

# SUSTAINABILITY EDUCATION IMPACTS ON STUDENT KNOWLEDGE, ATTITUDES, BEHAVIOURS AND WELLBEING

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## BACKGROUND

Educating about sustainability is a critical step in moving towards a more sustainable future for humanity. And as higher education moves into the online space, there is greater potential for education for sustainability to reach bigger and more diverse audiences. The University of Tasmania's (UTAS) Diploma of Sustainable Living is one such example. However, while sustainability education has the potential to impact student knowledge, attitudes and behaviours about sustainability, these impacts are rarely captured in a systematic way. In this presentation we introduce the outcome of a study designed to capture the impacts of taking a fully online unit, Backyard Biodiversity (KPZ006), part of the Diploma of Sustainable Living at UTAS. The study uses a survey, offered to students before and after taking the unit, to examine changes in student knowledge, attitudes, behaviours, and wellbeing.

## AIMS

This study aims to understand if and how engaging with the online unit, Backyard Biodiversity, impacts on student knowledge, attitudes, behaviours, and wellbeing.

## DESCRIPTION OF INTERVENTION

This study is designed to assess the impact of an online unit, Backyard Biodiversity, on its non-traditional (predominantly mature-aged, part-time) student cohort. This 12-week, Diploma-level unit is focused on understanding biodiversity, its benefits (using Sustainable Development Goals framework) and how to create a more biodiverse backyard. To do so, it uses an experiential learning approach where students learn about and engage with their own backyard and neighbourhood. The unit was consciously designed to have co-benefits for student wellbeing and pro-environmental behaviours.

## DESIGN AND METHODS

We draw on a mixed-methods research design by including survey questions that facilitate quantitative (e.g. Likert scale questions) and qualitative (e.g. open-ended questions) analyses. The before-after surveys have been offered to students since the unit's inception in 2020 and are matched according to an anonymous linking code. To date, over 1500 total surveys have been completed but in this analysis, we included only paired surveys - those that had a matched before and after survey completed ( $n = 140$ ). We report the average responses before and after for selected questions and use T-tests to determine statistically significant differences.

## RESULTS AND CONCLUSIONS

We found that there was a statistically significant increase in students' subjective knowledge, and agency around biodiversity management. There were significant changes in how important students considered biodiversity to be and how connected they felt to nature. Students reported more pro-environmental behaviours after taking the unit and many believed that taking the unit improved their wellbeing. While there are limitations to this approach, our study suggests that sustainability education, even fully online units, can create real impacts for sustainability.

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