

The role of video aids in online teaching: engineering design as a case study.

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2022

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The Role of Video Aids in Online Teaching; Engineering Design as a Case Study

Judith Abolle and Ibiye Iyalla.

Video Aids: What we already Know

- A video aid is any audio-visual teaching and research tool used to improve learning.
- Recently, there has been a shift towards the use of technology and its integration into teaching.
- Video aids help students obtain other skills like collaborative working, organisational and problem solving skills amongst others.

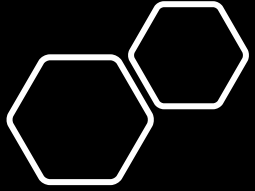
The Project

- I. Do students consider the use of video aids and experiments helpful?
- II. What are the advantages and disadvantages of using video aids and experiments as a teaching and research.
- III. Compare video aid and experiment in Mechanical Engineering
- IV. Does using a video aid and experiment improve the teaching and learning experiences of both staff and students?

Methodology

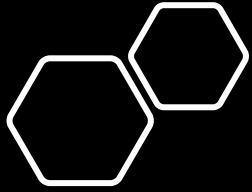


- Design videos were used in the first half of the Mechanical Computer Aided Engineering module.
- Carefully designed questionnaires were distributed amongst students to complete.
- The results of the questionnaires were collated and analysed.



Indicators

At the end of the module, student performance and satisfaction were used as indicators for comparison; these comparisons were made for the same course for the three previous years.



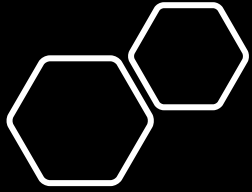
Results

HWU

Although 74% of the students thought that the use of videos was engaging, a smaller percentage complained that it was obsolete and time consuming.

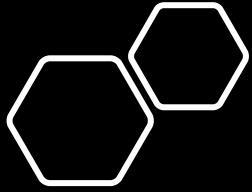
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90% of the students agreed that the video aid was indeed helpful with an 80% average score and a 100% student satisfaction against a 60% and 66% average scores and student satisfaction in the previous years respectively.



Conclusion

Studies carried out suggests that the use of video aids in administering design courses was quite effective as it made the design phase of the learning process less abstract and more interesting to students and this is evident from the grades obtained by the students as compared with those of the three previous year



References

Walliman, N. (2017). *Research methods: The basics*. Routledge..

Frazer, L., & Lawley, M. (2001). *Questionnaire design and administration: a practical guide*. Wiley.

Palinkas, L. A., Horwitz, S. M., Green, C. A., Wisdom, J. P., Duan, N., & Hoagwood, K. (2015). Purposeful sampling for qualitative data collection and analysis in mixed method implementation research. *Administration and Policy in Mental Health and Mental Health Services Research*, 42(5), 533-544.

Jonathan, C. (2007). Audio and video podcasts of lectures for campus-based students: production and evaluation of student use. *Innovations in Education and Teaching International*, 44(4). Journal Article.

Atkins, M., & Brown, G. (2002). *Effective teaching in higher education*. (pp. 91–95). Routledge.

Bijnens, M., Vanbuel, M., Verstegen, S., & Young, C. (2006). *Handbook on digital video and audio in education*. VideoAktiv Project, Netherlands.

Willmot, P. and Bamforth, S. (2010) 'The use of video reports to promote active engagement in learning', 3rd International Symposium on Engineering Education ISEE2010, July 2010, Cork, Republic of Ireland, University College, Cork, Republic of Ireland.

thank you!