



In partial fulfillment of the requirements for the degree of

Doctor of Philosophy
Aaron Redman

will defend his dissertation

Assessing the Development of Key Competencies in Sustainability

Monday, July 6, 2020
8:00 am

Zoom link: <https://asu.zoom.us/j/94795433414>

Faculty, students, and the public are invited.

Supervisory Committee:

Dr. Arnim Wiek
Dr. Matthias Barth
Dr. George Basile
Dr. Daniel Fischer
Dr. Yoko Mochizuki

Abstract

The future needs change agents equipped with key competencies for sustainability. While education programs have emerged at various levels focused on teaching for these competencies there is as of yet no sufficient way to assess whether these programs are achieving their objectives. This dissertation makes a contribution to addressing this gap in three critical ways. First I review the large body of work which has sporadically and inconsistently attempted to lay out what makes a change agent, and from that I detail the key competencies for sustainability from a functional teaching and learning perspective (answering what needs to be taught and learned). I next looked into the accumulating scholarly work which has attempted to assess sustainability competencies with varying degrees of success. Based on this I propose a typology which appraising the tools used and offers

guidance to research and practice. Finally, drawing on the experience across the four year Educating Future Change Agents project I specifically explore the results from a diverse set of competency assessments, appraising their success in terms of practice and what the results reveal about progress made on developing competencies in students. The results of this research are expected to make a significant practical and scholarly contribution to the teaching and learning of ESD, in particular with regards to the key competencies.