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## Effects of a Transformative University Learning Experience on Sustainability Agency, Skills and Pro-Environmental Attitudes

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### Abstract

The purpose of this study was to analyse the transformative potential of an intensive, transdisciplinary university course in training sustainability agents using the case of the International Training Course on Organic Agriculture (ITCOA). The ITCOA is a programme organised annually for three weeks in Uganda. Initially, the consortium consisted of Makerere University Kampala (Uganda), University of Natural Resources and Life Sciences-BOKU (Austria), and Sokoine University of Agriculture (Tanzania). The University of Nairobi (Kenya), Bahir Dar University (Ethiopia) and Uganda Martyrs University joined later on, and BOKU-Austria has now fully transferred its coordinating role to the East African partners who have further developed the program. Each participating university nominates excellent undergraduate students from different disciplines for the course, and the annual number of participants varies between 32 and 40. This study analyses the training courses from 2005 to 2014.

We integrated concepts of sustainability learning and the Transformative Learning Theory into a research instrument, building on the survey of the Graduate Study Cooperative, the Transformative Learning Survey and the Environmental Attitudes Inventory. To our knowledge, this is the first study applying the Transformative Learning Survey combined with other instruments to a specific learning intervention. 117 ITCOA alumni participated in our study. To analyse the data, a path model was set up. The results showed that the ITCOA provided a transformative experience that positively predicted the participants' sustainability agency, empirically defined as the feeling of having a personal influence on sustainability and the perception of the employer's influence on sustainability. The learning experience also predicted the professional and personal competencies at graduation and environmental attitudes. While we are aware of the limitations of ex-post studies based on self-reported perceptions, we conclude that the ITCOA as a transdisciplinary learning

design is an example of transformative sustainability learning - forming knowledge, attitudes, and skills. The design creates experiential space for transformative social learning, particularly in the affective domain. Our study thus helps to argue for further research, monitoring, and a wider reform of sustainability learning at universities.

**Keywords:** Agency, attitudes, organic agriculture, skills, sustainability learning, transformative learning, university learning