
21ST CENTURY SKILL DEVELOPMENT IN REMOTE, ON-LINE LEARNING BIOCHEMISTRY STUDENTS

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BACKGROUND

21st Century skills encompass the transdisciplinary capabilities required for future work and scholarship. These skills are articulated in graduate attributes and developed through individual subjects. With the rapid transition of on-campus classes to remote learning, questions arose as to whether the same skills translated, or whether new skills were supported. Using a biochemistry unit as a case study, gap analysis of skill development was undertaken.

STUDY DESIGN

The biochemistry unit (450 students) had face-to-face components (lecture, practical, workshop, examination) which were transitioned asynchronously online. Content was delivered as recordings supported by synchronous, optional online drop-in sessions held 1-3 times a week. Through staff reflection and student feedback, supported skills were identified in the two modes of delivery using a published rubric.

OUTCOME

The “drop-in sessions” had participation of approximately 50 engaged students, but with the lack of compulsory laboratory sessions staff perceived many students lost reflective capability and identity to the cohort, discipline and the institution. The lack of laboratories may have reduced practical skill development and awareness of how these skills contribute to employability. However, remote delivery reinforced key 21st Century skills promoting self-direction, time management, application of professional knowledge and resilience.

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