

## **An Insight into the Needs Analysis of the Mobile Language Traveller App Design For Mutawwif (Umrah Tour Guide) Via Mobile Platforms During COVID-19 Outbreak**

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### **Abstract**

The teaching and learning of the Arabic language have been using traditional methods and textbooks for a very long time. The language has been used and taught for various reasons including communication purpose. However, in this era of Information and Communication Technology (ICT), the needs to produce the interactive and technology-based learning and teaching tools have been the area of research by various fields of knowledge. Hence, the huge use of mobile gadgets as Tablet PC, smartphones, I-Pads and so on has the learners to adapt with the mobile revolution in their learning preference of various educational application such as many Apps that are available in Google Store. This project will be focusing on the design and development of a mobile language guide application in Arabic language for Mutawwif (Umrah Tour Guide) VIA smart phones especially in Android supported platforms. Once completed, the project is expected to produce a mobile App of teaching and learning Arabic among Mutawwif (Umrah Tour Guide) via interactive mobile App prototype, which could enhance the learners' self-motivation and language learning for traveller's purpose. It will be helping the Mutawwif to communicate in Arabic more effectively and

efficiently. The App also has the potential market to be commercialized and expanded to others umrah and Hajj travel and tours companies in Malaysia and all over the world.

**Keywords:** Arabic learning, mobile learning, needs analysis, Mutawwif, mobile application.

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## Introduction

Mobile learning is found to be providing more flexible learning environment and activities for learners in addition to a traditional and face-to-face instruction. It is also supporting the use of PC desktop-based learning and as well as web-based learning between the instructors and learners in a normal classroom. The explosion use of various mobile gadgets such as PC tabs, smartphones, I-Pads and so on has tremendously affected learning process and delivery of content and messages faster and faster including the creation of a new field of research that relates to language learning and mobile technologies called Mobile Assisted Language Learning or MALL as mentioned by Colpaert (2004) and Beatty (2003). MALL is defined as “the processes of coming to know and being able to operate successfully in, and across, new and ever changing contexts and learning spaces with an emphasis on understanding and knowing how to utilize our everyday life-worlds as learning spaces” (Pachler, Bachmair & Cook, 2010, p. 6). Although there are pros and contras of this emerging mobile technologies in their social human interaction, mobile devices are finding their way into classrooms in children’s life, and it is important for the researchers and educators to ensure that educational practice can include these technologies in productive ways (Abu Sa’alek, 2014).

## Mobile Learning in Education

Mobile learning is defined as ‘any educational provision where the sole or dominant technology are handheld or palmtop devices including mobile phones, smart phones, tablet PCs and laptops (Traxler, 2005; Gayeski, 2002). The potential use of mobile devices especially smart phones can be exploited as an attractive and effective learning platform such as promoting active learning (Attewell and Savill-Smith, 2004), merging works, study and leisure time in meaningful ways (Tururnen, et al., 2003), supporting the effectiveness of mobile technology in a wide range of activities for learners of all ages (Proctor & Burton, 2003), generating strong positive interests among students (Wang, et. al, 2009; Uzunboylu, et. al, 2009), and provide convenient learning platform when using the mobile applications and tools in terms of learning flexibility and portability (Al Fahad 2009).

According to Kukulska-Hulme & Shield (2008), the educators should understand how mobile technologies and devices can be efficiently used to support the effective process teaching and learning. In order to ensure effective use of mobiles devices in an educational setting, there are five features of MALL such as, accessibility, interactivity, immediacy, permanency, situating of instructional activities that should be considered into the account (Ogata, El-Bishouty & Yano, 2010). In addition to that based on Huang, Huang and Lin (2012), some merits of mobile technologies such as flexibility, low cost, small size and user-friendliness should also being considered in order to ensure good integration between the mobile devices and learning environment. Although a computer is more excellent than a mobile phone “for handling various types of information such as visual, sound, and textual information, but mobile phone is superior to a computer in portability (Yamaguchi, 2005) and its wide access (Tayebnik & Putih, 2012). The flexibility and mobility of mobile learning by using mobile devices are very much related to the tourism and tourists as they are travelling to various parts of the world based on their intended destinations. Hence, this study will be focusing on the analysis, design and development of a mobile language guide application in Arabic

language for Mutawwif (Umrah Tour Guide) via smart phones especially in Android supported platforms.

### **Development of Mobile Apps for Language Learning**

The teaching and learning of the Arabic language has been using traditional methods and textbooks for a very long time. MohdFeham (2006) indicated that there had been fewer inventions and innovations in the field in Arabic language learning and several reasons that limited the number of educational software and courseware in Arabic language. However, in this era of Information and Communication Technology (ICT), the needs to produce the interactive and technology-based learning and teaching tools have been the area of research by various fields of knowledge. The explosion use of various mobile gadgets such as PC tabs, smartphones, I-Pads nowadays is the best mean and way in assisting them in learning Arabic language through a mobile language guide application which provide a flexible, friendly and easy use of mobile language guide application. The study on using mobile learning platform in Arabic was conducted by MohdFeham et.al. (2014) by designing and evaluating a mobile learning portfolio known as 'i-collect' application for Arabic language teaching and learning. The researcher and his team also studied the potential use of mobile learning in Arabic language by designing and evaluating Mobile App Glossary of Terms in Islamic Banking and Finance (MohdFeham et.al., 2016).

In recent years, many tourist guidance applications have been developed, such as C-MAP (Sumi et.al. 1998), HIPS (O'Grady, et. al., 1999) and PEACH (Stock & Zancarano, 2002). For practitioners such as Mutawwif (Umrah Tour Guide) who is travelling to Saudi Arabia for performing Hajj and Umrah, they are in need of using Arabic language for various purposes such as communicating, shopping, travelling, and various forms of communications which are difficult for those with no formal learning experience in Arabic language. This study will be focusing on the analysis, design and development of a mobile language guide application in Arabic language for Mutawwif (Umrah Tour Guide) via smart phones especially in Android supported platforms. The early needs of the design of this mobile App will be collected among selected Mutawwif for Hajj and Umrah for gathering the suggestions and recommendations in designing the mobile language guide application. Then, the mobile application will be used by the Mutawwif (Umrah Tour Guide) practically in Andalusia Travel and Tours company for evaluating the mobile app.

### **Mobile Learning During COVID-19 Outbreak**

On 31<sup>st</sup> of December 2019, there was a growing report on the acute respiratory illness that started in Wuhan. The virus, which is later identified as COVID-19, attacks the human respiratory system and caused death to several thousands of individuals worldwide (Hasan & Hossain, 2020; Chen, et. al., 2020; Ali, et. al., 2020). Due to the seriousness of the rapid spread of this pandemic and to further prevent the spread, international tourism and traveling almost affected by certain limitations and restrictions. This COVID-19 pandemic has been forcing the educators towards emergency remote teaching and learning (ERTL) and home-based learning (HBL) by using various online platforms and technologies (Leon, Trian, Ellen and Yogi, 2021). Based on Hodges, Moore, Lockee, Trust, and Bond (2020), ERTL is "well-planned online learning experiences for the courses offered in response to a crisis or disaster". As such, the global community may need to support the educational systems in developing countries in their efforts to prepare schools, teachers, students, and parents for the future (Zhu & Liu, 2020). In addition, the potential of using mobile educational applications should be employed to facilitate learning during the crisis of COVID-19 outbreak.

### Research Questions

This study embarks on the following research questions:

1. What are the needs and suggestion for the design of a mobile App of teaching and learning Arabic among Mutawwif (Umrah Tour Guide)?
2. How to design and develop a mobile App of teaching and learning Arabic among Mutawwif (Umrah Tour Guide) based on the needs analysis by the learners and practitioner among Mutawwif?

### Research Methodology

This project will be focusing on the analysis, design and development of a mobile language guide application in Arabic language for Mutawwif (Umrah Tour Guide) via smart phones especially in Android supported platforms. The early needs of the design of this mobile App will be collected among selected Mutawwif for Hajj and Umrah for gathering the suggestions and recommendations in designing the mobile language guide application. Then, the mobile application will be used by the Mutawwif (Umrah Tour Guide) practically in Andalusia Travel and Tours Company for evaluating the mobile app. The project will be using ADDIE instructional design model for the design and development of this mobile application (Malachowski, 2002). The research phases based on ADDIE instructional design model are as shown below:

- 1- Analysis: Learner's needs among selected Mutawwif, content development and current mobile app.
- 2- Design: Formulating design theory and storyboard
- 3- Development: Development tool (web-based tool, HTML + PHP), Playstore registration, uploading and converting, mobile apps package
- 4- Implementation and Evaluation: User Testing among Mutawwif at Andalusia Travel and Tours for the prototype at the 2 holy cities of Mecca and Medina.

The needs analysis survey was distributed among 100 respondents of a national conference of Mutawwif (Umrah Tour Guide) organized at Universiti Sains Islam Malaysia (USIM), Nilai, Negeri Sembilan, Malaysia by using an adapted survey by Mohd Feham et. al. (2016).

### Results and Findings

The results and findings are reported in three main categories which are demographic information, needs analysis results of the design of mobile language traveller guide in Arabic for Mutawwif (umrah tour guide) via smart phones and further suggestions by the respondents for future design and development. The details are as shown in the following:

#### A) Demographic Information

As shown in Table 1, the majority of respondents are between the age of 20-29 (83%) while the rests are between the age of 30 and above (17%).

Table 1: Age of respondents

Age	Frequency (N)	Percentage (%)
20-29	83	83
30-39	14	14
40-49	2	2
50 and above	1	1
<b>TOTAL</b>	<b>100</b>	<b>100%</b>

In addition, it is very clear from Table 2 that most of the respondents are male with 99%. The results show that majority of them are in their early adolescent.

Table 2: Gender

Sex	Frequency (N)	Percentage (%)
Male	99	99
Female	1	1
<b>Total</b>	<b>100</b>	<b>100</b>

Table 3 shows that almost all of respondents are still in their early experience of career as Mutawwif with 99%. The results are consistent with the majority of majority of them who are in their early adolescent.

Table 3: Experience as Mutawwif

Years Of Experience	Frequency (N)	Percentage (%)
1-5	99	99
6-10	1	1
10 And Above	0	0
<b>Total</b>	<b>100</b>	<b>100</b>

Based on Table 4, it is clear that majority of respondents are using Malay as their spoken medium of instruction with 53.5%, followed by Arabic (26.2%), English (19.3%) and others (1.1%). The results may affect the design and development of this mobile language traveller guide in Arabic for Mutawwif (umrah tour guide) via smart phones which may be using trilingual form of languages in Malay as primary language, and supported by Arabic and English for translation.

Table 4: Spoken Language

Sex	Frequency (N)	Percentage (%)
Malay	100	53.5
English	36	19.3
Arabic	49	26.2
Others	2	1.1
<b>Total</b>	<b>187</b>	<b>100</b>

## B) Analyzing The Needs In The Design Of Mobile Language Traveller Guide in Arabic for Mutawwif (Umrah Tour Guide) via Smart Phones

### i) Device Ownership

The survey results (see Table 5) indicated that 76 out of 100 respondents (76%) had Android based device for their mobile phones followed by Apple iPhone (23%). The least was Windows Phone with a percentage of (1%) only. The factors of high ownership rate of Android based mobile phones may be attributed to the cheap and competitive price of these devices in the market. However, the simplicity, reliability and functionality may be best attributed to others, such as, Apple iPhone or Windows Phone.

Table 5: Device Ownership

Type of smartphone	Frequency (N)	Percentage (%)
Android	76	76
Apple iOS	23	23

Windows Phone	1	1
Blackberry	0	0
Others	0	0
<b>Total</b>	<b>100</b>	<b>100</b>

#### ii) Reasons for Having Mobile Devices

The respondents were asked on the reasons for having a mobile device. Table 6 tabulates the results with the majority of them (33.4%) stated Communication as the main reason. This was followed by Entertainment (23.8%), Education (22.4%), Business (17.6%) and others (2.8%). The findings disclose some insights of the major reasons of mobile devices ownership among respondents which are communication, entertainment, education and business that highlight the important need and usage of mobile smartphones among them.

Table 6: Reasons for Having Mobile Devices

<b>Purpose of use</b>	<b>Frequency (N)</b>	<b>Percentage (%)</b>
Communication	97	33.4
Education	65	22.4
Entertainment	69	23.8
Business	51	17.6
Others	8	2.8
<b>Total</b>	<b>290</b>	<b>100</b>

#### iii) Level of agreement that every Mutawwif needs to learn or know Arabic language while performing their duties at Saudi Arabia

The respondents were also asked about the level of agreement that every Mutawwif needs to learn or know Arabic language while performing their duties at Saudi Arabia. Almost all of them agree with this item based on Table 7.

Table 7: Level of agreement for needs to learn or know Arabic among Mutawwif

<b>Response</b>	<b>Frequency (N)</b>	<b>Percentage (%)</b>
Yes	98	99
No	1	1
<b>Total</b>	<b>99</b>	<b>100</b>

#### iv) Experience of using in mobile language app via smartphone.

Based on Table 8, it is clear that most of respondents are having an experience of using in mobile language app via smartphone. The findings are important to highlight the importance of designing a special mobile language traveller guide in Arabic for mutawwif (umrah tour guide) via smart phones based on the needs analysis in this study.

Table 8: Experience of using in mobile language app via smartphone

<b>Response</b>	<b>Frequency (N)</b>	<b>Percentage (%)</b>
Yes	67	68.4
No	31	31.6
<b>Total</b>	<b>98</b>	<b>100</b>

#### iv) The reasons behind the needs to learn or know Arabic language among Mutawwif in performing their duties are shown in Table 9 as the following:

Table 9: reasons behind the needs to learn or know Arabic language among Mutawwif

Main Theme	Sub-Theme
a) The importance of Arabic language	<ul style="list-style-type: none"> <li>• Facilitating daily routines in Saudi.</li> <li>• Arabic language is very important for management.</li> <li>• Arabic language is the language of heaven.</li> </ul>
	<ul style="list-style-type: none"> <li>• Because work at Saudi Arabia.</li> <li>• Native language.</li> <li>• Not all Mutawwifs are exposed to Arabic language.</li> <li>• Because majority in Saudi is Arabic people.</li> <li>• Because Arabic language is first and official language.</li> <li>• It can improve our speaking, vocabulary and many more.</li> </ul>
b) For communication purpose	<ul style="list-style-type: none"> <li>• Easier to communicate and interact with Saudis.</li> <li>• To make it easier in assisting their duties.</li> <li>• To improve and entertain Jemaah.</li> <li>• To interact with Arabs, or in case emergency happened.</li> <li>• We always communicate and deal with Saudian, such as book a bus, asking them some information about places.</li> <li>• Especially Saudi dialect because the needs to communicate with locals are very frequent daily.</li> <li>• Most of Saudis cannot understand Arabic.</li> </ul>
c) For performing duties as Mutawwif	<ul style="list-style-type: none"> <li>• The Arabic language will smooth the business and performing skills.</li> <li>• For communication purpose while performing their duties.</li> <li>• The Arabic language will smooth the business and performing skills.</li> <li>• Have to speak with bus driver, hotel manager and so on.</li> <li>• To make the process will be smooth.</li> <li>• Every detail of the duty is performed in Arabic.</li> <li>• To make the process will be smooth.</li> <li>• Can serve more effectively.</li> <li>• Communicate with drivers especially.</li> <li>• To ease communication with locals especially the authorities in satisfying the needs of pilgrims.</li> <li>• To communicate with the locals and an ability to read any signs in Saudi.</li> </ul>

v) The proposed contents of Arabic language that every Mutawwif needs to learn or know while performing their duties are shown in Table 10 as the following:

Table 10: The contents of Arabic language that every Mutawwif needs to learn or know

Main Category	Sub- Category
a) List of vocabularies, for example: food, places, clothes, etc.	<ul style="list-style-type: none"> <li>• List of places such as Makkah, streets, hotels, airports, recreational parks, name of streets, hills and palace, market, accommodations, tourism</li> <li>• List of food, such as: Junk food, regular local food, Arabic food, groceries.</li> <li>• List of buildings such as mosque, university, school, shop</li> <li>• List of transportation such as cars, tyres, taxi, bus, direction, bus trip, slow down</li> <li>• List of health care affairs such as hospital, medicine, doctor, ambulance, emergency case</li> <li>• List of security affairs such as police.</li> <li>• List of foreign affairs immigration, passport, embassy, airport information</li> <li>• List of direction and time</li> <li>• List of human feelings.</li> <li>• List of human mobile communication, such as mobile operator. Groceries (vegetables, personal hygiene).</li> <li>• List of words related to weather</li> <li>• List of daily transactions such as bargaining</li> </ul>
b) List of phrases, for example: greetings, request, asking, etc.	<ul style="list-style-type: none"> <li>• How are you? What do you want</li> <li>• ‘Wh’ questions?</li> <li>• Ordering, requesting, asking, welcoming, impressing, apologies, bargaining, begging, asking about direction</li> <li>• I want ...</li> <li>• Basic greetings</li> <li>• Basic introductions</li> <li>• Helping, buying, speech.</li> <li>• Local dialects</li> </ul>
c) Topics of Arabic grammar (muzakkar/ mu’annath, mufrad/muthanna/ jamak, dhama’ir, Arabic verbs, particles, etc.)	<ul style="list-style-type: none"> <li>• Nouns, verbs and particles</li> <li>• Pronouns</li> <li>• Simple phrases</li> <li>• Not to stress on grammatical errors</li> <li>• Simple Arabic morphology</li> </ul>
d) Basic dialogues based on situations (airport, hospital, supermarket, etc.)	<ul style="list-style-type: none"> <li>• Hospital, clinic, medicine, doctor, pharmacy</li> <li>• Airport, flight, flight delay, departure, arrival, luggage, boarding pass</li> <li>• Immigration, passport</li> <li>• Hotel, facilities, prayer room, toilet,</li> <li>• Transportation, bus, taxi, direction, names of streets, towns</li> <li>• Supermarket, groceries, market, asking price</li> <li>• Mosques, directions</li> </ul>

e) Other suggested topics	<ul style="list-style-type: none"> <li>• Names of diseases, health problem or situation.</li> <li>• Emergency case</li> <li>• Basic information on Mecca, Medina and Ta'if</li> <li>• Goods, price, accommodation, hospitality, market of dates</li> <li>• Mobile phones</li> <li>• Check in procedures at the airports and hospitals.</li> <li>• Historical information of Prophet Muhammad PBUH.</li> <li>• History of 2 holy mosques, and related vocabularies to the structure of the mosques</li> <li>• Eating at Restaurants.</li> <li>• Information related to Quran and Hadith.</li> </ul>
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### iii) Delivery and User Interface

The respondents were also asked to select their preferences on elements used for the delivery of the app and its user interface design. These include the form of the app, the navigation of content, the main menu design, the delivery platform, and the language interface. Table 9 illustrates the findings on these aspects in details. It is obvious that the combination of non-web-based and web-based app (hybrid) was preferable by the respondents with 48.4%. As for the navigation, the page flipping finger touch was rated highest (39.3%) which might refer to the speed factor and the factor of responsiveness. The main menu was preferable to be in a combination of both icons and their descriptions (58%). Though the limitation of the mobile screen size may have hindered this preference, an app with fewer items may be considered for the development. Furthermore, the delivery was opted to be on both phone and tablet platforms (50.8%). Finally, the language interface of preference was English with 36.3%. Giving the fact that English interface is familiar to the users in almost the majority of apps available nowadays, the phenomenon is also true in this finding. The details are shown in Table 11 as the following:

Table 11: Proposed Delivery and User Interface

Interface preferences	Types of App	Frequency and Percentage
I prefer to have the app in a form of	Hybrid (combination of both)	59 (48.4%)
	Non web-based app	26 (21.3%)
	Web-based app	30.3 (5.3%)
	<b>Total</b>	<b>122 (100%)</b>
I prefer the navigation of the content app using	Page flipping	52 (39.3%)
	Previous and next buttons	34 (25.8%)
	Scroll up and down	46 (34.8%)
	<b>Total</b>	<b>132 (100%)</b>
I prefer the Main Menu in a form of	Both	69 (58%)
	List of icons only	33 (27.7%)
	List of words only	17 (14.3%)
	<b>Total</b>	<b>119 (100%)</b>
I prefer to have the app designed for	Both	66 (50.8%)
	Mobile phone	46 (35.4%)
	Tablet	18 (13.8%)

	<b>Total</b>	<b>130 (100%)</b>
I prefer the language interface in	Arabic	68 (33.8%)
	English	73 (36.3%)
	Malay	60 (29.9%)
	<b>Total</b>	<b>201 (100%)</b>

## v) Preferable Features

Table 12 shows the features rated by the respondents in descending order. The highest requested feature was the use of trilingual form (English-Arabic- Malay) with frequency of 95, followed by search functionality (92), literal meaning of words (88), Arabic script of the words (82), Arabic transliteration of the words (82), and audio pronunciation of the words (80). The findings show that the respondents suggested a mobile language app which has trilingual form (English-Arabic- Malay) with the supports of literal meanings of word, Arabic transliteration, and audio pronunciation. All these features will be facilitated to them through a search functionality.

Other preferable features of the app which are ranging between the frequencies of 70-79 are list of related words, sharing term definition via social networks (Twitter, Facebook, etc.), Extended meaning of the words, word properties of the term (noun, adjective, verb, etc.), words arranged alphabetically and view search history. This second category disposed the need of categorization of word list based on word properties, alphabetical order and relatedness.

The third and less preferable features of the app which are ranging between the frequencies of 69 and below are added bookmarks, custom list of words, terms arranged topically, settings section for changing the app appearance and others. Some of the features can be integrated in the previous second category which are custom list of words and arranged of terms topically. are shown in Table 12 as the following:

Table 12: Preferable features of the app

<b>Preferable features</b>	<b>Frequency</b>
Trilingual form (English-Arabic- Malay)	95
Search functionality	92
Literal meaning of words	88
Arabic script of the words	82
Arabic transliteration of the words	82
Audio pronunciation of the words	80
List of related words	78
Share term definition via social networks (Twitter, Facebook, etc.)	78
Extended meaning of the words	77
Word properties of the term (noun, adjective, verb, etc.)	76
Words arranged alphabetically	74
View search history	70
Add bookmarks	69
Custom list of words	67
Terms arranged topically	63
Settings section for changing the app appearance	62
Others	39

**C) Further Comments and Suggestions**

The respondents were also asked to give their comments and suggestions in an open-ended questionnaire with regards to the design of mobile language traveller guide in Arabic for Mutawwif (umrah tour guide) via smart phones. The feedback is as important as the descriptive results and findings due to its in-depth responses and explanation by the respondents. They are analyzed and grouped accordingly based on specific themes as shown in Table 13:

Table 13: Qualitative Analysis of Comments and Suggestions

Main Theme	Comments and Suggestions
a) The important use of mobile phone	<ul style="list-style-type: none"> <li>• Every mutawwif must have use mobile application for easy communication.</li> <li>• Highlight the effectiveness use of smartphone</li> </ul>
b) Features of mobile app	<ul style="list-style-type: none"> <li>• Free access of mobile app</li> <li>• Add features like prayer assist, doa' etc.</li> <li>• Make it in small size of data.</li> <li>• Enhanced with historical information on Mecca and Medina.</li> <li>• Guide for places to ease Mutawwif job, eg: location for Rasulullah house with maps and pictures, etc.</li> <li>• List of emergency contact.</li> <li>• Mutawwif social media, eg: Each mutawwif can contact other mutawwif directly with this apps to ask any helps for example.</li> <li>• Offline option of using mobile app.</li> <li>• Enhanced with a Qiblat direction, Quran, Hadith from some famous book of hadith for example hadith 40 or RiyadusSolihin and certain du'a.</li> </ul>
c) Learning support	<ul style="list-style-type: none"> <li>• Add description of words with images.</li> <li>• Add some Arabic songs (jihad etc).</li> <li>• Word suggestion/ addition/ editing like google translate, Wikipedia etc.</li> <li>• Do both or separated vocabs in their specifications like hospital, police, immigration, airport etc and all list of words.</li> <li>• Add vocabularies from Saudi colloquial language.</li> <li>• Add several related dialogues at related places such as basic phrases, tourism, airport, etc.</li> <li>• Put the tasykeel for Arabic words.</li> <li>• Words arrange in group (additional to arrange in alphabetically).</li> </ul>
d) Mobile app interface	<ul style="list-style-type: none"> <li>• Colourful; make it more interesting.</li> <li>• Simple and friendly user interface.</li> <li>• Create option for native usual words and sentences.</li> <li>• Option for word's copy and paste.</li> <li>• Option to be used worldwide as well.</li> <li>• Design of a mutawwif friendly mobile app.</li> <li>• Create links to various matter especially related to umrah</li> </ul>

	<p>or hajj sciences-or fatwas of various teachings.</p> <ul style="list-style-type: none"> <li>• Should be simple to used and easy to navigate.</li> <li>• GPS that show the history part in Saudi like Ziyara GPS.</li> <li>• Add favourite button for words that frequently search or used.</li> <li>• Enhanced with audio support.</li> <li>• Compare with mobile language apps in other languages that are available in Google Playstore.</li> <li>• Need upgrade the app from time to time.</li> <li>• Add Arabic language games.</li> </ul>
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### Discussion of Findings

The discussion of findings in paper this can be categorized into several issues which are:

1) *The importance of use of mobile language traveller guide in Arabic for Mutawwif*

The findings highlighted the important use of mobile smart phones for Mutawwif in facilitating their duty performance in the holy cities of Mecca and Medina. Instead of using these mobile devices for communication and entertainment purposes, this study revealed that there is a need to enhance the usage of of mobile smart phones among Mutawwif for their communication and business related purposes.

2) *The language content of mobile language traveller guide*

The findings also explored very interesting points of the language content that need to be integrated in this mobile language traveller guide for Mutawwif. Although there are related books and references such as phrasebook for traveler and tourist in the bookstores, but the proposed language content from this study is more pertinent to the need of use among Mutawwif. However, the design of this mobile app will only focusing on the Arabic language content, with regardless to other proposed enhanced learning supports such as Quran, Hadith, Dua, maps, pictures, historical information and long dialogues due to limitation of research objectives in this study and the budget constraints. The enhanced version will be explored more in the future design and development of this mobile app. This version will be limited to the selection of wordlists, meaning in English and Malay, audio pronunciation of words and several basic feature of mobile app that will be launched in Android based platform only.

3) *The preferable features of this mobile language app.*

The preferable features of this mobile language app are also disclosed in this study which are similar to other available language mobile app in the current Google Playstore. The important suggestion is to facilitate the design of language mobile app for the use of Mutawwif in performing their communication and business related purposes as well as the option to use it worldwide. Below are few screenshots of interface from the developed prototype of mobile language traveller guide in Arabic for Mutawwif (umrah tour guide) via smart phones known as i-Mutawwif. The features of this mobile language app for Mutawwif will be designed based on the needs analysis within the limitations of this study.

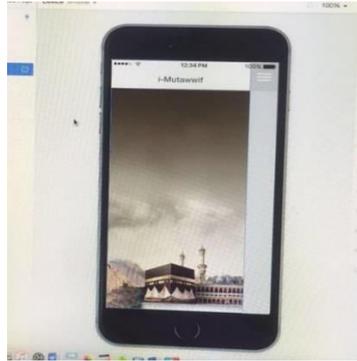


Figure 1: Pre-prototype version for mobile language traveller guide (i-Mutawwif)

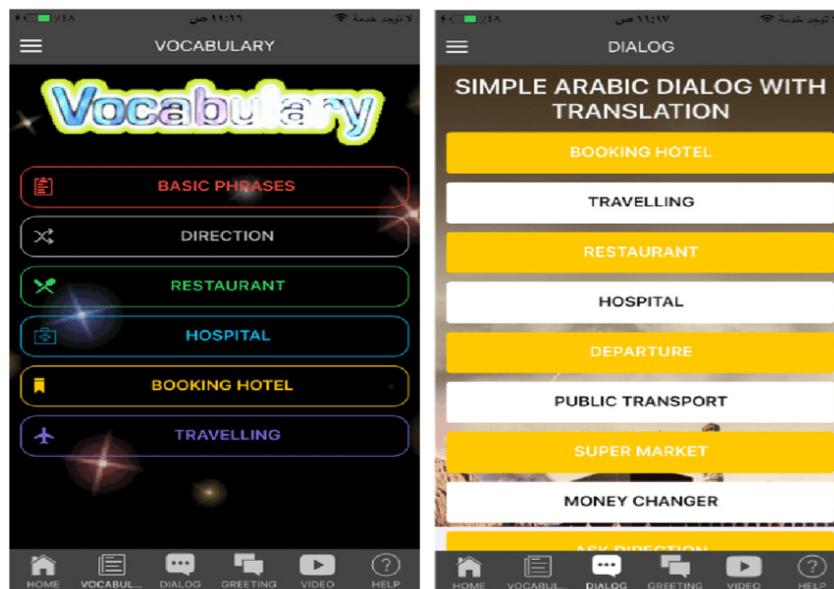


Figure 2: Enhanced prototype version for mobile language traveller guide (i-Mutawwif)



Figure 3: Main interface of i-Mutawwif prototype for mobile language traveller guide

### Conclusion

This article reports on the needs analysis survey on the design of mobile language traveller guide in Arabic for Mutawwif (umrah tour guide) via smart phones. Overall findings show positive feedback among respondents with regard to the need of design and use of this mobile language traveller guide. The respondents also have contributing their suggestions and

comments in terms of language content and preferable features of this mobile language app. In the recent outbreak of COVID-19, this application is still useful for Arabic language learning for specific purpose although the international travel is almost restricted all over the world. The app may be potential to be employed in virtual learning via mobile platforms.

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### References

- Ali, M. G., Ahmad, M. O., & Husain, S. N. (2020). Spread of Corona Virus Disease (COVID-19) from an Outbreak to Pandemic in the Year 2020. *Asian Journal of Research in Infectious Diseases*, 3, 37-51.
- Al-Fahad, F. N., (2009). *Students' Attitudes and Perceptions towards the Effectiveness of Mobile Learning in King Saud University, Saudi Arabia*. Online Submission.
- Abu Sa'alek, Atef Odeh (2014). A review of emerging technologies: Mobile assisted language learning (MALL). *Asian Journal of Education and e-Learning*, (ISSN: 2321 – 2454). Volume 02 – Issue 06, December.
- Attewell J and Savill-Smith C (2004). *Learning with mobile devices - research and development - a book of papers*. Learning Skills Development Agency: London.
- Beatty, K. (2003). *Teaching and researching computer-assisted language learning*. Essex, England: Pearson Education Limited.
- Chen, Q., Quan, B., Li, X., Gao, G., Zheng, W., Zhang, J., Zhang, Z., Liu, C., Li, L., Wang, C. et al. (2020). A Report of Clinical Diagnosis and Treatment of 9 Cases of Coronavirus Disease 2019. *Journal of Medical Virology*, 92, 683-687. <https://doi.org/10.1002/jmv.25755>
- Colpaert, J. (2004). From courseware to coursewear? *Computer Assisted Language Learning*, 17, 261-266.
- Gayeski, D. (2002). *Learning Unplugged - Using Mobile Technologies for Organisational and Performance Improvement*. New York, NY: AMACON - American Management Association.
- Hasan, S., & Hossain, M. M. (2020). Analysis of Covid-19 m Protein for Possible Clues Regarding Virion Stability, *Longevity and Spreading*. <https://doi.org/10.31219/osf.io/e7jkc>
- Hodges, C., Moore, S., Lockee, B., Trust, T., & Bond, A. (2020). The Difference between

Emergency Remote Teaching and Online Learning. *EDUCAUSE Review*.

- Huang, Y.-M., Huang, Y.-M., Huang, S.-H., Lin, Y.-T. (2012). A ubiquitous English vocabulary learning system: Evidence of active/passive attitudes vs. usefulness/ease-of-use. *Computers and Education*, 58, 273-282.
- Kukulska-Hulme, A., Shield, L. (2008). An overview of mobile assisted language learning: From content delivery to supported collaboration and interaction. *ReCALL*, 20(3), 271-289.
- Leon Abdillah, Trian Handayani, Ellen R Rosalyn, Yogi I Mukti (2021). Collaborating Digital Social Media for Teaching Science and Arabic in Higher Education During COVID-19 Pandemic. *Ijaz Arabi Journal of Arabic Learning*, 4(1), 12–25.
- Malachowski, M.J. (2002). *ADDIE based five-step method towards instructional design*. An online article on Instructional Design Models website by School of Education, University of Colorado, USA.
- MohdFehamMohd Ghalib (2006). *The design, development and testing on the efficacy of a pedagogical agent on the performance and program rating scores among students learning Arabic*. Unpublished Ph.D dissertation, Universiti Sains Malaysia.
- Mohd. Feham, Md Ghalib, Haslina, Hassan, Muhammad Sabri, Sahrir, Nuraihan, Mat Daud, Mohaida, Mohin and Media Anugerah, Ayu (2014). Developing icollect mobile (Android and Iphone-based) application for Arabic language teaching. *Middle-East Journal of Scientific Research*, 20. pp. 21-27. ISSN 1990-9233 (P) 1999-8147 (O)
- MohdFeham Md. Ghalib, YushianaMansor, Nafi @ Hanafi Dollah, Rusni Hassan, Zakaria Omar, Abdul Wahab Zakaria (2016) *Providing a Mobile Service for Academics and Professionals: Need Analysis for the Development of Mobile App Glossary of Terms in Islamic Banking and Finance*. In: *Envisioning the Future of Online Learning*. Springer, Singapore. ISBN 978-981-10-0952-5
- O'Grady, M.J., O'Rafferty, R.P., O'Hare, G.M.P.(1999): *A tourist-centric mechanism for interacting with the environment*. In: *Proceedings of the First International Workshop on Managing Interactions in Smart Environments*, Dublin, Ireland, Springer (Dec), 56–67
- Ogata, H., Yin., C., El-Bishouty, M. M. and Yano, Y. (2010). Computer supported ubiquitous learning environment for vocabulary learning. *International Journal of Learning Technology*, 5 (1), 5-24.
- Pachler, N., Cook, J. and Bachmair, B. (2010) Appropriation of mobile cultural resources for learning. *International Journal of Mobile and Blended Learning*, 2 (1). pp. 1-21. ISSN 1941-8647
- Proctor, N & Burton, J (2003). *Tate Modern multimedia tour pilots 2002-2003*. Proceedings of MLEARN 2003: Learning with Mobile Devices. London, UK: LSDA, pp. 127-130

- Stock, O., Zancarano, M. (2002): *Intelligent interactive information presentation for cultural tourism*. Invited talk at the International Workshop on Natural, Intelligent and Effective Interaction in Multimodal Dialogue Systems, Copenhagen, Denmark (June)
- Sumi, Y., Etani, T., Fels, S., Simone, N., Kobayashi, K., Mase, K.(1998): *C-map: Building a context-aware mobile assistant for exhibition tours*. The First Kyoto Meeting on Social Interaction and Communityware (June)
- Tayebinik, M., Puteh, M. (2012). Mobile Learning to Support Teaching English as a Second Language. *Journal of Education and Practice*. Vol 3, No 7, 56-62.
- Traxler, J. (2005). *Defining Mobile Learning*. Proceedings IADIS International Conference Mobile Learning 2005, Malta, pp 261-266.
- Turunen H, Syvaenen A, Ahonen M (2003). Supporting observation tasks in a primary school with the help of mobile devices. In K Nyvri (ed) *Mobile learning: Essays on philosophy, psychology and education*. *Communications in the 21st Century*. Vienna: Passagen Verlag, 209–221.
- Uzunboylu, H., Cavus, N., &Ercag, E. (2009). Using mobile learning to increase environmental awareness. *Computers & Education*, 52(2), 381-389.
- Yamaguchi, T. (2005). *Vocabulary learning with a mobile phone*. Program of the 10<sup>th</sup> Anniversary Conference of Pan- Pacific Association of Applied Linguistics, Edinburgh, UK.
- Wang, M., Shen, R., Novak, D., & Pan, X., 2009. The Impact of Mobile Learning on Students' Learning Behaviours and Performance: Report from a Large Blended Classroom. *British Journal of Educational Technology*, 40(4), 673-695.
- Zhu, X. D., & Liu, J. (2020). Education in and after Covid-19: Immediate Responses and Long-Term Visions. *Postdigital Science and Education*, <https://doi.org/10.1007/s42438-020-00126-3>