

Utilization of Tik Tok Social Media as Learning Media in the Teaching and Learning Process during Covid-19

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ABSTRACT

Background. The Covid-19 outbreak that occurred at the end of 2019 spread rapidly in Indonesia. To reduce the transmission, the Government set a rule not to hold activities that trigger crowds and all activities are carried out at home. The impact of this policy is very much felt, one of which is in the field of education. The learning system has changed significantly from face-to-face learning in classrooms to distance learning through online media. Efforts that can be made so that learning is still carried out during covid-19 are utilizing social media as a learning medium, one of which is through the Tik Tok application.

Purpose. The purpose of this study was to determine the utilization of Tik Tok social media as a learning medium in the teaching and learning process during covid-19.

Method. The research method used is quantitative method, data obtained from interviews and distributing questionnaires via google form.

Results The results showed that Tik Tok social media was able to motivate students in learning because of Tik Tok's interesting and fun features. In addition, educators can also be creative through videos in presenting learning materials so that learning indicators can be conveyed.

Conclusion. The conclusion of this study shows that the use of Tik Tok social media in the learning process during Covid-19 is very effective.

KEYWORDS

Covid-19, Tik Tok, Learning Media

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INTRODUCTION

The Covid-19 pandemic is an unprecedented rare disease outbreak that is being faced by the world community (Mazza dkk., 2020). The covid -19 outbreak occurred at the end of 2019 originating from Wuhan China (Zhu dkk., 2020). The Covid-19 pandemic spread so quickly to various countries in the world, including Indonesia. The spread of Covid-19 in Indonesia began in March 2020. The Covid-19 outbreak generally attacks the respiratory tract, where the initial symptoms felt by people infected with this virus are flu, cough, shortness of breath, fatigue and fever (Udut dkk., 2021). Many victims are infected with this virus either mildly, moderately, and even to a severe stage that causes death (Cui dkk., 2020).



In response to the terrible consequences of being infected with the virus, the Indonesian government has established various policies to control the spread of Covid-19 such as large-scale social restrictions, complying with health protocols, work from home and social distancing (Roziqin dkk., 2021; Srivastava dkk., 2020). Where the policy prohibits people from not having direct social interaction and all activities are temporarily carried out from home.

The Covid-19 pandemic has had a huge impact on all aspects of life (Satici dkk., 2021). It is not only health problems that are the main problem, but other aspects of life are affected, one of which is education. All educational institutions starting from school and college level institutions are starting to implement distance learning (Khosravi dkk., 2018). During Covid-19 the learning process was no longer carried out face-to-face in class but changed to non-face-to-face learning or often known as online learning. Online learning is a learning method carried out by educators and students by utilizing electronic devices such as laptops, computers, cellphones and tablets using the internet network (Yeager dkk., 2019). However, students are expected to be able to receive knowledge even though they are hindered by distance.

Changes in the learning system that are so different from before are a new challenge for an educator (Biango-Daniels & Sarvary, 2021). Educators must be able to present material that is interesting and easy for students to understand so that the learning objectives are still conveyed. The ongoing pandemic conditions force teachers to continue to innovate so that online delivery of material can run smoothly and not bore students (Fuentes dkk., 2019; Yeager dkk., 2019). Educators must look for alternative and appropriate learning methods (Abiri dkk., 2019; S. Wang dkk., 2021). It cannot be denied that using existing information technology is the best solution. Educators must not only master academic knowledge but must also be good at using technology (Mendoza dkk., 2022; Munguia dkk., 2020). Nowadays technology is increasingly advanced so that technology has become one of the facilities and infrastructure in the teaching and learning process (Andrew dkk., 2018). For this reason, educators are expected to be able to make good use of technology to create a pleasant learning atmosphere during the pandemic.

Social media is one of the developments in information technology (Almazova et al., 2019). Social media allows users to interact, communicate and share content with other users in cyberspace (Bhat & Alqahtani, 2021; Mustaqeem & Kwon, 2019). Social media is currently the platform most frequently used by all groups, including students. During the pandemic, students are more often bored, so they use social media such as Whatsapp, Twitter, Instagram, YouTube, Facebook, Tik Tok and others to entertain themselves at home. The high use of social media by students during Covid-19 will tend to have negative effects if they are not used wisely. Seeing conditions like this, educators are using social media as a learning medium during Covid-19 (Sukmawan dkk., 2021). The use of social media during the pandemic in learning can prevent students from the negative impacts of social media if used in learning media.

Learning media are all forms of materials or tools used to assist the learning process (Polsinelli dkk., 2020). The purpose of using learning media is to facilitate the learning process so that it is more effective, attracts students' interest and makes learning easy to understand. The right type of learning media will certainly make the learning process closer to students (Schneider dkk., 2018). Online learning media is a type of learning media via the internet or computer. Online learning media can be an application or platform that consists of many features ranging from learning videos, text, images, simulations, practice questions, discussion forums (H. Lu dkk., 2021). In the context of online learning, learning media becomes very important because students cannot interact directly with educators or teachers. Therefore, online learning media must be designed in

such a way that students can understand the learning material easily and of course attract students' attention. The learning media that is suitable to use is in the form of video because with video educators can combine everything including writing, sound, movement, animation so that it is not monotonous in text alone and creates enthusiasm for learning (Hight dkk., 2021; Mitra dkk., 2021). One of the social media in the form of videos that can be used in distance learning is the social media Tik Tok.

Tik Tok is one of the social media that can be used as a learning medium during Covid-19. The social media and music video platform Tik Tok was created by a technology company from China, ByteDance with its founder named Zhang Yiming in 2016 (Anderson, 2020; Y. Wang, 2020). Tik Tok offers users the opportunity to create short music video clips that they want (Song dkk., 2021). Tik Tok became the most frequently downloaded application in 2018 and even ranked 1st in the most installs on the Play Store or AppStore, surpassing other well-known social media applications such as Facebook, Instagram, WhatsApp, Twitter and Messenger (S. Wang dkk., 2022). In Indonesia, the majority of active Tik Tok users are school children, millennials, or often called Generation Z (Goh & Lee, 2018). Tik Tok can also provide a fun and interesting way for students to absorb knowledge. Its interactive nature makes it an ideal tool to enhance their learning experience. Additionally, this app offers a unique and entertaining approach to learning.

Tik Tok can be processed into an interesting and interactive learning media for students. In the online learning process during Covid-19, educators are the main actors who plan, direct and carry out learning activities (Al-Mahdy dkk., 2018; J. Li dkk., 2019; Touloupis & Athanasiades, 2020). Educators can make complex learning videos simple so they are easy to understand. Tik Tok can increase creativity in students, such as making creative videos, honing video editing skills, presenting themselves so that it can increase students' self-confidence (Hendrik dkk., 2022; Shaw dkk., 2021). Apart from that, Tik Tok can be accessed anywhere at any time without being hindered by geographical distance, so it is more flexible even when studying from home. Tik Tok is also easy to use by all ages, so it is very suitable as a learning medium during the pandemic.

Tik Tok has features that enable educators and students to use it in learning during Covid-19 (Y. Lu & (Cindy) Shen, 2023). Tik Tok allows users to create short videos lasting 15 seconds, 30 seconds to 60 seconds about education. The video can be added with the help of music and sound features both provided by the application and the user's music or voice (Haumann dkk., 2021). Furthermore, Tik Tok provides effect editing features such as face effects, animation effects, or visual effects (Aune dkk., 2022). Next, there is a duet or collaboration feature that allows you to create videos together with other people. Furthermore, hashtags and challenges, teachers or instructors can create special hashtags or challenges related to the educational topics being taught, so that students can participate in relevant activities and share the results of their work (Özerim & Tolay, 2021). This can motivate students to be more actively involved in learning. Finally, there is a share feature to share learning videos to students' Tik Tok accounts or to their class groups. This feature can really help support the learning process.

This research seeks to re-examine the use of TikTok social media as a learning medium in the teaching and learning process during Covid-19. Tik Tok has been widely used by people from all walks of life, including students. So Tik Tok can be used as a learning medium by educators because it is familiar to students. By using the social media Tik Tok, teaching staff can more easily convey interesting learning material that is easy for students to understand in video form. Apart from that, Tik Tok makes educators more creative and innovative in teaching. The aim of the Tik Tok application is to make it easier for students to understand learning and increase learning motivation which will lead to increased student achievement. Based on the explanation above,

researchers are interested in developing the Tik Tok application as a learning media solution during Covid-19. So that when online or distance learning is carried out again, students will no longer have difficulties and the learning process can run effectively and optimally.

RESEARCH METHODOLOGY

Research methods are very necessary so that the research carried out by researchers runs smoothly. The research method used in this research is a quantitative research method. Quantitative research methods are scientific approaches used to collect and analyze data in the form of numbers, or numerical data that is clearly and concretely measurable (J. Li dkk., 2019). Data collected through quantitative methods can then be measured using statistical techniques, mathematics or through computing (Sahour dkk., 2020). This method has its own special characteristics, clear, detailed and static (Mendoza dkk., 2022). Tik Tok as one of the social media used as an alternative in learning can be developed through quantitative methods. The quantitative method was obtained by researchers from the results of distributing questionnaires at one of the universities in Palangka Raya. The purpose of this research is to find out, study, utilize, optimize and solve the problems being discussed in the research.

The time of the research was carried out on April 2 2023 and distributed to students for 2 days. The object of this research is the use of social media Tik Tok as a learning medium in the teaching and learning process during Covid-19. The place of research carried out by researchers is at one of the institutes in Surakarta, namely the Indonusa Polytechnic Surakarta. The data from this research were obtained by distributing questionnaires via an online Google Form link to several students. A questionnaire was created to find out the subject's response to the social media Tik Tok when used in learning during the pandemic. The results obtained by researchers were that some respondents strongly agreed, some agreed and very few disagreed. In general, of all the questions asked by researchers, respondents mostly answered in the affirmative that during Covid-19, Tik Tok social media was used as a learning medium.

The type of quantitative research method that researchers used was the survey method (Zhang dkk., 2022). The survey method is a method using a questionnaire which is given to respondents to fill out. The questionnaire used is a closed questionnaire where the respondent must answer the statement according to the options provided and the respondent is not free to provide other answers (Shiyanbola dkk., 2019). The activity of collecting data and data analysis carried out by researchers was the first activity of collecting information about the learning media used during Covid-19. Second, create questions or statements via the Goggle form link. After that, the link was distributed personally to WhatsApp contacts because it was considered quicker to respond. After the data is collected, researchers need to carry out data analysis (Nitz dkk., 2020). Data is identified to avoid errors such as inconsistent answers and random answers. After that, the results from the Google form are entered and processed into spreadsheet software and Microsoft Excel (Y. Li dkk., 2018). The percentage obtained by adding up each question is presented in the form of a diagram, graph and explained using the researcher's own words so as to produce conclusions derived from secondary data which is the researcher's opinion that has been found previously.

Figure 1.The data analysis technique

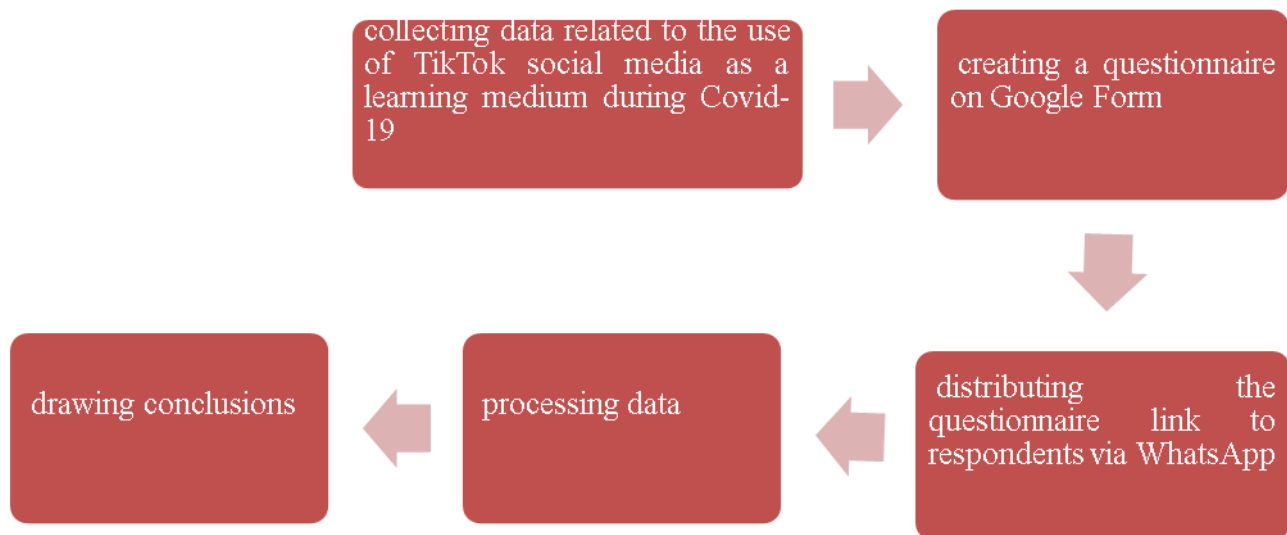


Figure 1.The data analysis technique

RESULT AND DISCUSSION

From the results of a survey conducted by previous researchers conducted by previous researchers by making a questionnaire via google form and then distributing it via private chat to several students from various study programs at the Indonusa Polytechnic Surakarta. From this research, researchers can explain that students of the Palangka Raya State Islamic Institute already understand the use of the Tik Tok application and even often use this application. Tik Tok social media is very suitable as a learning media, especially when distance learning is carried out which requires the use of media in order to convey learning material. In addition, TikTok can make learning quite effective and can increase the creativity of educators and students. Various features are available in the TikTok application which makes it easy to use. The disadvantage that researchers found in this study is that the use of TikTok social media is very draining, because what is seen are videos that have a duration of 15-60 seconds. Even so, the use of Tik Tok social media has received many positive responses from respondents and is effective if used in learning.

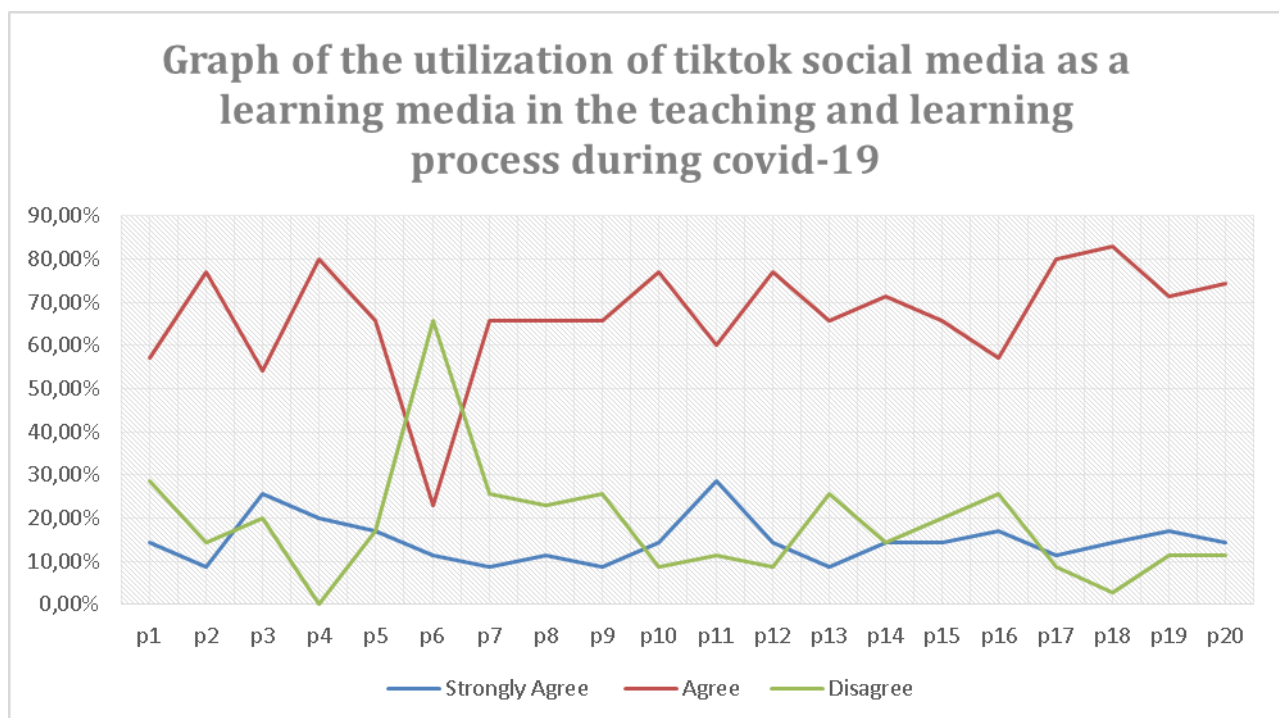
The following is a table of the results of questions or statements that researchers get from respondents.

No	Statement	Respondent's answer		
		Strongly agree	Agree	Disagree
1	The selection of Tik Tok social media for learning media during Covid-19 is the right choice	14,3 %	57,1 %	28,6 %
2	Tik Tok social media in distance learning is easy to use	8,6 %	77,1 %	14,3 %
3	Tik Tok is one of the most popular social media used during Covid-19	25,7 %	54,3%	20 %
4	Short videos on Tik Tok social media can enhance students' creativity	20 %	80 %	0 %

5	Tik Tok video content is easier to understand than other social media.	17,1 %	65,7 %	17,1%
6	The use of Tik Tok social media saves quota	11,4 %	22,9 %	65,7 %
7	The use of Tik Tok social media in distance learning is quite effective	8,6 %	65,7 %	25,7 %
8	Tik Tok social media is one of the favorite media for distance learning during the Covid-19 period	11,4 %	65,7 %	22,9 %
9	Tik Tok social media is very helpful for educators and students in distance learning	8,6 %	65,7 %	25,7 %
10	Tik Tok social media is quite influential in the world of education, especially during the Covid-19 pandemic	14,3 %	77,1 %	8,6 %
11	Tik Tok social media can be accessed by everyone	28,6 %	60 %	11,4 %
12	Tik Tok has benefits in the world of education	14,3 %	77,1 %	8,6 %
13	The use of Tik Tok social media can increase students' interest in learning in distance learning	8,6 %	65,7 %	25,7 %
14	Tik Tok makes the learning process fun for students	14,3 %	71,4 %	14,3 %
15	Through Tik Tok, educators can convey material in an interesting way and are liked by students	14,3 %	65,7 %	20 %
16	The use of Tik Tok social media is more efficient and interactive than other media	17,1 %	57,1 %	25,7 %
17	The role of Tik Tok can improve learners' understanding of complex learning concepts	11,4 %	80 %	8,6 %
18	Tik Tok has many interesting features that can be used in creating educational content	14,3 %	82,9 %	2,8%
19	The use of Tik Tok social media is not boring because the video duration ranges from 15-60 seconds	17,1 %	71,4 %	11,4 %
20	Through Tik Tok, students understand more quickly about the learning material presented	14,3%	74,3 %	11,4 %

Table.1 results of research acquisition data.

The making of the table above aims to present the results obtained by researchers through distributing questionnaires in the form of google form links to several students of the Indonusa Polytechnic Surakarta. Based on the data from the table above, researchers can explain that in general Tik Tok is a very popular social media and is widely used among students who are more commonly referred to as the millennial generation. From the links that researchers also distributed to several students, the results showed that most students agreed with the use of Tik Tok as a learning media during distance learning, it was quite effective, learning was fun and not boring. Tik Tok became the favorite learning media during the Covid-19 period. There are also some students who do not agree with using the TikTok application as a learning medium because they do not understand what is conveyed through videos and also using Tik Tok consumes a lot of internet kouta.

**Figure 2.** Graph of Tik Tok Social Media Utilization

In the picture above there is a graph of the utilization of Tik Tok social media as a learning medium during Covid-19. Question result data on the Tik Tok application as follows. There are 35 students who are the subjects of the study. In this study, researchers used 20 questions to find out students' opinions when using the Tik Tok application as a learning medium during Covid-19. The highest research result obtained a percentage of 82.9%, based on the results of the study, the category was agreed. The second highest research result is a percentage of 80%, with an agreed category. The third highest research result obtained a percentage of 77% with the category still agreeing. The lowest research results were obtained by the disagree category with a percentage of 0%. The second lowest research result was obtained by the disagree category with a percentage of 2.8%. The third lowest research results from the strongly agree and disagree categories with a percentage of 8.6%. This shows that the agree category is the highest category.

The data on the results of the Tik Tok application research test for learning media for students of the Palangka raya State Islamic Institute are explained as follows. The agree category has a

percentage of 82.9% which states that TikTok has interesting features that can be used in creating educational content. This category is the highest of the others. Meanwhile, the lowest percentage in the agree category obtained a percentage of 22.9%, namely in the statement that using Tik Tok social media saves kouta. In the disagree category with the highest percentage acquisition of 65.7% which states that the use of Tik Tok social media is more cost-effective, while the lowest level obtained a percentage of 0% on the short video statement in TikTok social media can increase student activity. In the last category, namely the category of strongly agree, the highest acquisition was 28.6% of the Tik Tok social media statement that can be accessed by everyone. While the lowest acquisition of the strongly agree category was 8.6% based on the statement that Tik Tok social media in distance learning is easy to use during Covid-19 and on the statement that Tik Tok social media in distance learning is easy to use. Based on the overall results, it is found that students agree if they use the Tik Tok application in distance learning.

Generally, students agree with the use of Tik Tok social media as a learning medium during distance learning. The Tik Tok application is very familiar among students so they are easy to use. Moreover, the learning material presented in the form of videos is very easy for students or students to understand. In addition, the features provided by Tik Tok are very diverse in supporting the distance learning process. Tik Tok can increase students' interest in learning because the material is not monotonous in text alone but with the use of fun learning videos for students. Learning becomes more effective and interactive and very close to students.

Since Indonesia was hit by the Covid-19 pandemic, many new rules have been set by the government to reduce the rapid spread of Covid-19 to the community. The rules start from prohibiting physical contact between people such as shaking hands, people are not allowed to do activities outside the home, at that time all community activities can only be done from home. This limited space for movement certainly has an impact on all aspects of life, including education. The education system must be changed so that learning is still carried out and students can still receive lessons in emergency conditions. Finally, a distance learning system was established where participants continue to carry out learning as usual but in a different place, no longer learning in class but learning from their respective homes.

Distance learning must of course be supported by existing technology. At that time the existing technology was very sophisticated and rapidly developing. This situation must be utilized by educators because it cannot be denied that technology is very helpful in accessing, sharing and obtaining information about education. So that distance learning can be carried out with the help of technology. Internet is one of the technological developments in the field of information. The Internet is a computer network that connects many devices including, computers, cell phones, tablets, and others. Social media such as Facebook, Instagram, Twitter, Messenger, Tik Tok, YouTube all use the internet network. Social media can be used as a distance learning media. Learning media in the context of distance learning is the use of social media platforms or social media applications that are used as tools or means by educators and students to be able to understand and access learning resources that are accessed online using the internet network.

Tik Tok social social media is one of the many social media platforms that can be used as a distance learning medium during Covid-19. The Tik Tok application is the most popular application and is very often used by all groups ranging from children to even young and old people often use it. During the pandemic, the number of Tik Tok users has increased so high because Tik Tok is an eye-catching application that can entertain, especially when activities at home are sometimes often boring so this application is used to entertain yourself and relieve boredom. Through Tik Tok users can access various video content ranging from singing content, cooking content, trading content,

lecture content, educational content. Seeing that many Tik Tok users are students, it is feared that they use Tik Tok arbitrarily without being wise and careful in sorting out the information that comes out of Tik Tok information. this if left unchecked will have a bad impact on students. So that the transfer of Tik Tok social media into learning media during a pandemic is the right choice so that students focus more on using Tik Tok in a more useful direction, namely to support learning during a pandemic.

Tik Tok application can provide many benefits in distance learning during the pandemic (1) It can make learning interesting. Tik Tok provides a short video format with durations ranging from 15 seconds, 30 seconds to 60 seconds and is creative so that it is attractive to students. The pandemic period is a challenge for educators, how through Tik Tok educators can be creative in presenting videos that attract learning so that students are more involved and have a high enthusiasm for learning.(2) visual learning. Tik Tok can be used as a visual tool such as videos, images, and text. Material that is provided visually will be easier for learners to understand (3) can enhance creativity and self-expression. Tik Tok encourages students' creativity and self-expression. When educators give assignments to make videos, students will try to be creative in making unique and interesting videos. In addition, it will increase self-confidence when recording yourself. (4) collaboration and interaction. It is a feature of Tik Tok that allows students to collaborate with classmates or other friends to make videos together, exchange ideas or comment on videos that have been made by other friends in the comments column. This of course can increase social interaction between each other so that active learning is formed.(5) access to educational content creators. Many Tik Tok users create educational or learning content. So learners can search for educational content accounts to increase their knowledge that they may not get from their teachers.

Tik Tok provides a variety of interesting features that enable the learning process to run well. These features are as follows. (1) making videos. Educators and students can make educational videos such as mathematics, science, language, art and others. In a short duration of up to 60 seconds with various editing features that are interesting and easy for students to understand. (2) music and sound. Tik Tok provides music and sound that can be added to videos that have been made. The music can be taken from what Tik Tok has provided or it can also be sounds or music that we make ourselves. (3) visual effects. Tik Tok also provides various effects on videos such as face effects or what is more commonly known as filters to beautify. (4) hashtag (#). Tik Tok uses hashtags as a way to group content based on certain topics. Teachers or students can search for and follow hashtags that are relevant to learning materials such as #learnathome, #edu, #waytoeasilymathematics, #charactereducation. (5) collaboration and reaction. Educators or students can collaborate to create interesting educational videos. Furthermore, you can also provide mutual reactions with other users by commenting and giving emojis. (6) live streaming. Tik Tok provides a feature for live streaming, where users can broadcast live and interact in real life with their audience even though they are far away. This feature can be used in learning activities such as holding online classes, question and answer sessions or interactive discussion of material. (7) privacy and control. Through this feature, users can regulate who can interact with their videos, who can comment, like and block according to their individual wishes. (8) discover. This feature allows users to find content that is popular, trending or content from new users, besides that users can explore content in various categories.

Even though Tik Tok has many benefits if used as a learning medium with the various features it provides, it turns out that Tik Tok has shortcomings as a learning tool during the Covid-19 pandemic. The disadvantages that need to be known are as follows. (1) unverified content. Tik

Tik Tok is a user-based platform. This means that content uploaded by users is not necessarily registered or strictly selected. This can result in content that is inaccurate, unverified, or even unsafe to study. (2) Educational Content Limitations. Educational content can be found on Tik Tok, this well-known entertainment platform does not always have consistent, structured or high-quality content for formal learning. Learners may need to search carefully to find educational content that meets their needs. (3) Reliance on short video formats. Tik Tok is famous for its short video format with limited time. This may not always be appropriate for lessons that require detailed explanations, complex content, or detailed discussions that require extra explanation by the educator. Learners may need additional resources to deepen their understanding. (4) Different quality of content. Content on Tik Tok comes from a variety of users with different skills and qualities. Because of this, the quality of learning content on Tik Tok can vary greatly, and not all content meets formal learning standards or individual student needs. (5) Interaction and Feedback Limits. Tik Tok is primarily a platform for content consumption, not for in-depth interaction and feedback between educators and students. Students may feel limited when interacting with teachers or asking questions about the content they are learning on Tik Tok. (6) Possible distractions and inefficient use of time. Tik Tok can also be distracting because of its non-learning content. Apart from that, using Tik Tok too often for learning purposes can make students less productive and reduce the time they can spend on other learning activities. (7) Use of quotas. This is the weakness of Tik Tok that most researchers found from the results of distributing questionnaires. This means that using Tik Tok really drains your internet package considering that the capacity to watch is in the form of videos.

Research has shown that the use of social media Tik Tok as a learning medium in the teaching and learning process during Covid-19 has had a very positive impact on the continuity of the distance learning process. Tik Tok social media can help educators convey learning material to students even though it is not delivered face to face to their students. Educators choose the Tik Tok application as a learning medium because Tik Tok is an application that is familiar to students so that if it is used for learning students can easily use it. Tik Tok also allows educators and students to increase their creativity. Research also shows that Tik Tok can increase students' interest in learning which has an impact on students' interest in learning. However, the Tik Tok application can have drawbacks, namely that it makes it difficult for students to access it because it drains internet data packages. Apart from that, Tik Tok can have a bad impact on students if they are not good at using it wisely in learning and don't filter videos that might pass through students' homepages.

CONCLUSION

Research has shown that the use of social media Tik Tok as a learning medium in the teaching and learning process during Covid-19 has had a very positive impact on the continuity of the distance learning process. Tik Tok social media can help educators convey learning material to students even though it is not delivered face to face to their students. Educators choose the Tik Tok application as a learning medium because Tik Tok is an application that is familiar to students so that if it is used for learning students can easily use it. Tik Tok also allows educators and students to increase their creativity. Research also shows that Tik Tok can increase students' interest in learning which has an impact on students' interest in learning. However, the Tik Tok application can have drawbacks, namely that it makes it difficult for students to access it because it drains internet data packages. Apart from that, Tik Tok can have a bad impact on students if they are not good at using it wisely in learning and don't filter videos that might pass through students' homepages.

AUTHORS' CONTRIBUTION

Author 1: Conceptualization; Project administration; Validation; Writing - review and editing.

Author 2: Conceptualization; Data curation; In-vestigation.

Author 3: Data curation; Investigation.

Author 4: Formal analysis; Methodology; Writing - original draft.

Author 5: Supervision; Validation.

REFERENCES

- Abiri, R., Borhani, S., Sellers, E. W., Jiang, Y., & Zhao, X. (2019). A comprehensive review of EEG-based brain–computer interface paradigms. *Journal of Neural Engineering*, 16(1), 011001. <https://doi.org/10.1088/1741-2552/aaf12e>
- Al-Mahdy, Y. F. H., Emam, M. M., & Hallinger, P. (2018). Assessing the contribution of principal instructional leadership and collective teacher efficacy to teacher commitment in Oman. *Teaching and Teacher Education*, 69, 191–201. <https://doi.org/10.1016/j.tate.2017.10.007>
- Anderson, K. E. (2020). Getting acquainted with social networks and apps: It is time to talk about TikTok. *Library Hi Tech News*, 37(4), 7–12. <https://doi.org/10.1108/LHTN-01-2020-0001>
- Andrew, M., Taylorson, J., J Langille, D., Grange, A., & Williams, N. (2018). Student Attitudes towards Technology and Their Preferences for Learning Tools/Devices at Two Universities in the UAE. *Journal of Information Technology Education: Research*, 17, 309–344. <https://doi.org/10.28945/4111>
- Aune, T. M., Tossberg, J. T., Heinrich, R. M., Porter, K. P., & Crooke, P. S. (2022). Alu RNA Structural Features Modulate Immune Cell Activation and A-to-I Editing of Alu RNAs Is Diminished in Human Inflammatory Bowel Disease. *Frontiers in Immunology*, 13, 818023. <https://doi.org/10.3389/fimmu.2022.818023>
- Bhat, J. R., & Alqahtani, S. A. (2021). 6G Ecosystem: Current Status and Future Perspective. *IEEE Access*, 9, 43134–43167. <https://doi.org/10.1109/ACCESS.2021.3054833>
- Biango-Daniels, M., & Sarvary, M. (2021). A challenge in teaching scientific communication: Academic experience does not improve undergraduates' ability to assess their or their peers' writing. *Assessment & Evaluation in Higher Education*, 46(5), 809–820. <https://doi.org/10.1080/02602938.2020.1812512>
- Cui, Y., Tian, M., Huang, D., Wang, X., Huang, Y., Fan, L., Wang, L., Chen, Y., Liu, W., Zhang, K., Wu, Y., Yang, Z., Tao, J., Feng, J., Liu, K., Ye, X., Wang, R., Zhang, X., & Zha, Y. (2020). A 55-Day-Old Female Infant Infected With 2019 Novel Coronavirus Disease: Presenting With Pneumonia, Liver Injury, and Heart Damage. *The Journal of Infectious Diseases*, 221(11), 1775–1781. <https://doi.org/10.1093/infdis/jiaa113>
- Fuentes, A., López, J., & Pozo, S. (2019). Análisis de la Competencia Digital Docente: Factor Clave en el Desempeño de Pedagogías Activas con Realidad Aumentada. *REICE. Revista Iberoamericana sobre Calidad, Eficacia y Cambio en Educación*, 17(2), 27. <https://doi.org/10.15366/reice2019.17.2.002>
- Goh, E., & Lee, C. (2018). A workforce to be reckoned with: The emerging pivotal Generation Z hospitality workforce. *International Journal of Hospitality Management*, 73, 20–28. <https://doi.org/10.1016/j.ijhm.2018.01.016>
- Haumann, N. T., Lumaca, M., Kliuchko, M., Santacruz, J. L., Vuust, P., & Brattico, E. (2021). Extracting human cortical responses to sound onsets and acoustic feature changes in real music, and their relation to event rate. *Brain Research*, 1754, 147248. <https://doi.org/10.1016/j.brainres.2020.147248>
- Hendrik, B., Ali, N. M., Nayan, N. M., Mat Isa, N. A., & Masril, M. (2022). A New Robotic Learning Activity Design to Increase the Figural Creativity: Originality, Elaboration, Flexibility, and Fluency. *International Journal on Advanced Science, Engineering and Information Technology*, 12(1), 114. <https://doi.org/10.18517/ijaseit.12.1.14109>
- Hight, M. O., Nguyen, N. Q., & Su, T. A. (2021). Chemical Anthropomorphism: Acting Out General Chemistry Concepts in Social Media Videos Facilitates Student-Centered Learning

- and Public Engagement. *Journal of Chemical Education*, 98(4), 1283–1289. <https://doi.org/10.1021/acs.jchemed.0c01139>
- Khosravi, K., Pham, B. T., Chapi, K., Shirzadi, A., Shahabi, H., Revhaug, I., Prakash, I., & Tien Bui, D. (2018). A comparative assessment of decision trees algorithms for flash flood susceptibility modeling at Haraz watershed, northern Iran. *Science of The Total Environment*, 627, 744–755. <https://doi.org/10.1016/j.scitotenv.2018.01.266>
- Li, J., Yang, X., & Craig, C. J. (2019). A narrative inquiry into the fostering of a teacher-principal's best-loved self in an online teacher community in China. *Journal of Education for Teaching*, 45(3), 290–305. <https://doi.org/10.1080/09589236.2019.1599508>
- Li, Y., Ma, G., Gao, Y., & Wang, S. (2018). The software development for calculating the closing energy of automotive side swing door based on Microsoft excel. *International Journal of Vehicle Performance*, 4(1), 15. <https://doi.org/10.1504/IJVP.2018.088781>
- Lu, H., Fan, C., Song, X., & Fang, W. (2021). A novel few-shot learning based multi-modality fusion model for COVID-19 rumor detection from online social media. *PeerJ Computer Science*, 7, e688. <https://doi.org/10.7717/peerj-cs.688>
- Lu, Y., & (Cindy) Shen, C. (2023). Unpacking Multimodal Fact-Checking: Features and Engagement of Fact-Checking Videos on Chinese TikTok (Douyin). *Social Media + Society*, 9(1), 205630512211504. <https://doi.org/10.1177/20563051221150406>
- Mazza, C., Ricci, E., Biondi, S., Colasanti, M., Ferracuti, S., Napoli, C., & Roma, P. (2020). A Nationwide Survey of Psychological Distress among Italian People during the COVID-19 Pandemic: Immediate Psychological Responses and Associated Factors. *International Journal of Environmental Research and Public Health*, 17(9), 3165. <https://doi.org/10.3390/ijerph17093165>
- Mendoza, S., Sánchez-Adame, L. M., Urquiza-Yllescas, J. F., González-Beltrán, B. A., & Decouchant, D. (2022). A Model to Develop Chatbots for Assisting the Teaching and Learning Process. *Sensors*, 22(15), 5532. <https://doi.org/10.3390/s22155532>
- Mitra, A., Mohanty, S. P., Corcoran, P., & Kougianos, E. (2021). A Machine Learning Based Approach for Deepfake Detection in Social Media Through Key Video Frame Extraction. *SN Computer Science*, 2(2), 98. <https://doi.org/10.1007/s42979-021-00495-x>
- Munguia, P., Brennan, A., Taylor, S., & Lee, D. (2020). A learning analytics journey: Bridging the gap between technology services and the academic need. *The Internet and Higher Education*, 46, 100744. <https://doi.org/10.1016/j.iheduc.2020.100744>
- Mustaqeem, & Kwon, S. (2019). A CNN-Assisted Enhanced Audio Signal Processing for Speech Emotion Recognition. *Sensors*, 20(1), 183. <https://doi.org/10.3390/s20010183>
- Nitz, A. H., Dent, T., Davies, G. S., Kumar, S., Capano, C. D., Harry, I., Mozzon, S., Nuttall, L., Lundgren, A., & Tápai, M. (2020). 2-OGC: Open Gravitational-wave Catalog of Binary Mergers from Analysis of Public Advanced LIGO and Virgo Data. *The Astrophysical Journal*, 891(2), 123. <https://doi.org/10.3847/1538-4357/ab733f>
- Özerim, M. G., & Tolay, J. (2021). Discussing the Populist Features of Anti-refugee Discourses on Social Media: An Anti-Syrian Hashtag in Turkish Twitter. *Journal of Refugee Studies*, 34(1), 204–218. <https://doi.org/10.1093/jrs/feaa022>
- Polsinelli, M., Cinque, L., & Placidi, G. (2020). A light CNN for detecting COVID-19 from CT scans of the chest. *Pattern Recognition Letters*, 140, 95–100. <https://doi.org/10.1016/j.patrec.2020.10.001>
- Roziqin, A., Mas'udi, S. Y. F., & Sihidi, I. T. (2021). An analysis of Indonesian government policies against COVID-19. *Public Administration and Policy*, 24(1), 92–107. <https://doi.org/10.1108/PAP-08-2020-0039>
- Sahour, H., Gholami, V., & Vazifedan, M. (2020). A comparative analysis of statistical and machine learning techniques for mapping the spatial distribution of groundwater salinity in a coastal aquifer. *Journal of Hydrology*, 591, 125321. <https://doi.org/10.1016/j.jhydrol.2020.125321>

- Satici, B., Gocet-Tekin, E., Deniz, M. E., & Satici, S. A. (2021). Adaptation of the Fear of COVID-19 Scale: Its Association with Psychological Distress and Life Satisfaction in Turkey. *International Journal of Mental Health and Addiction*, 19(6), 1980–1988. <https://doi.org/10.1007/s11469-020-00294-0>
- Schneider, S., Beege, M., Nebel, S., & Rey, G. D. (2018). A meta-analysis of how signaling affects learning with media. *Educational Research Review*, 23, 1–24. <https://doi.org/10.1016/j.edurev.2017.11.001>
- Shaw, K. L., Baldwin, L., & Heath, G. (2021). ‘A confident parent breeds a confident child’: Understanding the experience and needs of parents whose children will transition from paediatric to adult care. *Journal of Child Health Care*, 25(2), 305–319. <https://doi.org/10.1177/1367493520936422>
- Shiyanbola, O. O., Bolt, D., Tarfa, A., Brown, C., & Ward, E. (2019). A content validity and cognitive interview process to evaluate an Illness Perception Questionnaire for African Americans with type 2 diabetes. *BMC Research Notes*, 12(1), 308. <https://doi.org/10.1186/s13104-019-4342-9>
- Song, S., Zhao, Y. C., Yao, X., Ba, Z., & Zhu, Q. (2021). Short video apps as a health information source: An investigation of affordances, user experience and users’ intention to continue the use of TikTok. *Internet Research*, 31(6), 2120–2142. <https://doi.org/10.1108/INTR-10-2020-0593>
- Srivastava, S., Kumar, A., Bauddh, K., Gautam, A. S., & Kumar, S. (2020). 21-Day Lockdown in India Dramatically Reduced Air Pollution Indices in Lucknow and New Delhi, India. *Bulletin of Environmental Contamination and Toxicology*, 105(1), 9–17. <https://doi.org/10.1007/s00128-020-02895-w>
- Sukmawan, D., Handayani, D. O. D., & Dewi, D. A. (2021). Deep Learning Approaches to Identify Sukabumi Potentials Through Images on Instagram. *2021 IEEE 7th International Conference on Computing, Engineering and Design (ICCED)*, 1–6. <https://doi.org/10.1109/ICCED53389.2021.9664877>
- Touloupis, T., & Athanasiades, C. (2020). A comparison between primary school principals’ and teachers’ perceptions of students’ online risk behaviours: The role of perceived self-efficacy. *Cambridge Journal of Education*, 50(4), 1–18. <https://doi.org/10.1080/0305764X.2020.1740170>
- Udut, V. V., Naumov, S. A., Evtushenko, D. N., Udut, E. V., Naumov, S. S., & Zyuz’kov, G. N. (2021). A case of xenon inhalation therapy for respiratory failure and neuropsychiatric disorders associated with COVID-19. *EXCLI Journal*; 20:Doc1517; ISSN 1611-2156. <https://doi.org/10.17179/EXCLI2021-4316>
- Wang, S., Kang, B., Ma, J., Zeng, X., Xiao, M., Guo, J., Cai, M., Yang, J., Li, Y., Meng, X., & Xu, B. (2021). A deep learning algorithm using CT images to screen for Corona virus disease (COVID-19). *European Radiology*, 31(8), 6096–6104. <https://doi.org/10.1007/s00330-021-07715-1>
- Wang, S., Paulo Esperança, J., & Wu, Q. (2022). Effects of Live Streaming Proneness, Engagement and Intelligent Recommendation on Users’ Purchase Intention in Short Video Community: Take TikTok (DouYin) Online Courses as an Example. *International Journal of Human-Computer Interaction*, 1–13. <https://doi.org/10.1080/10447318.2022.2091653>
- Wang, Y. (2020). Humor and camera view on mobile short-form video apps influence user experience and technology-adoption intent, an example of TikTok (DouYin). *Computers in Human Behavior*, 110, 106373. <https://doi.org/10.1016/j.chb.2020.106373>
- Yeager, D. S., Hanselman, P., Walton, G. M., Murray, J. S., Crosnoe, R., Muller, C., Tipton, E., Schneider, B., Hulleman, C. S., Hinojosa, C. P., Paunesku, D., Romero, C., Flint, K., Roberts, A., Trott, J., Iachan, R., Buontempo, J., Yang, S. M., Carvalho, C. M., ... Dweck, C. S. (2019). A national experiment reveals where a growth mindset improves achievement. *Nature*, 573(7774), 364–369. <https://doi.org/10.1038/s41586-019-1466-y>

- Zhang, L., Sun, B., Jiang, Z., & Spencer, B. F. (2022). A Quantitative Method for Post-Earthquake Safety Assessment of Damaged Reinforced Concrete Frames Based on On-Site Survey Data. *Journal of Earthquake Engineering*, 1–29. <https://doi.org/10.1080/13632469.2022.2121793>
- Zhu, T., Wang, Y., Zhou, S., Zhang, N., & Xia, L. (2020). A Comparative Study of Chest Computed Tomography Features in Young and Older Adults With Corona Virus Disease (COVID-19). *Journal of Thoracic Imaging*, 35(4), W97–W101. <https://doi.org/10.1097/RTI.0000000000000513>

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