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Utilization of ICT in Improving Four Arabic Language Learning Skills in Higher Education

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***Abstract*— The use of ICT is everything that is used to communicate and create, manage and distribute information. The use of ICT can help Arabic language students in improving the four maharah skills. By applying ICT in learning, students' difficulties in the Arabic learning process can be significantly reduced. This is due to the innovation in learning in higher education by utilizing ICT during the teaching and learning process of students. The purpose of this research is to support Arabic language learning with ICT learning system in higher education. The method used in this research is quantitative method, which can show that this research contains numerical data. The data was obtained by using geogle from as a means to create a questionnaire containing questions and then distributed to respondents who were used as research subjects. The results showed that with the utilization of ICT in learning, it can improve four Arabic language skills in college. The conclusion of this study is that ICT can be used in learning Arabic to increase student enthusiasm and know the ability to understand Arabic learning in college. The limitation of this study is that the researcher only conducted research on the utilization of ICT as a medium of Arabic learning**

***Keywords*—Four Skills, ICT Utilization, Higher Education**

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I. INTRODUCTION

This era of increasing globalization affects the world of education. Education is a conscious and systematic effort, as an inseparable part of the human maturation process, of course on the one hand it has great justice for the development of science and technology, but on the other hand education also needs to utilize advances in science and technology in order to achieve its goals effectively and efficiently (Puri et al., 2020). Advances in science and technology have

influenced the use of teaching aids in schools and other educational institutions (Zhou et al., 2019). Nowadays, learning in schools has begun to be adapted to the development of information technology, resulting in changes and shifts in the function of education (Sukendro et al., 2020). This is the background that the use of information technology in the learning process in the classroom has become a necessity as well as a demand in this global era. Nowadays, educational activities can no longer be local, although it is often suggested that the implementation of education is local, but has a global or international outlook (Jahroni, 2020). This means that the quality of education is improved to be able to compete with the quality of graduates from educational institutions abroad.

Along with the development of information technology, Arabic language learning as part of the national education process must continue to update the methodology, improve teaching materials, and improve the quality of Arabic language learning (Lin & Hwang, 2019). v improving educational facilities and infrastructure, including the teaching environment, and improving the quality of teaching human resources to be better professional, innovative and competitive (Shannon et al., 2020). Arabic in Indonesia is one of the foreign languages studied in formal and informal institutions ranging from elementary, junior high, and senior high schools to universities (Campbell et al., 2019). Basically, the main objective of learning Arabic is for students to acquire four language skills, namely the ability to listen (mahara istima'), speak (mahara kalam), read (mahara qiro'ah) and write (mahara kitabah) (Liu et al., 2021). Arabic language learning in schools faces many obstacles related to methods, techniques and learning environments that seem monotonous and conventional (Ai et al., 2020). Arabic is a subject that aims to encourage, guide, develop, and foster skills and foster a positive attitude towards Arabic, both receptive and productive (Shea et al., 2019). Reception is the ability to understand the speech and reading of others (Nutt & Kubjas, 2021). Productivity, which is the ability to use language as a means of communication both orally and in writing.

The Arabic language learning process is currently running well, competitive and capable with other foreign language learning, so mastery of Arabic language learning methodology is needed (Chan & Lowe, 2019). Another option is to know how to use modern online learning media that is suitable for the information technology era (Kang et al., 2020). Despite being a local institution, they are able to compete with other international institutions (Campbell et al., 2019). On the other hand, Prananto Sukmajaya (Information Technology Expert) said that the rapid development of information technology has changed the concept of computer-based education into informatics-based education (Slamet et al., 2020). With the help of information technology, computers, the internet and other information system devices can be integrated into tools that enable creativity, innovation and competitiveness in the teaching and learning process.

In the current era of modernization, information and communication technology is a basic requirement to determine the quality and effectiveness of learning (Dollinger & Lodge, 2020) . Dryden and Vos concluded from their research that self-image is more important than subject in a successful education system (Jeyanathan et al., 2020). The concept of future education is aimed at arousing students' enthusiasm for learning, one of the approaches and methods to improve this aspect is the use of Information and Communication Technology (ICT) (Alawamleh et al., 2022). According to Suryadi, the need for the community to use the role of information and communication technology in learning is part of the renewal of learning (Chen & Zhang, 2019). technology in learning is to provide a set of media and tools that facilitate and accelerate student work and can certainly provide skills for the use of advanced technology (Akbari et al., 2021). Which is how the process of delivering and presenting

learning materials and ideas can be more interesting and fun.

The four Arabic language skills are maharah al-Istima' (listening), maharoh al-Kalam (speaking), maharah al-Qira'ah (reading), maharoh al-Kitabah (writing) (Jia et al., 2019). These four skills show that a person is said to master the Arabic language (Y. Wang et al., 2020). So it is very important for anyone who wants to learn Arabic to learn and apply these four skills (Hwangbo et al., 2019). The first listening skill (maharah al-Istima') is the initial skill of language learning, both in the mother tongue and foreign languages, including Arabic, so not learning this skill can cause failure in further language learning (Asadi et al., 2019). The second skill of speaking (maharah al-Kalam) is a continuation of listening skills. These two skills are related. It is possible for a person with good hearing to speak well (Molina & Garip, 2019). Conversely, people who do not listen well do not speak well. Third, Literacy (maharah al-Qira'ah), when providing language material, literacy is preferred over listening because literacy is more accurate than listening (Obleser & Kayser, 2019). A person learning to read can learn from Arabic magazines, books and newspapers (Chang et al., 2020). The fourth writing skill (maharah al-Kitabah) is the last of several language skills. Proper mastery of this skill also requires mastery of the previous language skills (Vinyals et al., 2019). This is because writing is the pouring of thoughts into written form with the aim of understanding readers who are not naturally involved.

The utilization of ICT can also facilitate various learning activities at school and at home. Students' commitment to overcoming all educational challenges continues (Lundervold & Lundervold, 2019). For example, filling out exam answers by simply submitting documents online, requesting permits via email, simply searching various searches for information on permits (Perez-Riverol et al., 2019). All of that can be done quickly and easily with ICT technology, namely smartphones (Menni et al., 2020). There are many free software and platforms. Train students to use them and use them intelligently (Appio et al., 2019). The use of ICT to enhance the four Arabic language skills and has great goals and benefits to achieve learning objectives (Zhuang et al., 2021). One of them is to make the teaching and learning process fun so that students are not bored (J. Wang et al., 2020). In addition, it can also foster students' enthusiasm in applying ICT to improve four good and correct Arabic language skills (Giamarellos-Bourboulis et al., 2020). And concentration exercises to improve student memory.

According to Jauhar Ali's opinion, it emphasizes that technology helps humans to make it easier to do anything, bring distance closer, ease tasks, and others (Odysseas Kosmatos et al., 2019). The same goes for the methodology because it can make it easier for someone to learn Arabic, provide fun learning, and allow the language to be learned in a very short time (Almagro Armenteros et al., 2019). We realize that Arabic is the basic knowledge to learn other subjects (Rydyznski Moderbacher et al., 2020). In his explanation, technology helps people to make it easier to do anything with long distances becoming closer and easing tasks and others (Ruiz‐Fernández et al., 2020). It is the same with methodology because it can make it easier for someone to learn Arabic. provides fun learning and allows language learning to be passed in a very short time (ChengChiang Chen & Kent, 2020). In fact, we realize that Arabic is the basic knowledge for studying other subjects.

Researchers who examine the utilization of the use of ICT to deepen students' Arabic vocabulary knowledge. With the help of ICT technology, students can easily expand their Arabic vocabulary addition. As well as feeling easy to remember and can easily memorize it to achieve the learning objectives that have been set. Students who quickly feel bored and tired are also often encountered throughout the process of guiding learning activities, so a wise teacher will realize that teaching participants need media or facilities that can overcome these problems. Educators can also

assess learning outcomes more practically and effectively. Based on the above statement, action is needed to overcome the problems of learning Arabic. Therefore, researchers developed students' Arabic vocabulary using ICT technology, in order to motivate students in learning Arabic in an interesting way such as providing pictures and giving Arabic vocabulary.

II. Research Methods

This research was conducted using quantitative methods (Mi et al., 2019). This quantitative method consists of a list of questions in the form of a survey or questionnaire about the effectiveness of using ICT to increase vocabulary and language fluency to students (Department of Mathematics, Shanghai Normal University Shanghai 200234, China, E-mail: zenglc@hotmail.com et al., 2019). Data collection techniques are in the form of test results on questionnaires and surveys. According to the researcher, this research is suitable to use a quantitative approach or method (Patricia Aguilera-Hermida, 2020). The quantitative method is a research approach that uses the postpositivism paradigm, such as the idea of cause and effect hypothesis, reduction to variables through measurement and observation and theoretical testing (Bokolo Anthony Jnr., 2020). Quantitative research is scientific research that deals systematically with parts, phenomena, and their causal relationships. This scientific research has parts that are arranged systematically so that it has relevance in the form of data collection using populations and samples.

The time and place of researchers in collecting data is in college with the Department of Arabic Language Education. The object of this research is the Application of ICT in Increasing Student persistence in improving four skills in Arabic. The place of this research is usually carried out at a Higher Education Institution which aims to see the feasibility of using the Application of ICT. Data collection in this quantitative research is by distributing questionnaires to students who aim to find out how many percent of the feasibility of ICT in improving four Arabic language skills to these students, so that it can be seen the ability of students to how much knowledge in four Arabic language skills they have, by determining the object to be observed, the purpose of the problem to be made, preparing the observation, determining the necessary secondary data and also recording the results of the observation. In general, there are 2 main types of quantitative data analysis methods, namely descriptive and inferential methods.

Where descriptive is used to explain certain phenomena and draw conclusions to make predictions, this quantitative research uses meaningful theories and human feelings in observation. The conceptual model of quantitative research is rational, empirical and bottom-up. The research process is carried out in public universities and by collecting observation data from respondents. Then the problem under study is collected and presented in a table. Quantitative research data analysis techniques, for example, the process of processing data for the type of respondent. This research is complemented by statistical experiments, namely data statistics used in random data collection techniques and when population sample data and descriptive inferential statistics are two parts, parametric and non-parametric statistics. Quantitative research also emphasizes on the amount of data collected. For example, researchers collect information about the level of education in a community.

III. Result Discusion

The development of the times at this time encourages various changes to the world of education. There are many technologies that can support the learning process, the extensive information system also has an impact on the development of education in the world. Utilization of Information Communication and Technology greatly supports the improvement of four Arabic learning skills in college. Along with the

development of technology, students can use various kinds of technology to be utilized in learning Arabic. the development of the times and technology today has a major impact on the world of education, including in learning Arabic in college. The utilization of information and communication technology can increase the effectiveness and efficiency of Arabic language learning, as well as assist students in developing the four main skills in Arabic, namely reading, writing, listening, and speaking.

Table 1 Questions about the utilization of ICT in Improving the Four Skills of Arabic Language Learning in Higher Education

NO	STATEMENT	ANSWER			
		SS	S	TS	STS
1.	ICT is able to improve students' 4 Arabic language learning skills	**45,2%**	**41,9%**	**3,2%**	**9,7%**
2.	The use of ICT makes it easier for students to learn	**48,4%**	**41,9%**	**6,5%**	**3,2%**
3.	Arabic language learning is very effective using online-based media	**35,5%**	**51,6%**	**9,7%**	**3,2%**
4.	The era of globalization makes university students inseparable from technological developments	**51,6%**	**38,7%**	**3,2%**	**6,5%**
5.	ICT can be a motivation for college students to learn	**61,3%**	**32,3%**	**3,2%**	**3,2%**
6.	The use of ICT is very effective for improving Arabic language proficiency	**35,5%**	**41,9%**	**16,1%**	**6,5%**
7.	ICT is very easy to use by students and lecturers in universities	**46,7%**	**40%**	**6,7%**	**6,7%**
8.	ICT provides classroom services in the virtual world	**58,1%**	**32,3%**	**6,5%**	**3,2%**
9.	ICT can be a computer, internet, telephone, television, radio, and audio-visual equipment.	**45,2%**	**38%**	**16,1%**	-
10.	4 Students' Arabic language learning skills are supported by ICT media	**58,1%**	**22,6%**	**16,1%**	**3,2%**
11.	ICT is very feasible to use at the college level	**42,2%**	**29%**	**16,1%**	**9,7%**
12.	Students really need ICT as a means of Arabic language learning	**54,8%**	**29%**	**9,7%**	**6,5%**
13.	ICT as an online learning media in accordance with the times in the current industrial revolution 5.0 era	**54,8%**	**25,8%**	**12,9%**	**6,5%**
14.	ICT is a medium to improve 4	**67,7%**	**25,8%**	**3,2%**	**3,2%**

	Arabic language proficiency in college students				
15.	4 Arabic language learning skills possessed by students will increase by using ICT as a learning medium	**38,7%**	**58,1%**	**3,2%**	**-**

In the table above there are statements from several questions in the Information Communication Technology learning model studied by researchers in tertiary institutions. The statements generated from several questions in the utilization of Information Communication Technology are very helpful for researchers in examining the use of Information Communication Technology technology in students in higher education. The questions tested in this study were 15 questions containing the benefits of using Information Communication Technology, the purpose and function of using Information Communication Technology technology for students. The statement containing Information Communication Technology which is a medium to improve 4 Arabic language skills in college students obtained a percentage of 67.7% in the strongly agreed category. The statement containing 4 Arabic language learning skills that students have will increase by using Information Communication Technology as a learning medium 38.7% with a strongly agreed category. This study also examines Information Communication Technology as an online learning media in accordance with the times in the current industrial revolution 5.0 era by obtaining a strongly agreed category which obtained a percentage of 54.8%.

The statement on the utilization of ICT, stating that if students use ICT technology, it can be continued because it makes it easier for students to four skills gets a percentage of 67.7% and gets a strongly agreed category. The statement stating that the utilization of ICT in improving four skills is a technology to improve 4 Arabic language skills in students obtained a strongly agreed category so that a percentage of 58.1% was obtained. The statement stating that the usefulness of using ICT Arabic language owned by students will increase by using ICT technology as a learning medium obtained a percentage of 58.1% with a strongly agreed category. Likewise with other statements which also obtained a very agree category. The table above shows that Arabic writing on ICT technology is clear and easy to understand so that it gets the highest category strongly agree with a percentage of 67.7% and students really need ICT as a means of Arabic language learning category strongly agree with the lowest percentage of 54.8%. Research with the use of ICT in improving four Arabic language skills as a learning medium that can be used and utilized by students to improve four Arabic language skills in college.

The display of the graph above is data from research on the effectiveness of the use of information communication technology in improving four Arabic language learning skills can be obtained as follows: 31 students and lecturers became the object of research. Researchers used 15 questions to be able to test the ability of students to answer questions about the use of Information Communication Technology in improving the four skills of Arabic learning in this college, and researchers can find out how feasibility and effectiveness of using Information Communication Technology in four skills in Arabic to be used to students and lecturers in order to improve the ability of four Arabic skills. The highest research results obtained by students and lecturers obtained a percentage of 67.7%, with the category strongly agree (SS). The second highest research result obtained a percentage of 61.3% with the category of strongly agree (SS). The third highest research result obtained a percentage of 58.1% with the category strongly agree (SS). The results of the

research category strongly disagree obtained a percentage of 9.7%%. In the second lowest research result which is included in the strongly disagree category with a percentage of 6.7%. In the lowest research results in the strongly disagree category obtained a presentation of 0. These results show the strongly agree category as the highest category of the results that researchers do.

The data from the research test results on the utilization of Information Communication Technology in students in higher education can be explained as follows: in the strongly agree category there is the highest percentage acquisition of 67.7%, this strongly agree category is the highest presentse acquisition of several existing categories. While the lowest percentage acquisition in the strongly agree category obtained a percentage of 35.5%. The second percentage acquisition is in the agree category with the highest percentage acquisition of 58.1%, while the lowest acquisition in this agree category obtained a percentage of 22.6%. In the disagree category, there is the highest percentage acquisition of 16.1%, while the lowest level obtained a percentage of 3.2%. The acquisition of the next category is the strongly disagree category which obtained the highest percentage of 9.7%, while the lowest percentage was 0%. Based on the overall results of the study, students and lecturers strongly agree with the questions contained in the utilization of Information Communication Technology in improving the four Arabic language learning skills in higher education.

The utilization of Information Communication Technology can help improve the four skills of learning Arabic in college. The four skills include reading, writing, listening, and speaking. The first is Improving reading skills: In Arabic language learning, Information Communication Technology can be used to improve students' reading skills by providing access to various reading resources in Arabic through the internet, e-books, and reading applications. In addition, the existence of text reading software equipped with audio and dictionaries, can help students in understanding the meaning of difficult words and help them to improve their overall reading skills. The second is improving writing skills: In Arabic language learning, Information Communication Technology can help improve writing skills by providing access to word processing software equipped with dictionaries, correct grammar and spelling. This will help students to avoid spelling and grammar mistakes that often occur in Arabic writing. In addition, online discussion forums and collaborative learning platforms can help students to share ideas and improve their writing skills.

The third is improving listening skills: In Arabic language learning, Information Communication Technology can help improve listening skills by providing access to audio and video in Arabic. By listening to various audio and video sources, students can improve their listening skills and understand Arabic better. In addition, voice recording software and online conferencing platforms can also help students to practice listening and speaking Arabic. The fourth is improving speaking skills: In Arabic language learning, Information Communication Technology can help improve speaking skills by providing access to interactive Arabic learning resources, such as games, interactive videos, and simulation programs. In addition, the existence of conversation-based learning platforms such as Skype or Zoom, can help students to communicate with teachers and fellow students in Arabic, thus helping them to improve their overall speaking ability.

In conclusion, the utilization of Information Communication Technology can help improve the four skills of learning Arabic in higher education. With access to various Arabic learning resources through the internet, e-books, word processing software, online discussion forums, audio and video, and conversation-based learning platforms, students can have a more interactive, effective, and enjoyable Arabic learning experience. Overall, the utilization of Information Communication

Technology can be a very useful tool for students in acquiring Arabic language skills. Through easier and more flexible access to learning resources, students can gain Arabic learning experiences that are more interactive and more related to their needs. In addition, the use of technology can also increase students' motivation and engagement in the learning process. Nevertheless, it should be kept in mind that the use of technology cannot completely replace the role of lecturers or teachers in the learning process. Lecturers must still be facilitators and mentors for students in the learning process, and must also ensure that technology is used appropriately and effectively in the context of Arabic language learning. Therefore, it is important for lecturers and students to work together in optimally utilizing technology in the Arabic language learning process in higher education.

The general principle of using Information Communication Technology in the four Arabic language skills by students in higher education is Listening, The use of Information Communication Technology can help improve students' listening skills in Arabic through sound players so that students listen to audio and video in Arabic, and other examples such as video lessons, podcasts, or interviews. Use apps that provide listening exercises in Arabic, such as Duolingo, Rosetta Stone, Participate in virtual classes that provide opportunities to speak with native speakers. Speaking The use of Information Communication Technology can help improve students' speaking skills in Arabic as through the second skill, Speaking, with native speakers in virtual classes or through video call applications such as Skype, Zoom, or Google Meet.

Making short videos and uploading them to video sharing platforms such as YouTube and others to get feedback from native speakers or teachers. Using apps that provide speaking practice in Arabic, such as Pimsleur, Mondly, or Babbel. As for the third skill, namely reading, the use of information communication technology can help improve students' reading skills in Arabic through reading e-books in Arabic or news websites in Arabic. Using applications that provide reading practice in Arabic, such as Rosetta Stone, Quran Reader, or Duolingo. Participating in virtual classes that provide opportunities to read and understand texts in Arabic. As for the fourth skill, namely Writing, the use of ICT can help improve students' writing skills in Arabic by using applications to test grammar and spelling, such as Grammarly or ProWritingAid. Keeping a journal or blog in Arabic to practice writing regularly. Participating in virtual classes that provide opportunities to write and get feedback from lecturers and classmates.

VI. Conclucion

ICT can help students in expanding in improving the four skills of Arabic in an interactive and fun way such as using Arabic learning apps, reading Arabic articles on the internet, watching Arabic lesson videos, and many more. For example, utilizing the flashcards application allows students to create interactive study cards with images and audio that help students improve their four Arabic language skills. By utilizing ICT to deepen the improvement of students' four skills in Arabic, students can improve their language skills in a more interactive and fun way. It also helps students to achieve their Arabic learning goals more effectively and efficiently.

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