



Invitation | Seminar

The Department of Science and Technology Education (SciTechEd) cordially invites you to a seminar on the topic:

Characterising and assessing the situated and dynamic aspects of science teacher professional knowledge using a video-based approach

DATE **07 June 2023** | TIME **12:00–13:30**

Click [here](#) to join the conversation | RSVP: edumarketing@uj.ac.za



Abstract Classroom teaching is a complex and sophisticated undertaking as it typically involves unexpected events. Even with thorough lesson planning, classroom interactions cannot be scripted in advance, as teachers cannot fully anticipate students' ideas. Effective teachers must deploy their knowledge flexibly in their moment-to-moment instructional decisions and actions to navigate ever-changing classroom situations to advance student learning of specific subject matter. Recent research on science teacher professional knowledge has drawn attention to the more situated and dynamic aspects of teacher professional knowledge and the relevance of these aspects to classroom practice. However, eliciting, characterising and assessing these aspects of teacher professional knowledge remains a challenge in research.

In this seminar, Dr Chan will talk about his ongoing research on capturing, characterising and assessing the situated and dynamic aspects of science teacher professional knowledge using a video-based approach. He will describe how he has used various theoretical constructs such as pedagogical content knowledge and teacher professional noticing to investigate the nature and content of pre-service/in-service science teacher professional knowledge using classroom video-based instruments. He will also share his recent research on the use of video-based instruments to assess these aspects of teacher professional knowledge. Implications of findings from the research for teacher education will be discussed.

Bio Kennedy Chan is an Associate Professor at the Faculty of Education, University of Hong Kong (HKU). He obtained his Bachelor's degree and M.Phil degree in Biology as well as his doctoral degree in Science Education from HKU. He is currently a science education researcher and teacher educator with a strong commitment to understanding and developing science teachers' expertise. His research interests include science teacher professional knowledge and the use of videos in teacher education. He was an invited participant of the second PCK Summit in the Netherlands. His research has been published in prestigious journals including *Journal of Research in Science Teaching*, *Studies in Science Education*, *Assessment and Evaluation in Higher Education*. He practises research-led teaching and is a recognised exemplary instructor at his university.