Chapter 44

Developing a Cross-Disciplinary Framework for Collaborative Research in Multi- and Intercultural Education

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ABSTRACT

This chapter sets out an approach to professional development and team building in a newly established faculty in a Finnish university. A method is given for mapping the academic and professional experiences of eight faculty members across disciplinary boundaries to arrive at a cross-disciplinary framework for collaborative research in multi- and intercultural education. Building cumulatively on faculty members' expertise, the mapping revealed three interconnected themes as a basis for collaborative research: boundary transactions between knowledge, skill, and language; boundary objects as representations and carriers of culture; and technological mediation of boundary encounters. A collectively agreed position statement is given for each of the themes along with a discussion of associated pedagogical ideas.

INTRODUCTION AND BACKGROUND

The terms 'multicultural education' and 'intercultural education' mean different things to different people. Moreover, the boundaries between multicultural and intercultural education, and their intersections with international, development and comparative education, are poorly defined. On the one hand, ambiguities around definitions and academic identities are strong disincentives for creative collaborative research. On the other hand, the boundaries between disciplinary perspectives

are fertile ground for exploring both the tensions between different bodies of knowledge and modes of understanding, and the emergent possibilities for further research.

In this chapter we explain how members of Faculty in a Finnish university with diverse perspectives worked together to develop a collaborative cross-disciplinary framework in which to research multi- and intercultural education. The purpose of the work was: (i) to establish a collectively agreed theoretical scheme in which to 'place' our perspectives on multi- and intercultural education which would serve also as the basis of a rationale for subsequent research; and (ii) to identify some themes which reflect our individual interests and expertise but on which we might work collaboratively and out of which we might develop some research questions. The impetus for this work was the creation of the University of Eastern Finland in 2010 from the merger of the Universities of Joensuu and Kuopio and the establishment of a Faculty of Philosophy with representation from disciplines in the humanities and social sciences.

Eight members of the newly formed Faculty took part in a series of structured mapping exercises and associated dialogues. Although all 'educationalists' in a broad sense, the eight participants brought with them a range of expertise: cultural studies, linguistics, crafts, information and communication technology (ICT) and environmental sciences. First, group members produced a personal 'map' of their expertise and interests. Then, working in four pairs, group members compared personal maps and looked for similarities and differences, identifying connections and tensions. Each pair produced a composite 'map' of the outcomes and identified a unifying initial 'theme'. The initial themes were then used in plenary discussions and progressively and cumulatively refined through a series of dialogues and commentaries on dialogues.

This way of working involved sharing experiences and practices across disciplinary and conceptual boundaries leading to common under-

standings but also a recognition of difference, of 'otherness'. This at once acknowledges diversity in human culture but at the same time looks for commonalities and enables us to distinguish between multidisciplinary and interdisciplinary forms of research and scholarship. By multidisciplinary we mean the juxtaposition of disciplinary and/or professional perspectives to add breadth to understanding through making good use of available knowledge and methods but through the 'separate voices' of the contributing disciplines. By interdisciplinary we mean the integration of data, concepts, tools, methods and theories from separate disciplines in order to generate a common understanding of a complex issue, question or problem. Our definitions of multidisciplinarity and interdisciplinarity are adapted from Bruun et al. (2005).

The initial themes to arise from paired discussions around personal 'maps' were: (i) relationships between culture and place; (ii) cultural contexts of knowledge; (iii) language as a reflection of culture and as a tool for intercultural cooperation; and (iv) facilitating intercultural education through the use of information and communication technologies. In arriving at these themes, much of our discussion centered on the challenge of reconciling different disciplinary concepts and methodologies and reformulating them in a collaborative academic endeavor. Boundaries were at the heart of these discussions and in order to provide a context for our collaboration, and to foreground the compatibilities and tensions in our respective perspectives, we subsequently worked with the sociocultural notion of 'boundary' which we refined as the collectively agreed theoretical scheme in which to 'place' our perspectives.

Walker and Creanor (2005) define a *boundary* as a discontinuity in some form of practice, often determined by limits of effective communication. Artifacts, documents, institutional and administrative protocols, etc. have to be addressed by people from different communities if shared understandings are to be built. Star and Griesemer (1989)

call these items *boundary objects. Boundary encounters* occur as people, physically, or through their artifacts, protocols, tools etc. interact across boundaries. *Boundary transactions* (boundary crossings in some literature) are the flow of ideas, constructs and innovations across boundaries.

Through the plenary discussions our initial themes were conflated and consolidated into the following collectively agreed research themes:

1. Boundary transactions between knowledge, skill and language.
2. Boundary objects as representations and 'carriers' of culture.
3. Technological mediation of boundary encounters.

At this stage the four 'pairs of colleagues' were re-formed as three sub-groups, each taking one of the research themes. Each sub-group was charged with producing a position statement on its research theme, addressing the theme within the frame of boundary transactions *but at the same time incorporating their specific research interests*. The themed position statements that follow are the result of discussion and refinement in plenary sessions. They should not be taken as comprehensive 'state of the art' statements but rather as the eclectic outcomes of a disparate group of academics focusing on common themes and exploring how their own professional histories and interests relate to the themes. The purpose of the chapter is thus *not* to address directly current issues in multi- and intercultural education, rather to reveal the tensions around the edges of inter- and multicultural education as they interact with other fields of academics pursuit. The chapter describes a process of research collaboration as a form of professional development and reveals the possibilities that arise from that process. It is thus primarily a methodological chapter based around an exploration of the intellectual boundaries that mediate inter- and multidisciplinarity.

THEME 1: BOUNDARY TRANSACTIONS BETWEEN KNOWLEDGE, SKILL AND LANGUAGE

In academia, crossing boundaries between disciplines typically involves epistemological, methodological and language struggles. In education these struggles are frequently ignored rather than confronted. A key issue here is not so much the content of the knowledge transacting across boundaries, more the meaning it carries when moved uncritically from one domain or context to another. For example, Takem (2005) explains that in many 'educational' campaigns in Africa organized by non-governmental organizations (NGOs), central concepts are idealized western constructs which are applied without adequate attention to context: 'development' is seen from a 'developed' point of view; 'participation' is illusory; and 'community' is based on an image of a homogenous group of people. At its worst, this is a form of intellectual and practical imperialism where knowledge is formulated linguistically and conceptually in terms that impede rather than facilitate the two-way flow of ideas across a socio-cultural boundary. By contrast, multidisciplinarity recognizes the multiplicity of meanings in different contexts but seeks to bring them together in order to broaden dialogue and understanding. Education that is multidisciplinary prepares students to face *others* and other points of view.

Education that is interdisciplinary seeks integration. For example, in communication, intercultural competence means being able to function in new environments, with people of different backgrounds, and having confidence in oneself when moving between cultures, literally 'to integrate'. Intercultural education seeks to help people from different cultural backgrounds be willing and motivated to live, work and learn together. In other words, it supports understanding and cooperation between people of different ages in different settings. Intercultural education

is as much about attitudes and beliefs as it is about knowledge; it is verbal and nonverbal, linguistic, sociolinguistic, paralinguistic. Interdisciplinarity so defined is a familiar challenge in research-based development work in language education in professional and vocational settings. It cannot be reached by any individual stakeholder alone, e.g. a foreign language teacher. Rather it demands committed and determined long-term collaboration and networking between different stakeholders and professionals in education and research inside and outside the educational institutions. Through such interdisciplinarity it is possible to provide students with knowledge and skills which meet the (real) needs of internationalized and globalized working as well as addressing their personal and professional development (Airola & Kantelinen, 2009; Kantelinen & Airola, 2009).

Education that is both intercultural ('interdisciplinary') and multicultural ('multidisciplinary') would recognize cultural issues, face contradictions and inconsistencies, take account of the environmental implications of technical developments; confront ideological hegemony; challenge unjust distributions of power and resources. It would do this by recognizing context dependency (Dillon, 2008a), the importance of 'living knowledge' (Moll et al., 1993), place-based pedagogies (Gruenewald, 2008) and so on.

THEME 2: BOUNDARY OBJECTS AS REPRESENTATIONS AND 'CARRIERS' OF CULTURE

In a broad sense, any object, system or human behavior is a potential boundary object - artifacts, documents, institutional and administrative protocols, music, photographs, crafts, clothes, food, gestures, expressions etc. Objects are representations of 'culture' in that the meaning they carry is situationally dependent. They are the material and organizational traces we carry with us when we move from one situation to another and rep-

resent concepts, ideas and feelings about culture. Collective representations of culture constitute 'traditions'. Boundary objects may also form the basis of stereotypical representations or oversimplifications of certain cultures. Other boundary objects might be cultural 'icons' reinforcing group identity and creating loyalty among the people involved. Boundary objects may also have economic value as stereotypical or iconic representations of culture, for example, souvenirs produced for tourists, hand-made crafts.

At a global level, cultural representations are fusing together. Awareness of the contexts of cultural representation is important for individuals to understand their meanings. To raise consciousness has to be an essential part of intercultural education. Although use of the Internet is often conceived as a way to connect people, pedagogical material may also produce difference. For example, Finnish craft teachers utilize and develop constantly a Web site called 'Käspaikka' (www.kaspaikka.fi) which is a resource for learning and teaching crafts. When crafts are taken to the Internet they are both educational resources and boundary objects. The 'multicultural' craft materials are mostly produced by textile craft teachers who represent the majority culture. However, their students may not necessarily be of the majority culture. Immigrant students often experience a bicultural world in which they struggle to integrate the 'new' culture with the traditions of their families (Kröger, 2009). Craft artifacts can be used as boundary objects to find common ground between cultures and help to positively establish difference, for example in the individual experiences of craft education and the collective values associated with cultural heritage, see Kokko and Dillon (2011).

Boundary transactions are complex (Figure 1) but projects can be framed to move students' beyond a superficial engagement with the issues. A further Finnish example: In a multicultural project, student teachers of textile craft education had to meet refugees from Burma. The Burmese people

Figure 1. Boundary transactions around the themes of culture, cultural heritage and identity
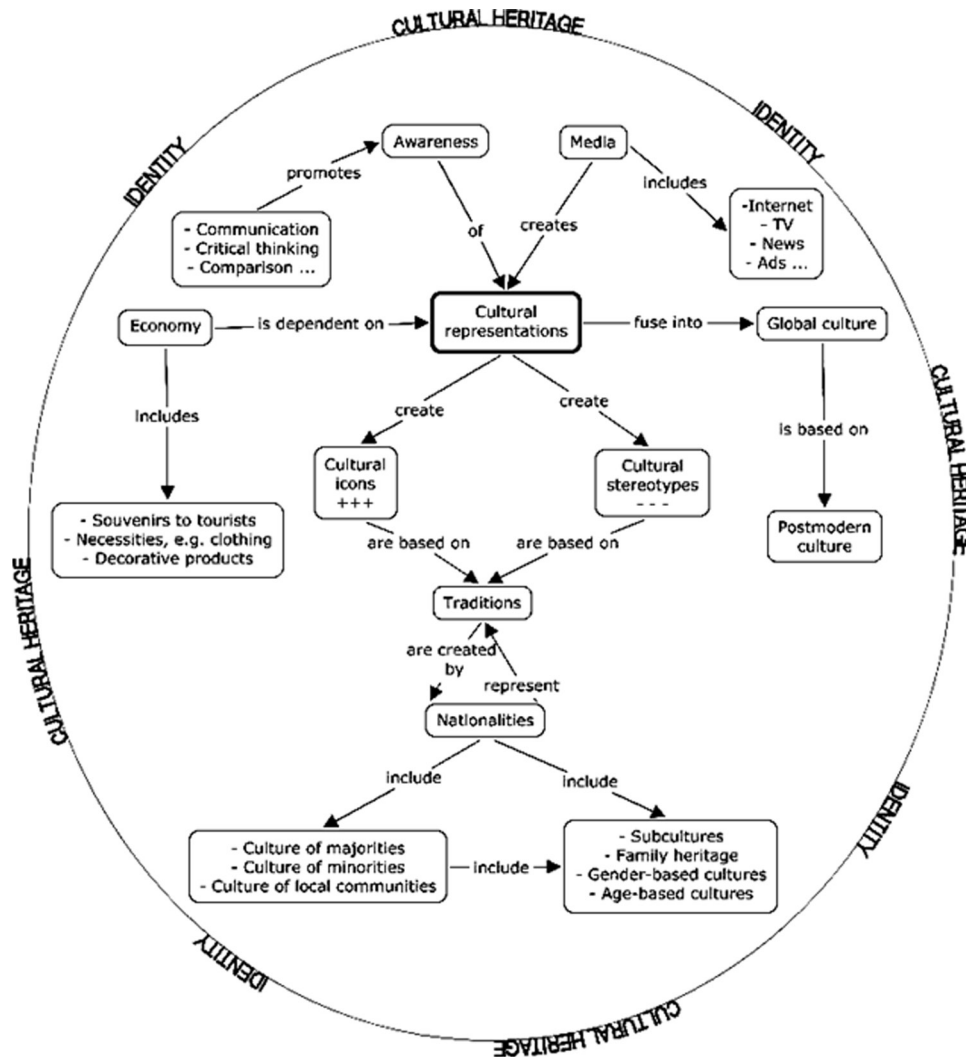
spoke little Finnish having been in the country a short time. When the students and refugees met for the first time, they were asked to bring craft artifacts with them as a stimulus for conversation. They soon recognized that although materials like wool and techniques like weaving offer common ground regardless of their backgrounds, the meanings attached to the processes and the products are different. For the Burmese, weaving has economic meaning through providing a living; for the Finnish students, weaving represents 'slow craft' and carries a therapeutic meaning. Despite different interpretations, crafts served as a means

of developing understanding across boundaries. Dialogue continued in a craft workshop that the students organized for the refugees. Students and refugees learned and crocheted together patches for a small blanket as a contribution to the 'World's Biggest Blanket Project'. In so doing, they shared experiences, acknowledged similarities and differences, and thus came to understand each other. The blanket was named 'Diversity is Richness'.

Craft traditions appear to be gendered worldwide. Textiles have belonged to the female spheres of life for centuries and hard materials like wood and metal are parts of traditional masculine spheres

(Barber, 1994; Ferguson, 2008; Parker, 1984). The gender-based division of crafts is persistent, regardless of the many cultural and social changes that have occurred. Kokko (2009) has researched the links between crafts and gender in the upbringing and education of girls in Finland. Her study reveals the various processes and practices that have socialized girls to learn textile crafts as part of their female roles. The processes are maintained in practices informally in upbringing and formally in education. Craft artifacts carry with them gendered meanings which depend on the surrounding culture. Thus 'feminine' crafts are used as boundary objects by women reinforcing their feminine group identity. Likewise the 'masculine' crafts are boundary objects which reinforce the masculine identity of the males involved in these activities (Kokko, 2011). On the one hand these practices are embedded in and perpetuate cultural 'traditions', on the other hand they reinforce stereotyping.

THEME 3: TECHNOLOGICAL MEDIATION OF BOUNDARY ENCOUNTERS

This theme reflects expertise in the group about the use of social media (especially by young people, the so-called 'net generation') and the use of ICT for development. In what follows, technological tools and technological practices are located in boundary transactions between cultures.

ICT and specifically the Internet have profoundly changed the way people collaborate and interact. Easy, real time communication, 24 hours a day, for people all over the world, offers many new opportunities for communication between individuals, groups, and cultures. With the development of different software, different ways and forms of collaboration and interaction emerge.

Typically, email has been a tool for text-based communication with a few people, often with people previously known to the individuals concerned. While email can be described as an electronic version of letter writing, the development of social media, so called Web 2.0, has brought a new dimension to electronic social networking. Software for social networking, such as *Facebook*, *Twitter* and various blogs, allow people to share information in real time about themselves, their lives, ideas, opinions and thinking (Boyd, 2007). People can create and join groups with others from around the world; the traditional boundaries of physical location, cultural background and mother tongue are less constraining (see also Heller's (2008) notion of language and society understood as shifting and dynamic). Internet communities often consist of people who have never met. Yet, communication seems to follow commonly agreed conventions, for example, netiquette (Internet etiquette) and linguistic conventions of Internet slang such as emoticons or acronyms that people from different cultures recognize and accept. ICT and social media may have prompted communication and language conventions that form an electronic lingua franca, a so-called Netsperanto. Technology has impacted on the way people see communication and the worldviews of those who have immersed themselves into the new ways of communicating. Young people, the first generation to grow up hand-in-hand with ICT and the Internet, are said to be a 'true global generation' in that around the world they share similar modes of using the technology (Tapscott, 2008).

As boundary objects, technological tools and practices mediate intercultural communication through speed and extensive coverage: they dissolve geographical and cultural differences through real time, worldwide communication. The Internet has created communication conventions and linguistic features that cross cultural, national and ethnic boundaries. The net generation is said to be the first to make the Internet the nexus of its social life (Hartman et al., 2007). We might therefore also expect technological tools and practices to mediate boundary transactions in an educational sense. However, what might be called

a 'Netsperanto state of mind and worldview', i.e., net generation students' ways of interacting and cooperating by technological mediation, is not so evident in traditional school settings. By not recognizing and appreciating net generation students' skills and tendencies for technology mediated activity, a gap is being created between formal school education and unprompted, informal education (Valtonen, 2011). Signs of this can be seen in, for example, elementary school language education. A study revealed that 7 to 12 year old students in Finland distinguished between 'school English' and 'leisure English' (Aro, 2009). 'Leisure English' was typically English used in, for example, playing computer games or play station games, but it was not seen as 'real' English. According to the study, students' understanding of 'real English' is what is learnt at school – 'proper' English that one can use abroad.

Language education is a good example of a context that could better take advantage of genuine learning experiences outside school, be it face-to-face or through technological mediation. Boundary transactions here can be said to be supporting innovative alternatives in making use of ICT in education, for example in use of social software (Valtonen et al., 2010). Combining advantages of formal and informal learning with ICT, for example, would quite possibly increase net generation students' motivation for learning (Kantelinen & Pollari, 2009).

The cultural and contextual challenges of extending the use of ICT even in net-generation populations are complex (see Vesisenaho (2011) for an East African example). Social norms and day-to-day practicalities governing communication differ from culture to culture. Working within localized cultural contexts is at the heart of the 'ICT for development' (ICT4D) movement. The term ICT4D refers to the use of ICTs as enabling technologies for transforming lives and livelihoods (Unwin, 2009a). The term is action oriented for empowerment and has the moral goal of making the world a fairer and better place (Unwin, 2009b).

The main challenge is how to reconcile local needs with global pressures (Vesisenaho, 2009, 2010). However, the terms 'developed' and 'developing' are now seen as pejorative and redundant since every situation can be framed in terms of particular configurations of people and resources. In response, Vesisenaho and Dillon (2013) have adopted a cultural ecological approach which places significance on the interactions between people and their environments. The individual is seen as an integral part of the environment and thus inseparable from elements which typically have been labeled as historical, social, cultural, economic, technological, and so on. Whereas there are phenomena which might legitimately be called, for example 'social' or 'technological', the individual's experience of them is understood not from some detached objectivity but rather through the interactions in which he or she engages. In such a view individuals, practices and knowledge are transformed and different kinds of meaning become connected as the individual changes in response to, and in relation to, the environment.

## SYNTHESIS, DISCUSSION AND FUTURE DIRECTIONS

Many of the matters raised in the foregoing themes have long histories and there exists for them an extensive literature. Our purpose has been not to survey the literature, but rather to outline some boundary objects and encounters, then discuss the processes through which cross-disciplinary collaboration was achieved. In working towards a synthesis, our focus moved to the pedagogical ideas that emerged from the dialogue between the themes. Thus the processes behind the development of our collaborative research reflect the very pedagogical practices we seek to promote.

Through boundary transactions we explored epistemologies, methodologies and use of language between the contributing disciplines. Whilst acknowledging difficulties of terminology,

and without wishing to over-simplify them, we took compatibilities in our themes to be bases of research into intercultural education within a largely interdisciplinary framework. Where there were differences we had the bases of research into multicultural education within a multidisciplinary framework. Note that we use the term 'discipline' not only to denote 'a body of knowledge' but also to include the sociocultural contexts in which that knowledge has meaning. Whereas interdisciplinary approaches align well with intercultural education, and multidisciplinary approaches align well with multicultural education, the categories

are not mutually exclusive. Given that the purpose of our collaboration was innovation in education, we explored how epistemological, methodological and language compatibilities may be consolidated as a pedagogy of connection (Dillon, 2008b) and how the differences may be recognized through a pedagogy of difference (Freire, 1970). Again, we do not see these pedagogies as mutually exclusive, rather as mutually informative. The relationships between boundaries, multi- and interdisciplinarity, multi- and intercultural education, and pedagogies of connection and difference are show in Figure 2.

Figure 2. The relationships between boundaries, multi- and interdisciplinarity, multi- and intercultural education, and pedagogies of connection and difference
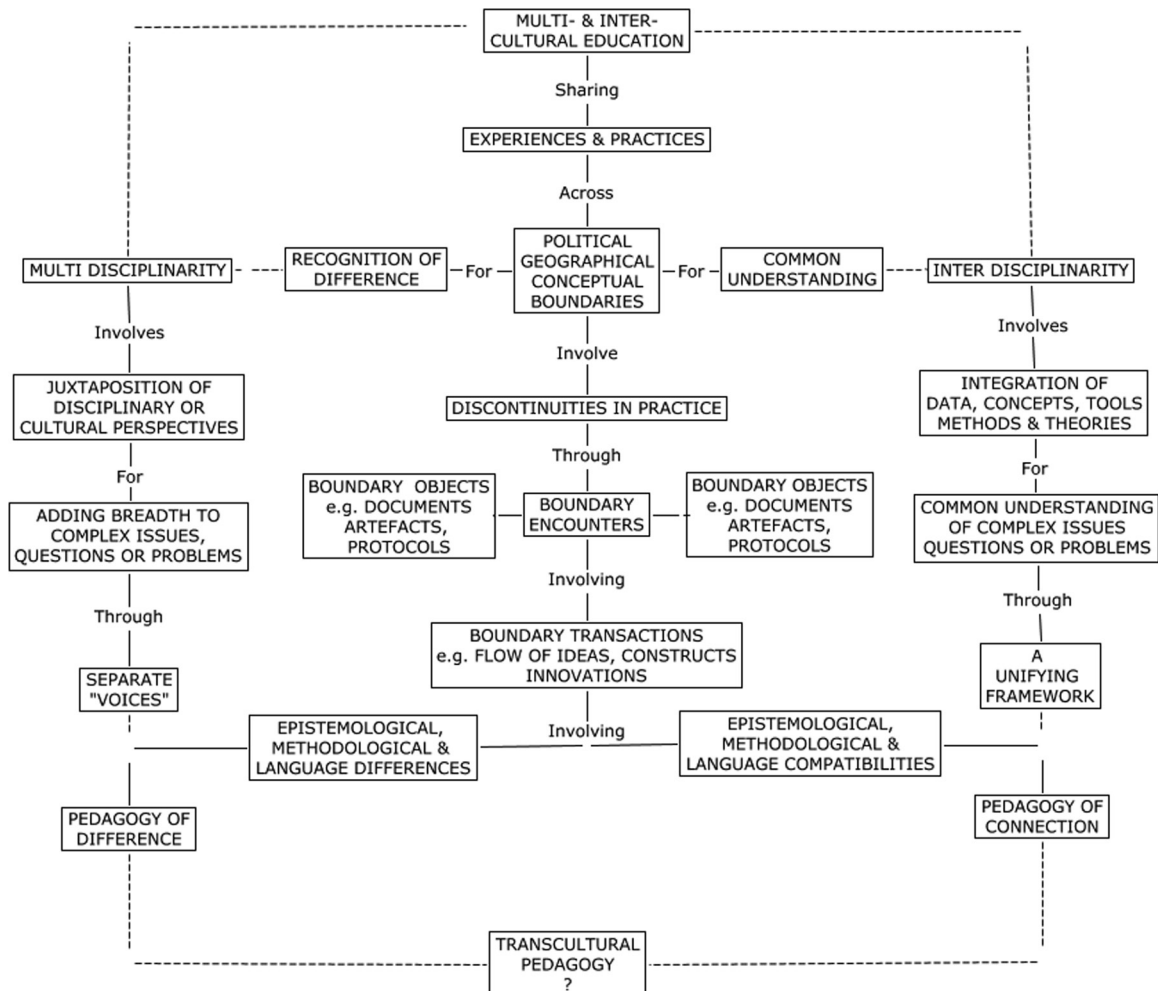
Whereas there are many guiding principles and theoretical and methodological perspectives on multi- and intercultural education, there is no universal formula for them. Each community of researchers and educators must build on the expertise available to it and set its own agenda relative to the existing literature. In this chapter we have described how one community of researchers and educators undertook this task.

In making connections and identifying and resolving tensions, there is the potential for combining the analytical, integrative and synthetic forms of thinking that Sternberg and Lubart (1999) identify with combinational cross-disciplinarity. Understanding how ideas and concepts have developed within disciplines, how they are verified, and their potential for contributing to a bigger picture involves analytical thinking. Moving ideas between disciplines and working simultaneously in more than one involves integrative thinking. Recognizing new patterns that emerge from reconfigurations of ideas and concepts and developing new frameworks to accommodate them involves synthetic thinking. Collaborative cross-disciplinary research might thus be defined in terms of negotiating transactions across boundaries and applying a combination of modes of thinking in the generation of new outcomes. This view of multi- and intercultural education recognizes diversity in human culture but at the same times looks for commonalities, things that can form the basis of shared experiences and shared understandings.

Most concise language is discipline specific and involves technical terminology and jargon. Boundaries between disciplines often generate considerable terminological difficulties. Generating discipline neutral language is difficult. Often, the language difficulties are overcome by finding unifying metaphors. Instead of looking for a unifying metaphor, we worked within a unifying framework (figure 2) which foregrounded epistemological, methodological and language compatibilities and similarities. This approach recognizes that there are genuine language (and associated conceptual) difficulties arising from the fact that many constructs do not have an equivalence of meaning in different languages and/or cultures. Nor do some constructs transfer comfortably between one worldview and another. Misunderstandings may also arise because of a failure to recognize that something that works well in one context is not necessarily transferable to another. In education, pedagogies of connection and difference are means of dealing with these matters. By pedagogy we mean processes of education, materials, methods, theories and their application, course ethos, relationships between teacher and students.

Many of the matters that surface in multi- and intercultural education need to be experienced to be understood (Dillon, 2008a; Gruenewald, 2008; Moll et al., 1993). For sure there are general principles that can be taught, but to have a deeper understanding of a situation one has to be part of it. Interestingly, the advent of global ICT networks means that for *some* situations, being part of them does not necessarily involve being in a different part of the world. Cultural behaviors are carried into virtual situations. However, our work with ICT and social media has shown that sensitivity to different cultural and contextual norms and forms of behavior is just as important as in face-to-face situations (Dillon, Wang, & Tearle, 2007).

Crossing boundaries, making connections, moving and relocating ideas generally involves integrating content from two or more disciplines and creating something new. There is some evidence of a set of general traits that can be applied to various disciplines regardless of expertise, e.g. fluency, flexibility, originality etc. (Torrance, 1962), things that are now called transferable skills. Dillon's (2006, 2008b) work on a 'pedagogy of connection' is grounded in integrativism and consists of a framework for focusing on the contexts of connection and tools for making the connections. A pedagogy of connection is based on the premise that, in addition to any general

traits, there are teaching and learning strategies that can be deployed to actively promote creative work across and between disciplines. Emphasis is placed on tools of connection, for example, comparison, association, analogy, metaphor, mapping and blending, tools that Boden (1999) associates with combinational creativity. These tools facilitate the movement of concepts and constructs in boundary transactions between disciplines.

Reynolds and Trehan (2001) are concerned with ways in which people distinguish themselves from others (or are distinguished from others). They make a distinction between 'structure' differences (e.g. race, gender) and conflicts of beliefs. They challenge the assumption that 'equal relationships can be achieved by removing or minimizing formal manifestations of hierarchy'. Rather, they propose that 'critical pedagogies should attend more to learning from the differences that are brought into the classroom and to explore possibilities of engaging without 'complacent superiority''. They contend that 'sub-communities based on differences are of more value and more realistic than notions of community based on mutual understanding or consensus'. Our argument is that both are important and that they are not mutually exclusive, rather they are context dependent.

Simola's work on a 'pedagogy of difference' (Jokisalo & Simola, 2009, 2010; Simola, 2003, 2008, 2009) is a development and application of the ideas of Freire (1970) and Giroux (2010). Building on Freire's notion of the dialogic relationship between learning and social awareness, and Giroux's notion of the connections between knowledge, power and the ability to take constructive action, Simola researches the differences that must be first recognized in the meetings of different cultures, and thereafter the reasons for 'not-understanding.' Pedagogy of difference is linked with the ideas of (i) class-based society: it has not disappeared, only changed, when viewed in the longer term and (ii) the 'north-south divide', in other words about real differences in society and the world.

Simola's argument is that only by understanding how societies are non-egalitarian may we move towards a dialogue between people from all levels towards the pedagogy of connection.

CONCLUSION

Beneath any peaceful co-existence and forms of cooperation between scholarly disciplines lay differences of opinion and tensions. The boundaries so formed may not be clear cut and the ideas that have come to be seen as the norm within a discipline, its ideology, are constantly negotiated in scholarly discourse. Ideology grows on our understanding of reality, which is for a considerable part formed by language. Language, therefore, both represents and creates hegemony. At the same time, scholarly discourse can be seen as a boundary transaction. Critical discourse analysis examines and reveals the ambiguities around definitions and academic identities that are often barriers to creative collaborative work. As critical theories in general seem to specifically address the epistemological tensions around the definitions of multi- and intercultural education there is sense in which a coming together of the pedagogies of connection and difference, in what might be termed a transcultural pedagogy, might be closely allied with a 'critical cultural pedagogy'.

We are mindful of Bowers criticisms of critical pedagogy: "thinking of change as an inherently progressive force; a deep seated ethnocentrism that is now masked by abstract references to valuing cultural differences; a view of language as a conduit – which marginalizes an awareness that words have a history and their meaning needs to be continually updated…; and that critical thinking always leads to overcoming oppression and environmentally destructive processes" (Gruenewald, 2008). However, Greaves, and Grant (2010) argue that in order to cross disciplinary divides we need a 'different kind of philosophy' based on a distinction between a justified or rationally held belief

and knowledge. It is possible for a belief to be justified in the light of existing evidence, even if it is found to be false in the light of later evidence.

One of the greatest challenges is finding ways to maintain 'dialogue': (i) between the common or collectively agreed understandings about how things might be, and the inertia arising from the tendency to revert to doing things the way they have always been done; and (ii) to address the misunderstanding and misconceptions that inevitably arise through differences in language and culture. The collaborative processes described in this chapter are one approach to developing and maintaining dialogue.

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KEY TERMS AND DEFINITIONS

Boundary Transaction: The flow of ideas, constructs and innovations across boundaries.

Intercultural: The integration of perspectives from different cultures in order to generate a common understanding.

Interdisciplinary: The integration of data, concepts, tools, methods and theories from separate disciplines in order to generate a common understanding of a complex issue, question or problem.

Multicultural: The juxtaposition of perspectives from different cultures in order to generate breadth of understanding through the 'separate voices'.

Multidisciplinary: The juxtaposition of disciplinary perspectives to add breadth to understanding but through the 'separate voices' of the contributing disciplines.

Pedagogy of Connection: Tools for making connections between contexts with the purpose of generating an integrative framework.

Pedagogy of Difference: Tools for categorizing differences between contexts with the purpose of generating a framework of distinctiveness.