## USING ELECTRONIC NOTEBOOKS TO ENCOURAGE STUDENT ENGAGEMENT IN FIRST YEAR CHEMISTRY DURING THE COVID-19 PANDEMIC

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There have been major disruptions to all parts of life due to COVID-19, including learning and teaching at universities. For universities, material for lectures, tutorials/workshops and laboratories that were originally taught as face-to-face activities were shifted online. For lecturers, this meant rethinking the design of learning activities and assessment. For students, this meant changing the way that they studied, particularly when faced with reduced peer interaction and face-to-face contact with teaching staff.

Electronic laboratory notebooks (ELNs) are currently being used in many undergraduate courses to help students develop record-keeping and data management skills. ELNs have also been an efficient way for delivering online laboratory content to students during the COVID-19 pandemic. Two first year chemistry unit coordinators at Curtin University took advantage of this functionality. Additionally, students were encouraged to use the built-in communication tools in the chosen ELN, LabArchives, to get help and interact with teaching staff and peers.

This presentation will outline the changes made in a very short time frame to two first year chemistry units when all classes moved to online formats. Student experiences will be described, as well as the experience of teaching staff – both lecturers and sessional staff. One outcome we know is that students adapted to online learning much quicker because of the ELN, and were able to get feedback and respond to it during the semester. Any changes made that were well received will be used in future semesters.

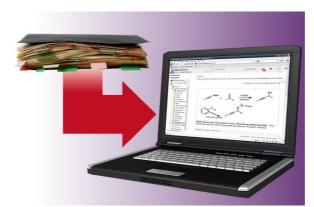


Figure 1: Moving from paper to electronic laboratory notebooks (Tyrell, 2015)

## **REFERENCE**

Tyrrell, K. A. (2015). Researchers embrace and reap benefits of Electronic Lab Notebooks. Retrieved June 18, 2020 from https://news.wisc.edu/researchers-embrace-and-reap-benefits-of-electronic-lab-notebooks/

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