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How to Apply of Design Application as a Medium for Learning Arabic

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ABSTRACT

In this digital era, innovative and effective learning approaches are needed to improve students' understanding in learning Arabic. Therefore, this study aims to explore the potential of applying design applications as Arabic learning media. The main objective of this study is to evaluate the effectiveness and efficacy of applying design applications as Arabic learning media in improving students' understanding of the subject matter. In addition, this study also aims to identify the advantages and disadvantages of design apps in the context of Arabic language learning. The research method used in this study is the experimental method. The research participants will be divided into two groups: a group that uses design apps as learning media and a control group that uses conventional learning methods. Data will be collected through material comprehension tests, observations, and questionnaires to evaluate the effectiveness of design apps as learning media. The results show that the application of design apps as Arabic learning media significantly improves students' understanding of the subject matter. The group that used the design app showed a greater improvement in the understanding of Arabic concepts compared to the control group that used conventional learning methods. In addition, students also showed a higher level of motivation in learning Arabic through design apps. The research method used in this study is the experimental method. The research participants will be divided into two groups: a group that uses design apps as learning media and a control group that uses conventional learning methods. Data will be collected through material comprehension tests, observations, and questionnaires to evaluate the effectiveness of design apps as learning media. The results show that the application of design apps as Arabic learning media significantly improves students' understanding of the subject matter. The group that used the design app showed a greater improvement in the understanding of Arabic concepts compared to the control group that used conventional learning methods. In addition, students also showed a higher level of motivation in learning Arabic through design apps.

Keywords: Arabic, Design, Learning Media

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INTRODUCTION

The rapid development of technology in this day and age makes the world more sophisticated (Lalmuanawma dkk., 2020). with such a short period of time, technology has developed rapidly in the market and its use has increased drastically, even to the point of making many people unable to live without technology (American Diabetes Association, 2020). Technology inKu mus computer and information technology, referred to as abilities based on knowledge of exact sciences and according to technical processes (Himmah & Azisi, 2019). Nowadays, the world of technology cannot be separated from human life (Ritonga dkk., 2020). because what is done manually has now turned online. The development of this technology is increasing every era because (Szczepek Reed dkk., 2020), technology has brought a deep impact on the lives of the community and its surroundings (YiĞiT & Işik, 2020). along with the development of the technological age is able to make it easier for humans in various ways. such as information technology which can make it easier to obtain information (Zhang dkk., 2019). In this sector of human life, information technology has unknowingly brought the world into a new era of globalization more cepat than previously imagined. Information technology is becoming one of the technologies that has a broader influence and implications (Althagafi dkk., 2021). Then information technology describes the development of human life as developments in the delivery of information (Z. Li dkk., 2019). In this development of information technology, it creates a new world that is no longer hampered by the boundaries of information reception, and it changes everything that was once much changed tojanear, and the abstention turns into a real one (Brosh, 2019). In ancient times ancient humans got information with frescoes that were in caves. But nowadays we can easily access information (Dahou dkk., 2019). Which, the World has shifted from the fig of industrialization to the age of information which then creates an information society. This it is very much different from the human civilization of ancient times.

Many things that can be done in the use of information technology include processing data, including processing, compiling, storing, obtaining, manipulating data in various ways in order to obtain quality information (Bondy dkk., 1994). In addition, the definition ofinformation technology is all forms of technology used for the transmission of information through electronic media. (Rasyid, 2017). The development of information technology is able to change people's views in finding and obtaining information, which is no longer limited to information, newspapers, but also other sources of information but can obtain information through the internet network. The internet network can be used to obtain information easily (Abdi dkk., 2019). The internet is a very modern development of information technologyand is now almost used by all people around the world.

Many changes have occurred in the style and habits of human life because they are caused by the arrival of the internet which brings all its advantages. With the advent

of the internet, humans can very easily obtain and understand information, even becoming wise actors in processing information (Ting dkk., 2019). We can get information freely and for free, both from learning, hiburan, and even games we can get from the internet. In fact, internet content can be accessed freely without pay (Ameliola & Nugraha, 2015). then in our future life n, information technologywill be the most emerging thing in life.

in various fields of life information technology provides many benefits. One of the areas that get an impact from this information technology is the field of education Because, at this time the use of teaching aids in schools is related to the advancement of science and technology (Levine dkk., 2020). With the development of technology, education always adjusts to the times to improve the quality of education. Improving the quality of education at this time requires an information technology system by utilizing the internet. which not only serves as a support tool, but can also be the main tool of success in the world of education (Bruggeman dkk., 2021). Basically, information technology is closely related to the world of education. The Internet in the world of education has made it easy to get information (Botero dkk., 2021). For this reason, educators can use the internet network as a technology-based learning medium (Chengaiyan dkk., 2020). Which is thebenefit of information technology can be applied through the rapping flearning media in the form of videos (Hadi, 2010)

In the world of education, media is a very appropriate tool as a determinant of the success of the teaching and learning process (Züst dkk., 2019). Learning media is a place to convey messages and information in learning that is designed very well, and students will be greatly helped in digestingand understanding the subject matter. Where the use of Information Technology (IT) as a learning medium has become a demand, because it is seen as one of the components that are very useful for teachers and students in achieving a goal and learning. n learning mediaaccording to Oemar Hamalik is a tool, method, and method used in streamlining communication and relationships between teachers and students in teaching activities and fish pendidin schools. (Sunzuphy, t.t.) therefore, the media is so important for educators in explaining the material to students (Hwangbo dkk., 2019). And not only that, this learning media is one of the things that will determine the success of the teaching and learning process (Tlili dkk., 2022). this is supported by Sudjana and Rival (1992) who stated that one of the benefits of media in the learning process of students is that it can generate learning motivation because teaching will feel more attractive to students. In addition, learning media can also increase interest and new desires, which can generate awareness and motivation in learning activities (Rashwan, 2023). so in Arabic language learners can use learning media in the form of mufradat learning videos, which one of the applications that can be used is the online-based Canva application.

As one of the trending applications in the world of technology at this time (Aubrey dkk., 2022). The Canva application is one of the supporting tools in the online learning process and trains students' independence in observing teaching materials independently that do not depend on teachers (Fahminnansih dkk., 2021). Canva is anonline desai n program that provides a variety of interesting aicon. Kemenarikan lies in the various templates and supporting features in the application which can be autify

the appearance of a tulisan and various graphic designs, through desktop and mobile devices Canva can also be accessed (Giordano dkk., 2019). Thus, users can be creative wherever and whenever the time is.

The advantages of the Canva application are as follows.

- 1. It has a variety of good and attractive designs.
- 2. With this Canva application, teachers can add creativity in making learning videos.
- 3. Save time in creating learning media.
- 4. When designing, you don't have to use a leptop, because you can also use an Android phone (Garris Pelangi, 2020).

After the advantages obtained in this Canva application, but there are also fundamental disadvantages that can be obtained in this application, namely if you want to use Canva (Pinquart & Ebeling, 2020), users must use a data package in order to be connected and can use Canva, but there are several designs contained in the Canva application that are not free or paid, but it is not a big problem, because there are still many free and good templets available when used in the use of the Canva application in learning Arabic (Ferjan Ramírez dkk., 2020), interesting reasons to be discussed, namely, the means of learning media in the sense of utilizing technology as a practical learning medium, practical in terms of use, watu, and the results obtained (Ribeiro dkk., 2021). In learning Arabic, there are several materials that can be applied in technology, especially in the Canva application (Antony-Newman, 2019). Interesting example of mufradat learning (C. Li dkk., 2019). With the description that will be presented in the use of this research, it is hoped that it will be able to provide positive lessons on how an application that has been widely provided can be utilized as a technology-based learning medium.

RESEARCH METHODOLOGY

The method that the researcher used in this study is a utilization method with a qualitative descriptive approach. This study seeks to find out the use of the canva application as a learning medium for students' interest in learning Arabic at MTs Pariangan (Zhu dkk., 2019). Researchers initially made observations by visiting MTs Pariangan to conduct interviews with teachers and see how the technology used as a learning medium, researchers identified the needs of teacher competencies and problems about information technology experienced by teachers, then in observations of students, namely many students decreased their enthusiasm in learning due to lack of use of information technology, however, the researcher will try to improve information technology as a learning medium in the Pariangan MTs, after the observation process is complete, the next process will be carried out to disseminate activities to all teachers or teachers who have been determined (Alnahdi, 2019). So the results of the use of learning media to students in MTs Pariangan, will be an assessment for researchers for the perfection of research in the future.

RESULT AND DISCUSSION

According to the results of observations and interviews that I have conducted in class VII MTs Pariangan, Arabic language learning is carried out manually without any learning media where children's enthusiasm is lacking in teaching and learning activities (Paico Campos dkk., 2023). Thus, to improve Arabic language learning in MTs Pariangan, it is necessary to apply technology by applying learning media so that students can increase enthusiasm for learning and overcome obstacles to the use of student learning resources which also provides opportunities for students to learn independently without relying on the teacher's explanation (Serevina & Hamidah, 2022). The learning media can be realized in the form of an interesting mufradat learning video so that students are happy in the learning (Rosowsky, 2019). In addition, the video used in learning has the main purpose so that students can absorb the material in a regular mannerand knowledge about utilizing the Canva application.

Today's world of education has entered the era of the media world, including Arabic language education (Sharif Matthews & López, 2019). The educator's ability to speak does not necessarily guarantee that he can teach the language. For this reason, there are three skills that a language teacher must have (Ghani dkk., 2019), such as: Fluency in the language, having knowledge and about language and culture, and the ability to teach the language (Abdrakhmanova dkk., 2021). using a variety of technological media to teach learners (Toivonen dkk., 2019). Where learning activities that use the lecture method must be reduced so that students are not bored then replaced by the existence of learning media so that students do not feel bored and lazy in learning (Yoon dkk., 2020). Moreover, pada learning activity in Arabic that requires skills in the teaching and learning process, for this reason, the role ofn media is becoming increasingly important with its relation tothe function of learning media (Deiri, 2023). So learning media serves as a tool to make learning more effective, make it easier to understand mater, and increase the quality of the learning process -learnerr.

Dnatural view media education is avery appropriate tool in determining the success of teaching and learning activities. Because students can directly feel the impact of this learning media. literally media comes from the Latin medius meaning "middle", intermediate or introductory (Amin & Badreddine, 2020). The medium dnature of the Arabic language is the intermediary or delivery of a message from the sender to the recipient of the message. media according to Gerlach andEly, which is when explained in general, consists of humans, materials, or events that build the condition of learners in gaining knowledge, attitudes, and skills. then textbooks, teachers and the school environment according to this understanding are a medium, the definition of media in particular is the teaching and learning process is a tool of grafis, photographic, or electronic, processing, and recomputing verbal and visual information.

Learning media According to another opinion, namely in the opinion of Rusman and friends (Karlsson dkk., 2020). Is a technology used for messengers as a learning need. in delivering learning media materials functions as a physical tool and, communication tool in the form of technology and is seen as a hardware technology (Chekroud dkk., 2021). Then the media according to the Association for Education and Communication Technology (AECT) is everything that is used for the delivery of

information. Meanwhile, the definition of learning media according to the Education Association (NEA) is the media as objects that can be manipulated, seen, read, heard, or talked about along with tools that are well practiced in teaching and learning activities, which can affect the influence of instructional programs

The emergence of learning media is motivated by the need for an educator in delivering learning materials. Rohani mentioned in his book with the title Learning Media mentioned the need for media in the teaching and learning process to improve the learning and learning experience for students through certain media. Engaging learning will improve the quality of learning if it is well designed by the teacher. Because guru is a determinant in the implementation of education and is a very influential party in the learning process (Abbas dkk., 2021). in order to be successful inproviding learning material to students, the media functions as a very important tool in helping teachers to the teaching and learning process, because learning media is one of the many things that determine the success of the teaching and learning process and efforts to increase the learning motivation of students, whichis one way to increase students' interest and motivation for learning, namely by using good and interesting learning media in the teaching and learning process, in order to be able to generate new interests and desires, as well as increase motivation and stimulationin the teaching and learning process, and even the existence of a psychological impact on learning.

So the teaching and learning process is something that cannot be separated from the role of learning media (Saada & Gross, 2019). Then there are three functions that are intertwined with learning media, namely; stimulation makes interest in exploring lessons, information that displays explanations from teachers, mediation as a liaison between teachers and pe and students (Aji, 2020). Therefore, in learning it is necessary to make interesting teaching materials to motivate students in learning

The following are the benefits of learning media based on learning materials according to Rohani R (2019)

- 1. As a tool to facilitate learning for students and ease of teaching for educators. Learning methods and media are seen as two things that cannot be separated. Effectiveness in learning will be realized in the presence of the right methods and media, with a synchronous relationship between the two. So as to be able to realize a high quality of learning. In short, the existence of learning media will make it easy for students to understand the material.
- 2. Weak absorption and level of understanding of students when learning is caused by the tedious teaching and learning process. For this reason, educators must be able to identify their educational strategies. In addition, teachers must be able to create and develop teaching materials. Today's technological advances help many people live with technology making things easier. Teachers can take advantage of technological developments to create creative learning materials.
- 3. All the tools of the human senses can interpret and participate in dialogue so that the weakness of the ability of one of the senses can be balanced by the strength of other senses. Because basically in learning activities involves

more than one human sense tool. Then students will easily understand the material if learning activities with the use of learning media.

Teachers must be more familiar with the media used because they need to pay attention to the effect of illustrations so that they can be conveyed to students properly. in supporting the implementation of the learning process, video-based learning media is needed(Hapsari, Gita Permata Puspita., 2021). Deep learning will be realized if it is well integrated. So for that, learning media that is suitable for learning objectives andmakes students feel happy, comfortable and easy to understand the material provided.

Learning media can help teachers in explaining the material very well and interestingly which can add to the quality of learning. In addition, learning media as a tool to increase student enthusiasm for learning so that students are not bored and more enthusiastic in participating in learning, then with the increase in learning motivation students will make the higher achievements that will be achieved by students later (Dwijayani, 2019)

One application that is widely used as a learning medium today is the Canva application. (Anggraeny dkk., 2021) The Canva application is an online application that is free and paid online based which can be used to design learning media with several existing templates withvarious transition forms so that there are interesting slide movements and a variety of graphics that can be added to the template design, as well as slideshow of learning video presentations supported by animation(Ikhsan dkk., 2020). Besides being known as a graphic design application in its use, Canva also has advantages compared to other applications (Anggraeny dkk., 2021). There are several ways to use this application, namely:

Design anything,
Publish anywhere,

Figure 1. Log in view

First we create a first we register the Canva account. To register with Canva we can use an email address, Facebook, or google account that we have. So after we register the Canva application ready we use.

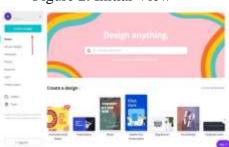
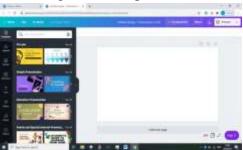


Figure 2. Initial View

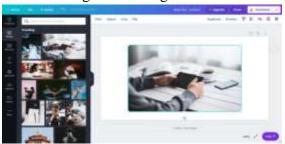
Then we have come to the main page of the Canva application, then we click the create a design button indicated by the red arrow above, after that only then appears the type of content that we will create later, various content will appear then we just need to choose it according to what we want.

Figure 3. Templet View



Next we are on the design creation page, on this page there are various interesting backgrounds available, so we just have to choose the background according to the design needs that we will make later. Not only that, here we can also select the photo menu as our background, then it depends on which one we want to choose which one suits the design needs that we will make later.

Figure 4. Design View



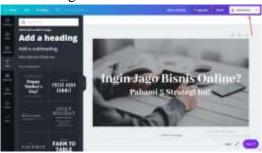
Next, edit the background, in editing the backgroun or background, here I insert the photo as a background, here we can adjust the size of the backgroun with the field in Canva by holding the end of the backgroun and then pulling it according to the size of the field.

Figure 5. Text display



Next, to add text to the design, here we just click on the sign indicated by the red box above, then after we click the model the writing will appear, well here we just have to choose what model we will use for our design later.

Figure 6. Save view



After that, to save the design results or videos that we have made, we just click the download button indicated by the arrow above. Before the video is saved, there is a choice of the type of option that we can choose to save the design that we have made such as Pdf, image or video

The use of Canva in making Arabic language learning media at MTs Pariangan with the use of video-based learning media which can help deliver material to students and can make it easier for students when digesting learning materials provided by teachers (Annisa, 2021). Video media has several functions such as attention function, cognitive function, affective function, and compensatory function (Arsyad 2003). The attention function is a video as a tool that can attract the attention and direct the concentration of students, Canva provides many features that can be utilized for learning media, such as learning videos in Arabic language mufradat which uses interesting features in learning videos. creativity and kolaboratif skills, making video-based learning be fun and enjoyable

Using this Canva application is quite easy. However, behind the advantages of this application there are also disadvantages of this Canva application. So for the advantages of the Canva application, among others;

- 1. Its use is simple and complete which can make designs for digital and physical purposes.
- 2. Canva has complete features and has prepared a variety of templates and fonts that are ready to use.
- 3. No need to download until it consumes ram or memory because the tools are website-based
- 4. The results of the video or design that we have made can be downloaded in jpg, photo, pdf, etc.
- 5. Design results or videos can be directly shared on social media because they have been saved automatically on the canva web

Then therequirements from the Canva application include:

- 1. In the use of the Canva application, the internet network must be stable, if there is no internet network or quota then it cannot open the Canva application, for that Canva cannot be used or used in the design process.
- 2. There are templates, stickers, which are certainly not free in the Canva application. So, there are some paid ones. But it's not a problem because there are still many other attractive and free templates. This is just how the user can design something attractively andrely on the creativity that exists in him.

3. Sometimes the design we choose is the same as the design of other users, be it the style, or the design. But this also has no effect, returned to the wearer when using a design that has nothing in common with others (Garris Pelangi, 2020)

The use of Canva in producing Arabic language learning media plays a role in presenting learning media that can visualize human learning materials. Canva continues to innovate to help support the learning process, Canva presents learning media for Arabic teachers in carrying out learning using mufradat learning videos. With various existing animations, which further increase the enthusiasm of students at MTs Pariangan. Because this application provides more thanmany templates which can increase the enthusiasm of student participants during the process of learningbranches. because the quality of learning can be determined by the wisdom of the learning templet. This as one of the most important parts in the learning process.

Then the benefits obtained by teachers and students in MTs Pariangan from using this application are; With the use of the Canva application in Arabic language learning, the Arabic language teacher at MTs Pariangan is more familiar with the Canva application and increases creativity in learning, Increase the creativity of Arabic teachers in MTs Pariangan, Providing solutions to the difficulties faced by Arabic teachers in using the Canva application as a learning video, This learning adds new knowledge to teachers, Canva can increase educator motivation in its use as a videobased learning medium, Explanations from teachers through videos on this application are easy to understand, This learning adds to the creativity of educators adequate internet facilities and networks, The features in the Canva application can be used in making learning video pamphlets, The Canva application is quite easy to use, This applicationenhances the professionalism and skills of teachers. The benefits for learners are; Increase students' motivation and interest in learning. Students will quickly absorb the material. Students are more familiar with the Canva application and its various uses. Increase the learning motivation of arabic language learners, Improves students' concentration in learning. Making abstract subject matter into concrete labs

So the results of the analysis of responses from students at MTs Paringan about learning using the Canva application are as follows:

No	Indicator	Information
1.	Learning	Good
	effectiveness	
2.	Learning process	Good
	Average	Good

Table 1. Information

Based on the table above, it can be concluded that the effectiveness of canva as a learning medium in MTs Pariangan a is good. Sobased on research, students are very enthusiastic in learning that Uses the Canva application as a learning medium. Every learner is active in learning. It can be said that the motivation of students in this learning is very good because it is supported by the attractiveness of learning. This is in line with the opinion of Hamalik (2002:175) which states that motivation is something that encourages the emergence of an action, directing the deed to the achievement of the desired goal. In addition to increasing the motivation identified from student learning

activities, this activity also makes students independent in learning and provides knowledge for students about the use of the Canva application.

CONCLUSION

The development of advanced semakin technology which can be a tool to achieve educational goals. For this reason, the learning and teaching process cannot be separated from the role of technology. In this day and age, technology has become one of the most influential things on the development of education. So according to the results of observations I made at MTs Pariangan. For this reason, kitta understand that canva application-based learning media is quite appropriate and should be used in learning. Its use is quite effective, when learning both online and offline, the media described is very suitable and makes it easier for educators and students to carry out the teaching and learning process. The use of media video-based learning with the use of the canva application is quite easy. for this reason, in the course of the learning process in Arabic language learning, technology-based learning media can provide a new color in the world of Arabic language education.

REFERENCES

- Abbas, J., Wang, D., Su, Z., & Ziapour, A. (2021). The Role of Social Media in the Advent of COVID-19 Pandemic: Crisis Management, Mental Health Challenges and Implications. *Risk Management and Healthcare Policy*, *Volume 14*, 1917–1932. https://doi.org/10.2147/RMHP.S284313
- Abdi, A., Shamsuddin, S. M., Hasan, S., & Piran, J. (2019). Deep learning-based sentiment classification of evaluative text based on Multi-feature fusion. *Information Processing & Management*, 56(4), 1245–1259. https://doi.org/10.1016/j.ipm.2019.02.018
- Abdrakhmanova, M., Kuzdeuov, A., Jarju, S., Khassanov, Y., Lewis, M., & Varol, H. A. (2021). SpeakingFaces: A Large-Scale Multimodal Dataset of Voice Commands with Visual and Thermal Video Streams. *Sensors*, 21(10), 3465. https://doi.org/10.3390/s21103465
- Alnahdi, G. H. (2019). Rasch validation of the Arabic version of the Teacher Efficacy for Inclusive Practices (TEIP) scale. *Studies in Educational Evaluation*, 62, 104–110. https://doi.org/10.1016/j.stueduc.2019.05.004
- Althagafi, A., Althobaiti, G., Alhakami, H., & Alsubait, T. (2021). Arabic Tweets Sentiment Analysis about Online Learning during COVID-19 in Saudi Arabia. *International Journal of Advanced Computer Science and Applications*, 12(3). https://doi.org/10.14569/IJACSA.2021.0120373
- Ameliola, S., & Nugraha, H. D. (2015). Perkembangan Media Informasi dan Teknologi Terhadap Anak dalam Era Globalisasi. *Perkembangan Media Informasidan Teknologi Terhadap Perkembangan Anak*, 2, 400.
- American Diabetes Association. (2020). 13. Children and Adolescents: *Standards of Medical Care in Diabetes*–2020. *Diabetes Care*, 43(Supplement_1), S163–S182. https://doi.org/10.2337/dc20-S013
- Amin, T., & Badreddine, D. (2020). Teaching science in Arabic: Diglossia and discourse patterns in the elementary classroom. *International Journal of Science Education*, 42(14), 2290–2330. https://doi.org/10.1080/09500693.2019.1629039
- Anggraeny, F. T., Wahanani, H. E., Akbar, F. A., Raharjo, M. I. P., & Rizkyando, S. (2021). Peningkatan Ketrampilan Kreativitas Desain Grafis Digital Siswa SMU

- Menggunakan Aplikasi CANVA pada Ponsel Pintar. *Journal of Approriate Technology for Community Services*, 2(2), 86–91. https://doi.org/10.20885/jattec.vol2.iss2.art5
- Annisa, N. (2021). Pengembangan Media Pembelajaran Berbasis Website Pada Materi Sortasi Dan Grading. *Edufortech*, 6(1). https://doi.org/10.17509/edufortech.v6i1.33290
- Antony-Newman, M. (2019). Parental involvement of immigrant parents: A metasynthesis. *Educational Review*, 71(3), 362–381. https://doi.org/10.1080/00131911.2017.1423278
- Aubrey, S., King, J., & Almukhaild, H. (2022). Language Learner Engagement During Speaking Tasks: A Longitudinal Study. *RELC Journal*, *53*(3), 519–533. https://doi.org/10.1177/0033688220945418
- Bondy, B., Klages, U., Müller-Spahn, F., & Hock, C. (1994). Cytosolic free [Ca2+] in mononuclear blood cells from demented patients and healthy controls. *European Archives of Psychiatry and Clinical Neuroscience*, 243(5), 224–228. https://doi.org/10.1007/BF02191578
- Botero, U. J., Wilson, R., Lu, H., Rahman, M. T., Mallaiyan, M. A., Ganji, F., Asadizanjani, N., Tehranipoor, M. M., Woodard, D. L., & Forte, D. (2021). Hardware Trust and Assurance through Reverse Engineering: A Tutorial and Outlook from Image Analysis and Machine Learning Perspectives. *ACM Journal on Emerging Technologies in Computing Systems*, 17(4), 1–53. https://doi.org/10.1145/3464959
- Brosh, H. Y. (2019). Arabic language-learning strategy preferences among undergraduate students. *Studies in Second Language Learning and Teaching*, 9(2), 351–377. https://doi.org/10.14746/ssllt.2019.9.2.5
- Bruggeman, B., Tondeur, J., Struyven, K., Pynoo, B., Garone, A., & Vanslambrouck, S. (2021). Experts speaking: Crucial teacher attributes for implementing blended learning in higher education. *The Internet and Higher Education*, 48, 100772. https://doi.org/10.1016/j.iheduc.2020.100772
- Chekroud, A. M., Bondar, J., Delgadillo, J., Doherty, G., Wasil, A., Fokkema, M., Cohen, Z., Belgrave, D., DeRubeis, R., Iniesta, R., Dwyer, D., & Choi, K. (2021). The promise of machine learning in predicting treatment outcomes in psychiatry. *World Psychiatry*, 20(2), 154–170. https://doi.org/10.1002/wps.20882
- Chengaiyan, S., Retnapandian, A. S., & Anandan, K. (2020). Identification of vowels in consonant–vowel–consonant words from speech imagery based EEG signals. *Cognitive Neurodynamics*, 14(1), 1–19. https://doi.org/10.1007/s11571-019-09558-5
- Dahou, A., Elaziz, M. A., Zhou, J., & Xiong, S. (2019). Arabic Sentiment Classification Using Convolutional Neural Network and Differential Evolution Algorithm. *Computational Intelligence and Neuroscience*, 2019, 1–16. https://doi.org/10.1155/2019/2537689
- Deiri, Y. (2023). Teaching Arabic to children and youth in the United States: Between love and indictment. *International Journal of Bilingual Education and Bilingualism*, 26(7), 817–829. https://doi.org/10.1080/13670050.2021.1989372
- Dwijayani, N. M. (2019). Development of circle learning media to improve student learning outcomes. *Journal of Physics: Conference Series*, 1321(2), 171–187. https://doi.org/10.1088/1742-6596/1321/2/022099
- Ferjan Ramírez, N., Lytle, S. R., & Kuhl, P. K. (2020). Parent coaching increases conversational turns and advances infant language development. *Proceedings of*

- the National Academy of Sciences, 117(7), 3484–3491. https://doi.org/10.1073/pnas.1921653117
- Ghani, N. A., Hamid, S., Targio Hashem, I. A., & Ahmed, E. (2019). Social media big data analytics: A survey. *Computers in Human Behavior*, 101, 417–428. https://doi.org/10.1016/j.chb.2018.08.039
- Giordano, P. C., Copp, J. E., Manning, W. D., & Longmore, M. A. (2019). Linking parental incarceration and family dynamics associated with intergenerational transmission: A life-course perspective*. *Criminology*, *57*(3), 395–423. https://doi.org/10.1111/1745-9125.12209
- Hadi, I. P. (2010). Perkembangan Teknologi Komunikasi Dalam Era Jurnalistik Modern. *Scriptura*, 3(1), 69–84. https://doi.org/10.9744/scriptura.3.1.69-84
- Hapsari, Gita Permata Puspita., & Z. (2021). Analysis Of The Needs of Animated Video Media Based on The Canva Application in Science. *Pancasakti Science Education Journal*, 6(1), 22–29. https://doi.org/10.24905/psej.v6i1.43
- Hwangbo, J., Lee, J., Dosovitskiy, A., Bellicoso, D., Tsounis, V., Koltun, V., & Hutter, M. (2019). Learning agile and dynamic motor skills for legged robots. *Science Robotics*, 4(26), eaau5872. https://doi.org/10.1126/scirobotics.aau5872
- Karlsson, A., Nygård Larsson, P., & Jakobsson, A. (2020). The continuity of learning in a translanguaging science classroom. *Cultural Studies of Science Education*, 15(1), 1–25. https://doi.org/10.1007/s11422-019-09933-y
- Lalmuanawma, S., Hussain, J., & Chhakchhuak, L. (2020). Applications of machine learning and artificial intelligence for Covid-19 (SARS-CoV-2) pandemic: A review. *Chaos*, *Solitons* & *Fractals*, *139*, 110059. https://doi.org/10.1016/j.chaos.2020.110059
- Levine, D., Pace, A., Luo, R., Hirsh-Pasek, K., Michnick Golinkoff, R., De Villiers, J., Iglesias, A., & Sweig Wilson, M. (2020). Evaluating socioeconomic gaps in preschoolers' vocabulary, syntax and language process skills with the Quick Interactive Language Screener (QUILS). *Early Childhood Research Quarterly*, 50, 114–128. https://doi.org/10.1016/j.ecresq.2018.11.006
- Li, C., Wang, J., Wang, Y., Gao, H., Wei, G., Huang, Y., Yu, H., Gan, Y., Wang, Y., Mei, L., Chen, H., Hu, H., Zhang, Z., & Jin, Y. (2019). Recent progress in drug delivery. *Acta Pharmaceutica Sinica B*, *9*(6), 1145–1162. https://doi.org/10.1016/j.apsb.2019.08.003
- Li, Z., Shen, H., Cheng, Q., Liu, Y., You, S., & He, Z. (2019). Deep learning based cloud detection for medium and high resolution remote sensing images of different sensors. *ISPRS Journal of Photogrammetry and Remote Sensing*, *150*, 197–212. https://doi.org/10.1016/j.isprsjprs.2019.02.017
- Paico Campos, M. M., Ramos-Cosi, S., & Andrade-Arenas, L. (2023). SAFE Mobile Application: Prevention of Violence Against Women. *International Journal of Engineering Trends and Technology*, 71(12), 299–307. https://doi.org/10.14445/22315381/IJETT-V71I12P228
- Pinquart, M., & Ebeling, M. (2020). Parental Educational Expectations and Academic Achievement in Children and Adolescents—A Meta-analysis. *Educational Psychology Review*, 32(2), 463–480. https://doi.org/10.1007/s10648-019-09506-z
- Rashwan, H. (2023). Intellectual Decolonization and Harmful Nativism: Arabic Knowledge Production of Ancient Egyptian Literature. *Interventions*, 1–38. https://doi.org/10.1080/1369801X.2022.2161054
- Rasyid, H. Al. (2017). Pengaruh Kualitas Layanan Dan Pemanfaatan Teknologi Terhadap Kepuasan Dan Loyalitas Pelanggan Go-Jek. *Jurnal Ecodemica: Jurnal*

- *Ekonomi, Manajemen, dan Bisnis, 1*(2), 210–223. https://doi.org/10.31311/jeco.v1i2.2026
- Ribeiro, L. M., Cunha, R. S., Silva, M. C. A. E., Carvalho, M., & Vital, M. L. (2021). Parental Involvement during Pandemic Times: Challenges and Opportunities. *Education Sciences*, 11(6), 302. https://doi.org/10.3390/educsci11060302
- Ritonga, M., Asrina, A., Widayanti, R., Alrasi, F., Julhadi, J., & Halim, S. (2020). Analysis of Arabic Language Learning at Higher Education Institutions with Multi-Religion Students. *Universal Journal of Educational Research*, 8(9), 4333–4339. https://doi.org/10.13189/ujer.2020.080960
- Rosowsky, A. (2019). Sacred language acquisition in superdiverse contexts. *Linguistics and Education*, *53*, 100751. https://doi.org/10.1016/j.linged.2019.100751
- Saada, N., & Gross, Z. (2019). The experiences of Arab teachers in Jewish schools in Israel. *Teaching and Teacher Education*, 79, 198–207. https://doi.org/10.1016/j.tate.2018.11.012
- Serevina, V., & Hamidah, I. (2022). Science, Technology, Engineering, and Math (STEM) based Geothermal Energy Source Digital Module Assisted by Canva Application. *Journal of Physics: Conference Series*, 2377(1), 012063. https://doi.org/10.1088/1742-6596/2377/1/012063
- Sharif Matthews, J., & López, F. (2019). Speaking their language: The role of cultural content integration and heritage language for academic achievement among Latino children. *Contemporary Educational Psychology*, 57, 72–86. https://doi.org/10.1016/j.cedpsych.2018.01.005
- Szczepek Reed, B., Said, F., Davies, I., & Bengsch, G. (2020). Arabic complementary schools in England: Language and Fundamental British Values. *Language, Culture and Curriculum, 33*(1), 50–65. https://doi.org/10.1080/07908318.2019.1569674
- Ting, D. S. W., Peng, L., Varadarajan, A. V., Keane, P. A., Burlina, P. M., Chiang, M. F., Schmetterer, L., Pasquale, L. R., Bressler, N. M., Webster, D. R., Abramoff, M., & Wong, T. Y. (2019). Deep learning in ophthalmology: The technical and clinical considerations. *Progress in Retinal and Eye Research*, 72, 100759. https://doi.org/10.1016/j.preteyeres.2019.04.003
- Tlili, A., Huang, R., Shehata, B., Liu, D., Zhao, J., Metwally, A. H. S., Wang, H., Denden, M., Bozkurt, A., Lee, L.-H., Beyoglu, D., Altinay, F., Sharma, R. C., Altinay, Z., Li, Z., Liu, J., Ahmad, F., Hu, Y., Salha, S., ... Burgos, D. (2022). Is Metaverse in education a blessing or a curse: A combined content and bibliometric analysis. *Smart Learning Environments*, 9(1), 24. https://doi.org/10.1186/s40561-022-00205-x
- Toivonen, T., Heikinheimo, V., Fink, C., Hausmann, A., Hiippala, T., Järv, O., Tenkanen, H., & Di Minin, E. (2019). Social media data for conservation science: A methodological overview. *Biological Conservation*, 233, 298–315. https://doi.org/10.1016/j.biocon.2019.01.023
- YiĞiT, A., & Işik, Z. (2020). Applying deep learning models to structural MRI for stage prediction of Alzheimer's disease. *TURKISH JOURNAL OF ELECTRICAL ENGINEERING* & *COMPUTER SCIENCES*, 28(1), 196–210. https://doi.org/10.3906/elk-1904-172
- Yoon, Y., Cha, B., Lee, J.-H., Jang, M., Lee, J., Kim, J., & Lee, G. (2020). Speech gesture generation from the trimodal context of text, audio, and speaker identity. *ACM Transactions on Graphics*, 39(6), 1–16. https://doi.org/10.1145/3414685.3417838

- Zhang, W., Liu, Y., & Guo, Z. (2019). Approaching high-performance potassium-ion batteries via advanced design strategies and engineering. *Science Advances*, 5(5), eaav7412. https://doi.org/10.1126/sciadv.aav7412
- Zhu, L., Gao, M., Peh, C. K. N., & Ho, G. W. (2019). Recent progress in solar-driven interfacial water evaporation: Advanced designs and applications. *Nano Energy*, 57, 507–518. https://doi.org/10.1016/j.nanoen.2018.12.046
- Züst, M. A., Ruch, S., Wiest, R., & Henke, K. (2019). Implicit Vocabulary Learning during Sleep Is Bound to Slow-Wave Peaks. *Current Biology*, 29(4), 541-553.e7. https://doi.org/10.1016/j.cub.2018.12.038

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