

## Learners' Affective Field During the COVID-19 Pandemic: Predicting Perceptions of Impact on Learning

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Universities around the world were affected by the COVID-19 pandemic-driven lockdowns. The unprecedented circumstances left educators with little understanding on how this global disruption and shift to online learning environments would impact students' learning. This study investigated how student achievement, achievement-related affect, and perceived wellbeing contributed to predicting how students perceived the lockdown and consequential shift online to have impacted their learning. The overarching theoretical framework of a student's *affective field* (Schindler & Bakker, 2020) was used to combine key psychoeducational variables to be studied simultaneously—an approach that has been advocated for extensively in recent mathematics education literature. For example, Schindler and Bakker (2020) highlighted limitations of research that tended to investigate learners' motivation, anxiety, and other affective characteristics separately by focusing only on one theoretical construct. In this study, we respond to this concern by considering constructs such as self-efficacy, achievement emotions, and student wellbeing simultaneously in conjunction with other variables. The data in this study included survey responses and assessment results from a second-year, tertiary mathematics course ( $N = 208$ ). The analysis showed that, despite returning to in-person teaching after community-transmission of the virus was eliminated, students reported an increased impact of the effects of the disruption on both their learning and wellbeing at the end of semester than during the lockdown itself. Hierarchical multiple regression demonstrated that gender; prior achievement; performance on frequent, low-stakes assessment; exam-related self-efficacy; and exam-related hope all made independent, significant contributions to explaining students' perceived learning impact. When controlling for student achievement and achievement-related affect, the impact to students' perceived wellbeing still made a significant and substantial contribution to the impact on their learning. The findings provide motivation to investigate whether addressing student achievement-related affect can mitigate the effects of major life disruptions while studying. We also suggest that frequent, low-stakes assessment (Evans et al., 2021; Riegel & Evans, 2021) can be used to help identify students during a semester who are more likely to report a greater negative impact on their learning. Finally, we conclude that student wellbeing is paramount to how students perceive their own learning, even when controlling for actual measures of and about their achievement.

### References

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