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Enabling curriculum improvements to support foundational skills development: an audiology experience

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Abstract

Creating learner-centred curriculum (McLean & Gibbs, 2010) through design processes that incorporate students' experiences and feedback can enable powerful and sustained impacts on student learning (Brooman et al., 2015). Principles of co-design have been used successfully in building technology-enhanced learning experiences (Gros & López 2016), including in the health science disciplines (O'Connor & Andrews, 2016; Treasure-Jones & Joynes, 2018).

Students in audiology programs are required to demonstrate competency in both technical micro-skills required to conduct accurate and reliable assessments and the use of reflective practice to evaluate and improve their clinical performance (Audiology Australia, 2022). As audiology student cohorts increase in size, there is a need to examine the efficacy of how teaching designed for smaller cohorts can best support learning within a larger student body.

This presentation describes our learnings across a process of enhancing the assessment and feedback mechanisms within a Master of Clinical Audiology program at a large, research-intensive university. Following a design-based learning framework (Reeves & McKinney, 2015), we first conducted an audit of existing learning and teaching materials, using focus groups with students to understand their interaction with these resources and comprehend the impact of existing assessment and feedback methodologies on their learning experiences. Students described their difficulties with navigating multiple learning resources in the core audiology technical domain of masking. Whilst acknowledging the significance of reflective practice for their future clinical roles, students also reported that the authenticity of development of their reflective practice skills was clouded by the existing learning task design.

Our objective in the design and development phase was to act upon this student feedback and implement technology-enabled alterations to learning, feedback and assessment practices that resonated with both students and educators, leading to enhanced engagement and comprehension of foundational course content. Key initiatives materialized throughout the project timeline, notably including pedagogical enhancements in the teaching and assessment within the reflective practice module. Drawing on student feedback and data analysis from focus groups, the 2023 syllabus was crafted to integrate a clearer progression of reflective practice skills development utilizing a learning arches framework. This framework facilitated the introduction of novel ePortfolio tools such as the Pebble Pocket app for on-placement reflections, refined PebblePad worksheets, and interactive Perusall social annotation activities, bolstering clarity and coherence in the reflective practice learning journey.

Simultaneously, a suite of learning assets was piloted in the latter half of 2023, underscoring a significant shift towards animation-based visual demonstrations and interactive resources aimed at solidifying audiology micro-skills acquisition. These assets focused on new instructional animations teaching audiology masking theory and techniques, interactive resources facilitating the comprehension of masking tables, and immersive clinical environments offering 360-degree views of audiology rooms. These resources helped prepare students for summative assessments in both written and clinical examination settings.

Following an iterative approach to educational innovation, guided by the principles of design-based learning and informed by the views and experiences of our students, we expect to continue developing and implementing transformative pedagogical strategies tailored to the dynamic needs of health professions education.

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