



Student Satisfaction and Preferences Related to Virtual Streaming Facilities During the COVID-19 Lockdown

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ABSTRACT

This paper reported how students used the virtual streaming technology and considered their satisfaction and preferences related to video conferencing during COVID-19 lockdown. A case study was selected for an exploratory mixed methods design to explore students' (n=89) lived experiences of the video conferencing facility during the COVID-19 lockdown. This study has found that students preferred both Teams and Zoom as virtual streaming facilities during the COVID-19 lockdown. Students were satisfied with virtual streaming platforms as a teaching and learning supportive tool that facilitated their shift to online learning. Moreover, this study reported that using a web-based videoconferencing platform as a virtual streaming tool supports students in learning from home in critical times such as this pandemic. Further research is needed to determine students and lecturers' digital literacy competencies using video conferencing for successful online learning post COVID-19 lockdown.

KEYWORDS

Case Study, COVID-19 Lockdown, Exploratory Mixed Methods Design, Student Learning Videoconferencing, Virtual Streaming Tool

INTRODUCTION

In recent times, two major “turning points” have changed the world of work dramatically, Education 4.0 and the COVID-19 pandemic. Education 4.0 has created exponential possibilities and opportunities for the knowledge economy, while the COVID-19 pandemic has had a significant impact on global events, from governance to socialisation. These two “turning points” have changed and challenged global events radically, while also bringing about an exponential shift in the boundaries of the knowledge economy. As historical events, the pandemic and Education 4.0 have changed how we live and work in our environment, with COVID-19 having a profound impact on the knowledge economy. Governments, corporates, households and higher education institutions (HEIs) have been and are being confronted with major challenges in overcoming the pandemic, while the search for a possible cure for the virus continues.

Currently, the higher education sector, worldwide, is dealing with the huge impact that COVID-19 has had on teaching and learning, with universities having been forced to shift their teaching towards

DOI: 10.4018/IJVPLE.285595

e-learning and/or blended learning modes. Globally, institutions of higher learning have ventured into online videoconferencing as part of teaching and learning. Many hours of conventional teaching and learning at contact or residential and distance education universities have been lost and this has taken a serious toll on academic performance and also, possibly, on throughput rates. To make up for lost time, universities have started to employ online videoconferencing platforms, such as Microsoft Teams or Zoom, and lecturers have been persuaded to adopt the use of videoconferencing to support their students in different learning spaces.

Laurillard (1993) coined the term “videoconferencing” to describe an online streaming facility intended to create access for students and lecturers in otherwise inaccessible spaces. Moreover, Wiesemes and Wang (2010) define video conferencing as a synchronous model of interactive transfer between groups and people, which could be by voice, video or data. Video-conferences can also be recorded for later use by either lecturers or students. Adding to this discourse, Cochrane (1996) concurs with Laurillard (1993) that this streaming medium provides access to many learning sites. In the context of this study, the researchers associate videoconferencing with using an online internet connection to stream a conference between lecturers and students and, by using the technology, they are also able to transmit audio and visual presentations. In this scenario, the video-conferences can also be recorded for later use by either the lecturers or students.

Therefore, this paper explores how students used virtual streaming technology and consider their views related to video conferencing during COVID-19 lockdown. Based on the aim of this paper, we came up with the following specific objectives:

- To determine students’ experience in relation to the switch to the videoconferencing facility, as an online teaching and learning tool, during the COVID-19 lockdown.
- To investigate students’ preferences and views of the virtual streaming tools used during the COVID-19 lockdown.
- To determine the effect of Teams and Zoom as virtual streaming tools (VSTs) on students’ gender, satisfaction, preferences and benefits in this course during the COVID-19 lockdown.
- To explore the challenges experienced by students in using videoconferencing virtual streaming during the COVID-19 lockdown.

LITERATURE REVIEW

A Web-Based Digitalised Framework

In the context of this study, an integrative theoretical framework is employed. We argue that the videoconferencing facility is situated in a contextual sociocultural space (Vygotsky, 1980) that enhances students’ cognition and active multiple modes of knowing (Gardner, 1983). The theories, namely the sociocultural theory of cognitive development (Vygotsky, 1980) and the web-collaborative learning (Drinkwater et al., 2004) will be the lens through which the use of a videoconferencing facility to support student learning will be examined. The originator of the sociocultural theory of cognitive development, Lev Vygotsky, posits that the community interacts, supports and develops the social, cultural and cognition abilities of the individual in the community. In this study, students and lecturers connect through a virtual streaming facility, where they interact, and where students receive support and develop their competencies. To execute these competencies, the universities, where this case study was conducted, used similar Sakai Learning Management Systems (LMSs) for teaching and learning purposes. The web-based digitalised platform, Sakai (LMS), was used to support lecturers as part of their strategy to change student views of videoconferencing during the COVID-19 pandemic. These LMS platforms provided access, as web-collaborative learning (Drinkwater et al. 2004) spaces for students and lecturers to share, participate and collaborate in an online space. Similarly, Janssen et al. (2013) and Langford and Damsa (2020) posit that digital literacy skills are vital for the successful

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