

An Investigation into the Impact of Visual Aids in Post-Compulsory Education

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Abstract:

This study seeks insight into the use of visual aids in contemporary post-compulsory teaching. The importance of the study is linked to the large number of students who enter Higher Education; many of whom regularly receive lectures supported by visual displays which comprise textual summaries of a lecturer's speech. This thesis comprises a two-part study and employs a mixed methods approach. The first part inquires into teachers' and lecturers' practice with regard to their visual aids, and the second compares the effectiveness of text, images and imagery displayed in support of a lecture. The investigation into lecturers' practice found many post-compulsory teachers and lecturers had received no training in the design and use of visual aids during their initial teacher training. It is suggested this privation may underpin a de facto choice of projected text as a visual aid, the use of which is not clearly supported by contemporary models of memory and mental processing. In a comparison of visual modalities, an increase in learner engagement was recorded for the display of carefully designed images, and also for directed imagery. No positive impact was recorded for text summaries of 50-64 words displayed concurrently with speech, although recall was improved when text was restricted to five words or fewer. The conclusion is drawn that the display of this modality without temporal pauses may offer limited educational advantage to students, and a method of planned apportionment of speech and text is proposed in which contemporary theories of memory and processing are taken into account. These observations have significant implications for a lecture environment in which such text summaries are

often relied upon for visual support. The findings of the thesis are combined to propose a principle of Visual Working Memory Utilisation (VWMU), upon which future research into visual aid design and use in post compulsory education might be based.

Read more at

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