

A COLLECTIVE VISION FOR BIOLOGY TEACHING IN AUSTRALIAN UNIVERSITIES: ACADEMICS' PERCEPTIONS OF KEY KNOWLEDGE, SKILLS AND STANDARDS.

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ABSTRACT

The Vision and Innovation in Biology Education discipline network (VIBEnet) is funded by the Office for Learning and Teaching (OLT) to support a network of tertiary biology teachers and lead curriculum change. In a survey completed by 57 academics from 25 universities across Australia and three international universities, network participants shared their experiences of teaching biology and designing a curriculum. An analysis of these responses provides a framework for developing a unified and innovative curriculum, which engages students, fosters inquiry and allows sharing of expertise and curiosity. Network participants emphasised that the biology context provides the perfect environment for students to develop academic and practical skills, through critical evaluation of contemporary problems, independent research investigations and rigorous evaluation and communication of results. Academics also commented on the need for a national approach to implement the "Threshold Learning Outcomes in Science (TLOs)" which have been modified by the network to create the "Biology Threshold Learning Outcomes (BTLOs)". Such standard statements are a catalyst for curriculum change and an opportunity to reflect on strengths and weaknesses in current teaching and learning practice. The flow-on impact of the need to validate assessment methods to demonstrate graduate outcomes in a manner appropriate for student learning and employer needs was also acknowledged. Currently there remain significant challenges in effecting change in the tertiary teaching of biology, including the perennial issues of funding, workloads and class sizes. However the status and quality of education and teachers at our tertiary institutions is acknowledged as the key solution for sustained improvement.

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