

Investigating the impacts of sustainability-focused experiential learning courses on current and former undergraduate students

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INTRODUCTION

In a world faced with countless complex, interconnected sustainability challenges, education is widely understood as playing a key role in facilitating the necessary solutions to those challenges (Mintz and Tal, 2013). In particular, higher education institutions are essential in equipping tomorrow's leaders with the capacities to tackle these issues across sectors and fields (Savage et al., 2015; Whalen and Paez, 2020). In order to do this, these institutions can leverage their research, operations, and education (Beaudoin and Brundiers, 2016).

Education for sustainability (Efs) is a form of higher education focused upon encouraging and equipping students with the skills, attitudes, and behaviours necessary to find solutions to society's diverse sustainability-related issues (Mintz and Tal, 2013). Experiential learning approaches to Efs may provide particularly transformative value as, according to educational theorist John Dewey (1938), any education looking to provide meaning to both the learner and society must be based upon actual life experience. In short, experiential learning engages students with their...



... heads, hands, and hearts (Beaudoin and Brundiers, 2016).

OBJECTIVES

- 1 To understand the impacts of sustainability education through experiential learning on current and former undergraduate students.
- 2 To investigate the value that sustainability-focused experiential learning courses, or similar opportunities, might bring to the curricula of Ontario universities.

METHODOLOGY

For this primary, exploratory, qualitative study, the following methods were used:

COURSE SELECTION

Two sustainability-focused, fourth-year, project-based, experiential learning courses were selected for involvement in this study:

- 1 **SUSTAIN 4S06 - Leadership in Sustainability (McMaster University)**, and
- 2 **ENV461 - UofT Campus as a Living Lab of Sustainability (University of Toronto)**

RESULTS

Altogether, 10 categories of impacts or learning outcomes were identified in the data (Figure 1). These nodes were combined through analysis based on emergent connections to create broader themes. Three key themes were identified and were consistent between current and former students and between the SUSTAIN 4S06 and ENV461 courses.

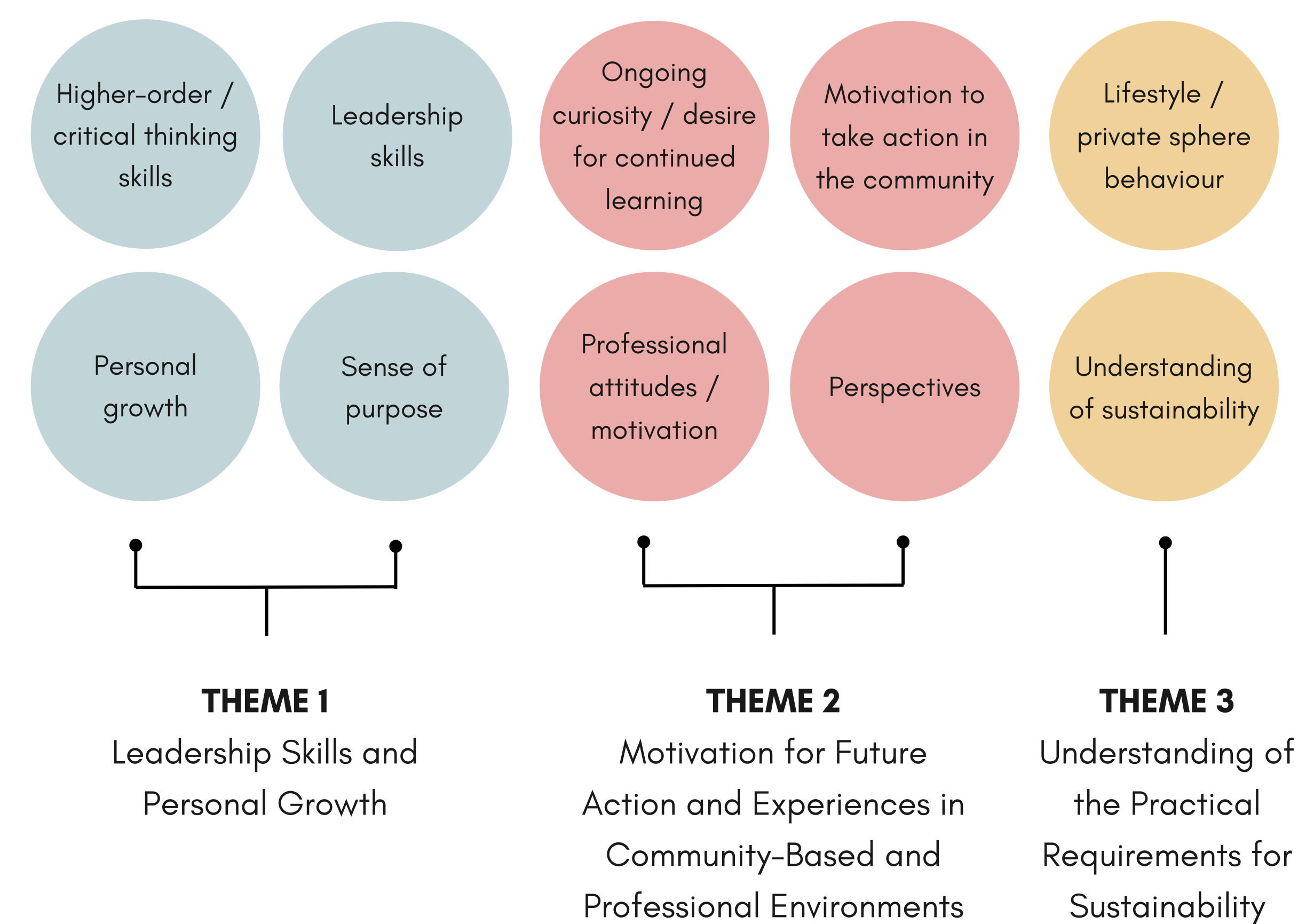


Figure 1: 10 categories or nodes were coded using NVivo thematic analysis software and 3 key themes of impacts or learning outcomes emerged from the data.

DATA COLLECTION & ANALYSIS

One-on-one, 45-minute interviews were conducted with each participant through Zoom video calling using a collection of 10 open-ended questions in a semi-structured format. Interview recordings were transcribed using Temi artificial intelligence transcription software. Thematic analysis was conducted through inductive reasoning and an essentialist epistemology using NVivo software (Braun and Clarke, 2013).

PARTICIPANT RECRUITMENT

A recruitment email with an informational infographic and survey was sent out to recruit 5 current and 5 former students between the 2 courses. *Current students* were defined as those enrolled in the course during the current or previous academic year. *Former students* were defined as those enrolled in the course 2-5 years prior to the study.

DISCUSSION

The 3 key themes identified in this study are consistent with the highest levels all three domains of psycho-social outcomes and spheres of life necessary for education for sustainability, as presented in the framework by Mintz and Tal (2013) (Figure 2). This may be indicative that the courses of study are well-rounded and comprehensive in their capacities to provide students with the learning outcomes necessary for transformative sustainability education.

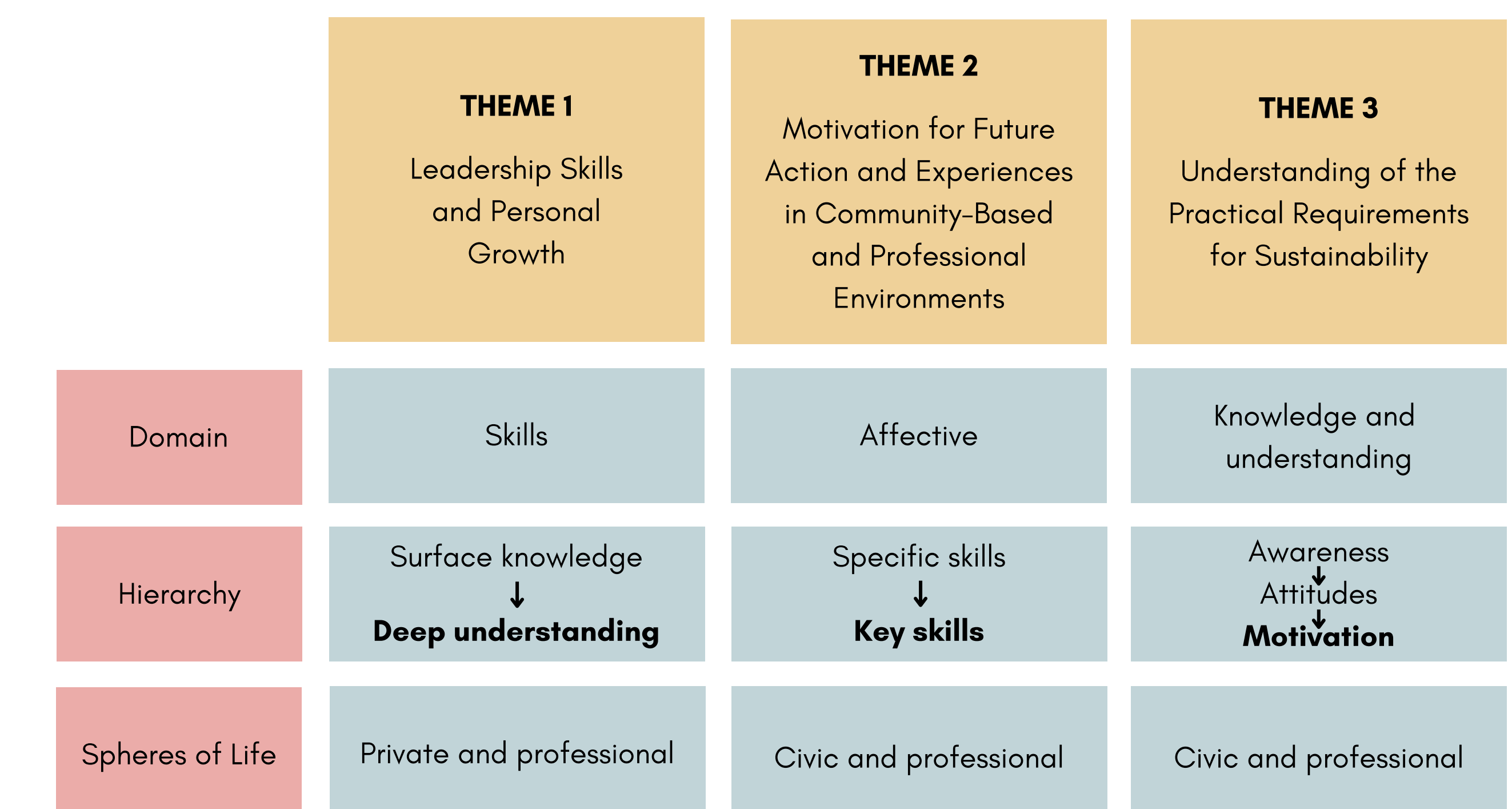


Figure 2: Diagram representing the connections between the 3 key themes identified in the data and the framework of learning outcomes that promote sustainability.

This study contributes to the body of literature focusing upon the advancement of sustainability-focused experiential learning curriculum within higher education. The findings from this study may provide insight for the development of sustainability-focused programs and curriculum in other higher education institutions in Ontario and, perhaps, beyond.

RECOMMENDATIONS

- 1 Sustainability-focused experiential learning opportunities should be designed to be accessible and relevant for students across all fields.
- 2 Higher education institutions should provide professional development opportunities to encourage instructors to most effectively integrate sustainability-focused experiential learning opportunities into existing or new courses, or other initiatives.

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