

# STUDENT RESPONSE TO A MULTI-TOPIC KITCHEN PRACTICAL EXPERIENCE IN UNDERGRADUATE CORE BIOLOGY

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Development and deployment of innovative teaching materials and teaching methods are required by the university sector to maintain its relevance in a competitive and rapidly changing online world. In the last five years there has been an expansion in the digital marketplace for STEM online teaching materials, but these do not replace the acquisition of hands-on skills gained by students from experimentation in an on-campus laboratory. Further, there is a paucity of peer reviewed studies defining the efficacy of at home practical options which must be determined before these teaching innovations become adopted by the sector. The fully online restrictions imposed during COVID-19, provided an opportunity to assess the student perceptions and the effectiveness of potential tools for distance learning for STEM education in the future. This study provides insight into the student involvement and attitudes to online supported laboratory practicals, in a core first year biology unit. We compare the response from cohorts of typically on-campus and off-campus learning modes and review the efficacy of these lessons to improve the educational outcomes of students with access limitations to future face-to-face practical learning.

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