ANDROID APPS FOR TEACHING CHILDREN ARABIC LANGUAGE AND THEIR EFFECTIVENESS IN DEVELOPING LANGUAGE SKILLS

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Abstract:

Information technology and mobile intelligence are no longer a distant hope or a dream whose success requires time; they have become a tangible reality. The era of information technology has begun rapidly, with no end in sight. There is no doubt that this technology may lead to a division of the scientific work process.

Studies and research in this field have been numerous, but they do not address the importance of using these educational tools in the educational process for children. One of the most important developments in the era of mobile learning is its use in providing solutions to the modern problems facing the educational commerce, with its various components, whether the educational system or distance learning.

This is due to the use of wireless technologies that do not require presence at a specific time or in a limited location to obtain education. This technological development has been implemented in many countries, and a number of international conferences have been held to discuss this topic. Hence, the importance of studying this topic, which attempts to discover the effectiveness of this type of mobile learning, which relies on Android applications available on mobile phones. This development in information technology has led to the use of a new term in the field of education: "mobile learning," or "mobile learning," where the word "mobile" means "movable," "movable," or "recognizable".

Hence, this study aimed to identify the most popular Arabic teaching applications for children in Pakistan as a second language, available on the Google Play Store at the time of the study. It also aimed to review their distinct features to determine their effectiveness in developing language skills and highlight their advantages and disadvantages. The evaluation included a study of the archaeological sites constructed by Google and its users, resulting in five applications. This study demonstrated a weakness among children in the quality of Arabic educational applications. However, the detailed results are:

1- *Good applications: These are applications that have a number of important features in various aspects and categories.*

Different evaluations. These apps are mostly geared toward people.

2- *Average or weak apps: These require a variety of work and improvement to be able to do so if you want.*

Keywords: Language and refinement, Arabic language learning apps, mobile learning (Android), language skills

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تطبيقات أندرويد لتعليم الأطفال اللغة العربية ومدى كفاءتها في تطوير المهارات اللغوية

الملخص:

لم تعد تكنولوجيا الاتصالات والتعليم عبر الأجهزة والهواتف النقالة أملا بعيدا أو حلما يحتاج تحقيقه إلى وقت ما، بل أصبح واقعا ملموسا. ولقد بدأ عصر المعلوماتية عبر التكنولوجية بشكل سريع ولا نعلم إلى أي حد سيصل مداه، ولا شك أن هذه التكنولوجيا قد أحضرت تغيرات واضحة في أساليب العملية التعليمية.

وقد تعددت الدراسات والأبحاث في هذا المجال والتي دعت إلى أهمية توظيف مثل هذه الوسائل التعليمية في العملية التعليمية للأطفال. من أهم مستجدات العصر الحالي التعليم بالجوال وتوظيفه في تقديم حلول للكثير من المشكلات العصرية التي تواجه العملية التعليمية، بمكوناتها المختلفة سواء التعليم النظامي أو التعليم عن بعد، لما يستخدمه من تقنيات لاسلكية لا تتطلب التواجد في وقت معين أو مكان محدود للحصول على التعليم، وقد تم تطبيق هذا التطور التكنولوجي في العديد من الدول، وعقد من أجله عدد من المؤتمرات الدولية التي ناقشت عددا من البحوث المهمة في هذا المجال، ومن هنا ظهرت أهمية دراسة هذا الموضوع والتي تحاول الكشف على مدى كفاءة هذا النوع من التعليم المتنقل والذي يعتمد على تطبيقات أندرويد المتواجد في الهواتف النقالة.

كما أن التعليم عبر تطبيقات أندرويد، يشمل الجهود التي تبذل لتحقيق الأهداف التربوية الأوسع نطاقا. وقد أدى هذا التطور في تقنيات المعلومات إلى استخدام مصطلح جديد في مجال التعليم أطلق عليه (Mobile Learning) أو التعلم النقال، أو التعلم بالجوال، أو التعلم بالمحمول حيث تعني كلمة Mobile متحرك، قابل للحركة أو التحرك.

ومن هنا فقد هدفت هذه الدراسة إلى الكشف عن أشهر تطبيقات تعليم العربية للأطفال في باكستان كلغة ثانية والمتوافرة في متجر جوجل للتطبيقات وقت إجراء الدراسة، واستعراض أبرز خصائصها من أجل معرفة كفاءتها في تطوير المهارات اللغوية وإبراز مميزاتها وعيوبها. ولا يخفى ما للدراسة من أهمية في معرفة الأفضل والاعتماد عليه واستخدامه والاستفادة منه أو الكشف عن الأقل صلاحية.

اشتملت الدراسة على عينة غرضية اختيرت بناء على تقييمها من جوجل وحجم مستخدميها، نتج عنها خمسة تطبيقات. وقد أظهرت النتائج ضعفا في مستوى تطبيقات تعليم العربية للأطفال. غير أن النتائج تفصيليا كشفت عن تقسيم التطبيقات حسب تقييمهما إلى قسمين هي:

1-تطبيقات جيدة: وهي تطبيقات توافرت لديها عدد من المزايا في جوانب وفئات مختلفة في التقييم. وتميل هذه التطبيقات في الغالب لتكون موجهة ناحية الأفراد بشكل أساسي

2-تطبيقات متوسطة أو ضعيفة: تحتاج إلى درجات متفاوتة من العمل والتحسن ليمكن الاستفادة منها بالشكل المطلوب

كلمات رئيسة: اللغة والتنقية، تطبيقات تعليم اللغة العربية، التعليم بالجوال (أندرويد)، المهارات اللغوية.

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Android apps for teaching children Arabic Language and their effectiveness in developing language skills

Introduction:المقدمة

We are now experiencing a smart device revolution that has added amazing features to all the features of traditional mobile phones. Smartphone designs have become elegant with touch capabilities, their built-in cameras have become more accurate, and their applications have become more sophisticated.

The smartphone now includes a number of easily portable educational tools that can be easily carried with the learner, wherever and whenever. The learner now carries in his small pocket a calculator, an electronic translator, a digital camera, a small computer, an alarm clock, an e-book, an e-newspaper or e-newspapers, various maps, a diary, a schedule of appointments and tasks, a mirror, a magnifying glass, and a large number of tools that were not always possible to carry in his bag. This wide range of features and capabilities was not available before. Some recent studies conducted on university students in Austria, Japan, and Korea showed that mobile phones have reached 100% of students [1].

Nearly half of the world's population carries a smartphone, and nearly two billion people in 2015 managed their services via mobile applications. This number is expected to jump to 28 billion by 2020 [2]. In fact, the time users spend on mobile devices in the United States has doubled from about a quarter of an hour per day in 2008 to more than three hours per day in 2017 [3]. Learning here often occurs outside of class time, such as the time spent commuting to school. (Work/Study and back, or waiting for friends) [4] This involves a shift from the traditional concept of computer-mediated language learning—which is, by definition, a classroom activity—to the concept of mobile language learning.

It is not surprising, then, that interest in language education, especially language learning as a second language, has increased with the increase in resources. Kukulska and Weber (2012) reviewed a large number of collaborative mobile language learning studies published between 2012 and 2016 with the aim of improving understanding of how mobile technologies can be used to support collaborative learning among second and foreign language learners.[5]

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1) Pegrum, Mark. _Mobile learning: Languages, literacies and cultures._ Springer, 2014.

2)Statista.com. "Number of Smartphone Users World-wide from 2014 to 2020" https://www.statista.com accessed in 24 Nov 2020.

3)Meeker M. (2019) InternetTrends 2019. Report accessed in 7/1/2020 at Kleinerperkins.com/internet Trends.

4) علي، أسامة زكي السيد، تعليم اللغة بالهاتف الجوال. الرياض: مركز الملك عبد الله الدولي لخدمة اللغة العربية.

5) Kukulska-Hulme, A. and Viber, O. Mobile Collaborative language learning: state of the art. British Journal of Educational Technology, 49, (2), pp 207, 2018

The findings indicate that emphasis was placed on contributions such as flexible use, sustainability, timely feedback, personalization, social interaction, self-assessment, active participation, peer coaching, external learning resources, and cultural authenticity.

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الدراسات التي تتعلق ببرامج ومواقع تعليم اللغة العربية وتقييمها:
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Studies related to Arabic language teaching programs and websites and their evaluation:

In a recent study, Al-Jahni الجهني identified eleven criteria, including sixty-three indicators for the use of educational software in teaching Arabic as a second language. He also examined the extent to which these criteria are available in educational software. He then proposed a vision for designing educational software based on the criteria for using technology in teaching. Although this study focuses on computer software rather than mobile applications, we find that the evaluation criteria for technology are similar and complementary. [6]

As for Ali's علي book [7], he reviewed a set of general criteria for mobile applications, namely: the British Council's criteria for mobile applications (twelve criteria): technology, registration, security and confidentiality of personal information, free and affordable, motivational, authenticity, learner subjectivity and personality, learning, timeframe, feedback, collaboration and participation, and learner autonomy.

He also addressed Apple's most prominent criteria for app acceptance in its store, the most important of which are collaborative use and interaction between the app and the learner. Among the criteria he also mentioned are the Atlas Group's criteria: content quality, interactivity, adaptability, motivation, coordination, ease of use, accessibility, clarity of vision, compatibility, and acceptability.

Finally, Al-Sarami الصرامي prepared a set of criteria for evaluating Arabic language teaching websites for non-native speakers on the World Wide Web, focusing specifically on teaching language skills. This resulted in a list of sixty-one criteria, the most important of which were criteria for listening, speaking, reading, and writing skills, as well as general criteria such as eloquence, gradation, suspense, handwriting, and others.[8]

In any case, most of the published studies—despite their small number—have focused on aspects of computers, their software, and websites. I have not found a single study—based on my research and effort—that examined the effectiveness of Arabic language teaching

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6) الجهني، محمد عيد مرزوق الحافظي: تقويم برمجيات تعليم اللغة العربية للناطقين بلغات أخرى وفق استخدام التقنية في التدريس. رسالة ماجستير، معهد تعليم اللغة العربية لغير الناطقين بها، الجامعة الإسلامية، المدينة المنورة.

7) علي، أسامة زكي السيد: استخدام تطبيقات APPS الهاتف الجوال في تنمية مهارات تلقي اللغة وإنتاجه لدى متعلمي اللغة العربية الناطقين بلغات أخرى، المؤتمر الدولي الرابع للتعلم الإلكتروني والتعليم عن بعد. الرياض، الريتز كارلتون.

8) الصرامي، عبد الرحمن: معايير تقييم مواقع تعليم اللغة العربية لغير الناطقين بها على الشبكة العالمية في ضوء المهارات اللغوية. مجلة التخطيط والسياسة اللغوية، (4). 73-110.
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applications for children as a second language available on the Google App Store for mobile phones.

Future Trends for Arabic Language Learning Apps الاتجاهات المستقبلية لتطبيقات تعلم اللغة العربية

The future of Arabic language learning apps looks promising, with many potential directions for development and improvement.

1. Integrating AI: Integrating AI into Arabic language learning apps can enhance their effectiveness by providing personalized learning experiences and real-time feedback. For example, AI-powered apps can analyze student progress and provide tailored recommendations for improvement. [9]

2. Gamification and Interactive Features: Integrating more gamification and interactive features can enhance student engagement and motivation. For example, apps can include virtual rewards, leaderboards, and collaborative learning activities to make learning more engaging. [10]

3. Cultural and Regional Adaptation: Developing apps that cater to students' cultural and regional needs can enhance their relevance and effectiveness. For example, apps can integrate local dialects and cultural content to make the learning process more engaging and interactive. [11]

4. Collaboration between developers, teachers, and policymakers: Collaboration between app developers, teachers, and policymakers is crucial to ensuring that apps align with curriculum requirements and meet student needs. For example, the "EZ-arabic.net" app was developed in collaboration with teachers and policymakers to ensure it provides relevant and effective educational content. [12]

Another study by Mizan Ahmad stated that Android apps play a pivotal role in secondary school students' Arabic language learning by providing interactive, engaging, and diverse learning media. This enhances students' interest, facilitates their understanding of the subject matter, and addresses the monotony of traditional learning methods. His research focuses on developing Arabic educational media for Android, with the goal of increasing secondary school students' interest in learning Arabic and addressing the challenges of traditional learning methods, which students find monotonous and unengaging. His study

9) Ab.Rahim, Rosyawati, et al. "A Smartphone Application for Learning Arabic Vocabulary: A Comprehensive Systematic Review." INTERNATIONAL JOURNAL OF MODERN EDUCATION (IJMOE), Mar. 2024, https://doi.org/10.35631/ijmoe.620043.
10) Riwanto, Yudha, et al. "Design and Development of an Edugame Arabic for Learning Media." International Journal on Informatics for Development: IJID, vol. 12, no. 2, Mar. 2024, pp. 362–73, https://doi.org/10.14421/ijid.2023.4297.
11) Ni'mah, Mamluatun, and Ainur Rofiq Sofa. "Istikhdaam Tathbiiq Misk Kawasiithah Lita'liim al-Lughah al-Arabiyyah Fii Shoffi Assaabi' Fii Madrasah Namira al-Mutawassithah al Islaamiyah Probolinggo." El-Tsaqafah, vol. 22, no. 1, June 2023, pp. 1–18, https://doi.org/10.20414/tsaqafah.v22i1.6884.
12) Sahrir, Muhammad Sabri, et al. Design and Development of Mobile EZ-Arabic.Net for Ubiquitous Learning Among Malaysian Primary School Learners from Experts' *Perspective*. Springer, Singapore, 2018, pp. 341–61, https://doi.org/10.1007/978-981-10-6144-8_20

highlights the importance of using modern technology, especially smartphones, to create a more interactive and engaging learning experience. His study relied on designing and developing a program using the Borg and Gall method, which involves evaluating the feasibility and effectiveness of the developed media through expert evaluations and student feedback. The results indicate that Android-based learning media are valid and practical for enhancing the Arabic language learning process among secondary school students. His research findings also indicate that the developed Android-based Arabic learning media received high validation scores from various experts, with subject matter experts receiving 93%, media experts receiving 94%, and secondary school Arabic teachers receiving 96%. Furthermore, 91.62% of secondary school students responded positively, demonstrating the feasibility and effectiveness of using this media in the learning process.

The study revealed that Android-based learning media significantly increased students' interest in learning Arabic, addressing previous concerns of students who found Arabic lessons difficult and boring. It was shown that integrating technology into the learning process creates a more engaging and enjoyable learning environment for students. [13]

What is Android?

The word "Android" is an English word meaning "robot" (human-machine) or a robot in human form.

Mobile Learning via Android Applications

Mobile learning has many goals and advantages:

• It exchanges information faster and easier than traditional methods.

• It enables interaction with each other and with teachers more easily, better than large computers.

• Mobile devices can be easily accommodated in the classroom without any prior setup. [14]

• Small mobile devices can carry notes and e-books, and are lighter and easier to carry than bags full of files, books, and laptops.

• Collaborative work allows for collaborative work using wireless networks such as Wi-Fi and Bluetooth.

• They can be used anytime, anywhere.

Mobile Apps for Teaching Languages to Childrenتطبيقات الجوال لتعليم اللغات للأطفال

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13) Mizan, Ahmad, et al. "The Development of Arabic Learning Media Based on Android for Senior High School Students." Lisania, vol. 6, no. 2, Dec. 2022, pp. 178–89, https://doi.org/10.18326/lisania.v6i2.178-189.

14) الدهشان، جمال ويونس مجدي: التعليم الجوال. صيغة جديدة للتعلم عن بعد. بحث مقدم للندوة العلمية الأولى بكلية التربية، جامعة كفر الشيخ، مصر، 2009.

Perhaps one of the most important features of smartphones is their applications, which Ali defined as "miniature software downloaded from the internet with specific, limited functions, operating online or offline, and often free or sold commercially at a low price."[15]

Due to the multiplicity of phone manufacturers—or smartphone operating systems, to be precise—there are numerous platforms or stores offering applications for downloading, installing, and then running on compatible mobile phones. These include the Apple App Store for iOS, the Google Play Store for Android, and the Microsoft Store (the most popular platforms currently). With this rapid growth, language applications have proliferated, focusing on developing language skills and collaborative learning, taking into account learners' age and cultural characteristics, and developing communication skills while utilizing audio recording, listening, video recording, and viewing capabilities, and developing learner independence.

For all these features, governments and educational institutions have been interested in establishing language education projects to benefit from this significant growth and spread of applications. Ali reviewed global projects of this type, such as the Yuza Stories project, the European Lingobee project, and others. Applications can be divided, based on their relationship to language teaching and learning, into two categories: [16]

Linguistic applications and other applications. Language applications are intended for language teaching or testing, such as letter-learning applications or language games, while other applications are primarily intended for non-linguistic purposes, such as social communication. However, they can be used in second language classes to support language teaching or testing proficiency.

An example of a language application is the Busuu app, which has more than sixty million registered users and is one of the most popular language learning applications globally. In 2018, Russell Aguilar conducted a large-scale survey (n-4095), collecting data through an online questionnaire containing thirty items. The results showed that learners found the use of the busuu app and its features useful for language learning.[17]

Most users were beginners with a personal motivation to learn, and reported that the app helped them improve their knowledge of the language they were learning, with vocabulary being the primary area of improvement. The study also indicated that one-third of survey respondents used the busuu app as their sole language learning resource. From this, Russell-Aguilar concludes that mobile apps can be considered a reliable language learning tool.

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15) علي وأسامة زكي السيد، استخدام تطبيقات الهاتف الجوال في تنمية مهارات تلقي اللغة وإنتاجه لدى متعلمي اللغة العربية الناطقين بلغات أخرى. المؤتمر الدولي الرابع للتعلم الإلكتروني والتعليم عن بعد. الرياض: الريتز كارلتون.

16) علي، أسامة زكي السيد، تعليم اللغة بالهاتف الجوال. الرياض: مركز الملك عبد الله الدولي لخدمة اللغة العربية، 2016.

17) Rosell-Aguilar, F., Autonomous language learning through a mobile application: a user evaluation of the busuu app. Computer Assisted Language Learning.

In a similar study, Andersson evaluated the effectiveness of the popular foreign language learning app Duolingo as a resource for second language learners in Sweden. The study also examined the potential of modern educational tools in language learning and emphasized pre-use assessment. The researcher concluded that Duolingo can be used as a secondary tool rather than a primary source for language learning, because the app does not cover the communicative aspects of language learning, but rather focuses on grammar-based competencies. An example of the second type (other applications) is the popular WhatsApp application. [18]

Andujar investigated the benefits of mobile instant messaging (MIM) in second language learning by analyzing the grammatical accuracy, lexical complexity, and syntactic complexity of second language learners' writing. For this purpose, he created a special group, in which eighty Spanish students at the advanced intermediate level (B1) of English participated, interacting daily for six months. [19] It is worth noting here that, while mobile phone use has many advantages in teaching second languages, it also has disadvantages, including:

• Mobile phone screens are smaller than computer screens. [20]

• Technical qualifications: A large percentage of young people do not possess the necessary skills to deal with technology or do not possess the skills expected by the concept of the digital generation.

• Negatives in teaching writing: It was found that three-quarters of native speakers regularly used what is known as textism, which is a forced modification in writing text messages that includes tampering with spelling rules. [21]

• Language levels vary depending on the institution hosting the language program. These are the most common level divisions according to the three most famous and important international frameworks: the American Council on Languages (ACTFL) standards, the Common European Framework of Reference (CEFR), and the International Round Table (ILR) standards.

Research methodology and Data Analysis منهج البحث و تحليل البيانات

The research method is the descriptive approach (survey).

18) Andersson, Gustav. ,An evaluation of Duolingo as a CALL resource for upper-secondary English classrooms in Sweden. thesis, Department of Humanities, Education and Social Sciences , 2018

19) Andujar, A., Benefits of Mobile Instant Messaging to Develop ESL Writing. System, 62, p63–76, 2016

20) Stockwell, G., Investigating learner preparedness for and usage patterns of mobile learning. ReCALL, 20.

21) Grace,A. Kemp,N .Martin, F & Parrila, Undergraduates Attitudes to Text Messaging Language Use and Intrusions of Textisms Into Formal Writing. New Media & Society, 17, 5: pp 792-8092016 ,. Retrieved Dec 29,2019, from
 https://journals.sagepub.com/doi/abs/10.1177/1461444813516832

This is a type of descriptive approach, meaning that type of research conducted by interviewing all members of the research community or a sample of them. The aim is to describe the phenomenon being studied in terms of its nature and degree of existence only, without going beyond that to studying the relationship or inferring causes. Twenty teachers of Arabic Language and Literature who are teaching in Government and private schools in Lahore, Pakistan .I divided the evaluation of Arabic language teaching apps for children available on the Google Play Store into two categories: evaluating them in terms of the functional and technical features of the app, and in terms of their effectiveness in teaching Arabic to children. After collecting data from the study participants according to the parameters mentioned in the methodology, I analyzed the results and data using MS Excel.

Results النتائج

The results of the study, based on scientific analysis, revealed the true picture of the level of Arabic language teaching applications for children, whether in terms of their educational priorities, functional and technical aspects, or even entertainment at times. Despite the overall poor quality of the applications, some applications stood out significantly from others for specific reasons that will be discussed later.

The results also showed that some elements within the evaluation model achieved higher scores in certain categories compared to others, reflecting the developers of these applications' focus on specific aspects more than others.

Table1shows the five applications included in the study and the percentages that indicate each application's position within the overall matrix, which helps with comparison and identifying the strengths and weaknesses of each application.

جدول رقم **1** نتيجة التقييم لتطبيقات تعليم اللغة العربية للأطفال مرتبة حسب الأفضل من حيث الخصائص الوظيفية والفنية:

Table 2: Evaluation results for Arabic language teaching applications for children, ranked according to their best in terms of functional and technical features:

الأفضل من حيث عدد التنزيلات/ التحميل من المتجر Best in Terms of Downloads / Store Installations	الأفضل من حيث تقييم المستخدمين Best in Terms of User Ratings	الأفضل من حيث التكلفة Best in Terms of Cost	واجهة الاستخدام الأفضل Best User Interface	اسم التطبيق Application Name
%45	%36	%40	%35	**Alif Baa Application** تطبيق الف باء
%15	%15	%18	%12	**LingQ Application** تطبيق لينغ كيو
%20	%19	%23	% 20	**Duolingo Application** تطبيق دولينغو

%12	%18	%11		%21		Mondly Application تطبيق موندلا
%8	%12	%8		%12		Busuu Application تطبيق بوسو

جدول رقم 2نتيجة التقييم لتطبيقات تعليم اللغة العربية للأطفال مرتبة حسب الأفضل من حيث كفاءة التطبيقات على تعليم اللغة العربية :

Table No. 2: Evaluation results for Arabic language teaching applications for children, ranked according to the best in terms of the efficiency of the applications in teaching the Arabic language:

التمييز بين الأصوات العربية المتشابهة عند سماعها Differentiating Similar Arabic Sounds When Hearing Them	وضوح الصوت في النماذج المسموعة Clarity of Sound in Audio Models	استخدام السرعة المناسبة عند عرض النماذج Use of Appropriate Speed When Presenting Models	مراعاة الفروق الفردية وتخصيص التعليم/تقديم مستويات تعليم مختلفة Consideration of Individual Differences and Personalized Learning / Offering Different Levels of Learning	المواءمة للمنهج والمواد التعليمية Alignment with Curriculum and Educational Materials	مناسبة الخط المستخدم Suitability of the Font Used	استخدام اللغة الوظيفية في الأمثلة والشرح Use of Functional Language in Examples and Explanations	اسم التطبيق Application Name
%32	%35	%29	%37	%35	%30	%39	تطبيق الف باء Alif Baa Application
%17	%18	%17	%13	%15	%18	%15	تطبيق لينغ كيو LingQ Application
%18	%20	%20	%28	%15	%20	%18	تطبيق دولينغو Duolingo Application
%21	%15	%20	%13	%18	%22	%21	تطبيق موندلا Mondly Application

اسم التطبيق Application Name	تعليم نطق الأصوات العربية بشكل سليم Teaching Correct Pronunciation of Arabic Sounds	يساعد في تعليم الحوار وتطوير مهارة المحادثة Helps Teach Dialogue and Develop Conversation Skills	تعليم قراءة الحركات القصيرة والطويلة Teaching Reading of Short and Long Vowels	تعليم القراءة الجهرية السليمة من خلال النماذج المسموعة Teaching Correct Loud Reading Through Audio Models	تعليم كتابة الكلمات بشكل صحيح وتمييز أشكال الحروف Teaching Correct Spelling of Words and Differentiating Letter Forms	تعليم الاستخدام السليم لعلامات الترقيم والقواعد الإملائية Teaching Correct Use of Punctuation and Spelling Rules	كفاية التدريبات في تعليم المهارات Adequacy of Exercises in Teaching Skills
تطبيق بوسو Busuu Application	%7	%10	%17	%9	%14	%12	%12
تطبيق الف باء Alif Baa Application	%34	%30	%30	%29	%33	%32	%35
تطبيق لينغ كيو LingQ Application	%28	%21	%18	%25	%25	%15	%24
تطبيق دولينغو Duolingo Application	%21	%25	%28	%25	%21	%18	%21
تطبيق موندلا Mondly Application	%9	%21	%15	%17	%18	%25	%13
تطبيق بوسو Busuu Application	%8	%3	%9	%4	%3	%10	%7

نتيجة كلية من حيث الخصائص الوظيفية والفنية ومدى الكفاءة في تعليم اللغة العربية نظرة كلية من حيث الخصائص الوظيفية والفنية ومدى الكفاءة في تعليم اللغة العربية

Evaluation Result: A Comprehensive View of Functional and Technical Characteristics and Efficiency in Teaching Arabic

From a comprehensive overview of the tables above, the applications can be divided, based on the results of this study, into two categories: – Good applications: These are applications that possess a number of advantages in various aspects and categories of evaluation. Officials in educational institutions and language policymakers can assess whether some of these applications are suitable for them, particularly in terms of self-learning and supporting systematic learning, or even recommend some of them, given the cost differences that favor these applications compared to the high cost of premium applications. These applications tend to be primarily targeted at individuals, but they can also be used in language educational and training institutions. These applications are: Alif Ba and Duolingo.

– Average or Weak applications: These require varying degrees of work and improvement to be fully utilized, whether at the individual or institutional level. Some of these applications focus on functional and technical aspects while neglecting linguistic and educational aspects, or vice versa, with the application remaining a copy not significantly different from traditional paper-based educational series. These applications constitute the majority of the results of this study. These apps are: LingQ, Mondla, and Busuu.

It was clear to me from the evaluation results that one of the most important reasons for the distinction of some apps, especially in the first section, is their availability of several advantages, including:

– Their focus on the axes that connect this industry together without favoring one over the other, thus providing a balanced focus on educational, technical, functional, and linguistic aspects.

– The historical legacy and practical experience of the producing company over the past decades, which accompanied the early beginnings of the relationship between technical and functional aspects and language learning. This experience has evolved with the development and recent renaissance of this relationship.

– Creativity in adapting educational materials, starting from where others left off, innovating technologies, and employing modern concepts in language teaching, such as mobile collaborative learning.

– Adopting an approved system for language levels, units, and lessons, such as the Common European Framework of Reference for Languages (CEFR) or the American Council on the Teaching of Foreign Languages (ACTFL), which ensures their accreditation and global institutional acceptance.

– Providing integrated language education, on the one hand, encompassing linguistic elements and skills, while also being flexible enough to allow learners to customize their instruction by focusing on certain skills over others, thus meeting their linguistic needs.

– Adopting the latest language teaching methods and avoiding those that have been proven ineffective by modern theories.

– Providing a form of support for language classes, alongside a focus on individual learning.

– Utilizing the modern features of mobile phones (Android), such as constant mobility, video calling, and the creation of small communities of shared interests, as these features are more closely aligned with the nature of mobile phones to provide educational services such as direct and real-time communication with native speakers and social participation in language learning.

– Providing an easy, enjoyable, and intuitive experience in learning Arabic, utilizing design, colors, interfaces, navigation, and a simplified presentation of material.

– Using hypermedia, so that users, while learning Arabic as a second language, are exposed to high-resolution images that are closely related to linguistic concepts, purposeful videos, audio clips, and carefully selected texts, all of which ultimately serve the objectives of language learning.

– Taking into account individual differences, whether through attention to the learner's first language and culture, or through skill diversity and switching between lessons, units, tests, and exercises, in addition to the possibility of customization and focusing on specific skills or objectives.

– Emphasis on continuous correction and intelligent feedback through learning analysis and the provision of graphs of progress reports on language proficiency.

– Continuous motivation, so that the learner does not lose the desire to continue, and providing what attracts the learner and increases their motivation to advance to higher levels. This may occur during in-app learning or when the learner is away from the application for a period of time. Distinctive applications utilize motivational methods through emails or push notifications.

– Addressing learner needs by providing technical support and providing communication mechanisms and instructions on how to get started, whether with the application as a whole or with new units and exercises.

– Continuous improvement, whether by addressing minor technical issues (bug fixes) or providing updates to keep pace with new technologies and fulfill aspirations.

Conclusion الخاتمة

Since foreign language teaching began its relationship with technology, Arabic—despite being one of the six internationally recognized languages—has been relegated to the background. While this isn't necessarily a problem with the language itself, the efforts of its practitioners to spread it technologically have remained elusive. The study reviewed a sample of

applications focused on teaching Arabic, whether for individuals or for collaboration with institutions. Despite this, the quality of most applications was poor, but some featured a balanced blend of technical, educational, and linguistic aspects.

Policymakers involved in teaching Arabic as a second language to children in Pakistan can benefit from the evaluation model adopted in this study to evaluate applications, and I recommend it to teachers and learners, both inside and outside of the language classroom. During my study, I observed various problems with these applications, including some that lacked a real interface, calling up web pages to display to the learner as if they were browsing the application's website.

Some of these problems lack technical support and ongoing updates to resolve technical issues, while others lack essential elements of mobile learning, such as the use of images, sounds, video clips, and direct communication. While I undoubtedly appreciate these efforts, it is unacceptable for the writing to appear in the opposite direction to that of Arabic, or for the use of automated voices that pronounce Arabic words and sentences incorrectly, or for the application to rely solely on translation for language instruction, or for the app to lack any language testing at all. These are just a few examples of the errors I encountered.

After this, it goes without saying that it is imperative for relevant authorities in the Arab world to focus on producing and developing high-quality applications for teaching Arabic as a second language to children, given their significant benefits that may replace traditional efforts, whether primary or secondary. With the technological advancements we are witnessing, there is no room for delay in teaching our language ourselves, as abandoning this would result in limitless linguistic and educational distortions.

Study Recommendations:توصيات الدراسة

1. Arabic language teachers and institutes for children should incorporate some of these applications into their educational process or make them a reading tool for their students.

2. Establishing comprehensive quality competency standards for Arabic language teaching applications for children, prepared and supervised by a leading organization specializing in Arabic language teaching for children.

3. Investigating the problems that limit the adherence of Arabic language teaching applications to teaching language skills and developing appropriate solutions.

4. Holding joint seminars between computer technicians and language education specialists to explore ways to enhance the adherence of Arabic language teaching applications for non-native speakers to scientific standards for teaching language skills.

5. This study recommends the use of applications, particularly for institutions, and secondarily, the use of high-quality applications for individuals.

Study Suggestion مقترحات الدراسة:

1. Measuring the impact of teaching Arabic language skills to children through Android applications.

2. Explaining the methods of employing Android applications to teach language skills to children learning Arabic.

3. Evaluating Arabic language teaching applications for children on a broader scale, including a larger number of participants and a larger sample of applications.

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Annex 1

Evaluation Table of Arabic Language Learning Applications

الملحق (**1**): جدول تقييم تطبيقات تعليم اللغة العربية

فئة التقييم Assessment category	عنصر التقييم Evaluation Element	تطبيقات تعليم اللغة العربية Arabic language learning application				
الخصائص الوظيفية والتقنية للتطبيق Functional and technical characteristics of the application	1–واجهة الاستخدام الأفضل Better user interface	تطبيق الف باء Alif Baa Application	تطبيق لينغ كيو LingQ Application	تطبيق دولينغو Duolingo Application	تطبيق موندلا Mondly Application	تطبيق بوسو Busuu Application
	2–الأفضل من حيث التكلفة Best in terms of cost	Alif Baa Application	LingQ Application	Duolingo Application	Mondly Application	Busuu Application
	3–الأفضل من حيث تقييم المستخدمين Best by user rating	Alif Baa Application	LingQ Application	Duolingo Application	Mondly Application	Busuu Application
	4–الأفضل من حيث عدد التنزيلات/ التحميل من المتجر Best in terms of number of downloads/uploads from the store	Alif Baa Application	LingQ Application	Duolingo Application	Mondly Application	Busuu Application

Busuu Application	Mondly Application	Duolingo Application	LingQ Application	Alif Baa Application	1−استخدام اللغة الوظيفية في الأمثلة والشرح Use of functional language in examples and explanations	كفاءة التطبيقات في تعليم اللغة العربية Efficiency of Applications in teaching Arabic
Busuu Application	Mondly Application	Duolingo Application	LingQ Application	Alif Baa Application	2−مناسبة الخط المستخدم Appropriateness of the font used	
Busuu Application	Mondly Application	Duolingo Application	LingQ Application	Alif Baa Application	3−المواءمة للمنهج والمواد التعليمية Alignment with the curriculum and educational materials	
Busuu Application	Mondly Application	Duolingo Application	LingQ Application	Alif Baa Application	4−مراعاة الفروق الفردية وتخصيص التعليم/تقديم مستويات تعليم مختلفة Taking into account individual differences and personalizing education/providing different levels of education	
Busuu Application	Mondly Application	Duolingo Application	LingQ Application	Alif Baa Application	5−استخدام السرعة المناسبة عند عرض النماذج Use appropriate speed when displaying models	
Busuu Application	Mondly Application	Duolingo Application	LingQ Application	Alif Baa Application	6−وضوح الصوت في النماذج المسموعة Sound clarity in audio samples	
Busuu Application	Mondly Application	Duolingo Application	LingQ Application	Alif Baa Application	7−التمييز بين الأصوات العربية المتشابهة عند سماعها Distinguishing between similar Arabic sounds when hearing them	
Busuu Application	Mondly Application	Duolingo Application	LingQ Application	Alif Baa Application	8−تعليم نطق الأصوات العربية بشكل سليم Teaching the correct pronunciation of Arabic sounds	
Busuu Application	Mondly Application	Duolingo Application	LingQ Application	Alif Baa Application	9−يساعد في تعليم الحوار وتطوير مهارة المحادثة Helps teach dialogue and develop conversation skills	

Busuu Application	Mondly Application	Duolingo Application	LingQ Application	Alif Baa Application	10-تعليم قراءة الحركات القصيرة والطويلة Teaching reading short and long vowels	كفاءة التطبيقات في تعليم اللغة العربية Efficiency of Applications in teaching Arabic
Busuu Application	Mondly Application	Duolingo Application	LingQ Application	Alif Baa Application	11-تعليم القراءة الجهرية السليمة من خلال النماذج المسموعة Teaching correct reading aloud through audio models	
Busuu Application	Mondly Application	Duolingo Application	LingQ Application	Alif Baa Application	12-تعليم كتابة الكلمات بشكل صحيح وتمييز أشكال الحروف Teaching how to write words correctly and distinguish letter shapes	
Busuu Application	Mondly Application	Duolingo Application	LingQ Application	Alif Baa Application	13-تعليم الاستخدام السليم لعلامات الترقيم والقواعد الإملائية Teaching the correct use of punctuation and spelling rules	
Busuu Application	Mondly Application	Duolingo Application	LingQ Application	Alif Baa Application	14-كفاية التدريبات في تعليم المهارات Sufficient training in teaching skills	