

## **A Block Model and Tech School Collaborative Framework for Enhancing Pre-Service Teacher Self-Efficacy in STEM**

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Design thinking (DT) is a problem-solving framework that focuses on users actively developing solutions to real-world problems through deliberate stages of ideation, prototyping, and iterative improvement (Charles, 2022). Recent studies have shown that DT can be used to enhance creative self-efficacy in pre-service teachers (Liu & Xu, 2023). Our project describes the impact of incorporating a design thinking approach on pre-service teacher self-efficacy in the context of a unique collaborative Block delivery model involving Victoria University (VU) and Wyndham Tech School (WTS). Tech schools are a special initiative of the Victorian State Government aimed at addressing persistent skills shortages in STEM (Craig et al., 2023). As part of the Educating for STEM unit, pre-service teachers attend DT workshops at WTS where they experience the active learning environment of a tech school and then apply the DT skills they have learnt in associated assessment tasks. This structured approach is well-suited for equipping pre-service teachers with the self-efficacy required to deliver a future-focused curriculum in an educational landscape defined by teacher shortages in STEM. In this session, presenters from VU and WTS will describe the benefits of this collaborative model and its impact on pre-service teacher self-efficacy within the context of the Block Model's explicit focus on active learning.

### **References**

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