



Does Student Teachers' Digital Interest in YouTube Technology Matter? A Case Study of Micro-Teaching Skills

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Article History	Abstract
Received: 06 June 2023 Revised: 05 Sept 2023 Accepted: 16 Oct 2023	<p><i>In 2021, according to the statistical research presented, 2 billion videos would be seen on YouTube every day, and more than a billion individuals will subscribe to channels and use the site on a regular basis. Because of its widespread usage and ease of accessibility, YouTube video technology has been shown in several studies to have advantages for classroom instruction and lifetime learning. The persistent reason for this research was to investigate the perspective of teacher-trainees' interest in using video in teaching Micro-teaching skills, by applying YouTube video technology as an educational instrument in the instructional process. The research survey design was applied with 300 teacher-trainees in all NCE and B. Ed. programmes as the respondents to the research from all various departments. The questionnaires were distributed to them after watching the video clips on YouTube. The collected data was analysed using simple frequencies used for the test of the research question and analysis of Person correlation coefficient to retain or discard the hypothesis. The result revealed that teacher trainees have an interest in the usage of YouTube video technology, and it can be used to attain the educational ends achieved through the usage of YouTube video technology in teaching micro-teaching skills. The exciting findings of the result show that teachers and trainees from all departments agree and are satisfied that YouTube technology is an educational resource for modern instruction. The research recommends that YouTube should be used as a digital alternative to traditional microteaching (face-to-face), and it will address students' congestion due to the lack of appropriate lab equipment and qualified technicians in traditional microteaching laboratories.</i></p>
CC License CC-BY-NC-SA 4.0	Keywords: Digital, Interest, Micro-Teaching, YouTube, Student-Teachers

1. Introduction

Nobody disputes the fact that teaching has gotten harder. Microteaching lesson is one of the approaches to creating certified, competent, and professional teachers (Saidu, 2021). Microteaching is a subject that is compulsory, and it is essential that teacher-trainees pass before entering teaching practice. It is indisputable that, microteaching is the subject that all students in teacher institutes must engage in, before moving to actual teaching practice in O-level secondary school (Guo, 2023). Today, practically every sector of life makes considerable use of ICTs. Information and communication technologies offer fresh methods for disseminating knowledge and information, facilitating communication, and

delivering instruments for inspiring learning in multimedia dimension (Tahat, et al., 2020). The main educational service offered by YouTube is instructional multimedia. In the past two decades, there has been a lot of interest in studying how multimedia design affects learning, using both visual and spoken information (Alobaid 2020). Due to technology and the fact that we are presently living in the internet generation, microteaching instruction has to adapt to suit the current generation.

In 1963, A.W. Dwight Allen of Stanford University introduced **Microteaching** and defined it as, a condensed, scaled-down, brief encounter in size and class, by a teacher-trainee, and focused type of teaching. Microteaching was borne out of the frustration of liberal arts graduates, who felt there was nothing they could learn from teacher education as Allen (1980), stated that Microteaching was developed as a result of the dissatisfaction of liberal arts graduates who believed they could not possibly learn anything from teacher education. He further explained that, we created a scenario that would let them check the veracity of this claim, in order to put their belief to the test. It started off as a ten-minutes session, but was eventually shortened to five, when trainees taught students' materials that they already knew, but appeared to be studying.

Teachers may now receive training in a variety of ways, not just in-person (face to face) and online, owing to the Internet's rapid expansion of technology, which has become a vital route for the professional development of teachers (Ma and Sun, 2022). The digital gadget can now be used to acquire knowledge in an easy way. The technology of YouTube video is more than simply a platform for people to upload, take, share, post, comment on, and discuss clips; lecturers, instructors, and trainers can make the greatest use of it to help learners (Fadhil & Qassim,2020). Shoufan and Mohammed (2022), mentioned that, the methodology and environment in which learning occurs have shifted as a result of YouTube videos. To meet the educational demands of the upcoming generation, the usage of YouTube videos in classrooms is essential. Although textbook materials have been the norm for hundreds of years, YouTube videos are now often used in educational settings owing to the rapid speed of technological advancement (Sakkir & Ahmad 2020).

For many decades or centuries, learning has been on paper and provided materials to people, but as a result of the advancement of technology, the teaching and learning process is no longer based on giving materials for students to absorb and be treated as copycats, as our complete ecosystem of activities, education, and progressing of learning has changed and is yet surfacing every day (Dyosi & Hattingh 2018). Degner, et al. (2022), say when the term "learning" is stated, schools or other organised learning environments are the primary things that spring to mind. The big problem associated by this assumption of thoughtfulness is that the other kind of teaching and learning that occurs as part of our regular daily responsibilities becomes overlooked. Even though computers, as well as other ICTs give students and other individuals access to a wide range of learning-supporting behaviours and experiences, a lot of these interactions don't happen in conventional pedagogical settings.

Informal learning is part of the curriculum that has a crucial function in shaping the minds of the students and making them exposed to new environments and knowledge that leads them to have awareness. This statement is in line with Lange (2019), saying, general traditional learning (informal) occurs outside the conventional educational settings, is loosely planned, gives learners autonomy over their education, and allows for varied levels of participants' awareness of their learning.

Likewise, Ang, et-al. (2018), defines informal learning as learning that takes place outside the traditional classroom system. Informal learning was seen as inevitable by researchers in the digital era. The use of digital media now has a great deal of capacity to support educational processes; unplanned viewing, internet browsing, and social interactions. It is not necessary to set a goal of acquiring knowledge to be able to do so; learning happens spontaneously as a result of interactions between people, whether these interactions take place in person or online, as a result of digital technology, which one of that digital technology is YouTube.

The Internet has made educational resources and instructional contents in their fields available, and YouTube technology that can be accessed via the Internet is now made available on the YouTube website, for students to use at the pace and in the way that they find most convenient for their learning requirements (Bargees 2018). The development and advancement of technology have made it easier to divide the tasks involved in producing and consuming the understanding of knowledge, in the field of

education. YouTube was launched in 2005. It is a social media site that allows thousands of consumers to find, view, and share original user-generated videos. This website offers a forum to connect, educate, and motivate people worldwide. The Google engine owns the leading social media in the world, that is YouTube video technology, and it is the leading video-sharing platform on the Web ((Neuman & Herodotou, 2020).

The Statista (2021), projects that, over two billion users visited the YouTube channel monthly. This statement shows how YouTube has spectators all over the world. The frequency of YouTube made it how it is, and its simplicity captured the mind of the people to participate in the channel. There is currently a dearth of literature on YouTube technology for several aspects of education. The popularity of YouTube among surgical trainees, however, recommends that surgical colleges and surgical educators should take part in the distribution of videos on this platform. (Frag et al., 2020)

According to Burgees (2018), YouTube video technology has also remained at the forefront of the participation of culture by enabling anybody to use it to make their speech heard, from industry experts to government officials, citizens' groups, and anyone else. When submitting videos to the channel, content creators have the choice of including a title, a description, several tag keywords that distinguish a certain video, and even an audio transcript. Users and content providers can create their own channels in order to upload their videos to YouTube.

Additionally, Papadamou (2021), explains that, the merit of YouTube video technology is that, anyone who is younger than 13 years cannot browse and download videos on YouTube video channels. Users can comment on videos they are watching, like or dislike them, and share them on other social networks. Other users can shape their responses to those remarks as well. This statement shows that YouTube technology has simplicity, accessibility, and usability in a way that every person has the full right of watching the video on the channel, this opportunity that YouTube offers modified the culture of the people. This is in line with the opinion of Papadamo (2021), who states that, the way and manner people find and watch videos have been transformed by YouTube technology. Even though millions of professionally made educational, amusing, and reliable news videos are readily accessible on YouTube and an important educational resource will be found.

Faizi, et al. (2015), define the era that we are as the digital generation. They say in this day and age of digital technology; young people use the internet in every area of their lives. These technically literate individuals have brought about a change in learning approaches from earlier generations. As a result, there was a paradigm shift in teaching that resulted in the adoption of a new style of teaching that uses videos from YouTube in an educational setting.

Sakkir et al. (2020), articulate that, the use of YouTube as an instructional medium is thought to have an impact on the degree of students' involvement. This method has provided novel perspectives on pedagogy in educational institutions. To engage younger learners (internet generation), the implementation of web 2.0 applications like YouTube, social networking sites, and others in the classroom has been recommended to suit the present situation of the digital revolution.

The primary goal of this study is to determine whether student-teachers who are in teacher training colleges are interested in using YouTube videos for educational purposes. The teacher-trainees' autonomy and independence may be increased by microteaching, and YouTube technology can aid teacher-trainees' growth, engagement, and understanding of these concepts.

The research will answer the following question:

RO1: In what way does student-teachers' digital interest in YouTube videos technology have influence on the microteaching subject, as viewed by the respondents?

The following null hypothesis will be tested:

Ho1: There is no significant correlation between respondents' views of student-teachers' interest in microteaching subjects on YouTube.

2. Literature Review

As a result of the technological revolution, YouTube is used as an instrument for teaching in both formal and informal educational settings. Sun (2014), explains the technology of video is being used for teaching, since videos are extensively used in the learning and teaching processes and the videos on YouTube can be beneficial to teacher-trainees in the effective learning of micro-teaching. In educational contexts, digital media—including electronic gadgets and videos—are instruments that make it easier to transmit information that has been technologically encrypted, such as words, videos, sounds, images, and animations (Neuman & Herodotou, 2020).

YouTube Video Technology

The development of Internet videos benefits those who instruct and learn online. It is recommended in this era that YouTube technology and other audio-visuals, including podcasts, be used in teaching to enhance classroom instruction (Savov et al., 2019). Teaching pedagogies have transformed over time, starting with the blackboard, then the chalkboard at school, switching to the whiteboard, then employing computers and projectors as teaching tools, and ultimately moving on to computer-based learning, or e-learning, and most recently, YouTube video technology. Technology now plays a key role in our daily activities, in this era of technological advancements, and it streamlines many processes in our society.

YouTube video is considered instructional resources that can be combined into a teaching cycle. It is also regarded as a material that can improve students' academic performance. (Almurashi, 2016). Yes, is true this statement the research of the Halpern et al., (2020) revealed in their study that there is an accurate improvement in academic achievement over the usage of YouTube technology. Another scholar is of the view that YouTube video improves student academic performance and their device's implementation in the educational sector improves students' performance rapidly (Arevalo et al., 2020). There is no doubt that the advancement of technology benefits everyone, and has a good impact on society. Positive technological changes have been observed in the medical, educational, economic, and cultural fields. (Raja & Nagasubramani, 2018)

Jalaluddin (2016) is of the opinion that websites like YouTube offer users a place where they may create, view, and share brief films as an educational tool the site globally can be seen all over the world. YouTube, in the opinion of Malik et al (2022) is a particularly alluring social media that advances worldwide education. It provides quick, entertaining access to international language and cultural videos. Additionally, it provides a viewing-friendly platform that enables users to publish movies quickly and enroll in additional channels in order to view additional genuine videos. This enables the users to interact when they share videos and leave comments on videos to solicit or provide feedback.

The world of Internet technology is advancing quickly, which alters how individuals think and function. From resource-focused activities to task-based activities and support for social interaction in the learning process, web technologies evolved. Today, one of the key themes in online learning is the emphasis on social contact in the learning process, such as social connection, through online debate and social media, especially YouTube technology. In contrast to face-to-face discussions, online discussions let students engage digitally. Rodriguez et al (2019), asserted that several studies suggested that online learning communities might foster cognitive improvement, active involvement, academic accomplishment, and knowledge generation. These views would encourage teachers to apply internet gadgets in the teaching-learning process of Microteaching specifically YouTube video technology.

Concept of Interest in Learning

The desire to accomplish something that makes one glad and interested is the same as the desire to learn. In addition to preparedness for change, enthusiasm for learning also influences how much we learn. Interest must be invited. (Prasetyo et al., 2021; Setiawan & Aden, 2020). According to Berutu and Tambunan (2018), interest is an ongoing activity created by learners during the instructional process. Interest plays a significant role in learning, since students won't be motivated to study well if the topic matter is inappropriate. The interest of the learners must be nominated, for the purpose of the smoothness of the learning (Saputra & Agus, 2021; Ubaidillah, 2019). Students' ability to learn depends greatly on their level of interest in the subject matter, which also has an impact on the students' own learning outcomes. (Nasrullah et al., 2018, & Kartika et al., 2019).

Interest in the teaching and learning process is one of the biggest ends of educational objectives. The affective domain was emphasised by the stakeholders in education, and whenever students have an interest in that notion, it will lead to worthy learning outcomes. This is consistent with the assertion made by Kristyanto et al., (2020), who claim that students learning outcomes, which are reflected in the values attained by students, may be used to determine and quantify the quality of education. The interest and efforts of learners in their educational process have produced the educational outcomes that they have highlighted. As a result, lecturers should work to enhance the learning results of learners, through a variety of educational endeavours that encourage the growth of students' skills (Yuliati & Lestari, 2019). No educational aim and objective would be achieved without the interest of the students. Microteaching is an interesting course that produces skills in teaching, and makes teacher-trainees' qualified teachers in macro societies.

YouTube as a Teaching Tool

Video is frequently utilised in education and learning, and it can affect students' learning in several ways. When utilised properly, video may aid in students' learning and to make learning permanent. According to Yaacon and Saad (2020), students would comprehend classroom instructions better, if they could view, share, and download the video clips of the lecture on the YouTube platform at any moment. Habes et al. (2019), are of the opinion that the platform of YouTube is for general individuals at all strata of age and location; it is a medium that can be used as an educational medium by lecturers to stimulate and capture students' attention to the learning. According to Saed, et al. (2021), all academic subjects and topics could be found in the YouTube domain, and the practical aspect of the theory can be seen practically.

As we mentioned earlier that, there is a hundred of convincing facts supporting the use of YouTube videos as learning resources by institutions of education, lecturers, teacher-trainees, and instructors, for several kinds of courses related to their areas of interest. Oris et al. (2016), look YouTube as completely zero cost, is free, this is one of the factors. The learners have access to YouTube videos via the channel's website, where they're able to download, modify, and leave comments. Users can even use the YouTube editing tools to produce their personal YouTube films. Alwehabi (2010), noted that using YouTube videos may change our classroom into a more participative learning environment, liveliness and increase more participation, as a result, provide a space where students will want to keep comments to express their opinion in respect to what they saw. Each tool of the site could have an effect on the level of student engagement.

Using Digital Media in Teaching and Learning

Multimedia is a digital medium that can be described as an electronic device that stores data and conveys the information in a digital form. According to Widiyanti et al. (2023), say the usage of YouTube technology as multimedia in teaching appears to increase students' understanding of topics. All of the contemporary media, in the form of social media, have components in educational environments that have significant potentials for gathering and disseminating knowledge adapted to students' wants and requirements, so they may utilize it on their own, to facilitate their understanding of what is being taught in the classroom (Degner & Lewalter, 2022).

Concept of Micro-teaching

In teacher education curriculum, microteaching is a common technique that blends situational knowledge with thoughtful practice. In order to practice, rehearse, and replicate on action, a condensed lesson plan called micro-teaching is employed (Ledger et al., 2019). The approaches and strategies of microteaching have been used in a variety of settings and academic fields, including health, research, and medical education. As Bandura and Griffiths (2016), state that, the procedures of microteaching are frequently given in the context of role-playing to allow for immediate feedback and contemplation. Micro-teaching offers an opportunity for both mastering and vicariously experiencing, two factors that are thought to be crucial for the growth of teacher self-efficacy.

Micro-teaching is a universal tactic for philosophical preparation and rehearsal conceptualised in the 1960s at England University, Stanford, and has continuously gone on to offer teacher education programmes a respected preliminary and introductory progression for moving to real-classroom settings

(Allen & Eve, 1968; Arsal, 2014; Griffiths, 2016). Cooper and Allen (1970, p. 1), explained micro-teaching as:

Microteaching is a class size- and student-restricted, scaled-back teaching scenario. Typically, 4-5 students were involved in a 4 – 24-minute class. By simplifying some of the teaching act's intricacies, the lesson is trimmed back, allowing the instructor to concentrate on a few key teaching facets. A typical micro-teaching episode consists of the instructor delivering the lesson and receiving quick feedback on how well they did. A variety of sources, including supervisors, students, co-workers, and the instructors' perceptions, may provide this feedback, including video or audiotape recordings. Lesson duration, student count, the kind and degree of supervision, the use of audiotape recording or video recordings, and the number makeup of students are only a few of the changeable elements of microteaching.

Microteaching using Video Recording

The current situation pushes universities, colleges, and schools to employ a variety of online video sites for educational purposes, including YouTube, Teacher Tube, Vimeo, and Google Classroom. The tradition of teaching microteaching practicum for the student-teachers before the practical session is in video means that, video recording is a tool that is frequently used to increase the efficiency of microteaching (Woolfitt, 2015). The supervisor and the practicing lecturer of Microteaching might discuss areas for development after seeing the recorded recordings, according to Teamen, (2015). That was then, when local video was used, in an era when YouTube video was not yet in existence. Now, YouTube technology can be used to replace the video as a means of viewing the microteaching session. Teacher trainees can go directly to the YouTube site to watch the microteaching series at their own pace from anywhere. Colasante, (2022), says that there is a tonne of evidence to back up the idea that practicing teachers may better grasp the teaching techniques of microteaching by using video recordings in their lessons.

Brame, (2016), is of the opinion that, the digital video social media landscape has a significant role to play in the educational domain. As a crucial tool for delivering curriculum in many flipped, hybrid, and online classrooms, educational films have grown in importance in college and university settings. Managing the mental burden of the technology of video clip, maximising students' engagement with the video, and encouraging active learning from the video, are three factors that instructors should take into account when using video as a teaching method.

Procedures for Effective Microteaching Application in YouTube

Brame, (2016) and Jimenez, (2017), stated that, to achieve the maximum advantage from the usage of academic clips on the site of the technology of YouTube, strategies need to be drawn in order to have the procedures and focus. The following are the proposed features:

- ❖ The video should be brief.
- ❖ The clips should go directly to the point.
- ❖ Mention the target at the beginning of the show.
- ❖ Enhance learners' engagement by applying styles of conversation that are enthusiastic.
- ❖ The video timing should be suitable for learners to follow the presentation.
- ❖ The presentation of the clips should be in natural breaks, not too fast or too slow.
- ❖ Utilise background-free HD videos. Noiseless.
- ❖ The video should not be too fast or too slow with natural breaks.
- ❖ The content and presentation should be in an organised manner and structural order.
- ❖ The video should base on the culture of the environment.

3. Materials And Methods

The methodology that this research applies is a survey research design, whereby a questionnaire was distributed to teacher trainees of the Federal College of Education Zaria. The respondents who participated in the research are NCE and B. Ed students, which gives a total of 300 respondents in different departments. Three hundred and fifty questionnaires were distributed, whereas 300 were returned.

3. Results and Discussion

Research question: In what way does student-teachers' digital interest in YouTube videos technology have influence on the microteaching subject, as viewed by the respondents?

Table: 1.1

	N	\bar{X}	SD
NCE Students	180	12.5	3.4
B. Ed. Students	120	11.9	3.3

The means of NCE students is greater than (>) that of the B. Ed. students, which indicates that the interests of teacher-trainees in using YouTube digital technology in learning Microteaching subjects have a significant influence on understanding the subject, and the interest of the students is high in terms of YouTube technology.

Null Hypothesis

There is no significant correlation between respondents' views of student-teachers' interest in microteaching subjects on YouTube. This hypothesis concerns issues about teacher-trainees' interest in the use of YouTube digital technology for teaching microteaching. Summary of analysis Pearson correlation coefficient on the student-teachers' interests in using YouTube digital for microteaching on Table 1.2.

Table: 1.2

	N	X	SD	R	P	Decision
Student teachers	300	18	3.3			
				0.17	0.04	Significant
	300	12.4	3.3			

The P value of the above table is 0.04, which shows that the P.V. is less than 0.05. The hypothesis here is rejected because the P value is 0.04, which indicates. The X of the table shows that the majority of respondents agreed teacher-trainees have an interest in the application of YouTube digital in learning microteaching.

Limitation

The research is limited to the Federal College of Education, Zaria and a single subject, and to the students in NCE and B.Ed., with the application of quantitative research design and a single subject. Therefore, there is a need to conduct additional research in all subjects of education, sciences, and departments in all colleges of education in Nigeria, and a qualitative or mixed method should be employed.

4. Conclusion

As a significant instructional resource for both lecturers and students, YouTube videos are essential for colleges of education, teacher-training institutes, and all tertiary institution students, to improve their competency, confidence, and practical abilities. The advancement of digital media provides tools for making life easier. This ease of the digital technological revolution resulted in the transformation of the teaching and learning system. The usage of YouTube videos in education, specifically in microteaching, could have an impact on student-teachers, because using videos in microteaching practicum is not a new development, but the application of YouTube is a modern technique that will facilitate and replace the old method. YouTube can be accessed at anytime and anywhere. Using YouTube videos in teaching microteaching should be regarded as a teaching resource and also be motivated to stimulate the interest of teacher-trainees, as shown in the research.

The study highlights the benefits of integrating YouTube videos into live classroom of Microteachings, highlighting the need for further research to explore strategies and approaches to enhance teaching and learning in the contemporary colleges of education.

Finally, my research looks at the interest of student-teachers in the usage of YouTube video technology in microteaching. Their interest is shown by the fact that, they agree that YouTube videos can be used, and they regard the use of YouTube videos as a potent learning digital tool.

Recommendation

The research recommends that YouTube should be used as a digital alternative to traditional microteaching (face-to-face), and it will address students' congestion due to the lack of appropriate lab equipment and qualified technicians in traditional microteaching laboratories.

Likewise, the research recommends the Federal College of Education Zaria should provide its microteaching laboratory with all required technological devices, ensure a steady supply of energy, and enable an internet connection. To enhance the learning environment for contemporary learners, both inside and outside of traditional learning settings, the FCE Zaria lecturers are being requested to employ YouTube video technology.

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