

Analysis of the utilization of instructional media and technology during instruction of Arabic language at Umma University

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ABSTRACT: Technology advancement has become integral in all spheres of human life, including the education sector. In that respect, we cannot separate instructional media and technology (IMT) from education. This study analyzes the available IMTs vis-a-vis utilizing them for instructing the Arabic language at the Umma University, Kajiado Campus. The research was driven by a lack of adequate IMT in many institutions, and sometimes, if provided, they were underutilized either due to a lack of proficiency or the feeling that they were not important. The study is guided by the cognitive theory of multimedia learning developed by Richard E. Mayer (Mayer 2005). A descriptive survey design was employed to collect data through questionnaires and interviews, and a sample size of 30 participants was drawn from the target population of 80 lecturers and students by purposive sampling. Qualitative data was analyzed and presented thematically in narrative form, and quantitative data was analyzed using SPSS version 22.0. The study findings revealed that IMT is essential in enhancing the instruction of the Arabic language at Umma University, but its availability is minimal and it is underutilized. Thus, it underscores the need for increased availability of IMT and establishing initiatives that will ensure more of its utilization. It recommends that the administration ensures provisions of IMT and monitor its utilization by requiring that all lecturers use IMT in teaching.

Keywords: instructional media, technology, instructing, learning, Arabic language

1 INTRODUCTION

There is strong and growing evidence from educational practitioners that the teaching and learning process has tremendously gained power with the innovation of instructional media and technology. The history of educational technology goes back to the Stone Age, when humans started scratching figures and images on the surface of rocks as a medium of communication (World Encyclopedia 2001). As man's brain developed further, he started using the bark of trees and textiles as a medium of writing. Interest in instructional media and technology (IMT) increased, and by 1950, the utilization of computers started. In 1980, there was an increase in the use of computers as a medium of instruction, which led to the development of a more advanced IMT. Some of the modern IMTs that have emerged to advance the field of education include: Distance learning, learner-centered learning, web tools, the internet and virtual environments (such as Second Life, wikis, and blogs) (Center for Social Organization of schools 200)

Instructional media refers to the physical means through which instruction is conveyed to learners (Reiser & Gagne 1983). It applies to all materials and resources that a teacher may employ in education to achieve learning objectives (Scanlan 2003). This includes materials such as black and whiteboards, printed media (handouts, books, and worksheets), display boards, charts, slides, overheads, real objects, and video tapes or films, as well as the latest

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media such as computers, models, DVDs, CD-ROMs, smartboards, the internet, and interactive video conferencing, etc. (Talabi 2001).

A study conducted in the United States revealed that media and technology employed for instructional purposes engage learners strongly in the learning process (Mohan *et al.* 2001). Dr. Chidi E. Onyenemezu and E. S. Omulati of Nigeria indicated in their study that, regardless of the subject teacher and the level of learners, the role of educational media is paramount. Naomi Kutto Jebungei of Kenya, in her study in Eldoret, concluded that, from all indications, students taught with IMT absorb more knowledge from their interactions with the resources. They understand what is taught better and faster than with the use of textbooks, chalkboards, and lectures.

It is against this background that the study opts to suggest effective ways of improving the teaching and learning of the Arabic language at Umma University, located in Kajiado County, Kenya. Arabic is a foreign language to Kenyans and is taught in very few schools. It is not spoken on the streets, which makes its learning very difficult. Therefore, this calls for Arabic instructors to employ a variety of techniques to teach the language. In that respect, IMT plays a vital role in learning this language. Umma University is among the few institutions that offer Arabic in the country. It is important to be taught effectively. Moreover, the Kenyan government through the Ministry of Education, has a policy of higher education (2006), with the vision to make ICT a universal tool in education and training. However, educational technology is not effective yet due to a lack of adequate resources and the insufficient qualifications of teachers. This drives the need to determine the IMT available at Umma University and the extent of its utilization.

1.1 *Statement of the problem*

With the observation and criticism of education technology, which has been cited as heavily affecting the teaching and learning process, several studies have proved that IMT is a significant factor in effective learning and teaching processes as it bridges the gap between teaching and learning at all levels of education. Different studies have shown that the use of several teaching media and appropriate teaching methods is far better than lengthy explanations. It enhances learning for students with different learning styles (Montgomery 1995).

Responding to that, Kenya as a country came up with a policy of higher education in 2006, with the vision to make ICT a universal tool in education and training. Based on that perspective, the overall problem addressed in this study is to find out if Umma University is adhering to this policy by providing a variety of IMTs to lecturers and students for teaching and learning Arabic. Provision alone is not enough; it is also important to find out if the available IMTs are fully utilized. Nevertheless, there are challenges in the field of educational technology, such as inadequate provision of instructional resources, a lack of skills and creativity in using them effectively, and some of the lecturers and students lack innovation skills to come up with substitutes that can make the teaching and learning processes interesting, and above that lack of interest or attitude, which calls for motivation.

An important point to note is that we should not only provide IMT to institutions, but efforts should be made to make sure that they are adequately utilized. Studies on the types of IMT used for teaching several disciplines and how to utilize them are available. Moreover, countries where the Arabic language is their instructional medium have studies on IMT applicable for teaching and learning, but in Kenya, none exists. This is a gap that needs to be filled.

It is against this background that the study aimed to investigate the availability and utilization of IMT during the instruction of the Arabic language at Umma University, Kajiado Campus, Kenya.

1.2 *Objective of the study*

1. Identify the IMT available at Umma University for instructing Arabic

2. Evaluate the extent to which lecturers and students utilize the media and technology available for instructing and learning the Arabic language at Umma University

1.3 Theoretical and conceptual framework

The study was guided by the cognitive theory of multimedia learning developed by Richard E. Mayer and his colleagues in the year 2000. The theory operates on the fundamental principle that the way the human brain learns is supported by multimedia (Mayer 2005). It says that people learn more using pictures and words than they learn from words alone. This conquers our study, which asserts that IMT influence the learning process. According to the cognitive theory of multimedia learning, the main goal of multimedia is to encourage the learner to construct new knowledge by building a wide mental presentation from the material presented as an active participant.

2 METHODS

The study employed a descriptive survey design and purposive sampling techniques. Questionnaires and interviews were used to collect the data. A sample of 30 participants was drawn from the target population of 80 lecturers and students. It was composed of diploma and certificate students since they are the ones pursuing the Arabic language at Umma University. A selected sample of 17 diploma students, 7 female and 10 male, were picked out of the total 52 diploma students. For the certificate level, 10 students, 5 female and 5 male, were selected from a population of 25 certificate students, and all 3 lecturers were involved. This was credible to provide reliable results that could be representative of the whole department. In addition, the sample size of 30 respondents in a population size of approximately 80 people yields results that have a 95% confidence level and a 15% confidence interval.

This gave rich data, which assisted in finding out the available IMT at Umma University and the extent of its utilization. Data of qualitative nature was analyzed and presented thematically in a narrative form, while quantitative data was analyzed using SPSS version 22.0

3 FINDINGS AND DISCUSSIONS

Table 1. Instructional media and technology available at Umma University for instructing Arabic.

Resource material	Lecturers	%	Students	%	HOD	Observation
Textbooks	3	100	22	85	Yes	Yes
Language laboratory	–	–	–	–	–	–
Whiteboards	3	100	22	85	Yes	Yes
Computers	–	–	15	58	Yes	Yes
Smartboards	2	66	10	38	Yes	Yes
Overhead projector	1	33	10	38	Yes	Yes
Charts	2	66	15	58	Yes	Yes
Journals	2	66	10	38	Yes	No
Handouts	4	80	14	52	Yes	Yes
Magazines	2	40	10	37	Yes	No
Laptops	3	100	–	–	Yes	Yes
Pamphlets	–	–	3	12	No	No
TV	–	–	–	–	No	No
Internet connectivity	3	100	22	85	Yes	Yes

Regarding the availability of IMT, the study found that internet connectivity and textbooks were most accessible at Umma University, as almost all the respondents confirmed their availability. Based on the results, the availability of whiteboards is second, followed by smartboards, overhead projectors, charts, journals, handouts, computers, and magazines. The university lacked a language laboratory, laptops, pamphlets, and TVs. The results on the availability of IMT nearly correspond with the findings on its utilization. For instance, all the lecturers confirmed that they often use textbooks, whiteboards, handouts, and the internet when delivering lectures. Most of the lecturers occasionally deliver lessons using charts, projectors, smart boards, and laptops. The results also indicate that TVs, journals, pamphlets, and language laboratories are never used by all the lecturers during classes. The results on the utilization of IMT by students also correspond to the findings on availability. For example, a majority of the students (at least 60%) stated that they often use whiteboards, textbooks, smartphones, and the internet for learning. Computers, charts, magazines, journals, projected media, and smart boards are normally used by students for learning. The least used IMT by students includes pamphlets and journals.

The relative comparison of availability and utilization of IMT by both learners and lecturers indicates that an increase in the usage of IMT at Umma University would be initiated if the availability was improved. In addition, though all media are important, there is an urgent need of increasing the availability of projected media because it enables students to learn through videos and PowerPoint presentations, which enhance the learning environment and understanding of the courses. The projected media can substitute for other IMTs, such as charts and TVs if the lessons can be converted into appropriate soft copy format. The language laboratory is essential for learning language, which is missing at Umma University (Curzon 2001). It is therefore recommended that the university step up and provide the missing IMT to improve the learning and teaching of the Arabic language. Despite the availability of computers, the results also indicate that a few learners often use the technology for learning purposes. Instead, the students use smartphones and the internet to learn. Computers have large screens and have more applications that can ease learning compared with smartphones.

4 CONCLUSIONS

The study has potential limitations: (1) The unwillingness of respondents to participate in the study at the time of data collection as they were preoccupied with lessons: to overcome this, interviews were carried out during break time, lunchtime, or when the respondents were free to avoid interruption with lessons. (2) The unwillingness of the respondents to disclose some information, especially lecturers and students, for fear of disciplinary action from the administration: the respondents were assured of the confidentiality of any information they provided. (3) Dishonest response from the university management in case of shortage in procuring IMT for the Arabic language department: the researcher convinced them that the information collected was only meant for educational purposes.

In conclusion, the results show that generally internet connectivity, textbooks, and whiteboards are most accessible at Umma University, Kajiado Campus, followed by computers, and then charts, journals, handouts, and magazines. The university lacks laptops, smartboards, overhead projectors, language laboratories, TVs, and pamphlets, which are essential for teaching and learning any language. The results on the availability of IMT are generally consistent with the findings on their utilization in the institution. The results also indicate that lecturers and students lack training in the utilization of IMT. Both instructors and students had positive opinions regarding learning using IMT. The study, therefore, makes a significant contribution to the literature about utilization of IMT in classrooms. Most of the findings in this study are consistent with results from other related research (Green et al. 2015; Ma & Au 2014; Seok et al. 2010).

The study shows that IMT is essential in enhancing learning, but its availability is minimal and it is underutilized. Thus, this study underscores the need for increased availability of IMT in learning institutions and establishing initiatives that will ensure more of its utilization.

5 RECOMMENDATIONS

The main findings suggest that several essential IMTs, such as overhead projectors, language laboratories, journals, laptops, pamphlets, and TV, among others, have limited availability and are underutilized at Umma University. The results also indicate both lecturers and students have positive attitudes toward utilizing IMT for learning. Based on the obtained results, it is recommended that the administration introduce more IMTs at Umma University, Kajiado Campus. The administration can achieve that by developing a funded program through which more types of IMT will be purchased and human resources to train both lecturers and students on the use of IMT. This may involve writing proposals for funding to other stakeholders, such as the sponsors and the government, indicating the need for purchasing more IMT in the institution. The administration can ensure that IMT is utilized in the institution by requiring that all lecturers use IMT in teaching. The lecturers can be required to keep a record of lessons delivered and the IMT that they used, and then submit the data to the administrators. To ensure that the students become proficient in using IMT, they can be required to submit assignments that involve IMT, such as completed assignments submitted via email, presenting PowerPoint slides, and recording and decoding audio. Learning institutions in developed countries have made major advances in the use of IMT because students can opt for distance learning online and through video and audio conferences (Watson & Pecchioni 2011). The stakeholders of Umma University, Kajiado Campus, need to realize the potential benefits of IMT and initiate activities that will contribute to its utilization in the institution.

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