# DEVELOPING LEARNING IN BIOCHEMISTRY AND LIFE SKILLS THROUGH CASE-BASED WORKSHOPS

Katherine Fernandez<sup>a</sup>, Melissa Sweeney<sup>b</sup>, Nirma Samarawickrema<sup>b</sup>

Presenting Author: Katherine Fernandez (katherine.fernandez@monash.edul) <sup>a</sup>School of Chemistry, Monash University, Melbourne VIC 3800, Australia <sup>b</sup>Department of Biochemistry and Molecular Biology, Monash University, Melbourne VIC 3800, Australia

KEYWORDS: case-based workshops, teacher-led, student-led

### BACKGROUND

Teaching through case-based workshops is a student-centered strategy designed to heighten higherorder thinking, through a discussion of complex, real-world scenarios to enable students to link concepts learnt in class to future practice. We report findings of teaching Biochemistry to second year Nutrition students from a mix of 8 teacher-led case-based workshops (TCW) and 4 student-led casebased workshops (SCW) over the 12-week semester.

#### AIMS

To compare perceived learning of Biochemistry and life skills through TCW and SCW.

#### **DESCRIPTION OF INTERVENTION**

We surveyed students to determine the benefits of TCW in comparison to SCW.

## **DESIGN AND METHODS**

We administered an anonymous survey consisting of 22 items using a Likert scale and 6 open-ended questions. All responses were coded for emergent themes. The Likert scale was converted to a numerical level of agreement.

#### RESULTS

Students agreed that learning in biochemistry (51%) and life skills (53%) were developed more in TCW compared to SCW. Data from open-ended questions confirmed that TCW developed learning in biochemistry through its structure and support mechanism, while life skills were developed through opportunities for collaboration, communication and improving interpersonal skills.

#### CONCLUSIONS

TCWs promote learning and life skills, a basis for nurturing the next generation of Biochemists ready for an uncertain future.

Proceedings of the Australian Conference on Science and Mathematics Education, 30 September - 2 October 2020, page 25, ISBN Number 978-0-9871834-9-1.