for this type of interactive self-learning. However, they do not result from knowledge of the quality standards adopted in the software.

The paper shows that they limit smartphone Apps specialized in teaching Arabic to non-native speakers because the field of digital learning is devoid of a single App dedicated to teaching Arabic to native speakers. Most smartphone Apps result from individual efforts, and we rarely find anything in them that could be professionally educational.

Organizing scientific content and considering the gradation in its presentation is necessary so that it is easy for the learner to understand and build cognitively from the easiest to the most difficult. Working to increase the learner's interaction with the App by providing him with what keeps them focused. So that they feel in full control of directing the educational process.

To facilitate use, a short explanatory video about the App and its educational advantages should be created. The learner can watch it at the beginning of use to get the most significant benefit.

The tables above show that their standard deviation level is very acceptable. However, the standards with the highest standard deviation can be tracked to provide recommendations and results that can reduce the standard deviation in the future to improve the experience of using this App in the educational process for all respondents.

5. Recommendations

This study is pioneering in dealing with the first App created to target Arabic speakers. It aims to prepare for the emergence of other Apps expected shortly and enhance the teaching of the Arabic language and its academic courses.

The paper recommends holding training courses and workshops to qualify educational departments and teachers and direct them toward the optimal use of Smartphone Apps in the educational process.

Based on the need to develop academic courses at various educational stages to invest in artificial intelligence to reception and facilitate their content, this paper recommends working on an integrated project for innovative digital education, which is summed up by creating educational Apps for smartphones that are complementary to and enhance academic courses, addressing their vocabulary with attractive presentation, ease of reception, and flexibility because it includes the capabilities of automatically measuring the level of progress of learners.

Therefore, the paper recommends institutional support from specialized scientific bodies capable of financing this type of education by allocating a sufficient budget and providing a staff of professional programmers and content creators trained to design information in a way that suits the programming capabilities and the target group in education.

To achieve integrated interactive self-education in smartphone Apps for language education, this paper recommends including all basic skills in creating Apps, including speaking, listening, writing, and reading.

Based on the results of revealing the importance of artificial intelligence, represented by smartphone Apps, in developing Arabic language teaching, the paper recommends

expanding the scope of upcoming studies to explore the extent to which artificial intelligence can develop the teaching of new fields in which attempts are still shy, such as literature and criticism in particular.

It also suggests investigating its potential in developing the teaching of various sciences.

- At the level of *Arabic Is My Language*'s App, recommending that the educational content of the application be subject to continuous updating, review and enrichment. It is best associated with a widely accredited and recognized curriculum. In order to achieve the principle of scientificity, and in order to keep the educational developments in the Arabic language.
- Seeking recognition from parties related to the application, to enable it in various circles, and to expand the scope of its use.

The "Arabic My Language" App is academic because it follows a scientific methodology in the design and presentation of information and the possibility of identifying the strengths and weaknesses of learners and then working to treat them automatically.

The places where the learner makes mistakes appear to him again after the App provides him with feedback about them.

6. Importance of Investing AI in Developing Arabic Language Learning

We cannot ignore the importance of investing smartphone Apps in developing education in general and teaching the Arabic language in particular, especially with the rapid technical shifts recent times have witnessed, from teaching language using computers (CALL) to teaching language using mobile phones (MALL) and finally teaching language using Artificial Intelligence (AIALL).

Smartphone Apps may provide the advantage of collaborative learning through direct live chat with target language speakers, as in the Busuu App. Smartphone Apps also provide learners additional advantages, such as absorbing large amounts of information. Since the person of this age is stuck on the mobile phone, this information remains a digital learning resource that is available to him 24 hours a day, seven days a week, and companies him wherever he goes, enabling him to use it and learn from it in the place and time he wants [11]. smartphone Apps are also distinguished from traditional learning methods by their ease of portability, small size, and great diversity in the types of learning they provide, auditory and visual [12].

The possibilities of programming have become unlimited, and it can transfer any educational idea with a scientific methodology from the realm of thinking and imagination to implementation in actual reality, to become available in the hands of Arabic learners, presented in an attractive, fun and easy way, and gradually, taking in consideration his actual level, through Providing placement tests, and sequentially, the learner moves little by little from one piece of information to another, without feeling bored or difficult [13, 14].

Education using artificial intelligence is becoming important because it offers innovative and fun ways to teach learners attractively. It uses visual and audio effects and stimulates competitive advantages in the educational process.

Artificial intelligence in smartphone Apps for teaching the Arabic language can also integrate the four critical skills for learning any language: speaking, listening, reading, and writing, in addition to many other essential details related to each skill.

These educational Apps allow learners to communicate directly in conversation, regardless of the spatial distance or the countries in which they are distributed. Voice recording features are also available to automatically test the vocal outputs' correctness in pronouncing letters and words or through other participants using the same App. The use of artificial intelligence can achieve an addition at the level of language teaching, as it can provide integrated educational models for the language, including all basic skills in unified models, to avoid the models made that we sometimes see in a number of educational curricula, and separate one skill from another.

This type of App is an embodiment of the Virtual world. On the other hand, it is full of the lives of human groups brought together by the goal of learning, to make the learner feel the vitality of communication and interaction, even if he lives in a remote place devoid of people, as the participant can conduct live conversations with audio and video using the target language.

On the psychological level, digital learning using smartphone Apps relieves learners of the embarrassment of mak-

ing mistakes during the learning process and increases their self-confidence while achieving continuous development.

7. *Arabic Is My Language*'s App: Structure and Scientific Methodology

In the beginning, quality standards were limited in computer-aided language teaching (CALL) through computer programs. Muhammad summarizes them as scientific content, artistic direction, and educational specifications. However, it expanded in Mobile mobile-assisted Language Learning (MALL) to reach twelve standards Approved by the British Council[15], and Ali shows them, namely cooperative learning, feedback, motivation, technology, originality, self-learning, security, and user privacy, learning, registration, Duration of time, learner independence, and purchasing power[16]. However, these standards have developed further with the expansion of programming capabilities on World Wide Web sites to include more details, accommodating all the skills required in language learning, namely speaking, listening, reading, and writing[17].

7.1. Structure

The ease of using smartphone apps, whether educational or otherwise, is essential in determining the extent of interest or reluctance to use any App[18]. Accordingly, the "Arabic My Language" App considers the necessity of providing ease of use. For all age and cultural groups, the App provides the learner upon his first entry with usage instructions that Appear in the form of pop-up windows at every point, making it easier for the learner to use the App and enabling him to achieve maximum benefit.

As for the design of the App, it is divided into four axes (See **Figure 1** below).

Competitions according to levels: It is available for learners who wish to use it from zero to hero, and it is not possible to move to the next level except after answering all the questions of the current level, and so on until the end of the App (See **Figure 2** below).

Competitions according to topics: include the most prominent titles on learning the Arabic language. This section is characterized by flexibility, enabling the learner to

select the topic he needs through the search engine at the top of the screen (See **Figure 3** below).

Figure 1. Illustration from Alarabya Loghati's App[2], by Mohamad Abou Adel, 2022. Copyright © Dr. Mohamad Abou Adel.
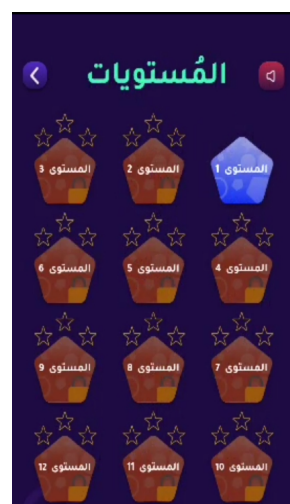
Figure 2. Illustration from Alarabya Loghati's App[2], by Mohamad Abou Adel, 2022. Copyright © Dr. Mohamad Abou Adel.

Placement test: This test is prepared for learners with a foundation in Arabic who want to move directly to what suits their level in the App. For them to gain what adds to their knowledge, the learner automatically moves to the level that suits him. This axis is available to the learner to use only once. This axis is limited to displaying questions not accompanied by helpful information or feedback to the learner because its mission is evaluating, not educational, as in the previous two axes.

Figure 3. Illustration from Alarabya Loghati's App [2], by Mohamad Abou Adel, 2022. Copyright © Dr. Mohamad Abou Adel.

Virtual Classrooms: This App is prepared to benefit both parties of the educational process, the teacher and the learner. Therefore, the App asks the user to specify whether he is a teacher or a learner during registration. If he is a learner, he can benefit from the fourth axis as a student who registers in it according to the code of his teacher, who also registered in the same App. Thus, a comprehensive report on each student appears to the teacher. Separately, it shows what questions each student answered, what topic it falls under, how many questions he answered correctly, and how many the student obtained points. In addition to the number of questions in which he made a mistake, the report has great importance, showing the areas of strength and the weaknesses of the students through the questions they answered incorrectly.

7.2. Scientific Methodology of *Arabic Is My Language*'s App

Arabic Is My Language's App combines the most important educational advantages included in more than fifty Apps specialized in teaching Arabic and English and, as a result, a practical vision of the scientific methodology Appropriate for this type of digital self-learning. It is as follows:

At the beginning of each topic, the user learns about the learning outcome (LO) that he will acquire when answering all the questions of the topic (See **Figure 4** below). This is followed by providing a brief and quick knowledge overview of no more than twenty words for each question the learner answers, providing him with an explanation and clarification. The question immediately follows it to test the extent of the learner's understanding of the information on the one hand and to consolidate it in his mind in a practical and applied way, which requires him to think about it and recall it to answer the question (See **Figure 5** below).

Figure 4. Illustration from Alarabya Loghati's App [2], by Mohamad Abou Adel, 2022. Copyright © Dr. Mohamad Abou Adel.

Figure 5. Illustration from Alarabya Loghati's App [2], by Mohamad Abou Adel, 2022. Copyright © Dr. Mohamad Abou Adel.

Given the differences between learners in their information, age groups, and level of awareness, the App took into consideration individual differences among them through the learner's ability to control time, either through general settings to pre-determine the period that suits him for each

question to Appear (See **Figure 6** below), or the flow of time stops by pressing the screen, and thus he has an additional opportunity to read the information better. The time control feature also has an interactive benefit, through which the learner feels complete control over the Appearance of the information and answers questions comfortably.

Figure 6. Illustration from Alarabya Loghati's App [2], by Mohamad Abou Adel, 2022. Copyright © Dr. Mohamad Abou Adel.

In this way, we can guide the attachment of this generation of our children to the small screen, to increase their educational attainment and develop their cognitive awareness with the least effort and fastest time [19], especially as it is a method that allows learners the possibility of self-learning [20, 21], and it presents a lot of information in a simplified and gradual manner, so care is taken in Design the information and questions to be partial and easy.

As for the design of educational questions, ease, simplicity and clarity were considered. Because its purpose is to test the learner's understanding of the target information, and the questions are equipped with encouraging help means at the top of the question (See **Figures 7** and **8** below).

Each question also accompanies visual and audio effects and points that measure the progress in achievement and development of performance, which are added to the learner's score next to his name and picture at the top of the screen when he answers each question correctly (See **Figure 9** below).

Figure 7. Illustration from Alarabya Loghati's App [2], by Mohamad Abou Adel, 2022. Copyright © Dr. Mohamad Abou Adel.

Figure 8. Illustration from Alarabya Loghati's App [2], by Mohamad Abou Adel, 2022. Copyright © Dr. Mohamad Abou Adel.

After achieving the educational outcome for each topic by answering the questions related to it, and reviewing all the information accompanying the questions, a leaderboard Appears to the learner, in which he sees his name rising according to the points he has gained to his account, which constitutes an additional incentive to continue the learning process and move from one question to another and on. One topic to another to gain more points and achieve new positions, noting that the leaderboard includes basic information

for each learner, including name, personal photo, number of points, and ranking. (See **Figure 10** below).

Figure 9. Illustration from Alarabya Loghati's App[2], by Mohamad Abou Adel, 2022. Copyright © Dr. Mohamad Abou Adel.

Figure 10. Illustration from Alarabya Loghati's App[2], by Mohamad Abou Adel, 2022. Copyright © Dr. Mohamad Abou Adel.

To enhance the educational aspect of the App, it is provided with a treatment plan for learners' weaknesses, which automatically compiles from questions the learner answers wrong. This indicates that he could not acquire the information and that the educational outcome has not yet been achieved and completed. The App gives him another opportunity to answer the question at the end of the topic after providing brief feedback directly when he answers wrong

for the first time. Next time, he will be able to understand the information that helps him answer the question, but this feedback Appears after answering each question, whether he answers correctly or incorrectly. Because the purpose of the App is educational, the learner may need more understanding of the applied question and an explanation for the correct answer he chose (See **Figure 11** below).
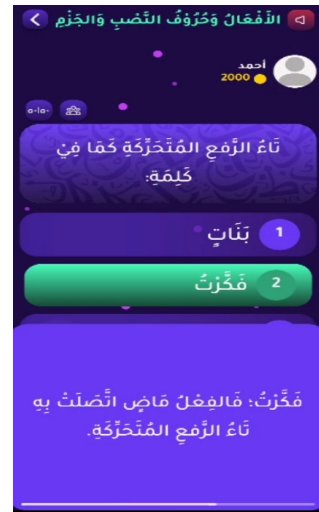
Figure 11. Illustration from Alarabya Loghati's App[2], by Mohamad Abou Adel, 2022. Copyright © Dr. Mohamad Abou Adel.

8. Creating Smartphone Apps to Teach the Arabic Language: Challenges and Opportunities

Creating an educational App for the Arabic language requires the work of a team of native speakers and specialists in teaching the language who scrutinize the scientific content and ensure its quality and suitability for the target group. It should also be created by professional developers who can implement attractive and interactive programming features professionally.

One of the most prominent defects that smartphone Apps for teaching the Arabic language suffer from is that they are still unprofessional, poor in content, and are created by individuals who are not specialists or non-native speakers for religious purposes such as teaching the language of the Qur'an as a sacred language for Muslims, or for heritage purposes.

It is not easy to find the right developer's team capable of implementing the educational features required for the App; because developers vary in their abilities and experi-

ence, and the programs used, such as (Unity, IOS, Android...) vary in their capabilities and the advantages.

But, seeking interdisciplinary work (linguists, computer scientists and information technology) can offer better products in this area.

One of the biggest challenges faced by this type of educational App is the need for qualified scientific content preparers to have linguistic knowledge and programming imagination, know the limits of its capabilities, design content and the way it is presented and received based on his good knowledge of the available and Applicable software features.

Another challenge faced by this type of digital learning is the old generation of teachers who cannot keep up with technical development. This challenge also includes directors of the educational process, which requires their involvement in training courses and workshops [22, 23]. They suffer from difficulties in using and dealing with educational technology, so they turn away from it, may doubt its usefulness, and tend to rely on the traditional method that they are accustomed to in teaching [24], and it is natural for "the emergence of "Technology-savvy teachers and traditional teachers struggle in areas such as student grades, learning outcomes, and instructional flexibility, with new teachers feeling as if web-enhanced classes provide students with educational independence and, ultimately, educational maturity in a way that traditional classrooms do not." [25].

What is strange is that some scholars still doubt the availability of the requirements for this transformation, relying on sources and references written five years ago without considering the digital transformations that have occurred in recent years. Indeed, most of the challenges that existed a few years ago, such as Health damage to the computer screen and the lack of Internet coverage and smartphones... [26]. I would say that it has almost disAppeared in many countries, especially developed countries, all the way to some developing countries, with reservations about the name, such as the Arab Gulf countries that have come to compete with those developed countries regarding the digital transformations taking place. As for the rumoured challenges related to technological illiteracy and the need for more infrastructure capable of absorbing... [27], this still exists in poor developing countries within certain limits, but not to the extent that prevents focusing on this trend. Developing education by investing

in artificial intelligence to benefit from it requires careful linguistic planning from official authorities in coordination with educational authorities [28].

Other challenges also arise related to the use of educational Apps among students, the most important of which is the absence of controls for their use on smartphones [29]. But it is not an essential problem, and teachers can overcome it by including these educational Apps with an accurate and documented follow-up mechanism for the level of performance development and achievement of each student, as is the case in the fourth axis of the "Arabic My Language" App; A detailed report Appears in the teacher's account on all that each student has accomplished, with a statement of the weaknesses and strengths of each of them separately, so that he can be assured of the involvement of all students in learning using the App, whether inside or outside the classroom on the one hand, and works to address the weaknesses of all. Students based on the statistics of this report.

9. Scientific Survey and Statistical Analysis

9.1. Survey criteria and Its Requirements

To overcome the common defects in the use of surveys, and to ensure accuracy in obtaining the best results, this paper considers things to prepare the survey:

Before filling out the survey, it is presented to some respondents as reviewers to confirm their complete understanding of its content, and based on the feedback they provide, some standards and words are amended and clarified, and the wording is changed to become more understandable.

To enhance the clarity of the survey questions for respondents, the paper uses easy language and formulates it in Arabic and English to facilitate understanding for the respondents. Each fills out the survey based on an accurate understanding of its content, including a Likert scale.

The survey should not be too long so as not to cause boredom and reduce to be accuracy in answering the questions. Furthermore, out of concern for the accuracy of the results, surveys that were proven to be not serious were excluded by following the criteria that conclusively prove the validity of the survey from its falsity.

As for the nature of the questions, it was considered that they should be short, organized, and organized, and each

of them addresses only one idea, as follows:

9.2. Analysing the Survey and Discuss the Results

The paper applies this survey to a random sample of Arabic-speaking male and female students at Al-Yamamah University in Riyadh - Kingdom of Saudi Arabia, who study the Arabic language as an implemented course. There are forty-three male and female students. All of them filled out a paper survey to measure the extent to which the Approved quality standards were observed within the "Arabic My Lan-

guage" App, as well as the impression of male and female students about its working mechanism, importance, and scientific methodology so that the following became clear:

9.2.1. Scale Stability

The paper calculated the reliability of the scale using the Cronbach Alpha method, to show that the value of the alpha coefficient is 0.89. This indicates a high degree of stability. Note that the value of the alpha coefficient ranges between (0) and (1), and the closer the result is to one, the greater the stability, while the closer it is to zero, the lower the degree of stability. The following tables explain this:

Reliability Statistics	
Value of Cronbach Alpha	Questions No
0.896	22

Respondents No: The following shows the students   number who took the survey.

		Frequency	Percent		Cumulative Percent
	Female	32	74.4	74.4	74.4
Valid	Male	11	25.6	25.6	100.0
	Total	43	100.0	100.0	

	N	Mean
Female	32	0.74
Male	11	0.26
Total	43	1

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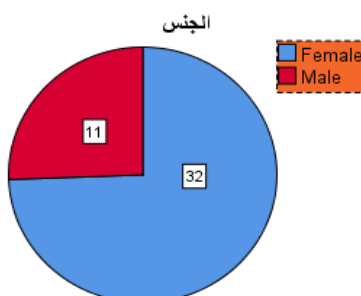
Looking at the chart above, it becomes clear that the number of female students reached 32, which is (74.4%), while the number of male students is 11, which is (25.6%) only. An unintended spontaneous discrepancy occurred due to the faster turnout of female students to fill out the survey when it was sent to one hundred male and female students. The survey was adopted when the total number of respondents reached 43.

Ages of Respondents

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	17	1	2.3	2.3	2.3
	18	7	16.3	16.3	18.6
	19	11	25.6	25.6	44.2
	20	11	25.6	25.6	69.8
	21	5	11.6	11.6	81.4
	22	2	4.7	4.7	86.0
	23	3	7.0	7.0	93.0
	24	1	2.3	2.3	95.3
	30	2	4.7	4.7	100.0
	Total	43	100.0	100.0	

The table below shows that the average age of the respondents is 20.33, while their standard deviation is 2.67.

N	Valid	43
	Missing	0
Mean		20.33
Std. Deviation		2.670

It is clear from the table below that the ages of the students mostly range between 18 and 23, and this age refers to the target group in this survey exclusively for the requirements of the scientific methodology and in order to obtain The most accurate results are in view of the importance of the "Arabic My Language" App and its role in developing Arabic language teaching in private higher education, describing this App as a practical model that is actually uses in the educational process as an enhanced electronic resource for curricula related to teaching the Arabic language.

Histogram — Mean = 20.33, Std. Dev. = 2.67, N = 43 (العمر)
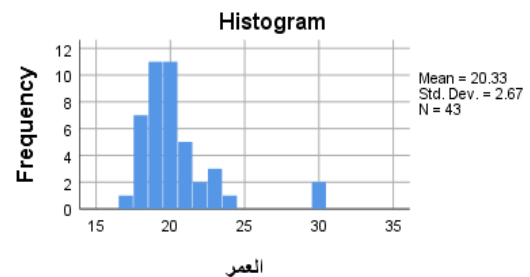
Survey: It is prepared according to Likert scale, including the target group's response:

Questions	Completely disagree	Disagree	Neutral	Agree	Completely agree
1- I have used *Arabic Is My Language's* App.	0	0	2	9	32
2- I use Arabic Is My Language*'s* App easily.	0	0	2	9	32
3- *Arabic Is My Language's* App provides me with directions for use in the first time.	0	0	6	10	27
4- I enjoy using *Arabic Is My Language's* App.	0	0	3	11	29
5- I benefit from using *Arabic Is My Language's* App.	0	0	0	6	37
6- Learning Arabic via *Arabic Is My Language's* App saves me time.	0	0	1	9	33

7- Learning Arabic via *Arabic Is My Language's* App saves me effort.	0	0	2	10	31
8- *Arabic Is My Language's* App is available for free.	0	0	1	2	40
9- *Arabic Is My Language's App does not contain distracted advertisements.*	0	0	0	7	36
10- *Arabic Is My Language's* App uses formal language.	0	0	0	4	39
11- The language is easy for me.	0	0	1	5	37
12- I encourage to focus more on learning Arabic via smartphone Apps.	0	0	3	7	33
13- *Arabic Is My Language's* App is interactive.	0	0	3	9	31
14- *Arabic Is My Language's* App is competitive.	0	0	8	7	28
15- *Arabic Is My Language's* App gives me feedback after every question.	0	1	0	7	35
16- *Arabic Is My Language's* App informs me of consistent progress.	0	1	1	11	30
17- I know the learning outcome in beginning of each topic.	0	0	2	8	33
18- I can be ensured that I get the learning outcome.	0	1	1	10	31
19- All questions are organised from the most accessible to the most difficult.	0	0	12	10	21
20- *Arabic Is My Language's* App follows a scientific methodology.	0	0	2	11	30
21- I can control the time of view the information and questions.	0	2	6	9	26
22- I prefer to learn Arabic via *Arabic Is My Language's* App more than traditional course.	0	3	5	5	30

9.2.2. Discussing the Results of the Survey

By analyzing the tables above, the standard deviation level in them is very acceptable. However, the standards with the highest standard deviation can be tracked to provide recommendations and results that can reduce the standard deviation in the future to improve the experience of using this App in the educational process for all respondents:

- Increasing respondents' interest in using smartphone Apps by informing them of their interactive educational advantages and the need in this digital age to move towards self-learning using such educational Apps that enhance academic courses.

- Working to increase the learner's interaction with the App by providing him with what keeps them focused. So that they feel in full control of directing the educational process.

- The need to organize scientific content and consider the gradation in its presentation. So that it is easy for the learner to understand and build cognitively from the easiest to the most difficult.

- Focusing on creating new competitive advantages among learners in the App.

10. Conclusion

For artificial intelligence to be successful and effective in developing the educational process, it must emerge from knowledge of all its capabilities and then invest the appropriate features in the process in the most appropriate way. From this standpoint, we do not rule out that in the early stage, we will come across someone who is not comfortable with teaching using artificial intelligence because of his lack of knowledge of its potential or his inability to invest in it appropriately. Such an interactive enriches his session with this type of digital learning.

The paper shows the importance of following a scientific methodology in building educational Apps for smartphones, especially since most Arabic learning Apps are created to evaluate and measure the learner's level in the language and are not educational that interactively enriche him and encourage him to self-learn.

It is no longer the teacher's mission to prepare content for a group of students and teach them face to face in a way in which the learner has a negative reception, and they are properly distracted from the educational process, and among young age groups, they are unable to maintain focus, due to

the energy that children have, which makes them less able to remain calm to acquire information, in addition to their lack of awareness.

They need to focus and realize the importance of learning, especially in the early stages. Some may consider it a punishment to be forced to sit for periods to learn.

The role of teachers in this digital era is supposed to be improved with the development of the requirements for the educational process, updating their tools and relying more on artificial intelligence. This method revolutionizes digital learning and gives the educational process more enjoyment, a spirit of competition, and self-learning.

Finally, Arabic Is My Language's App has a pioneer experience that other foreign languages should benefit from in terms of its innovative practical methodology to help develop the teaching of other languages because the principle of language teaching is almost the same.

11. Implications for Policies or Apps

Creating educational Apps with multiple professional features requires financial funding especially since the cost must also provide technical support and continuous updates, in addition to the annual fees, at a time when these Apps are supposed to be available for free to all learners.

It is a new door that has not been sufficiently opened to improve the quality of teaching the Arabic language and learning by increasing reliance on modern technologies with unlimited potential for communication, especially since the Appropriate ground and environment for this digital transformation have become prepared and available as we enter the third decade of the century Twenty-one. Now, this step can bring about a qualitative shift in the development of education, but we need to recognize the most prominent advantages of digital transformation in education, which calls for its adoption, support and Approval.

The need to use artificial intelligence in developing education is growing, because this field of knowledge and its Apps possess great and new potential, capable of creating a qualitative shift in educational science. The advantages of self-education are directed in a thoughtful and scientifically systematic manner, encouraging it to be given the attention it deserves, as it reaches the target group through the small screen of their smartphone that the people of this generation of all age groups are accustomed to using on an instantaneous basis.

This type of learning and teaching, which invests artificial intelligence, represented by smartphone Apps, will find greater acceptance and demand, especially by a generation of technology who are fond of everything related to this small screen that they have become addicted to using.

With great optimism, the paper expects that all educational institutions will direct towards digital learning based on artificial intelligence to achieve the smart university model. This will lead to an increase in the quality of higher education and a growing achievement of learning outcomes, and this will include pre-university education as well.

Therefore, one of the priorities of the current stage is to prepare a policy for digital education, operational procedures, rules for learning materials, necessary platforms and applications, and all the media required by this exceptional transformation in the history of education.

This paper also calls on those interested in investing in artificial intelligence from various human and social disciplines to pioneer in creating smartphone Apps capable of contributing to education development.

Author Contributions

Conceptualization, M.A.A.; methodology, M.A.A.; formal analysis, M.A.A., K.B., M.M.A. and M.I.A. writing—original draft preparation, M.A.A.; writing—review and editing, M.A.A., K.B., M.I.A. and M.M.A.; supervision, M.A.A.; Funding acquisition: M.A.A., M.I.A., K.B. and M.M.A. All authors have read and agreed to the published version of the manuscript.

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Data Availability Statement

The data that support the findings of this study are available from the corresponding author, [MAA], upon reasonable request.

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Conflict of Interest

The authors declare no conflict of interest.

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