**UNE L&T Symposium 2025 – Presentation Synopsis**

**1. Title of Presentation:**

Diverging assessments in introductory statistics

**2. Presenter(s) Name(s) and Affiliation(s):**

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**Abstract:**

I will describe recent iterations on diverging assessments in a large introductory statistics unit, STAT100. In the context of statistics units, diverging assessments allow students to work through the same analysis workflow while having different data and research questions, enhancing assessment authenticity and reducing the risk of academic integrity issues. I will present some considerations around the design of the diverging assessments, and the tools that allow for seamless myLearn integration and marking.

**3. Main Takeaways:**

***Takeaway 1:*** Diverging assessments will not solve every academic integrity challenge, but are generally useful in units where students are intended to learn to apply some technical process, like analysing data.

***Takeaway 2:*** We have the necessary tools both to produce and mark diverging assessments, and to distribute them to students in myLearn (thanks to PAIL, which was developed by colleagues in Computer Science).

**4. Application in Educational Contexts:**

***Teaching Methods:*** While the focus here is primarily on assessment, these ideas could also be applied in formative tasks.

***Assessment:*** Beyond the general utility of getting students to work through authentic technical processes in their assessment, the primary advantage of our current approach is scalability – it would be as effective in a class of 300 as in a class of 30, does not require manual allocation of groups (or similar approaches), and integrates directly into myLearn.

**5. Valuable Sources and References:**

**Source 1:** Sakzad, A., Paul, D., Sheard, J., Brankovic, L., Skerritt, M. P., Li, N., Minagar, S., Simon, & Billingsley, W. (2024, March). Diverging assessments: What, Why, and Experiences. In *Proceedings of the 55th ACM Technical Symposium on Computer Science Education V. 1* (pp. 1161-1167).

**Source 2:** PAIL: <https://gitlab.une.edu.au/dpaul4/pail>

**6. Weakness and Area for Future Research:**

**Weakness:** Generating diverging assignments requires caution and some amount of technical skill. Finding appropriate data at the introductory level is always challenging.

**Future Research:** Modern applied statistics features many web-based technologies – are there other avenues for pedagogically useful myLearn integration?