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**A STUDY ON THE USABILITY OF DIGITAL RESOURCES IN
CONSTRUCTING ARABIC SENTENCES**

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Abstract

Digital resources have gone on to become one of the most widely accessible in all platforms globally. With digitization on the rise, our educational industries have worked tirelessly to develop digital learning infrastructure to further the reach of digital education. Nowadays, teaching materials have all taken to digital content as a welcome change. Hence, the internet today is flooded with online educational resources in various fields. As for learning Arabic language, the resources have been widely reachable online, and everything is made available on students' devices with a just few clicks. Like any other languages, Arabic sentence construction is the first step towards understanding the nature of the language. Its digital resources have had a significant impact to ensure better comprehension of the language and has made the process of imparting education simpler. The focus of the study is twofold: (a) to explore the usability of the resources and (b) to examine the practicality of the resources. Sets of questionnaires on students' experiences and perceptions were administered to UiTM third language undergraduate students. A total number of 48 students participated in this study. The study revealed that digital resources in constructing Arabic sentences are abundantly available online, however, in relation to the aspect of the practicality it does not contribute greatly in a hassle-free and efficient way. Ultimately, the study suggested that a one-of-a-kind digital resources directly and exclusively on constructing Arabic sentence is needed to comprehensively address the barriers and the difficulties.

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1. Introduction

Currently, Malaysia's education industry have had to shift very quickly to new modes of online learning in response to the Covid-19 pandemic. It was a big learning curve as its operations moved to digital platforms. This radical shift has been a wake-up call for academicians to drastically accommodate their teaching materials to this new learning environment to ensure that no students are left behind. Students, too, are adjusting to this new reality and straightaway, students are expected to drive their own academic journey. Although the Covid-19 pandemic has ended, digital education grew on people and has now become widely accepted as it brought along with it a fair share of advantages.

Online learning is not new in our educational system as it has been in the industries for over the last few decades, and its implementation have move forward progressively as an effort to embrace the future vision of education. Initially it was a challenge when it was first started but, it has come to the realization that with education through digital mediums, educators can reach out students remotely and teach them through digital resources. In this perspective, in teaching and learning Arabic as a third language in UiTM, the educators are doing a great job to grasp the transition from traditional forms of lecture by promoting their learners to fully utilize digital resources that can improve their learning abilities. There are high expectations about the potential of digitizing Arabic learning material as well as assessing it online in higher education. However, this transformation is complex and takes place in small steps.

The aim of learning Arabic as a third language in UiTM is to develop strong communication values as it provides access to the learners to comprehend the beauty of the language. The language studied and assessed is standard Arabic (fusha) used in Arabic speaking countries. One of the most important skills that the students need to master is to be able to construct grammatically correct Arabic sentences. Thus, the idea of the study is to explore the usability of digital resources in constructing Arabic sentences among UiTM undergraduate third language students and their perceptions on how far the resources can act as a stimulating tool in improving their foundation on Arabic sentences. Hopefully, with these resources, the students will have the hands-on experience to practise the concept learned and at the same time instill the concept of their own learning environment.

1.1. Literature review

1.1.1. Arabic sentences

Linguistically, Arabic sentence -like any other languages- is a set of words that expresses an idea, a thought and a statement. Theoretically it is a unit of grammar that contains at least one main clause that is made up of a subject, a predicate and a complement. In a sentence, there is always one main word that relays or determines the types of sentences (Bassam et al., 2014). Ironically, Arabic sentence is formed into two categories: a nominal sentence and a verbal sentence. For a sentence to be grammatically correct, it must featured its categories accordingly and must be constructed from its elements because those elements play an essential function in determining the syntactic role in the sentence (Al-Sawadi & Khayat, 1996). For the nominal sentences, the basic elements are subject and predicate. Meanwhile, for

the verbal sentences, the elements are varies depend on the different types of the verb: transitive verb and intransitive verb. Transitive verb requires a direct object for the sentence to be completely meaningful. The number of object could be one, two or three depends on the type of transitivity. For intransitive verb, the sentence should contain the verb and the subject. It does not need a direct object for the sentence to be completely meaningful.

Like any other languages, a sentence is not necessarily constructed from its basic elements. Some sentences may add complements to convey a specific meaning. Consider the sentence in the following example, ذهب الطالب المجتهد إلى المدينة (the dedicated student went to the city). The sub-sentence ذهب الطالب indicates a complete verbal sentence consists of the intransitive verb ذهب and the subject الطالب. Other elements are the complements. The المجتهد is an adjective for الطالب, while the phrase إلى المدينة verifies the meaning of the sentence.

The study of the Arabic sentence structure also includes the four main levels of Arabic grammars: (1) phonological, (2) morphological, (3) syntactic and (4) semantic (Al-Sawadi & Khayat, 1996). However, the two levels: morphological and syntactic are the most significant of all in forming Arabic sentences (Ababneh & Al Rousan, 2020). Modern studies have not been different from the old ones in their interest in the study of Arabic sentences; only few of them have dealt with some frameworks of structural aspects. For example, Moubaidin et al., (2013) investigated the syntactic structure of some simple Arabic sentences structures with a consideration of different word order in Arabic and show how they are derived. Samah et al. (2013) also discussed Arabic sentences construction. It was a detailed study focusing on skills, weaknesses, and writing issues employing Islamic religious school students. The same survey studied by Abdullahi et al. (2018) focused on error constructing on tertiary level. There is another dimension study on Arabic sentences carried by Al-Kohlani (2015) which highlighted the importance of the sentence as a unit of text and shed some light on its treatment in the Arabic traditional grammar.

1.2. Digital resources on constructing Arabic sentences

There is no concrete evidence regarding the early stage of the development of digital resources in learning Arabic language. It is believed that the resources exist since 19th century along with the existence of e-learning. From there, digital resources on learning Arabic language have undoubtedly embracing new learning modalities in conceptualizing the urge of learning anywhere and anytime. Despite all the talk on digitization and technologically learning resources, unfortunately, for constructing Arabic sentences, the reality is far from assuring. The number of subject specific resources regarding constructing Arabic sentence is too small and it tends to be scattered in various and different topics. Recent years have seen several developments of machine translation on the Arabic sentence structure (Ababneh & Al Rousan, 2020). Even though this machine translation is centered on serving the lexical portion of sentence construction, but it is user-oriented and does not grasp the essence of the skills in constructing sentences particularly in promoting better understanding of the appropriate word order when constructing Arabic sentences.

Other works contributing to the development of Arabic sentences are the work on Arabic Natural Language Processing (ANLP). In this approach, we came across to several programs for syntactic treatment of Arabic sentence. Al-Daoud and Basata (2009) suggested a model to analyze Arabic sentence

automatically. The model consists of two stages of analysis: the morphological and syntactic. Zalila and Haddar (2011) developed a program that focuses on the relative phrases in Arabic sentences to specify the particular syntactic role in different structures. Al-Qrainy et al., (2012) came up with a simple framework in handling Arabic sentence. The framework aims to analyze whether the sentence structure is syntactically correct. Certainly, in the future, we can expect new and advanced technologies to be incorporated in ANLP, however, still, those approaches are commonly discussed and elaborated in topics related to morphology and syntax as constructing sentence is an important component to interpret the role of these two linguistic functions.

Nevertheless, although those studies was primarily concerned with Arabic sentences, they paid limited attention to develop a subject-specific digital resources on assessing purely and solely on tips and guidelines on how to construct grammatically correct Arabic sentences. But, nevertheless, they produced many useful recommendations.

2. Research Questions

This study attempts to answer the following research questions.

- i. How far does digital resources on constructing Arabic sentences is accessible online.
- ii. How practical the resources are in terms of strengthening students' ability in constructing Arabic sentences.

3. Research Methodology

This study employed quantitative approach. The data was collected using an online questionnaire as a main tool to examine the students' experiences and perceptions of using digital resources in strengthening their abilities in constructing Arabic sentences. The data was then tabulated and analyzed using descriptive analysis.

3.1. Sample

A total number of 48 third language students from UiTM Johor agreed to partake in this study. The participants were all undergraduate students from different faculties and were purposely selected from three groups namely JAC2205E, JBA2513A and JBA2493A who are currently taking Introductory Arabic Language level 3 (TAC501) for the 2022\2023 academic year. The rationale for limiting participants to level 3 students only is to establish some point of congruence in the Arabic language learning background, environment, and experience.

3.2. Data collection and analysis

The Student Perception of Research Integration Questionnaire (SPRIG) framework was applied to develop the validity in measuring students' viewpoints and opinions on the research study (Visser-Wijnveen et al., 2016). The purpose of the questionnaire administrated is twofold. Firstly, our aim is to develop a valid questionnaire that measures students' perceptions of the research study that can be used to

provide feedback to educators who work towards strengthening linkages between research and student learning in their institution. Secondly, our aim is to increase our understanding of students' perceptions in their learning environment.

The sets of questionnaires were distributed to 57 students, however only 48 students completed and submitted the survey. The survey contained two parts: Part A which probes on the learners' demographic background and Part B elicits the learners' opinions upon the usability of digital learning resources on constructing Arabic sentences. This study employed descriptive quantitative analysis and the IBM SPSS statistical software version 26 was used to analyze the data. In this regard, the respondents' demographic information is presented in percentage and tables of frequencies. Meanwhile, for Part B, it is a self-rating questionnaire consist of a series of short simple statements, each with a set of tick boxes on a Likert five-point scale labelled from "strongly agree" to "neutral" to "strongly disagree". As proposed by Bates College (2011), the descriptive statistics reporting the mean scores along with a measure of variability (standard deviation) were used to express the results. To determine the minimum and the maximum length of the 5-point Likert type scale, as proposed by Sullivan and Artino (2013), the range is calculated by $(5-1=4)$ then divided by five as it is the greatest value of the scale $(4 \div 5=0.80)$. Part B of the questionnaires were divided into three perspectives pertaining the usability of digital resources in constructing Arabic sentences: (1) the perspective of the accessibility, (2) the perspective of the practicality and (3) the perspective of incorporating modern technologies. All together there were 14 items addressed to seek participants' opinions and perceptions.

4. Results and Findings

4.1. Demographic profile

This section analyses the three aspects of participants' demographic characteristics: (1) gender, (2) programme and (3) Arabic educational background.

Table 1. Participants' demographic analysis

No. 1	Gender	Frequency	Percent	Valid Percent	Cumulative Percent
	Male	7	14.58	14.58	14.58
	Female	41	85.42	85.42	85.42
	Total	48	100.0	100.0	
No. 2	Programme	Frequency	Percent	Valid Percent	Cumulative Percent
	AC220	22	45.83	45.83	45.83
	BA251	16	33.33	33.33	33.33
	BA249	10	20.83	20.83	20.83
	Total	48	100.0	100.0	
No. 3	Arabic Language Educational Background (in years)	Frequency	Percent	Valid Percent	Cumulative Percent
	Less than 2 years	1	02.08	02.08	02.08
	2 - 3 years	25	52.08	52.08	52.08
	3 - 5 years	13	27.08	27.08	27.08
	More than 5 years	9	18.75	18.75	18.75
	Total	48	100.0	100.0	

As shown in Table 1, it is stated that there were 7 males and 41 females. The majority of the participants with 45.83% is from the Bachelor of Accountancy (Hons.) programme (AC220), followed by 33.33% of the participants are from the Bachelor of Business Administration (Investment Management) (Hons.) programme (BA251) and 20.83% of the participants are from the Bachelor of Business Administration (Islamic Banking) (Hons.) programme (BA249). The results also found that the majority of students, 25 students (52.08%) had 2 to 3 years of studying Arabic. There were 13 (27.08%) students who had studied Arabic within 3 to 5 years, while there were 9 students (18.75%) had studied Arabic for more than 5 years and only 1 student (02.08%) had less than 2 years of experience in learning Arabic language.

4.2. Perspective 1: the analysis of the accessibility of digital resources

There were five items under this component. The results of the items evaluated are as follows.

Table 2. The analysis on the perspective of the accessibility

No.	Items evaluated	Mean	N	Std. Deviation
1.	The resources are available online	4.602	48	.60364
2.	The resources are abundantly available online	4.289	48	.70763
3.	The resources promote lifelong learning	3.687	48	.93610
4.	The resources are accessible by all online platforms	4.711	48	.57446
5.	The resources promote learning flexibility and portability	3.819	48	.41744

As shown in Table 2, an overall mean score from 4.21 to 5 (strongly agree) was obtained for item 1, 2 and 4. An overall mean score of 3.41 to 4.20 (agree) was obtained for item 3 and 5. The result showed that there is no value ranged from 2.61 until 3.40 (true to some extent), from 1.81 until 2.60 (disagree) and from 1 to 1.80 (strongly disagree).

4.3. Perspective 2: the analysis of the practicality of digital resources

There were five items for this component. The results of the items evaluated are as follows.

Table 3. The analysis on the perspective of practicality

No.	Items evaluated	Mean	N	Std. Deviation
1.	Incorporate adaptive learning functionality	3.819	48	.41744
2.	The resources are in line with students' learning objectives	3.687	48	.93610
3.	The resources are measurable	2.060	48	.54482
4.	The resources are favorable in terms of time constraint and space	4.819	48	.49742
5.	The resources are engaging and attractive	2.205	48	.51227

As shown in Table 3, an overall mean score from 4.21 to 5 (strongly agree) was obtained for item 4. An overall mean score of 3.41 to 4.20 (agree) was obtained for item 1 and 2. An overall mean score of 1.81 to 2.60 (true to some extent) was obtained for item 3 and 5. The result showed that there is no value from 1.81 to 2.60 (disagree) and from 1 to 1.80 (strongly disagree).

4.4. Perspective 3: the analysis of the incorporation of modern technology

There were four items for this component. The results of the items evaluated are as follows.

Table 4. The analysis on the incorporation of modern technology

No.	Items evaluated	Mean	N	Std. Deviation
1.	The resources are up to date	3.723	48	.88777
2.	The resources are adapting to new learning technologies	2.060	48	.54482
3.	The resources are interactive	2.133	48	.43536
4.	The resources emphasize the future of education with the utilization of modern technologies	2.157	48	.50563

As shown in Table 4, an overall mean score from 3.41 to 4.20 (agree) was obtained for item 1. An overall mean score of 1.81 to 2.60 (true to some extent) was obtained for item 2, 3 and 4. The result showed that there is no value ranged from 4.21 to 5 (strongly agree), from 1.81 to 2.60 (disagree) and from 1 to 1.80 (strongly disagree).

5. Discussion and Suggestions

Accessibility has generally been defined by researches as the ability of all people, regardless of the type or degree of disability, to have access to the resources and learning opportunities. Noteworthy is that this accessibility can be seen as learners' engagement and interaction with the subject matter in ways that suit individuals, their styles of studying and its time, place, and pace (Teija & Mikko, 2003). For the most part, participants strongly agreed that there are a wide variety of e-learning materials, and the usability of computational resources are being applied to Arabic sentence teaching and learning. The resources vary from websites to mobile applications, e-learning platform, television educational programs, and social medias. The participants seemed to support the approachability of learning resources which refers to device options.

A moderate mean score of 3.318 (on a five-point scale) was obtained for the five aspects of the practicality of the resources. This suggests that the resources help the students to understand the subject but, it does not contribute greatly on how to construct grammatically correct Arabic sentences. It is believed that the resources concentrated more on the basic understanding of the sentences which includes the types, the part of speech, the word order and the aspects of morphological and syntax. However, in terms of incorporating adaptive learning functionality, it is rather uncertain, and the students are still in haze. In reality, the students must possess necessary understandings in order to harness online information effectively. However, this is where the problems begin. On the web, the interaction with Arabic sentence is taken from literary sources and classical references which are likely to be exceedingly conservative (Ababneh & Al Rousan, 2020) whereby, many third language undergraduate students are still struggling with. The resources deal purely with the syntax, making the resources enclosed extraordinary depth and sophistication. In the Arabic as a third language courses, the aspect of syntax is quoted in the minimal quantity, sufficient to support the grammatical points keeping the explanation of sentence structural, and principals as brief as possible. As a results, the participants felt the resources are not in accordance with their learning objectives and were not customised to their needs.

Another issue is that learning must be assessed through performance. The contents are developed successfully are based on the clear ideas of what can be achieve at the end of the learning process. Majority of the participants are unsure the measurable aspect of the available contents. It is assumed that the contents paid more attention to deliver a solid knowledge of Arabic sentences and rarely paid attention in measuring the effectiveness of the contents. Thus, incorporating measurement tools such as real-time activities, games and portfolios will help students tracking their achievements as well as demonstrating their understanding on that particular subject.

Despite all the discussion on the advancement of technology and how it has contributed to the development of digital learning materials, for constructing Arabic sentences, the reality is far from assuring. It is averaged below 2.6 of mean score (on a five-point scale) for the four evaluating items. As a digital generation living in a modern age, the use of modern technology as educational materials could increase students' motivation to learn Arabic language and instill the concept of their own learning environment (Shahrir et al., 2016). The concept of online learning is often linked to flexible learning, engaging and go beyond content delivery to focus on student's empowerment and active learning experience. However, the adoption of these concepts in the context of teaching Arabic sentences is still limited and has yet to reach a wide number of resources. In this regard, the participants found these contents are no different to learning through print mediums.

For future research, there are several aspects that can be looked into. The recommendations are as stated below:

- i. Develop digital learning contents focusing purely and solely on constructing grammatically correct Arabic sentences.
- ii. Create a subject-specific digital resources on constructing Arabic sentences that are exclusively designed for UiTM third language undergraduate students.
- iii. Incorporate the never-has-been-seen before attractive features that will generate an amusement in learning Arabic sentences and at the same time will encourage students of all ages to learn and explore the practicality of the contents.
- iv. Include tips and guidelines to promote better understanding of the appropriate word order when constructing Arabic sentences.

Although there are several limitations to this research such as its small sample size, it is believed that the findings can contribute to the preliminary foundation needed to achieve the objectives of teaching and learning Arabic as a third language in UiTM. The findings also serve to strengthen the belief that the current generation of learners need a more structured approach to learn the necessary strategies for constructing sentences to ensure that they are better equipped to fulfil their role as a new breed of learners in the digital age.

6. Conclusion

In general, the right digital strategy must address both: course design and delivery. Setting the rules for digital contents or ensuring a smooth transition from instructor-led (classroom or face-to-face) components to learner-led (digital or self-paced) ones is critical yet crucial. Currently, it is acknowledged that we have all the platforms to deliver the contents, but, clearly, there are no guidance on how to

address those digital resources meta-cognitively and in the end those online resources are presenting as it is in printed materials. The development of subject-specific digital contents on constructing Arabic sentences should be taken into consideration among Arabic educators to generate an amusement in learning Arabic sentences and at the same time promoting better understanding of Arabic sentences. In this regard, the formulation of technology and Arabic language should be made as ambitious as possible to meet the current needs so that the progress is along with the rapid development of technology.

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