

# PROVIDING ACCESSIBILITY THROUGH IMPLEMENTATION OF ELECTRONIC LABORATORY NOTEBOOKS

Alesha A. Wyatt<sup>a</sup>, Chelsea S. Hardman<sup>a</sup>, and Alexandra Yeung<sup>a</sup>

Presenting Author: Alexandra Yeung ([alexandra.yeung@curtin.edu.au](mailto:alexandra.yeung@curtin.edu.au))

<sup>a</sup>Department of Chemistry, School of Molecular and Life Sciences, Curtin University, Perth WA 6102, Australia

**KEYWORDS:** Electronic Laboratory Notebooks (ELNs), Employability, Student Experience

Electronic Laboratory Notebooks (ELNs) have recently gained popularity in academia and industry while paper laboratory notebooks (PLNs) are becoming obsolete from the digital world. This is due to the many benefits of ELNs such as efficiency, accessibility, and data integrity (Bird, Willoughby, & Frey, 2013; Colabroy & Bell, 2019). In tertiary education, ELNs have been implemented to help students develop skills that are easily transferrable and prepare them for a technological rich workplace. Learning and understanding students' and teaching staff perceptions' of their experience with using ELNs, particularly during the COVID-19 pandemic, is key to successful implementation in education. A series of surveys were distributed and interviews were conducted across various undergraduate chemistry units from first to third year level and post-graduate teaching staff to gather insight into their perceptions of using PLNs and ELNs and the software platform, *LabArchives*.

This presentation will provide some insight into students' and teaching staff's experiences with using ELNs. In general, it was found that students had positive perceptions of ELNs, even though there is a higher learning curve compared to PLNs. Reasons for this include increased communication, accessibility, and the ease of presenting work legibility. Also, the COVID-19 pandemic is associated with students having a positive experience with using ELNs mainly due to increased communication and accessibility from home where otherwise not possible.

## REFERENCES

- Bird, C. L., Willoughby, C., & Frey, J. G. (2013). Laboratory notebooks in the digital era: The role of ELNs in record keeping for chemistry and other sciences. *Chemical Society Review*, 42(20), 8157-8175.  
Colabroy, K. & Bell, J. K. (2019). *Lab eNotebooks*. In *Biochemistry Education: From Theory to Practice*, 1337, 173-195. American Chemical Society.

Proceedings of the Australian Conference on Science and Mathematics Education, The University of Western Australia, 28-30 September 2022, page 78, ISSN 2653-0481