

MASTER CORRECTION

1. Proposed Design and Justification

An **exploratory sequential mixed methods design (QUAL → QUAN)** is the most appropriate for this study. This design begins with qualitative exploration to understand how students experience the new formative assessment software and how it influences their learning mindsets. These qualitative findings are then used to inform the development of a quantitative survey instrument, which is administered to a larger sample to test the prevalence and structure of the identified constructs.

This design is justified because the construct of “learning mindsets” in relation to the new software is not yet clearly defined. Without first exploring students’ lived experiences, any survey instrument would risk being conceptually incomplete or invalid. The exploratory sequential approach ensures content validity by grounding survey items in empirically derived qualitative themes

2. Integration of Qualitative and Quantitative Findings

In this exploratory sequential mixed methods design, integration occurs primarily through **connecting** the qualitative and quantitative phases. Findings from the initial qualitative strand are used to inform the development of the quantitative survey instrument, ensuring that the measured constructs are grounded in students’ lived experiences.

3. Why Other Mixed Methods Designs Are Less Suitable

Convergent Design:

This design collects qualitative and quantitative data simultaneously. However, it assumes that constructs are already well-defined. In this case, the lack of a validated instrument makes parallel data collection premature.

Explanatory Sequential Design (QUAN → QUAL):

Starting with quantitative data requires an existing valid survey. Since no such instrument currently exists, this design would risk measuring poorly defined constructs.