Introduction

Generating knowledge that is applicable to diverse and complex practices, be they intellectual or economic, requires integrative approaches and interdisciplinary collaboration (Klein, 1996; Wall & Shankar, 2008). In higher education, the recent trend is to create new, often interdisciplinary programs, in order to secure higher education students’ employment and to respond to the new needs of working life. We may thus state that combining different disciplines is one of the main characteristics in the educational development processes and future directions in Finland. While the phenomenon of interdisciplinary learning is not new, prior literature does not provide much guidance on how to construct the teaching of high quality educational programs that produce authentic interdisciplinary learning. Because there are a great variety of practices, the remapping of the variety of knowledge in new interdisciplinary fields is highlighted, as well as the extent of boundary crossing (Becher, 1989, 1994). In the interdisciplinary programmes, boundary crossing stimulates the formation of trading zones of interaction, inter-linguistic, hybrid communities, professional roles, new institutional structures, and new knowledge categories (Klein, 1996).

Arts Management is an example of the hybrid and interdisciplinary fields where art and business economics interplay to enhance understanding and skills, in order to operate with the complex artistic productions and processes. However, interdisciplinary learning is challenging, as specific discourses have been developed within disciplines to privilege particular understandings and ways of seeing and thinking. In art and economy this is particularly challenging, as these disciplines have traditionally been based on contradictory logics (Bourdieu, 1992). Currently, we lack knowledge of not just how to cross the boundaries between the different disciplines, but also how to increase the meta-level understanding and knowledge of differences and similarities of the various disciplines. This kind of knowledge is needed in order to develop high-quality interdisciplinary programs.

In this conceptual paper, we draw on systematic literature review to examine the meta-level understanding of interdisciplinary in arts management education. In more detail, the aim is to explore how to enable reciprocal integration between different fields and thereby promote interdisciplinary teaching and learning. It has been suggested that the artistic and creative processes already include certain aspects that may promote authentic interdisciplinary learning in which different disciplines are reciprocally integrated to promote both new understanding and skills (e.g. Brown, 2001). Based on these assumptions, we will explore how to maintain and strengthen the essence of each disciplines and related identities while integrating them into authentic interdisciplinary education.

Theoretical aspects of boundary crossing in authentic interdisciplinary integration and learning

In order to bring about authentic interdisciplinary integration and learning, the constructing of educational programmes requires multiple boundary crossings within different disciplines, because there are a complex and contradictory set of interests, actions, practices, and structures in each discipline. The general aim of the programme is to provide skills that will help the students to solve complex problems, integrate and apply new knowledge flexibly, and come up with creative combinations of knowledge.
While the authentic interdisciplinary learning is context-specific and rests on the characteristics of each discipline to be combined, it also includes certain common elements such as real-world relevance, ill-defined problems, sustained investigation, multiple sources and perspectives, collaboration, reflection (metacognition), interdisciplinary perspective, integrated assessment, polished products, multiple interpretations, and outcomes.

Klein (1996) emphasizes three issues that are crucial to interdisciplinary learning in higher education: Criteria of judgment, integrative process, and institutional strategies. Criteria of judgment are challenged in interdisciplinary programmes because interdisciplinary activities are often concerned with multivalued problems, without standard criteria against which (professional) knowledge can be judged. Klein (1996) argues that interdisciplinary activities should be judged on how well they accomplish the particularities of their tasks, and how well they integrate knowledge by replacing the dichotomy of either-or with the inclusive relationship of both-and (Bechtel, 1986). In addition to a depth and breadth of disciplinary knowledge, interdisciplinary learning aims also for cross disciplinary synthesis.

For integration processes, three types of boundary work have been identified that may enhance interdisciplinary teaching and learning: 1) crossing disciplinary boundaries, 2) crossing cultural boundaries, and 3) crossing boundaries between theoretical knowledge and practice (Fortuin & Bush, 2010; Klein, 1996). In the following table they are elaborated through the knowing, attitude, and skills that are central to each boundary crossing activity:

1. **Crossing disciplinary boundaries**
   a) **Know:** being aware of different perspectives, worldviews, and specific disciplinary languages embedded in each discipline
   b) **Attitude:** seeing the value of using different disciplinary perspectives; seeing the difference, tension, and conflict as part of the character of interdisciplinary knowledge
   c) **Skills:** making use of different perspectives; making use of different disciplines and making connections between them in communicative actions and activities to reach synthesis

2. **Crossing cultural boundaries:**
   a) **Know:** being aware of differences in cultural perspectives
   b) **Attitude:** seeing the value of using different cultural perspectives
   c) **Skills:** being able to collaborate, translate, negotiate, and make decisions in an intercultural setting

3. **Crossing boundaries between theoretical knowledge and practice**
   a) **Know:** being aware of differences between theory and practice
   b) **Attitude:** being flexible and open to uncertainty; approaching progress as recursive and iterative
   c) **Skills:** being able to deal with complexity and uncertainty; being able to craft multiple elements into an organic whole, i.e. being creative

Disciplinary gaps, which need to be bridged, are rooted in differences between scientific paradigms and scientific languages. While there is a body of knowledge illustrating professional needs and experiences in crossing both vertical and horizontal boundaries (Parker et al., 2002; Cash et al., 2003; Klein, 2004; Martens, 2006), little attention has been given to how to teach those skills and how to integrate them into the whole educational programme. The key research question therefore is: what educational approaches improve students’ boundary crossing skills?
**Requirements for interdisciplinary curriculum development**

An arts management curriculum needs to be more than the pieces of the disciplines from which it is constructed. Development of this type of interdisciplinary programme is challenging, as the teachers may not agree on a definition of interdisciplinary, and they seldom engage in philosophical or epistemological discussions (Klein 1996). In interdisciplinary study programmes such as those in arts management, the focus should be on problem-posing and problem-solving capacities, as well as multi-logical thinking that comes down to the basic skills of differentiating, comparing, contrasting, relating, clarifying, reconciling, and synthesizing (Klein 1996, 1990). Approaches to teaching and learning need to be grounded in social learning, and the key is to facilitate the change of perspectives and the acquisition of multiple perspectives. It is increasingly recognized that individuals who are flexible, creative, and like to try innovations flourish in interdisciplinary projects (Jakobsen et al., 2004; Morse et al., 2007).

Morse et al. (2007) identified “bridges and barriers” for interdisciplinary practices on three levels: the individual or personal level, the disciplinary level, and the programmatic level. They also find communication between persons crucial, because people from various backgrounds use different disciplinary “languages”. Communicating transparently can be learned from each other during one’s studies, and helps students to better understand the value of different contributions. Also, the translation of the terms of each discipline is needed in each course, because even when established vocabularies are used, they must be shaped to the particularities of the task at hand.

**Conclusions**

This paper provides a theoretical framework for interdisciplinary curriculum development in academic programs such as arts management. This theoretical frame is a continuation of our work in which we have focused on developing a pedagogy of connection and boundary crossing.

The authors of this paper represent various disciplines, including music, arts management, economy, and higher education. During our pedagogical research project we have experienced the above mentioned differences in disciplinary language use, and it has been an interesting journey to gradually understanding the disciplinary boundaries of concepts and vocabularies we use based on our worldviews and the epistemological assumptions grounded in the disciplines each of us represents.

**REFERENCES**


