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Summary

Higher education can create space for learning where students can work with integrated real-world issues, thereby creating value for others while building transformative leadership capabilities. It requires organisational leaders understand how to distinguish between two logics for leadership: the cruise and expedition logic, respectively. Good leadership understands the value of expeditions for the development of the entire system.

Keywords

Higher Education
Sustainability
Expedition
Leadership

Introduction

This article was partially born out of a recent contribution on leadership and institutional capacity within higher education in Sweden for Agenda 2030 (Holmberg, 2020). Its implications have been positively received in several forums. Below, we share its main message and policy implications with an international audience.

We start with the following question: How do higher education institutions (HEIs) prepare us for climate change and what kind of structural transformations are needed in HEIs for sustainable futures? We focus on students' learning processes for dealing with complex challenges such as climate change in real-world contexts. We build on eight years of experience from initiating and running such learning settings (Holmberg, 2014; Larsson & Holmberg, 2018), as well as experiences from related approaches, including literature reviews on sustainability oriented laboratories and experimentation (McCrory et al., 2020).

HEIs are still mainly organised in a one-way, hierarchical and reproductive relation to learning, and the content is often divided based on disciplines while lacking a holistic perspective (Wals & Corcoran, 2006). United Nations documents (United Nations Educational, Scientific and Cultural Organization [UNESCO], 2014) and research on learning for sustainable development (Holmberg & Samuelsson, 2006; Tilbury, 2011) have claimed for many years that learning *about* sustainable development, including climate change, needs to be complemented with learning *for* sustainable development. The latter calls for learning settings where generic competences to deal with integrated real-world complex issues can be developed. The understanding that the climate challenge needs to be integrated with other perspectives, including justice, becomes obvious in a real-world setting. For instance, will a new carbon-neutral transport system look very different if accessibility and social justice are important design criteria or not?

There are many reasons why HEIs in general move too slowly in the direction of more challenge-driven approaches, as required by learning *for* sustainable development. One reason can be found in the structure of HEIs. They operate in the domain of learning, but when it comes to HEIs as organisations, especially the education system, they seldom behave as learning organisations, that is, "organisations where people continually expand their capacity to create the results they truly desire, where new and expansive patterns of thinking are nurtured, where collective aspiration is set free, and where people are continually learning to see the whole together" (Senge, 1990, p. 3).

For any learning organisation, space needs to be created in which more exploratory-oriented learning for transformations can occur. Creating such space, however, requires that the leadership, especially within the education system, understands how to distinguish between but still acknowledge the interdependence of two logics for organisational leadership and management: the cruise and expedition logics, respectively (Holmberg, 2019).

Getting "Cruise" and "Expedition" Modes to Reinforce Each Other in Higher Education Institutions

Bateson (1972) distinguishes between four levels of learning, where the fourth level is unlikely to occur in practice. Winter et al. (2015) have referred to the first three levels as: conformative (doing things better); reformative (doing better things); and transformative (seeing things in new ways). Many researchers group the second and third levels together and think of learning organisations as a dichotomy. Argyris and Schön (1974) express this dichotomy as single- and double-loop learning, respectively. There are several related ways of expressing this kind of dichotomy: lower-level and higher-level learning (Fiol & Lyles, 1985); first- and second-order learning (Arthur & Aiman-Smith, 2001); marginal and radical change (Miner & Mezias, 1996) and adapted and generative learning (Senge, 1990). When organisations face major external changes, researchers claim that what is equivalent to double-loop learning is necessary. This applies not least to HEIs if they are to establish learning environments for a sustainable future.

There are strong links between learning organisations and the field of "sustainability transitions research" (Köhler et al., 2019; Markard et al., 2012; Rotmans et al., 2001). Navigating and leading such transitions is associated with experimentation and learning. The transitions literature tends to contrast system optimisation with system innovation (compared with single- and double-loop learning above). Optimising and refining existing systems follows a different logic compared with exploration and experimentation (March, 1991). Thus, the leadership required in the two logics is also of a different character. Metaphorically, we can refer to the former as the "cruise" and the latter as an "expedition" (Holmberg, 2019; Larsson & Holmberg, 2018).

As long as an organisation can continue without any major external challenge or pressure for change, the cruise logic functions well and most things can be handled with existing management systems, which give a sense of control. In the cruise, it is about doing what you already do but better (level 1 learning). As an organisation approaches the uncharted waters of new challenges with external pressures for change (for example the requirement for learning environments *for* sustainability transformations) it may be wise to send out an expedition to test new paths instead of jeopardizing the entire cruise, in order to minimise risk and maximise learning. In an expedition, conditions need to be created for doing better things (level 2 learning) and seeing the world in new ways (level 3 learning), or learning what is not yet there (Engeström, 2016). Table 1 presents some important differences between the two logics.

Table 4. Some differences between cruise and expedition modes

Cruise mode	Expedition mode
Current structures, routines, etc. provide support	Current structures, routines, etc. hinder
Optimising and refining existing systems	Thinking beyond existing systems
Goals, targets, steering, controlling	Guiding principles, trust, autonomy, flexibility
Measuring performance related to predefined results	Creating space for exploration, reflection and learning

Source: Adapted from Holmberg (2019)

We are not suggesting replacing the cruise logic with expedition logic. Both are needed. But each has different purposes and applications. In the business world, it is obvious that one must be able to both earn money with existing operations (cruise) while preparing for a future market (expedition). Compare this, for example, with the transition towards electrification in the car industry. Organisations that can cope with both logics simultaneously are often referred to as ambidextrous (O'Reilly & Tushman, 2013). Research shows that if the expedition occurs completely isolated from the cruise, then the cruise does not take advantage of the learning that takes place in the expedition, and if the expedition is completely integrated into the cruise, the expedition is not given adequate space to explore and learn. It seems important to keep the two logics separate, that is, to create room for the expedition while ensuring that the connection takes place at the highest level in the organisation (Smith & Tushman, 2005). If this happens, the expedition is desired by the cruise and is provided the right conditions to succeed while it becomes important for the expedition to return their learning to the cruise.

If we apply this dichotomy to HEIs, it is sad to conclude that we still see too few activities in expedition mode in their different roles: In their role of researching, transdisciplinary research lags behind traditional in-house monodisciplinary research; in their role of innovating, for example, challenge-driven innovation in comparison to traditional idea-driven innovation; and especially in their role of educating when it comes to establishing learning settings for dealing with complex challenges, such as climate change in real-world contexts. Research has shown that providing the right conditions for the latter has proved to be an enabler for expeditions in the two other roles (Larsson & Holmberg, 2018).

In HEIs, expeditions are often hindered by the inertia of prevailing structures and values. This may apply to ranking systems and incentive structures for individual researchers, traditional idea-driven innovation systems and cemented educational structures. Of course, this also applies to prevailing control and management models, for example, new public management (Bessant et al., 2015), with its strong focus on optimisation and control.

At most HEIs, the educational organisation is led completely according to the cruise logic. Active leadership is needed to create and learn from valuable expeditions, that is, new experimental learning environments in which researchers, students and managers can explore the responses to climate change–related challenges. A crucial problem is that these experimental learning environments can often not be easily incorporated into an existing educational structure. If expeditions must adapt to the structures of the cruise too soon, they will either never take place or will not be able to continue. Thus, there is a need for an awareness of the importance of both logics and an ability to handle them simultaneously. Today, too much responsibility is placed on the initiators of the expeditions to also find conditions for the expedition to thrive within the cruise. Good leadership within the educational organisation understands the value of expeditions for developing the entire system. It is also not reasonable that the financial responsibility for expeditions that intend to benefit all HEI activities, which are often seeking to invite students across educational programmes, is placed on an individual institution without any central support.

Expeditions need initial top-down support, but to be successful, they must happen from the bottom up with a minimum degree of trust and autonomy. This is well-illustrated in the case of Education for Sustainable Development (Chikamori et al., 2019). To guarantee a sharing of expedition-learning and up-scaling to the larger educational system (or cruise), it is important to move beyond the accumulation of knowledge on learning outcomes and student satisfaction, and move into understanding the underlying features and mechanisms; explaining what works, for whom and why; what can be generalised and transferred across cases and contexts, while leaving institutional freedom to adapt (Holmén et al., 2021). Hence, we need to move beyond a search for blueprints and best practices. This further strengthens the realisation that expeditions are beneficial in all HEIs that are seeking to transform towards sustainability.

It may be that earmarked funds from the national ministries of education are needed for encouraging and enabling HEIs to create space for expeditions, for example, institutional experiments, explorations, innovation and learning within their respective educational systems. Here, perhaps the motto of the Challenge Lab can be applied: “Think big, start small, act now!”(Holmén et al., 2021, p. 18).

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