

PROVIDING AUTHENTIC, CONTEMPORARY AND EQUITABLE TRAINING FOR STUDENTS IN STEM PEER LEADERSHIP PROGRAMS

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The rapidly changing environment for educators in STEM disciplines is also affecting students who partner with academics to deliver peer-led programs. Training for these programs needs to be able to respond to and reflect those changes, whilst at the same time preparing students for engaging in extracurricular activities that enhance their discipline training. For example, students leading peer study programs need to be aware of the need to maintain their own academic integrity whilst facilitating the learning of others, and students who take on leadership roles during international study tours need training in cultural competence and problem solving in diverse surroundings.

The development in STEM students of workplace skills such as communication, team work, ethical conduct (Jones et al., 2011), cultural competence (Howitt, 2022), and other professional attributes (Park et al., 2022), can be addressed in part by participation in leadership programs. The challenge is in designing training that is authentic, contemporary, and equitable and that caters to the needs of the students who lead and those they are supporting. The preparation and delivery of the training also needs to be sustainable, efficient in terms of academic development time, and adaptable in response to the inevitable changes in student learning and international and cultural environments. An added challenge is that our student leader demographic is diverse, so training needs to be as equitable as possible to provide students with a variety of learning experiences.

Our approach combined synchronous and asynchronous online activities, face-to-face interactions, and discussion of authentic scenarios that we hoped would encourage transformative learning (Mezirow, 2003), through reflective practice and critical thinking to prepare the students for leadership. Peer-led study program training was delivered online using a recorded presentation and interactive H5P modules covering cultural competency and academic integrity. Students completed a compulsory reflective practice activity before attending the face-to-face training, which included group work and responding to authentic scenarios utilising *GroupMap*, an online brainstorming tool. International study tour leaders received similar training experiences, with their *GroupMap* scenarios tailored to the types of experiences they might encounter in a culturally diverse setting.

We wanted to know if these approaches were successful for preparing the peer leaders, and what changes we needed to make to the training to ensure equity in delivery, sustainability and relevance. The training is being modified in response to student and staff feedback, with the eventual aim of providing authentic, contemporary and equitable training that is easily adaptable to the changing climate of higher education.

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