

Faculty motivation as a key to integrating sustainable development into teaching and learning

Abstract

The systematic integration of sustainable development into Higher Education curricula remains a challenge for many universities. Among other aspects, faculty motivation to include sustainable development into their courses seems to be crucial. However, empirical research regarding faculty motivation in the context of sustainable development is scarce. Based on the motivational systems theory, this paper aims to provide insights into how faculty can be motivated. This study is based on a literature review on faculty motivation and an interview study. Results include faculty's motivators as well as obstacles to integrate sustainable development into their curricula. For instance, faculty's capability and context beliefs are important levers for faculty motivation. This research contributes to the theory of integrating sustainable development into Higher Education and advances our insights into faculty motivation. From a practical viewpoint, it also provides insights into possible support measures for faculty.

Theoretical framework

Sustainability is seen as a major development target for Higher Education Institutions (HEI) (Friga, Bettis, & Sullivan, 2003; Wiek, Withycombe, Redman, & Mills, 2011). There are various definitions for sustainability, mostly going back to the famous quote of the Brundtland Report (Brundtland & World Commission on Environment Development, 1987, p. 43) which stresses intergenerational justice. For implementing sustainable development in HEIs, a broad definition is needed. Jucker (2002) includes economic and social progress recognizing everyone's needs, the efficient use of natural resources and the effective protection of the environment in his definition of sustainability. We follow this definition and consider social, economic and environmental aspects as essential for sustainable development (SD).

Although the integration of SD is strongly advocated by businesses, universities have been slow in integrating sustainable development into their curricula (Barber, Wilson,

Venkatachalam, Cleaves, & Garnham, 2014). However, universities are seen as key institutions in the ongoing process towards sustainability as they educate future business leaders (Pesonen, 2003). Accordingly, Datar et al. (2010, p. 100) advocate that we “need to [...] have students wrestle with complex questions of companies’ responsibilities to stakeholders, such as customers, employees, and society at large, in addition to shareholders”. One reason for this lack in integration are the persisting barriers for incorporating SD into HE curricula. A number of barriers have already been identified in the literature (Dawe, Jucker, & Martin, 2005; de la Harpe & Thomas, 2009; Jucker, 2002; Pesonen, 2003; Wals & Jickling, 2002). Above all, the negative attitudes of faculty and students towards the topic (i.e. the perceived irrelevance) can be identified as a major obstacle for implementing SD into HEI. As faculty play a crucial role for the implementation it is surprising that there is hardly any research regarding faculty motivation in the light of SD. Thus, the goal of this paper is to a) review the existing literature with regard to faculty motivation and b) to empirically investigate what kind of motivators drive faculty members to implement SD into their curricula and which support measures would help them to successfully implement SD.

For this research, the conceptual framework of Ford’s (1992) ‘Motivational Systems Theory’ (MST) is used as it brings together different existing theories of motivation. This framework encompasses three basis components of motivation: personal goals, personal agency beliefs, and emotions. Based on goal theory (Locke & Latham, 1990; Locke & Latham, 2002), a *personal goal* is defined as an anticipated future outcome which motivates the individual to attempt to produce this outcome. Comparing one’s goals with the potential consequences of pursuing these goals leads to one’s *personal agency beliefs* (Haney, Lumpe, Czerniak, & Egan, 2002). Two belief processes are regarded as important for personal agency beliefs:

- a. Capability beliefs refer to an individual’s evaluation of their own capability to attain a goal. Thus, they are similar to Bandura’s (1997) ‘self-efficacy’ and also to Deci’s and Ryan’s (1985) ‘perceived competence’.
- b. Context beliefs include an individual’s assessment whether one’s environment supports the goals. It also includes the compatibility of personal and organizational goals

As the third component of motivation, Ford (1992) depicts emotions as “the degree of success, failure or problems a person is experiencing – or anticipates experiencing – in the pursuit of currently active personal goals” (p. 140). However, emotions are mostly relevant when obstacles or opportunities arise when pursuing a personal goal. “Events that satisfy the

individual's goal, or promise to do so, yield positive emotions; events that harm or threaten the individual's concerns lead to negative emotions" (Frijda, 1988, p. 349). This framework is used as a foundation for our literature review and interview study.

Methods

The *literature review* was conducted primarily with data from peer-reviewed journal articles, including some grey literature (e.g. white papers, reports). Also included are articles that add a more general perspective to the topic of 'faculty motivation', however, the link to 'sustainable development' was a necessary precondition for inclusion of a paper. The literature search was based on Google Scholar (for scholarly literature) and on Google (for grey literature) (Wiek, et al., 2011). The following key words were used: "faculty motivation" AND "sustainability" or "sustainable development" OR "environmental sustainability". With the literature search, 30 relevant documents were identified.

Data was gathered in a workshop on faculty motivation and through interviews with faculty members. The workshop was part of the 'Sustainable University Day 2015' which took place at the University XYZ. In the workshop, 25 faculty members, representing 10 universities, participated. In a first step, faculty's challenges regarding the integration of sustainability into the curricula were identified. In a second step, tools, methods and ideas which could support faculty in the integration process were collected. The workshop lasted for 90 minutes and closed with a prompt for the participants which they were asked to complete. The prompt was the beginning of a sentence: "My motivators for integrating sustainability in my curricula are ...". While the workshop indeed informed this paper, the participants' prompts were analyzed in depth. In total, 20 answers to the prompt could be recorded during the workshop. The first author of the paper analyzed the data and deducted possible categories. The second author of the paper then coded the data again, based on the pre-defined categories. In the first round, this resulted in an inter-rater reliability of 75%.

Furthermore, interviews with 10 faculty members were conducted at the University XYZ. The interviews lasted between 45 and 60 minutes and included questions regarding faculty's understanding of sustainability, possibilities to integrate sustainable development and hindrances. The interviews were transcribed verbatim. For data analysis, each interview was coded, using the Atlas.ti software. Analyses were conducted as a combination of deductive and inductive coding. Based on Ford's motivation theory, different categories were used for the first coding round (e.g. personal goals, emotions). However, other categories emerged from the text and were added to the coding list. The two authors of the paper are currently in

the process of analyzing all interviews. The coding process will be completed at the time of the conference.

Findings and conclusion

The literature review was based on Ford's Motivational Systems Theory. The relevant literature was assigned to the different categories of the MST. As the MST is a rather generic theory, subcategories had to be added to do the existing research justice. In addition to 'personal goals' and 'emotions', the capability and context beliefs were subdivided into knowledge about sustainable development (e.g. Scott & Gough, 2006), teaching methods (e.g. Warburton, 2003), support and material (Benn & Dunphy, 2009; Sammalisto & Lindhqvist, 2008), institutional aspects (e.g. Velazquez, Munguia, & Sanchez, 2005) and aspects regarding teaching and learning (e.g. Nicolaides, 2006). Figure 1 gives a more detailed picture of the results.

**** Insert Figure 1 about here ****

The majority of research with regard to the integration of SD into HE curricula related to personal agency beliefs. In contrast, faculty's personal goals or emotions are hardly investigated.

The analysis of the workshop participants' prompts revealed a different picture. In total, nine categories of faculty's motivators emerged. For instance, they include 'vision of a better world' or 'impact in change processes' which can rather be seen as faculty's personal goals. Other categories are 'responsibility for future generations', 'own happiness', 'personal values' which can be attributed to Ford's category of emotions. Thus, the faculty's spontaneously expressed motivators highlight the importance of personal goals and emotions. The coding of the first interviews revealed a mixed picture including faculty's personal goals but also their capability and context beliefs.

Our results emphasize the importance for further research with regard to the integration of new topics such as sustainable development and/or methods into HE. For the integration of SD, it seems important to address both individual and organizational aspects. Thus, this research also provides some insights into how to provide practical support for faculty's endeavors with regard to teaching.

Figure 1: Overview of the results of the literature review (categories based on Ford, 1992)

