ENGAGING STUDENTS IN EXPLAINING AND REPRESENTING PHARMACOLOGY BY CREATING BLENDED MEDIA

Garry Hoban, Christopher Hyland, Wendy Nielsen

Presenting Authors: Garry Hoban (ghoban@uow.edu.au) and Christopher Hyland (chrhyl@uow.edu.au)
Faculty of Social Sciences, University of Wollongong, Wollongong NSW 2522, Australia

KEYWORDS: pharmacology, multimodal representations, blended media

ABSTRACT

Pharmacology is a challenging subject in a science degree that requires students to engage with complicated chemical reactions. Typical assessment tasks involve exams, lab reports and presentations. The aim of this study was to trial a new form of assessment task by getting students to analyse a journal article on a disease related to Pharmacology and then to explain key aspects of the article in a 4–5 minute digital media product that they create. The students had a choice of narrated media forms to represent their journal article: podcasts, digital story, video, slowmation (slow animation) or blended media. This presentation focuses on examples of blended media, which is a form that encourages students to integrate any combination of media such as video with animation and static images that students create and combine with expert-generated media from YouTube or Google Images to complement a narration to explain the science. There were 24 students enrolled in the subject Chem350 Principles of Pharmacology and each one was allocated a different journal article to summarise by making a media product. A one hour lecture was provided to students to explain how to make the different media forms supported by instructional resources on a website www.digiexplanations.com. The students then used their own technology such as mobile phones, digital still cameras and free movie making software on their own computers to create the blended media. The aim of this pilot study was to ascertain the students' perceptions of making a blended media and how their allocated disease was represented. Data collected included observation of the students' presentations, the blended media artifact and an interview with each student after the subject was completed. Results showed that all 24 students successfully made a 3–5 minute media product in their own time with minimal technological concerns. A wide variety of media to explain the disease in their allocated journal article were submitted including one podcast, five digital stories, 10 videos, three animations and 5 blended media. Three of the students who volunteered to be interviewed about the process of making their blended media product stated that the process was highly engaging and helped them to learn science in a new way and it was the first time they had made a narrated media product in their degree. Whilst this pilot study indicated that the students were engaged in representing the science content by creating a digital media product, further studies will need to be conducted to research the quality of science learning claimed by students. Blended media is a new form of student-generated media, which enables students to use their own technology to construct a narrated media product integrating many different media forms and is a multimodal representation to explain a science concept.

REFERENCES

Hoban, G. (2013). Learning, explaining and communicating Science with student-created blended media. In M. Sharma & A. Yeung (Eds.). *Proceedings of the Australian Conference on Science and Mathematics Education* (pp. 148- 153). Sydney, NSW: UniServe Science.

Hoban, G., & Nielsen, W. (2013). Learning Science through Creating a "Slowmation": A Case Study of Preservice Primary Teachers. *International Journal of Science Education, 35*(1), 119-146.

Hoban, G., Nielsen, W., & Shepherd, A. (2013). Explaining and communicating science through student-created blended media. *Teaching Science: Australian Science Teachers Association, 59*(1), 32-35.

Hoban, G., Loughran, J., & Nielsen, W. (2011). Slowmation: Preservice primary teachers representing science knowledge through creating multimodal digital animations. *Journal of Research in Science Teaching, 48*(9), 985-1009.

Proceedings of the Australian Conference on Science and Mathematics Education, University of Sydney, Sept 29th to Sept 30th, 2014, page 33, ISBN Number 978-0-9871834-3-9.