

# EXPLORING THE CURRENT TEACHING AND ASSESSMENT PRACTICES OF AUSTRALIAN BIOCHEMISTRY AND MOLECULAR BIOLOGY ACADEMICS

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## Background

Biochemistry and Molecular Biology classes in Australia are usually held with large class sizes. Hence, some academics have started to innovate, explore and find novel ways to teach effectively in industrial-sized classes. However, it needs to be considered that most teaching and assessment practices being utilised by academics at present have not been formally evaluated for their effectiveness in their specific contexts or they might have been evaluated, but then the evaluation was not published. In addition, due to contextual constraints, simply transplanting some of these teaching and assessment practices from one university to another is not always possible without a study suggesting that they can be useful in a particular context.

## Aims

Therefore, this qualitative case study identifies current teaching and assessment practices by interviewing, observing and collecting documents utilised by Australian academics teaching in this field.

## Methodology

The interview guide was prepared based on two established frameworks: the Productive Pedagogy (PP) and the Technological Pedagogical Content Knowledge (TPACK). The classroom observation guides are adapted and are anchored on the two frameworks as well. Interviews were transcribed and coded thematically.

## Conclusions

Five general themes emerged from the data analyses on the teaching and assessment practices of Australian Biochemistry and Molecular Biology academics: (1) They consider themselves to be traditional teachers; (2) They collaborate with their colleagues to design the course curriculum; (3) They adapt the curriculum to suit student's background; (4) They are trying to shift their teaching from traditional to non-traditional; and (5) They practice reflective teaching. For each theme, two subthemes were identified and were classified as to pedagogical practice or assessment practice. In future studies, teaching and assessment practices that can be utilised or converted to a teaching strategy promoting conceptual change in a large class cohort will be identified by sending out free-response survey to academics across Australia.

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