The behavioural change necessary to achieve ecological sustainability requires profound change in societal and individuals’ understanding of sustainability. Such a fundamental change in individuals’ understanding can be understood as transformational. Transformation learning theory outlines ten recognised stages a person can go through in the course of a transformational change process. The first of these stages (called Disorienting Dilemma) involves a person being exposed to confronting information and/or having an experience which does not fit with their pre-existing values or worldview. Yet individuals can respond to new information, particularly information which challenges or confronts existing worldviews, by ‘shutting out’ the new information, a clear barrier to achieving the transformational change necessary for sustainability. Here we investigate an approach to achieving transformational change in individuals’ understanding of sustainability in a formal online education context. Instead of relying on the power of confrontational information to facilitate transformational change, we investigate the power of participatory and collaborative social learning in an online context to achieve such change. We present the findings from two online, postgraduate coursework Masters courses, ‘Sustainability & Ecosystem Health’ and ‘Environmental Management’, which combined an explicit social learning pedagogy with standard online learning delivery technology such as discussion boards. In doing so we demonstrate that a sophisticated approach to online learning can facilitate transformational change in individual students with regard to their understanding of sustainability. We also propose a modification to transformation learning theory.