

ARTICULATING YOUR OWN PEDAGOGICAL CONTENT KNOWLEDGE

Madeleine Schultz^a, Gwendolyn A. Lawrie^b

Presenting author: Madeleine Schultz (madeleine.schultz@qut.edu.au)

^aSchool of Chemistry, Physics and Mechanical Engineering, Queensland University of Technology, Brisbane QLD 4000, Australia

^bSchool of Chemistry and Molecular Biosciences, University of Queensland, St Lucia QLD 4072, Australia

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ABSTRACT

Pedagogical content knowledge (PCK) encompasses carefully selected analogies, examples, explanations and demonstrations used by a teacher to make a topic comprehensible to students. It includes an understanding of what makes the big ideas difficult to grasp, along with an awareness of common misconceptions. PCK is developed by teachers through practitioner experience.

John Loughran and his colleagues have spent over a decade creating and refining tools to articulate and develop PCK at the secondary level. Their framework consists of two elements: CoRe (content representation) and PaP-eR (pedagogical and professional experience repertoire). The CoRe contains eight questions for a teacher to reflect on, each to be answered for each big idea to be taught in a module, and should be developed and refined over time among small groups of teachers.

THE ISSUE

Academic staff are confronted with a student population that is large and very diverse, with many students lacking basic concepts or bringing misconceptions from high school. As Shulman (1986; p.9-10) explained,

Pedagogical content knowledge includes an understanding of... ..the conceptions and preconceptions that students of different ages and backgrounds bring with them to the learning... ..If those preconceptions are misconceptions, which they so often are, teachers need knowledge of the strategies most likely to be fruitful in reorganizing the understanding of learners, because those learners are unlikely to appear before them as blank slates.

Thus, use of PCK is ideal to combat misconceptions and promote student learning, particularly for students with weak backgrounds.

THE APPROACH

This session aims to introduce the concept of PCK, to discuss what would make a PCK resource useful to attendees, and to introduce the use of CoRe and PaP-eR in reflective practice. The time will mainly be used for participants to articulate and develop their own PCK.

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