13. Learning by Solving as a Pedagogical Approach to Inclusive Health Innovation (Trust Saidi, Donné van der Westhuizen, Nailah Conrad, Tinashe Mutsvangwa and Tania S. Douglas)

If South Africa is to keep up with global scientific and technological advances that are converging in what is referred to as the Fourth Industrial Revolution (4IR), while also ensuring social and economic development, the country will require graduates with interdisciplinary skill sets. Such graduates would need to appreciate the imperatives for the creation of an inclusive society. Suitable academic programmes are required that embed students in their social context and equip them with skills that enable them to contribute to inclusive innovation, which focuses on developing goods and services both with and for marginalised communities.

Saidi et al. (2019) have published an article that shows how universities can promote inclusive innovation by creating a learning and innovation environment that enables students to find new ways of addressing societal challenges. The article proposes learning by solving as a means of developing skills for inclusive innovation. Learning by solving equips students with ways of applying knowledge towards achieving developmental goals. It entails students’ active engagement with a problem while taking steps towards a solution. The proposed approach to learning by solving combines a platform of engaged scholarship with design thinking as a problem-solving methodology. Engaged scholarship bridges the gap between academic settings and communities by applying research and education towards community development. Design thinking emphasises interaction with end-users of potential solutions to gain an understanding of their particular needs, as part of problem-solving.

The article presents a case study of a class project in a master’s level course which aimed to improve the experiences of Deaf patients in an ophthalmology clinic at a public hospital. Learning by solving combined with engaged scholarship and design thinking enabled experiential learning in a real-world setting, provided students with an opportunity to navigate complex challenges, and resulted in productive collaboration with a community of Deaf patients and their healthcare providers. Such an approach to learning develops in students an ability to exploit new forms of knowledge production outside the university and is pertinent in an era where complex
societal challenges necessitate collaborative, interdisciplinary solutions. The approach develops an understanding of social context that mitigates the risk of technology being applied in ways that perpetuate the marginalisation of certain groups.

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