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KEYWORDS: Mutlimodal Assessment, conceptual understanding, multiple representations

BACKGROUND

Recent research has revealed that new forms of assessment, including multimodal assessment, may be able to develop conceptual understanding more holistically than existing or traditional forms of assessment, however, there is minimal information detailing how or why this learning might occur.

AIMS

In this study, we aimed to explore how students built their scientific understanding during the construction of a multimedia product like those given as university assessments.

DESCRIPTION OF INTERVENTION

The study was exploratory in order to capture and describe the construction of scientific knowledge that took place.

DESIGN AND METHODS

We utilized a multiple case study design where data was collected in the form of: the products that the two participants created, video recording of the construction process, pre- and post- interviews and a collection of artefacts of interest, such as images of the creation process/set up.

RESULTS

Analysis of the knowledge represented across the various data sources for the two cases show that they differ in degrees of coherence and abstraction profiles for the scientific concept represented: transparency.

CONCLUSIONS

The results show that learning is variable in the construction of such tasks and that the use of appropriate descriptive frameworks such as the one used in this study are necessary if these forms of assessment are to be more widely used to successfully assess learning.

Proceedings of the Australian Conference on Science and Mathematics Education, The University of Sydney and University of Technology Sydney, 2 - 4 October 2019, page 39, ISBN Number 978-0-9871834-8-4