

Tertiary physiology educators' perspectives on internationalisation of physiology education

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Internationalization of the curriculum has widespread benefits for student learning and engagement (Arkoudis *et al.*, 2010). However, cross-disciplinary research suggests that science academics are reluctant to internationalise their courses. This study investigated attitudes to internationalisation of physiology education (defined as the process of incorporating an international, intercultural and global dimension into the purpose, functions, delivery and/or outcomes of a physiology program, after Leask, 2015), among tertiary physiology educators.

An online survey, incorporating both fixed and open-ended questions, targeted at tertiary physiology educators with > 5 yrs teaching experience, was conducted from June - August 2018 (Murdoch University Human Ethics Permit 2018/049). The survey was disseminated *via* email to colleagues in physiology education, mailing list announcements (Australian Physiological Society, Higher Education Society of Australia) and snowball sampling. Twenty anonymous responses were collected, mostly from individuals working at Australian institutions (n = 17). Respondents generally taught physiology across at least two courses (median = 2, range = 1-4), most commonly medicine/dentistry and biomedical science (n = 11 respondents). 18/20 respondents had at least some clinical teaching (*e.g.* health professions, allied health), though slightly more than half (13/20) of respondents identified their primary teaching as non-clinical (*e.g.* biomedical science).

Most respondents (73%) agreed that instruction around internationalisation is a responsibility of Universities and should be incorporated into a degree program. This was despite only half (53%) of respondents agreeing that physiology students would need skills around internationalization (*e.g.* intercultural communication) upon graduation. The latter result was somewhat surprising given that the primary courses identified by respondents were sciences, where international mobility is very common, and health professions that routinely engage with cultural diverse patients.

Respondents described modest internationalisation of their physiology teaching. Of the 7 examples of internationalisation provided (*e.g.* developing intercultural communication), 3 were engaged in a moderate amount, or more, by more than half of respondents (students working in diverse groups, supporting effective group functioning and class materials with international examples. Barriers to internationalisation identified here were similar to those described in other disciplines (Clifford, 2009). Most respondents (73%) agreed that a lack of time in physiology units was a barrier to internationalisation. Additionally, only a minority (33%) were confident about, or had an educational history that prepared them for, incorporating internationalised content.

When asked where internationalisation should sit within a course structure, the most popular response was across most units and in dedicated skills units (53% of respondents). Interestingly only 1 out of 20 respondents agreed that internationalisation should be developed in physiology units, despite multiple responses being accepted. Thus, the majority view was to internationalise most units in a degree, but not the physiology units. On reflection, this model does not seem a feasible approach to internationalisation in science-based degrees because other common units (*e.g.* biochemistry, microbiology) might be expected to face the similar challenges (content-heavy, time poor units taught by discipline experts without training in or confidence around internationalisation.)

It is proposed then that physiology educators will have to share the institutional responsibility towards internationalisation of the curriculum. Indeed, the physiology educators surveyed were not entirely reluctant to do this; the majority indicated they would like to (40%) or were neutral about (47%) increasing the internationalisation of their teaching. Based on these results, internationalisation of physiology education in the future is likely to depend on: (i) internationalisation strategies that are sensitive to the time-constraints in content-driven units; and (ii) the ability of physiology educators to access support from internationalisation experts around internationalisation of their teaching.

Arkoudis S, Baik C, Chang S, Lang I, Watty K, Borland H, Pearce A, Lang J. (2010) *Finding Common Ground: Enhancing Interaction Between Domestic and International Students*. Australian Learning & Teaching Council.

Clifford VA. (2009) Engaging the disciplines in internationalising the curriculum. *Int J Acad Dev*, **14**: 133–143.

Leask B. (2015) *Internationalizing the curriculum*. Oxford: Routledge.