



A REVIEW OF RESEARCH INTERESTS ON THE EFFECTIVENESS OF VIDEOCONFERENCING IN EDUCATION

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Abstract: Videoconferencing is a useful method in modern education. It helps all the stake holders of this system. It is effective in several aspects like teaching learning, communication, student participation, student performance etc. Purpose of the study is to find interested area of researchers on the effectiveness of videoconferencing in education at present time. Investigator includes published papers of ten years duration. This study reveals impact of videoconferencing on teaching learning is most attractive area to the researchers. Though, several areas like communication, students' performance and students' participation also create interests to the researchers.

Keywords: Videoconferencing, Teaching-learning, Communication, Students' participation, Students' performance.

INTRODUCTION

Videoconferencing is playing an important role to convert modern digitalized education system from the conventional system. Specially, situation for covid-19 enforce to do that. It has three different forms like desktop videoconferencing, interactive videoconferencing, and web videoconferencing (Al-Samarraie, H., 2019). This system not only useful for learners; teachers also get benefit from it. It helps for providing teacher training and support in school settings (Fischer, A. J., Collier-Meek, M. A., Bloomfield, B., Erchul, W. P., and Gresham, F. M., 2017). It also has effectiveness on several dimensions such as teaching-learning, communication, students' participation and students' performance etc.

Videoconferencing in teaching-learning

Videoconferencing tool enhances project based learning (Fitzsimons, J., and Turner, R., 2013). Participation in the video conferencing sessions produces positive growth of students for both listening comprehension and perceptions of other cultures (Upshaw, B. A., 2019). Most of the students indicate that videoconferencing encourage them to learn and understand different cultures, develop cultural awareness, attract attention and increase motivation (Erişti, S. D., 2012). Use of web conferencing tools could develop programming knowledge of students through the learning tasks by interacting each other (Çakıroğlu, Ü., Kokoç, M., Kol, E., and Turan, E., 2016). It enhances inter professional clinical education. Students agree it is an effective tool for learning, it also increases understanding of inter professional practice (Britt, K. L., Hewish, S., Rodda, J., and Eldridge, B., 2012).

National and International guest scientists are brought to the university classroom by using web videoconference to facilitate an interesting and effective research-informed teaching (Basiliko, N., and Gupta, V., 2015). The environment of online videoconference can be used in language teaching (Hampel, R., and Stickler, U., 2012). Many students perceived the videoconferencing class as effective in developing their second or foreign language skills (Jung, M. Y., 2013).

Video conferencing tools like Zoom, Google Meet, Cisco Webex, are widely used worldwide in higher education for teaching, learning, giving assignment, examinations, and other activities. The teachers share documents and display information, assign work and delivered lectures to the students through live video conferencing apps. It is more personal and effective than audio conferencing; all involved parties can see the facial expressions and body language for communication (Jayade, K., Warade, S., & Gaikwad, C., 2020). This will not violate any quarantine protocols and ensure the safety of both students and the teachers (Mobo, F. D., and Rahmat, A., 2021). But the current teaching learning strategies are not ready to apply videoconferencing (Al-Samarraie, H., 2019). As a result students tend to have a negative attitude towards using video-conferencing in the class (Candarli, D., and Yuksel, H. G., 2012).

Videoconferencing in communication

Communication is an important part of education. It requires some modifications for teacher and student competencies. Videoconferencing tools provides new ways of communication. It is easier to be interactive using videoconferencing in education than in traditional contexts. The use of web cameras makes the learning situation more intimate (Nilsen, A. G., Almås, A. G., and Krumsvik, R. J., 2013). The intent of presenting these ideas is to stimulate creative thinking and debate about pedagogy; to provide stimulus for creativity and for new learning designs to be explored, trialed and tested as video communications become embedded in higher education and the community more generally (Smyth, R., 2011). Videoconferencing is a dominant method of communication. It has essential impact on education (Massner, C. K., 2021). The multiple benefits of using videoconferencing tools for interactive exchanges with native speakers outweigh the challenges (Conboy, A. F., Ugalde, E. G., and Reuber, A., 2017). Student feedback and outcomes are positive regarding videoconference (Eiland, L. S., Garza, K. B., Hester, E. K., Carroll, D. G., and Kelley, K. W., 2016). It is also found that delivering consultation using videoconferencing is effective (Fischer, A. J., Collier-Meek, M. A., Bloomfield, B., Erchul, W. P., and Gresham, F. M., 2017).

Videoconferencing and students' participation

Autonomous motivation and participation in web-videoconferences has some support and association on the grade in final exam (Giesbers, B., Rienties, B., Tempelaar, D., and Gijsselaers, W., 2013). Videoconferencing can transcend geographic boundaries and provide an impetus for action. When students listen and see peers from across the world, they share their perspectives, challenges, and hopes. Videoconferencing allows students a passport around the world, opens their eyes to their place in it, and their responsibility to care for the earth and each other (Krutka, D. G., and Carano, K. T., 2016).

Videoconferencing and students' performance

Videoconferencing can significantly improve in global, temporal, and grammatical qualities of students (Saito, K., and Akiyama, Y., 2017). It does not negatively affect students' performances (Florit, D. P., Montaña, J. L. A., and Anes, J. A. D., 2012). Medical students who receive maximum number of lectures through synchronous videoconferencing perform no differently on national licensing examinations than students that attend live lectures at the site-of-origin (Hortos, K., Sefcik, D., Wilson, S. G., McDaniel, J. T., and Zemper, E., 2013).

METHODS

Investigator uses web based searching method to collect papers. Google Scholar, ResearchGate, and Semantic Scholar are used as search engine. In the study total 23 published papers from the year 2011 to 2021 are included.

FINDINGS

Investigator finds four dimension regarding recent studies of video conferencing in education. These are impact of videoconferencing on teaching-learning, impact of videoconferencing on communication, impact of videoconferencing on students' participation, and impact of videoconferencing on students' performance. Details of distribution is displaying in Fig: 1.

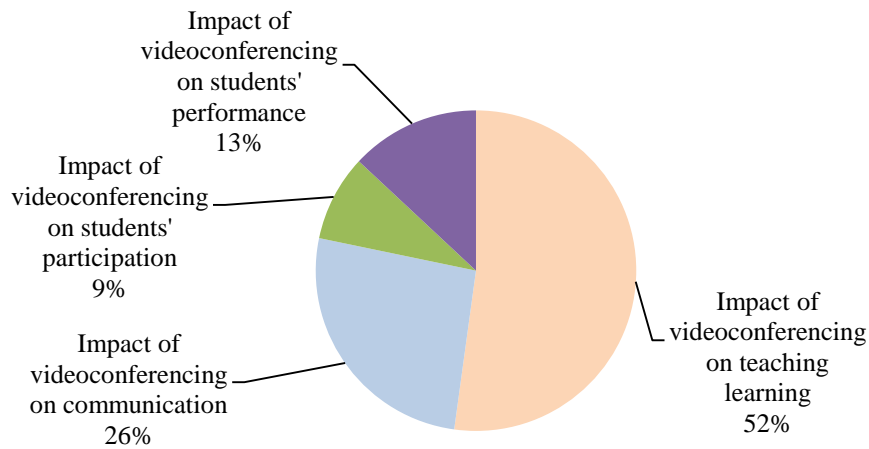


Fig. 1. Dimension of research interests on videoconferencing

Impact of videoconferencing on teaching-learning

Investigator revealed 12 (52%) studies are done on the impact of videoconferencing on teaching learning. That means researchers are more interested to do their study on this perspective. Most of the studies reveal videoconferencing has positive and significant effect on teaching-learning, though policies and teaching-learning strategies are not compatible to apply videoconferencing tool.

Impact of videoconferencing on communication

Investigator finds 6 (26%) studies are on the impact of videoconferencing on communication, which reveals video conferencing in communication is one of the most interesting perspectives to researchers for their study. Recent studies on this area show video conferencing have significant positive effect on the improvement in the ways of communication.

Impact of videoconferencing on students' participation

Investigator reveals 2 (9%) studies have been done on the impact of videoconferencing on students' participation that means researchers are not interested to do their work in this perspective. However published studies in this aspect show videoconferencing helps students to participate digitally where they can't reach physically.

Impact of videoconferencing on students' performance

Investigator finds 3 (13%) studies are on the impact of videoconferencing on students' performance which show this area is not interesting to the most of the researchers. However published work of this aspect reveals videoconferencing has significant effect on students' performance.

CONCLUSION

This study is an attempt to find out the dimension of research interests regarding the effect of videoconferencing on education. Investigator gets four areas attract researchers in last ten years and reveals every aspect has positive significant effect on education. However lack of infrastructure and inappropriate teaching learning strategies are the main barrier for applying videoconferencing in education. Investigator includes only 23 studies to get the result which is a small number. Though, findings of the study may help for selection of topic to the researchers in their future work.

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