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# VIDEO-BASED COURSE INSTRUCTIONS AS A TOOL TO IMPROVE ENGAGEMENT IN AN ONLINE TEACHER PROFESSIONAL DEVELOPMENT PROGRAMME

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**Keywords:** online teaching, video-based course, professional development

This paper reports on a section of a 2-cycle action research study related to a 6-month-long, asynchronous, fully online, short learning programme aimed at developing technological and pedagogical content knowledge of South African science teachers, to equip them for effective online teaching. The first action-research cycle revealed high attrition and suggested the need for inclusion of video-based course instructions. Consequently, 12 such videos were developed. This research focuses on the response of the participants included in the second action-research cycle, to these videos and relationships between use of these videos and programme retention. Quantitative engagement data were collected from: Vimeo, where the videos are hosted; Likert-scale questionnaire items answered by the participants; participants' engagement in formative discussion forums and summative assignments, across the duration of the programme. Additionally, qualitative data were collected from open-questionnaire items and participant-instructor messages. Descriptive statistics and coding were used for content analysis. The findings suggest that South African science teachers do utilise video-based course instructions for asynchronous viewing, and that these seem to improve retention and engagement. However, this inclusion does not ensure that the participants follow instructions given in the course, nor does it negate the need for a personalised help-line.

Proceedings of the Australian Conference on Science and Mathematics Education, 29 September - 1 October 2021, page 50, ISSN 2653-0481