

# TAMUS (Ta'lim Musaghar): Augmented Reality-Based Speaking Platform to Improve the Maharah Kalam for Arabic Language Education Students

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**Abstract:** The problem of Arabic language education study program students' low level of maharah kalam or speaking ability has become a very important challenge in itself. Because, not all Arabic language education students have Arabic language skills at the previous level of education. And what is unique about Arabic is that it is different from English, which is used in a foreign society, so it is difficult to find native speakers or interlocutors to practice their Arabic speaking skills. This problem must be solved to create a better future for improving the speaking skills of Arabic language education students. With the aim of producing Arabic language education graduates who are competent, especially in speaking skills as the main component as foreign language graduates. Therefore, the aim of this research is to overcome the problem of maharah kalam ability by utilizing a speaking platform via augmented reality (AR) to offer learning with native speakers via augmented reality-based video calls, and how TAMUS (Ta'lim Musaghar) became a concept new ones that can be used as learning media independently. So that students feel that they are actually dealing directly with native speakers to carry out conversations using Arabic. This article uses a conceptual research design, specifically conceptual models and specifically uses conceptual descriptions. This article is important for academics to support literature reviews as a reference for their empirical research. The findings show that TAMUS is a new concept for an AR-based application to improve students' emotional skills.

**Keywords:** Augmented Reality, Talking Platform, TAMUS, Maharah Kalam.

## Introduction

Since 100 years ago, Arabic has been used from the time of the prophet Muhammad to the modern era. So the existence of Arabic is often synonymous with the Middle East and North Africa region and is actively used by around 280 million users throughout the world (Surur, 2022). With so many Arabic language users in the world, Arabic is a language that must be studied in both formal and non-formal education.

The aim of learning Arabic is to encourage, guide and develop a person's Arabic language skills actively or passively so that a positive attitude towards the Arabic language grows (Nurlaela, t.t.). Arabic is the same as other languages, namely learning several skills such as

speaking skills (maharah kalam), reading skills (maharah qiroah), writing skills (maharah kitabah), and listening skills (maharah istima') (Noviani & Kholiq Hasan, 2023). Skills classified into four, namely verbal skills related to listening and speaking activities while visual skills are used in reading and writing activities. Other skills are receptive or absorbing information through listening and reading activities, as well as productive skills used in speaking and writing (Aziza & Muliansyah, 2020).

The main thing that should be learned in learning Arabic is speaking skills (maharah kalam), so that it can be implemented in daily conversations, reading the Al-Qur'an and reading prayers (Rokhmany, 2019). Because Arabic is

identical to the language of Muslims due to the revelation of the Koran and religious literature, the majority of which are in Arabic. Speaking is the foundation of learning a language as a means of communication with other people to convey ideas and feelings through speech.

The process of speaking skills can also be used to train listening skills, so that the two have a strong relationship. Because ideal interaction must have skilled speakers and proper hearing to exchange information so that it is conveyed well and correctly (Bukhori, 2020).

Arabic has a rapid rate of progress, so it has the potential to become a basic lesson in educational institutions under the Ministry of Religion. A person's speaking ability can be achieved if it is accompanied by direct practice, because without perfect speaking ability it can affect a person's understanding of Arabic. But in reality, many educational institutions in Indonesia do not focus enough on intensive speaking skills training, thereby reducing students' ability to express their thoughts and feelings (Mu'in, 2014)

The success of a lesson is influenced by many factors, in addition to the teacher's ability, it is also influenced by the student's educational background which influences the quality of potential and knowledge they possess. As an educator, you should be aware of this so that you can prepare learning that suits students' needs.

Regarding the difficulties of learning a language, especially Arabic, there are often obstacles from elementary to tertiary education levels. Moreover, not all Arabic Language Education students are Islamic boarding school graduates and have a background in studying Arabic, but rather come from public and vocational schools who have not received Arabic language knowledge (Mahbubah et al., 2022). So practicing Arabic language skills requires a long process, especially speaking skills which require a conducive environment for communication.

Creating an Arabic language environment is not easy, especially at the tertiary level where people still find it difficult and don't even try to talk to their fellow students. This can be influenced by the factor of not being confident because you feel stiff and afraid when speaking or communicating

Arabic (Fattaya, 2020). So the problem that arises among researchers is how to improve Arabic language skills for students.

If you follow the development of digitalization, learning something is considered easy because of the sophistication of information and communication technology. This progress helps the world of education develop and move forward dynamically in creating educational media, methods and materials that are increasingly interesting, interactive and comprehensive (Arif Hidayatulloh, 2022)

The application being built will provide a different learning experience, through augmented reality, students are able to practice their speaking skills such as interacting with native speakers or anchored reality. Namely combining real and virtual environments and providing an experience like the environment created is real (Cahyani et al., 2021). This means that users do not feel any difference between AR (Augmented Reality) and what they see and feel in the real environment (Asy'ari & Sari, 2020). Because the combination of virtual and virtual worlds is carried out to raise a person's perception of interacting with native Arabic speakers, through several features that are used to increase mastery of speaking skills (maharah kalam) to eliminate the perception that Arabic is difficult. Thus, researchers offer a new concept for developing speaking skills learning (maharah kalam) through TAMUS (Ta'lim Musaghar) as an augmented reality-based speaking platform to find out how the concept of using technology in the context of Arabic language education is to improve students' speaking skills.

## Materials and Methods

This article used conceptual research design particularly in conceptual models and specifically using conceptual description. Jaakkola (2020) reported that conceptual research article with modal approach was designed to build a theoretical framework that predicted relationships between concepts. A conceptual model described a thing and identified issues that should be considered in its study, it described an event, an

object, or a process, and explained how it works by uncovering previous models, outcomes, and possibilities related to the principal construct. (Meredith, 1993) also strengthened that a conceptual model did not explain why things happened, it just discussed the relevant concepts and relations which described the phenomenon. Because this type of research is primarily descriptive in its modelling of an event or phenomenon. This conceptual model was well-structured by the diagram and chart, also the description is highly simplified.

### Results and Discussion

Kalam is one of the four Arabic language skills which functions as a speaking ability so that you can communicate verbally well and naturally so that the intent and meaning can be conveyed according to the objective (Marlius et al., 2021). In everyday life, kalam skills have an important contribution as teaching and learning, the importance of using social media to interact online, as professional work, translating and interpreting texts or documents from Arabic or vice versa, developing literacy in the form of reading and writing to access to wider resources and knowledge, as well as having urgency in the field of research and research in Arabic (Nalole, 2018).

So an educational institution needs to pay attention to the methods, media or teaching materials that will be used to achieve learning objectives (Aman, 2023). Because speaking skills require a long time to practice speaking and increase vocabulary to get used to Arabic language.

At each level of education, maharah kalam has different learning objectives, such as at the mubtadi' level it only focuses on pronouncing the rab language correctly and knowing the differences in the pronunciation of long and short harokat. At the mutawasith level, the ability to express ideas or ideas using the correct grammatical form is prioritized. Meanwhile, at the mutaqaddim level, which already has a rich vocabulary, the focus is more on the ability to dialogue in a modern way using Arabic cultural forms, as well as being able

to think and dialogue continuously and interconnectedly (Hady, 2019)

Sometimes educators are less able to implement learning methods that suit learning objectives, supported by the difficulty of having a supportive environment for speaking Arabic. So a new innovation is needed to improve students' speaking skills through Tamus which uses modern sophistication in the form of Augmented Reality, which presents conversations as if they were in reality.

Maharah Kalam learning design by utilizing augmented reality is an attractive innovation, combining the virtual world with the real world to enrich the learning experience (Hafitria & Asrofi, 2023). Through AR technology, the process of learning maharah kalam in Arabic becomes more interactive, interesting and effective. So students can participate in simulated communicative situations with virtual objects or characters in Arabic (Veronika et al., 2022). Thus creating direct practice in using language, including dialogue, conversation and daily situations.

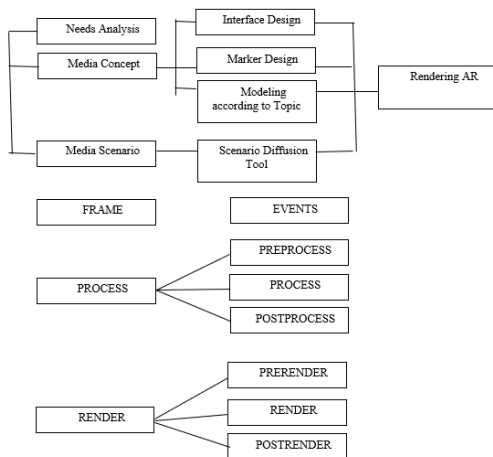
In addition, AR can bring learning content to life through 3D visualization, animation or virtual objects that can be accessed and manipulated by students in using sentence structures or grammatical concepts, thereby providing a more concrete and easy-to-remember understanding (Veronika et al., 2022).

This learning design can increase the motivation and involvement of learning participants in an interesting and innovative way to create fun and challenging learning, stimulating student interest to be more active in the learning process (Fauzan et al., 2020). In the context of maharah kalam, interaction is carried out directly which has a positive impact on the development of speaking abilities.

Apart from that, Maharah Kalam's learning design using AR is the availability of direct feedback. Through the AR feature, students can receive instant feedback regarding their use of Arabic. This allows progressive development of skills, being able to see and understand mistakes directly.

So, Maharah Kalam learning design with augmented reality through the Tamus platform is

not only an evaluation of teaching methods, but brings significant benefits. By creating deep, contextual and interactive learning experiences, AR technology can become a strong ally in creating better maharah kalam in Arabic.



### Needs Analysis

In general, the analysis of students' needs for augmented reality to improve maharah kalam is as follows:

- As a motivation for student learning because AR can provide an interesting and innovative learning experience, increase student motivation and interest in developing Arabic speaking skills.
- Students need a learning experience that is interactive and not monotonous. AR can create a dynamic learning experience by allowing students to interact directly with AR elements, such as characters or objects which can improve understanding and speaking skills.
- Students need to understand how to speak according to certain contexts and situations, so that AR can create a simulation of a real environment where students can involve themselves in situations that require speaking skills such as interviews, presentations or discussions and even daily conversations.
- Effective learning requires fast and direct feedback. AR can provide instant feedback through AR elements that respond to students' words, helping them understand students' strengths and weaknesses in real time.

- Students want to have the opportunity to practice speaking skills in a practical context. So AR provides a simulated situation where students can practice speaking skills in a relevant AR environment.
- The need for accessibility to AR technology is very important, to ensure that the AR platform used can be easily accessed by students and does not require expensive hardware or software.

So, the use of AR technology will be the main support for increasing student motivation and involvement. When placed in the middle of an interactive learning experience, you can discover interesting speaking skills that lead to deeper self-impression and understanding. As well as giving students a deep contextual understanding, understanding how speaking skills can be applied in real life.

### User Analysis

The use of Augmented Reality technology is for Arabic language education lecturers and students, especially students who need additional motivation, who want active engagement, need fast feedback, and students with learning disabilities and looking for a holistic learning experience.

### Software Requirements Analysis

AR toolkit is a collection of software libraries designed to connect application programs that are distributed as source code and must be compiled on the operating system and platform used. Apart from that, it also requires an operating system development environment that is used so that the source code can run on all platforms, such as Windows, Linux and Mac. The source code provided makes it possible to experience application development on Windows where the platform is not based on MS Visual Studio. AR Toolkit offers the same functions on several platforms but varies depending on the operating system used. This tutorial combines the installation and configuration process on the platform used. And also the operating system and platform used must meet several basic requirements, such as

hardware that can accept video input and have CPU backup to handle video processing and display tasks. Others rely on essential underlying software to avoid compiler and linker errors. The main packages are cross-platform such as OpenGL, GLUT and others (MacIntyre et al., 2003).

To create 3D animations which will later be filled with Arabic voice recordings that match the Arabic speaking material, you can use UNITY. Because UNITY can be obtained via the UNITY 3D.COM site and you have to create an account first so you can download UNITY on your PC.

### Hardware Requirements Analysis

The hardware required is: a) Start by opening the AR application on the Android platform, b) There must be a marker in the textbook, c) A camera that captures the marker image on the book, d) Identifying the marker from the camera capture, e) Detecting marker patterns, f) Displaying 3D objects regarding Arabic speaking material (Ramadhan et al., t.t.).

The minimum hardware specifications required are: Pentium IV 2.0 GHz processor, 1 GB RAM, 20 GB hard disk, 1024x768 monitor resolution, webcam camera, minimum 1 GB RAM Android cellphone, and Android cellphone camera.

TAMUS (Ta'lim Musaghar) research emerged as a milestone that brought new hope and revolution in teaching methods. An augmented reality (AR) based speaking platform initiated with a monumental goal: to increase the understanding of Arabic language education students. This research marks a paradigm shift from conventional learning to the modern era which utilizes high technology.

TAMUS research is motivated by awareness of the challenges in teaching Arabic, especially in developing students' maharah kalam. Static learning traditions and a lack of practical applications make it difficult for students to apply Arabic language knowledge in the context of everyday life. Therefore, this research enters the field of experimentation to integrate augmented reality into learning and stimulate students' progress in speaking.

TAMUS was developed with careful design, combining AR technology with a contextual Arabic language curriculum. The platform creates a

speaking simulation environment where students can interact with AR elements that create realistic communication situations. With this approach, students not only learn Arabic language theory, but also gain practical skills in applying it in various contexts.

The use of augmented reality brings real benefits in the development of students' understanding. First, the interactivity obtained from AR creates a more interesting and motivating learning experience. Students are no longer limited to textbooks, but are invited to speak and write in a virtual environment that is similar to the real world. Second, the instant feedback provided by AR elements accelerates the learning process. Students can see directly how their words are applied in context, allowing for immediate improvement and correction of errors (Indahsari & Sumirat, 2023).

TAMUS research not only focuses on AR technology, but also details a curriculum that fits contextual needs. Everyday communication simulations, such as presentations, formal conversations, or article writing, are included in the curriculum to ensure that students can develop their writing skills according to real-world needs.

With the conclusion of this research, it is clear that TAMUS opens the door to a more dynamic and effective future of Arabic language learning. The use of augmented reality is not just as a tool, but as a medium to transform Arabic language learning into an immersive and contextual experience. With TAMUS, students become not just writers of words, but creators of meaning in the living world of Arabic. This research marks a historic milestone towards a more adaptive and relevant Arabic language learning revolution.

### Conclusions

TAMUS (Ta'lim Musaghar) research emerged as a glimmer of hope on the learning innovation horizon. An augmented reality (AR) based speaking platform designed with a noble goal: increasing the understanding of Arabic language education students. This research takes us beyond the traditional boundaries of learning, into a new

world where words are not only spoken, but also applied in the context of everyday life.

In an exploration of the concept of Ta'lim Musaghar, this platform offers more than just language learning. This is a comprehensive journey in which students are invited to experience Arabic not just as a collection of letters and words, but as a life shaped by direct experience. With AR guidance, students are empowered to speak and write in the context of real situations, creating a deeper and more meaningful learning experience.

As an experimental study, TAMUS presents very promising results. Students who engaged in this platform showed significant improvement in their maharah kalam. The use of AR not only facilitates more interactive learning, but also provides instant feedback that allows students to see their progress in real time.

The success of this platform lies not only in the high technology involved, but also in the contextual design of the curriculum. By creating speaking simulations in everyday life contexts, students can practice their writing skills in relevant situations. They not only learn Arabic, but also learn how to use it effectively in various communication contexts.

In conclusion, TAMUS research takes us to the peak of the Arabic language learning revolution. By incorporating augmented reality, the platform is not just a learning tool, but a window into a new world where every spoken word has deep meaning and direct application in everyday life. An inspiring step forward, building a bridge between tradition and innovation, towards a more dynamic and effective future for language education.

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