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Student's Perspective on Implementing TikTok as Supplementary Teaching and Learning Activity in Higher Education: A Preliminary Study

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ABSTRACT

University students belong to the 'millennial' age group, a group that evolves around the use of IT and social media in their everyday life. TikTok, a short video social media application, can be used in the higher education learning institution as a supplementary teaching and learning activity. Most researchers find that TikTok has many benefits if implemented correctly by university students. This study is conducted to explore whether TikTok can be used a supplement to the traditional teaching and learning practiced nowadays. A semi structured interview analysis was conducted towards 10 university students to explore whether the available videos in TikTok application are suitable for higher educational related purpose and whether the application can be used as a supplement to teaching and learning activities and was analysed using thematic analysis. It is concluded that there are plenty of beneficial videos for higher education purpose in the application and these videos can act as a supplement to the traditional teaching and learning process.

1. INTRODUCTION

Launched in 2016, TikTok is a short-form video platform that has rapidly gained popularity, especially among millennials, because of its multimedia features and its ability to help increase a person's curiosity and interest in finding out new things (Aref et al., 2023). People born between 1980 and 2000 are known as millennials, and they are renowned for their curiosity in technology and their extensive use of social media (Didarul, 2015). The use of TikTok within this group has seen a dramatic increase worldwide, particularly in Malaysia, where the platform's patterns and short form videos are the main attraction towards young people in higher education (Madli et al., 2023). The site's entertainment aspect, social connection capabilities, and role as a platform for self-expression and creativity are some of the reasons that highlights the popularity of TikTok usage (Antonio Jr et al. 2022; Mary et al., 2022).

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TikTok has had a high cultural impact towards millennials in Malaysia. The application has developed into a go-to source of reference for lifestyle, fashion, and music trends; all of which has had an impact on people's decisions and behaviours both online and offline (Deng et al., 2024; Subre et al. 2023). TikTok has the ability to become an important to socialisation, especially for a nation with many differing cultures, where the application may foster a more inclusive and culturally sensitive online environment (Deng et al., 2024).

A number of studies have been conducted on the use of social media in education, and the results suggest that it can both improve learning outcomes and make information exchange easier, such as in conducting debates (Gemma & Victoria, 2015). TikTok offers special chances for educational purpose due to its community-driven model and user-generated content. The format of the platform facilitates the exchange of educational knowledge in a more casual and relevant way while also encouraging creative expression, including in terms of other aspects of education such as news, brand awareness (in marketing) and also politics (Antonio Jr, et al., 2022; Mary et al., 2022; Subre et al., 2023)

TikTok has the potential as a useful educational tool due to its ability to develop and share brief, entertaining videos that can increase accessibility and entertaining way of gaining information (Antonio Jr et al., 2022; Mary et al., 2022). To cater to the learning preferences of millennials, who prefer multimedia information over traditional text-based materials, educators and experts can use TikTok to create bite-sized lessons in order to grab their attention and improve retention (Gray, 2015). Hence, TikTok should be considered as an option to become part of a student's supplementary teaching and learning activity, especially in higher education.

2. LITERATURE REVIEW

2.1 Supplementary Teaching and Learning Activity

Supplementary teaching and learning activities refer to the educational practices and resources that complement the core teaching and learning method and curriculum, enhancing and reinforcing the learning experience for students. Supplementary teaching and learning activities are normally not written down as part of the curriculum's documented blueprint but may play a part to strengthen the curriculum. These activities are designed to support the main instructional objectives, providing additional avenues for knowledge acquisition, skill development, and cognitive reinforcement.

Supplementary teaching and learning activities cover a wide range of instructional strategies and resources (Onn et al., 2024). They are intended to address diverse learning methods, provide additional practice, and assist to understanding deeper of the subject matter. These activities can include (but not limited to) tutoring lessons, interactive workshops, using educational software, online resources, and extracurricular programs.

The ability of supplementary learning to cater to different learning styles and paces is very important, ensuring that all students can achieve what is written in the courses' objective. According to Onn et al. (2024) TikTok as supplementary educational is need as it provides more engagement and motivation to students as they can share creative insights to foster their learning capabilities. Fisher et al. (2020) also highlighted that these supplementary teaching and learning activities can lead to improved academic achievements and higher student motivation by promoting a more engaging and interactive learning environment.

2.2 Benefits of TikTok in Higher Education

2.2.1 Enhanced Engagement

TikTok's short, visually attracting videos are able to effectively capture students' attention, making the process of teaching and learning more interactive and enjoyable. The use of various multimedia tools such as music and emojis, colours, etc. content on TikTok can significantly enhance student engagement and motivation (Deng et al. 2024). The platform's interactive nature allows for creative and innovative presentations of educational material, which can make complex topics more accessible and understandable. TikTok's short video format is able to transfer knowledge in a very interactive and exciting way, where it can fully increase the users' interest in discussion and gathering information (Yan et al., 2022). In a study conducted by Zaitun et al. (2021), most students agree that interesting videos in TikTok is able to help in facilitating the increase of the student's confidence in their ability to speak in English.

2.2.2 Microlearning Opportunities

Microlearning (once more commonly known as bite-sized learning) can be achieved via TikTok's short video format, where students can consume small, manageable portions of information quickly. This method has been shown to improve retention and understanding of material, as it is able to reduce cognitive load and allows for spaced repetition (Wang & Tien, 2021). Microlearning on TikTok can be particularly effective for reviewing key concepts, practicing skills, and reinforcing learning. Most of TikTok's short-form videos are concise, straight to the point, and packed with valuable information, where these types of videos are more digestible and attractive to viewers (Hasnah et al., 2023) and will also enable students to use their spare time to study in short videos, which they feel is a reasonable time for them to spend (Yan et al., 2022). According to Gray (2015), microlearning (or bite-sized learning) also presents the advantages of increased participation. In a study conducted by So (2016), students have been found to highly accept the concept of bite-sized learning and lead to learning outcome improvement in the context of higher education.

2.2.3 Accessibility and Convenience

All higher education students nowadays have their own smartphones along with the access to internet. This means that educational content on TikTok is easily accessible to students anytime and anywhere. As a result, students are able to access TikTok in order to gain knowledge whenever they want which allows for flexible learning schedules and opportunities for students to obtain and access educational material outside the traditional classroom setting (Smith, 2020). TikTok's algorithm also customizes content feeds to match users' interests (also known as 'For You' page), helping students discover relevant educational videos effortlessly. The 'For You' feature which consists of an endless stream of videos uniquely personalized for each user based on TikTok's algorithm's present users with the videos that are most relevant to their interests, where it constituted a significant portion of their overall activity on the platform in which their experience on TikTok changed the longer they were on the platform, where in most cases users came up with the use of distinctly personifying and humanizing language to describe the algorithm, where ultimately students will be 'fed' with educational videos the more time they spent using TikTok for educational reasons (Bhandari & Bimo, 2022). The algorithm feature in TikTok will also enable a tailorized experience when searching for information where through personalization, TikTok can tailor information and services to the personal preferences and needs of its customers, thereby expanding student's engagement (Zhang et al., 2019), where students can easily obtain information without even having to first look for it via the For You feature in the app.

2.2.4 Diverse Content and Peer Learning

Each TikTok user is able to come up with their own TikTok video content, and there are a wide range of user-generated content, thus providing students access to diverse ideas, learning styles, and various explanations for various topics. This diversity caters to different learning preferences and needs, enhancing

the overall learning experience (Angel et al., (2021): Gemma et al., (2022)). Not only that, the use of TikTok will also enable peer learning by allowing both students and educators to share educational content, creating a two-way communication of knowledge exchange and collaboration (Angel, 2021). The ability of TikTok to produce diverse content will also enable students to increase understanding, knowledge, and even English proficiency (Hasnah et al., 2023). A study by Nur and Berlian (2022) found that students believe that TikTok offers a variety of pool of knowledge that were not only limited to education, but also offered tips on dealing with everyday life's affair. In addition to that, they were also able to gain new knowledge on numerous areas of interests and update themselves on news from around the world. People with high social anxiety may seek comfort in online communication to replace in-person interactions (Zhang et al. 2018), thus increasing peer learning since students are able to post questions and discuss online without having the need for direct social conversations.

3. METHODOLOGY

In this study, semi-structured interview is selected as the research methodology. In order to ensure a seamless communication between the author and the interviewees, the author created an interview outline before the interview. This covered the main issues to be discussed during the interview as well as the general direction of the questions to be asked.

Based on the size of the research project, the author set the interview to a total of 10 interviewees. They are 19 to 20 years old, comprising of both genders from Diploma in Quantity Surveying, Universiti Teknologi Mara Perak Branch, Malaysia. All the students have an existing TikTok account and have been using the application for a variety of reasons, ranging from educational and up to entertainment. The use of interview enables the researcher to obtain a more direct response from the students. The author collected the interviewees' opinions on whether videos on TikTok is suited for higher education teaching and learning purposes and also is it a viable form of supplementary teaching and learning activity in higher education.

Qualitative data obtained from the interviews were then analysed using deductive analysis in thematic analysis, where data were organised into major themes for drawing conclusions based on the work of thematic analysis by Braun and Clarke (2006).

Step 1: Become familiar with the data
Step 2: Generate initial codes
Step 3: Search for themes
Step 4: Review themes
Step 5: Define themes
Step 6: Write-up

Fig. 1. Braun & Clarke's six-phase framework for doing a thematic analysis

4. RESULTS AND DISCUSSIONS

4.1 Are the videos available in TikTok suited for Higher Education teaching and learning process?

Theme 1: Viability of TikTok for Higher Education Purpose

The first theme obtained from the interviewees is that they agree that TikTok suited for higher education teaching and learning process due to the abundance of videos available in the TikTok application. In general, videos in TikTok ranges from simple general learning process such as 'how to take notes in

class' and 'how to manage time in university', and to videos of particular courses available in the University, such as 'how to produce drawings' (catered for arts and architectural students) and 'how to repair machineries (catered to mechanical engineering students and automative students), just to name a few. According to the interviewees, TikTok has videos for all sorts of courses in a university, ranging from Architectural, Management, Medical, Educational, Arts, and many other courses. Sometimes, these videos can also cater for the lack of field trips that some courses suffer which may replace as firsthand experience for users.

Theme 2: Easiness of Information Searching

The second theme obtained is that interviewees have mentioned that the correct keyword (or search word) must be used when looking for videos relating to their subject; where if a wrong keyword is used, some interviewees find it difficult to find the video that they are looking for. This process will unfortunately consume time and may even sometimes be infuriating. However, once a correct keyword is found, then a floodgate of beneficial videos will be available to the students especially in their 'For You' page, making learning process much easier and faster. As stated by one participant:

"Finding the first video is sometimes difficult and might take some. A little play of words is needed in finding the correct keyword to be used when searching for a certain video subject."

Theme 3: Alluring and Informative Videos

The third theme obtained is that videos in TikTok are interesting, eye catching and fun in a university student's point of view. TikTok itself is famous for their videos having background music and other forms of media, but for education related videos, the videos themselves are entertaining and yet still informational, where most videos are not overwhelmed by the use of too much media or distracting music/animations. These videos are said to be 'professional' but at the same time can draw attention to university students due to the minimal yet functional media used in the videos. Interviewees mentioned that these educational type videos are somewhat relaxing compared to the other type of entertainment videos that contains too much music and distracting media that are normally available in their 'For You' page. As mentioned by a participant: "I find in somewhat surprising that these educational videos are really entertaining and sometimes engaging, even if the content creator himself is from an older generation of people."

Theme 4: Easiness of Hardware and Software Accessibility

The final main theme obtained from the interviewees is that TikTok is very applicable for teaching and learning in higher education since almost all higher education students themselves have smartphone or tablet, making accessing TikTok an easy task. Most interviewees agree that TikTok is among their most accessed application in their phone alongside other social media applications, shopping application, and gaming application. And even though some students don't have a TikTok account, creating one is a trivial matter for today's IT savvy generation.

4.2 Are the videos available in TikTok suited as a supplementary teaching and learning activity?

Theme 1: Information Available Anytime, Anywhere

All interviewees agree that TikTok can act as a supplementary teaching and learning activity to in class teaching. The main theme identified is that the main hurdle in in class teaching and learning activity is time constraint since lectures only take place 1-4 hours per week (depending on the subject) and there are only around 14 weeks per semester. Lecturers have very minimal amount of time to finish each topic and has the tendency to go through topics very quickly without having the opportunity to go into detail or conduct discussion on certain topics, and for some instances, the lectures given are insufficient for students to understand the topic taught. As a result, students will need further clarification on certain topics and will

be able to refer the videos available in TikTok pertaining to the topic that they are unclear on for further understanding or information. As stated by a participant:

"...the time spent learning in class in sometimes insufficient. Not to mention the other obstacles that happen during in class learning process such as tiredness, feeling hungry, disturbance by peers; all these will result in the lost of focus during class."

Theme 2: Bridging the Gap Between Theory and Practice

Another theme obtained is that interviewees stated that videos in TikTok will be able to bridge on what is learnt in class with what is actually practiced in the industry. Based on an example given by a student, they are taught theoretically on the process of constructing a brick wall without any practical or on-hands approach which has led to insufficient information obtained by the students. As a result, the student has taken the initiative to refer videos in TikTok on how brick walls are constructed thus giving them further understanding on the practical process of the topic. The same approach has also been taken by most of the interviewees in order for them to gain further understanding on what is learned in class. This has been seen as a crucial or high impact of using TikTok as a supplement to what is being taught in class since this process can be applied to various courses and subject, ranging from Arts up to (but not limited to) culinary course. As mentioned by one participant:

"TikTok videos act a bridge between what is learned in class and the actual practice in the industry. Since sometimes it is difficult to imagine the things taught by the lecturers since we (students) haven't even once entered a construction site."

Theme 3: Straight to The Point Information

The third theme emerged is that since the nature of videos in TikTok itself is short, information can be obtained at a faster rate compared to other social media or video sharing platform, namely YouTube. Most interviewees responded that their main go-to video information platform is TikTok, since the videos there short, precise, and straight to the point. Whenever any preliminary information of a certain topic is required, it only takes 10-30 second of video viewing to obtain the answer and then they can move on with their study. Where compared to YouTube, videos can take up to 10 minutes long or more, and students have to wait for the video to finish for them to obtain the answer they are looking for or have to scroll within the duration of the video to look for information, which also takes time.

5. CONCLUSION

This study was aimed at determining students' perspective in implementing TikTok to supplement in class teaching and learning activity in higher education. Based on the findings of this study, it is determined that the videos currently available in TikTok are suited for the use of higher education students in order for them to gain knowledge relating to their syllabus. This is mainly because the large quantity of education related videos in the applications' database, the eye catching and fun nature of the videos, and the ease of access of the application by the students as agreed by Wang & Tien (2021). However, it is determined that the right keyword must be used when searching for a video in order to make a smooth learning process.

In addition to that, it is also concluded that TikTok is suitable as a supplementary teaching and learning activity to help traditional classroom education process mainly because of the tight schedule of higher education classes and the ability of TikTok to bridge the gap on what is learnt in class with the current practice of the industry (relevant to the subject of the course) as agreed by Smith (2020). Other than that, the short-span nature of TikTok videos will enable the process of knowledge acquisition much faster and precise.

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7. CONFLICT OF INTEREST STATEMENT

The authors agree that this research was conducted in the absence of any self-benefits, commercial or financial conflicts and involves no funders.

8. AUTHORS' CONTRIBUTIONS

All authors are involved in the whole process of this research.

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