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Chapter 4

Intercultural Teaching Competence in the Disciplines: Teaching Strategies for Intercultural Learning

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ABSTRACT

As universities continue to internationalize their curricula and recruit a growing number of international students, instructors facilitate learning in increasingly diverse classrooms. This chapter explores the application of Intercultural Teaching Competence (ITC) by faculty members across the disciplines at a large Canadian research university. Based on focus group interviews with instructors in eighteen disciplines, it provides varied and concrete examples of how instructors mobilize intercultural teaching competence to navigate diverse classrooms, promote perspective-taking and global learning goals among students, practice culturally relevant teaching, and validate different ways of knowing and communicating among students through assessment practices. Placing disciplines at the centre of the discussion in this way elucidates the extent to which ITC may be adapted to fit the contours of the academic field and allows readers to explore best practices for facilitating the development of intercultural competence among students in their disciplines. Finally, the implications of disciplinary differences in ITC are discussed for faculty development and curriculum support.

Keywords: Intercultural Teaching Competence Model, Inclusive Education, International Education, Internationalizing the Curriculum, Educational Development

INTRODUCTION

Faculty members at Canadian, US, and European universities facilitate learning in diverse classrooms and prepare students to participate meaningfully and responsibly in a global society after graduation (Leask & Bridge, 2013). Many of these universities identify global engagement, intercultural fluency, or knowledge of international perspectives as intended outcomes of undergraduate education and encourage instructors in all disciplines, from civil engineering through biochemistry to international relations, to contribute towards the achievement of global learning outcomes (Kahn & Agnew, 2015).

Very few faculty members have had any formal preparation for facilitating intercultural learning or dialogue across cultures, even if they are involved in international education or study abroad initiatives (Paige & Goode, 2009). The few exceptions to this are instructors who teach in disciplines that explore race, diversity, intersectionality, cultural difference, power, or privilege as a focus of their research in fields such as sociology, social work, postcolonial literature, women's studies, anthropology, or international education, to name a few. Faculty in these fields already have discipline-specific theoretical frameworks and strategies at their fingertips for facilitating dialogue about identity involving issues such as social justice, whiteness, or value differences across cultures (Fong, 2009). Instructors in other disciplines, however, typically discover effective ways of supporting diverse learners as part of a student-centered approach to teaching or while working to increase student engagement in their classes (Hermida, 2010).

Developing teaching tools for faculty working in diverse academic settings has been an important driving force behind the development of the Intercultural Teaching Competence (ITC) model (Dimitrov & Haque, 2016). This chapter represents a critical next step in the evolution of this model which identifies the key skills that faculty need in order to facilitate learning across cultures in a variety of disciplines. Discovering how teaching strategies for intercultural learning differ across the disciplines and mapping what approaches may align best with the needs of students in science, engineering, or arts and humanities will better enable faculty members to reflect on their practice and expand their repertoire of facilitation techniques and further enable faculty developers to create programs and resources that match the needs of students and faculty in these disciplinary groups.

Previous literature on the skills of interculturally competent faculty focuses primarily on the needs of instructors in social science classrooms (Deardorff, 2009) and social justice courses (Bell & Griffin, 2007), explores the preparation of future elementary and secondary teachers (Coole, Dunn & Kirova, 2005; Cushner & Mahon, 2009), or identifies basic concepts and theories of intercultural learning needed for faculty and staff who lead study abroad and international education programs (Bennett, 2011; Paige & Goode, 2009). There is limited literature on the actual practices of instructors in science or engineering classrooms, although there is some recent literature on the intercultural skills that engineers need after graduation (Deardorff & Deardorff, 2016).

This chapter begins with a brief overview of the Intercultural Teaching Competence model before exploring the variation that exists across the current literature about intercultural skills that are valued in both professional practice and in academia. It describes how approaches to internationalization have adapted to match the skills valued in each of these contexts. Finally, based on focus group interviews with faculty from eighteen disciplines in nine faculties, this chapter illustrates how instructors use components of intercultural teaching competence in their respective fields.

WHAT IS INTERCULTURAL TEACHING COMPETENCE?

ITC refers to an instructor's ability "to interact with students in a way that supports the learning of students who are linguistically, culturally, socially, or in other ways different from the instructor or from each other" (Dimitrov, Dawson, Olsen, & Meadows, 2014, p. 89). It further includes the ability to facilitate dialogue about difference in the classroom and engage students in learning activities that promote global or intercultural learning goals. Instructors who are interculturally competent are able to enhance student learning by bridging differences in the classroom and fostering meaningful relationships with and among students (Dimitrov & Haque, 2016). In addition, instructors who are effective facilitators of intercultural learning are able to model perspective-taking and openness to diverse ways of knowing. They are able to facilitate dialogue about global issues using respectful, inclusive, and culturally relevant teaching strategies and their approaches to assessment and curriculum design promote multiple perspectives among their students. Figure 1 summarizes the twenty components of Intercultural Teaching Competence.

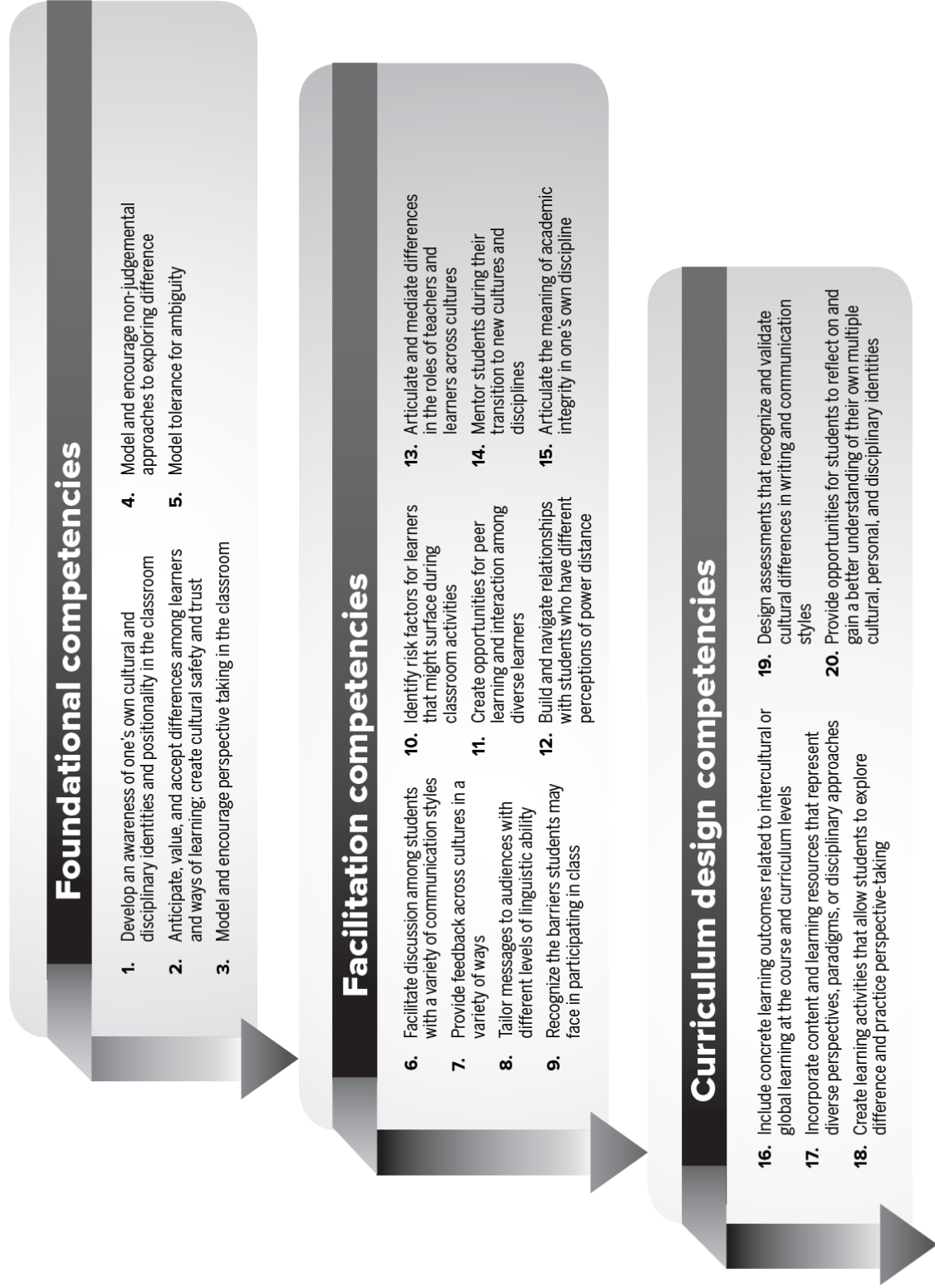
Figure 1: Components of Intercultural Teaching Competence

The ITC model includes 3 subsets of intercultural competencies: *foundational competencies* encompass an instructor's knowledge of their own positionality and ability to respond to difference; *facilitation competencies* focus on the instructor's ability to create a safe, inclusive learning environment and promote dialogue in the classroom; and *curriculum design competencies* include an ability to enrich the curriculum with diverse perspectives through the selection of content, learning activities, assessments, and modelling. Central to the ITC model is the instructor's awareness of their own place in the cultural landscape of the classroom and their ability to encourage reflection among students about their place and impact in the world. It is also important to note that the skills needed to facilitate learning in a class where the student population is diverse are very similar to the skills needed in order to facilitate conversations about difference and to promote perspective-taking and global learning goals. Instructors teaching in a diverse classroom are likely to rely on foundational and facilitation competencies most frequently, while instructors engaging students with issues such as social justice or cross-cultural communication are likely to use competencies from all three levels because classrooms in which instructors discuss global and international issues are also likely to attract a diverse student group with multiple identities and perspectives.

The ITC model is a tool for instructor reflection that allows faculty to (1) recognize ways in which they already model intercultural competence in the classroom, (2) identify areas in which they may need to continue to develop their skills, and (3) discover new facilitation strategies that they may add to their teaching approaches. The model may serve as a framework for long term teaching development or instructors may choose one or two new areas to focus on each year as they work to enhance their teaching practice.

The authors' 2016 article includes a detailed description of each of the twenty ITC components with recommendations, based on the literature, for how they can be implemented. By contrast, this chapter illustrates the model with examples in faculty members' own words and explores the challenges of implementing ITC in the classroom. The examples represent teaching strategies that were most frequently used by faculty in multiple disciplines. As such, they may represent a good place to start for instructors who are new to intercultural learning.

Figure 1. Components of Intercultural Teaching Competence



DEVELOPING INTERCULTURAL COMPETENCE IN THE DISCIPLINES

The ways in which intercultural teaching competence is mobilized in classroom practice differs across the disciplines. Academic disciplines are unique cultures with shared norms and values about what constitutes effective communication, research, and teaching (Becher & Trowler, 2001; Leask, 2013). Sometimes referred to as a discipline's "personality" (Calder, 2006) or "signature" (Shulman, 2005), these values encompass the core knowledge, skills, and attitudes that characterize differences across academic fields. For example, the discourse and research methods of a literary theorist differ from that of a biologist. It comes as no surprise, then, that teaching practices also vary across the disciplines: what we teach and how we teach it is, to a certain extent, a direct reflection of the subject matter (Neumann, Perry & Becher, 2002). Given the unique culture of each discipline, different components of Intercultural Teaching Competence are likely to be emphasized and used by each disciplinary group.

Previous research has demonstrated that disciplinary cultures, and the concomitant professional skills valued in those disciplines, shape the intercultural skills that faculty are likely to model for students in the classroom (Leask & Bridge, 2013). As they engage students in diverse classrooms, instructors in the humanities and health sciences are likely to model cultural self-awareness, illustrate how to engage in dialogue about complex identities and intersectionality, and demonstrate how to practice empathy and social engagement. Instructors in the hard sciences and engineering, on the other hand, are likely to emphasize and model skills applicable to research and industry, such as teamwork or negotiation skills (Leask, 2013).

Disciplinary differences further account for numerous variations in attitudes and approaches to internationalizing the curriculum and help explain variation in the types of global or intercultural competencies that faculty may promote among students through learning activities (Agnew, 2013; Clifford, 2009; Leask, 2013). The development of intercultural competence and global awareness has been a key program outcome for decades in certain disciplines such as global studies or cultural anthropology even before the recent shift towards global engagement in higher education. For many other disciplines, however, the landscape of internationalizing the curriculum is unfamiliar territory.

Previous research on disciplinary variation has employed Becher and Trowler's (2001) classification of disciplines along the hard/soft and pure/applied dimensions in order to explore and understand these differences (Agnew, 2013; Clifford, 2009). According to these studies, hard pure disciplines such as chemistry or mathematics typically identify as "borderless" and "universal" because of their inherent objectivity: within this paradigm, facts are seen as transcending contextual boundaries and are impersonal and value-free. Hard applied disciplines such as engineering, on the other hand, value intercultural competencies because students will be employed in a global workforce (Amant & Flammia, 2016). In soft applied fields such as education, intercultural skills such as self-reflection are seen as essential while soft pure disciplines such as literary studies or history aim to develop "empathic understanding" among their students. In fact, soft disciplines tend to value perspective-taking for its role in promoting global citizenship so much so that the project of internationalization is seen as "intrinsic to a liberal arts curriculum and critical to student growth in terms of developing new understandings of themselves and others" (Agnew, 2013, p. 193). Perspective-taking and empathy are seen as key skills in nursing or cross-cultural medical education (Baernholdt, 2014; Betancourt, 2003), while the validity and testing of research findings across cultures is of interest in psychology (Nisbett, 2004). Global competencies for engineers include an understanding of how people around the world function in teams and how they approach problem solving differently (Downey et. al 2006; Grandin & Hedderich, 2009),

while human resource professionals are concerned with leaders' ability to recruit and mentor culturally different employees (Laroche & Rutherford, 2007).

The research on disciplines as unique academic cultures suggests that initiatives to internationalize the curriculum need to account for differences in disciplinary cultures if they are to be successful in promoting global citizenship as a graduate outcome (Leask, 2013). Disciplines where experiential and service learning has been common may find it easier to incorporate an intercultural dimension in already existing learning activities, while disciplines where teacher-centered and content-focused approaches are still common may require more support from faculty developers.

Examples of actual classroom practices used by faculty to support diverse learners and promote intercultural learning goals are scarce in the literature, resulting in a lack of information about the possible variation of intercultural teaching approaches in different disciplines. Leask and Bridge (2013) describe curriculum internationalization approaches in accounting and journalism, while Winter (2007) shares his experience promoting social justice in a mathematics classroom. Harlap and colleagues (2008) offer examples from a faculty learning community at the University of British Columbia focusing on global citizenship, including examples from forestry, history, nursing, zoology, and earth and ocean sciences. A few studies have focused on student responses to internationalization initiatives, providing reflection on how students perceive intercultural learning in the context of a particular discipline. For example, Haigh (2009) explores student reactions to learning activities that promote empathy in an Ethical Geographer course at Oxford Brookes University. Haigh asked students to assess the emotional impact of habitats using Samkhya's three modes of nature, drawing on multiple modes of knowledge and ways of knowing in Indian philosophy. Students were asked to engage in reflection activities that emphasized introspection, self-awareness, and perspective-taking. While many students found the course to be a great opportunity to engage with the role of empathy in urban geography, some students felt uncomfortable with the unfamiliarity of an interdisciplinary approach that incorporated philosophy, ethics, religion, and geography; they perceived it as "foreign to the discipline," particularly because the assessments "emphasized introspection, feelings, personal responsibilities and self-awareness" (Haigh, 2009, p. 282). In the field of pre-service teacher education, Berumen and Silva (2014) describe a service learning experience for pre-service teachers enrolled in an ESL course during which they "journey with a refugee" family using public transportation, helping them navigate the first visit to their children's new school. Students gained experience on how to create welcoming school environments for newcomers and learned about privilege and the limitations of their previous experiences.

RESEARCH QUESTIONS

Given the differences described above in disciplinary approaches to internationalizing the curriculum and creating inclusive classrooms, the current study is guided by the following research questions:

1. How do instructors use intercultural teaching competence in their home disciplines?
2. What are the challenges that instructors encounter when they navigate diverse classrooms, difficult content, identity involving issues, or global learning goals in their disciplines?
3. How have faculty developed their intercultural teaching competence? What types of learning and teaching experiences allowed them to enrich their skills?

METHOD

The study relied on qualitative analysis of focus group interviews with university faculty from a variety of disciplinary backgrounds who teach in diverse classrooms. The participant group was itself very diverse: Participants included 21 faculty (8M, 13F; mean age 40-49) from 9 Faculties, including Arts and Humanities (3), Science (5), Social Science (2), Health Sciences (3), Education (4), Business (2), Information and Media Studies (1), and Engineering (1). While 66% of participants identified English as their first language, 47% speak two or more languages, with three participants speaking as many as four or five languages. 61% of participants have lived outside their culture or country of birth for more than six months, with 38% of participants spending 1-10 years in a culture outside their culture of birth. 57% of the participants have taught for over ten years, while another 33% have taught for 3-10 years. In order to protect participant confidentiality, quotes are usually identified by the faculties of participants rather than their discipline or department, except where they identified their field in quotes themselves and where this identification was essential to understanding the purpose of the learning activities described.

Participants were recruited either through an email invitation to all faculty members on campus or in person at the meeting of an international education faculty learning community. Each focus group consisted of 3-5 participants. Prior to the focus group, participants received a one-page handout outlining the components of intercultural teaching competence for review and reflection. During focus groups, instructors were asked to (1) identify which components of the ITC model were most relevant to their discipline, (2) share examples of how they have used the competencies in their teaching practice, (3) identify the challenges of facilitating intercultural teaching and learning with diverse groups in their discipline, and (4) share how they acquired and developed these teaching skills. The discussion was audio recorded, partially transcribed, and interpreted using theme analysis (Miles and Huberman, 1994). Analysis focused on identifying examples of the 20 components of intercultural teaching competence and on the challenges reported by participants.

FINDINGS: INTERCULTURAL TEACHING COMPETENCE IN THE DISCIPLINES

Focus group findings depict a varied landscape of teaching practices. Participants' use of the twenty intercultural teaching competencies varied greatly, from using just one or two of the techniques to applying most of them frequently in their teaching practice. Each competency was mentioned by at least one or two participants and no competency was absent from the focus group conversation. There was a tangible divide between how professional or applied disciplines – in which faculty viewed intercultural and global communication skills as an important outcome of undergraduate education required by students after graduation – demonstrated ITC compared to “pure academic” disciplines where global learning goals were less integrated into the curriculum and often used by faculty because of a personal commitment to global awareness and international education.

Major trends

The most frequently used components by focus group participants were the *facilitation competencies*; in particular, facilitating discussion among students with diverse communication styles (#6) and encouraging interaction with and among diverse audiences (#11) were the two competencies that every participant was able to relate to. Facilitation competencies were perceived as equally relevant by faculty in STEM disciplines, Arts and Humanities, the Social Sciences, and professional programs in

Health Science. One reason for the wide application of these competencies is that they are essentially general characteristics of effective, student-centered teaching that support diverse learners along any dimension of difference such as students with learning disabilities, varied approaches to learning, or preferences for introversion or extroversion.

Among the *foundational competencies*, being aware of one's own cultural identity/positionality (#1) and accepting and anticipating differences among learners (#2) resonated with most participants, while not everyone felt that modelling non-judgmental approaches to exploring difference (#4) or modelling perspective-taking (#3) was part of their teaching role. *Curriculum design competencies* were most frequently used by instructors in Social Science, Arts and Humanities, and Health Science. The most frequently mentioned competencies in this area included facilitating learning activities that promote perspective-taking (#18) and including content representing diverse perspectives in the curriculum (#17). The competency that instructors perceived as most challenging to incorporate into their practice was designing assessments that validate cultural differences in writing and communication styles (#19).

Examples of intercultural teaching competencies most frequently discussed by participants can be clustered around four main themes: (1) positionality; (2) perspective-taking – both modelling of perspective-taking by the instructor and facilitating learning activities designed to promote perspective-taking among students; (3) encouraging students to develop an understanding of their own cultural identities; and (4) the challenges of intercultural learning in a university classroom.

Theme 1: Positionality

The competency discussed most frequently by participants during focus groups related to their own positionalities. Participants invariably framed their reflections about how they demonstrate intercultural teaching competence in the classroom within a discussion of their own *cultural* and *disciplinary* identities – both in order to discuss how these identifications impact their teaching more generally and to comment on how these identities affect their use of the ITC model specifically. Numerous comments were made about the relevance of the framework based on *disciplinary identities*. For example, some participants reported that the foundational components of the model are less relevant to their teaching practice because they teach in the hard pure sciences where answers are either “right or wrong” or “culturally neutral:”

In my discipline, the solutions to the problems that we are tackling in class are either right or wrong. There isn't another way for someone to have an opinion about it. So [effective teaching is] about making sure that everyone in the class can actually understand the class discussion about solving the problem.

(Science)

When you are having to describe things in mathematical representations, everyone is having to take them and formalize them in a different form that is not always, but in some ways, culture neutral. When you are writing something in code, a lot of the cultural identity and language differences are somewhat masked in that process.

(Science)

As a result of the perceived “right or wrong” nature of the discipline, the first instructor above considers the facilitation competencies of the ITC model to be most relevant because these will help

facilitate class discussions in ways that ensure all students can understand and arrive at the correct answers. Similarly, another participant explained that encouraging students to reflect on their own positionalities does not fall under the domain of her discipline: “As an instructor of [a Social Science] discipline, it's not my place to encourage this reflection. I want to respect my students and their choices.” For this instructor, a critical element of instructor-student respect stems from separating the personal and professional realm and not crossing perceived disciplinary boundaries that consider the teaching of identity-involving topics (such as those proposed by the curriculum design competencies) to be the domain of the social sciences or humanities. An interesting exception to this pattern in hard pure disciplines was a faculty member who argued that disciplines like Statistics explore variability and diversity using the language of math and statistics and thus provide interesting opportunities for exploring difference and promoting cultural self-awareness in class.

While some participants in our focus groups identified quite strongly with a particular discipline, others viewed themselves as occupying interdisciplinary spaces that resist facile categorizations. One participant spoke of how her interdisciplinary background positions her “as a bit of an outsider” to the discipline in which she currently teaches and how this “outsider status” allows her to better identify the unspoken assumptions of her two disciplines and to make these explicit to her students. She further identified disciplinary patterns in how she incorporates the ITC model into her teaching depending on the course outcomes. In particular, she made a distinction between courses that emphasize

research design or evidence-informed practice versus courses where the focus of the course itself is culture and diversity – such as, how you practice culturally safe care as a health professional or how do you deal with clients of varying sexual orientations and gendered identities. So, obviously in those courses, the diversity part is more at the curriculum design level because that's the actual subject matter that you are teaching.

(Health Science)

Participants' comments also reflected a keen understanding of the extent to which **cultural identifications** mediate an instructor's relationship with both the course material and with students. A faculty member in Health Science commented that

In my department, the faculty complement is not reflective of the diversity in the classroom. So I have to think of ways to insert diversity in the kinds of readings that I use or the examples I select. But one of the challenges is when I try to infuse learning around working with Indigenous populations and cultural safety: I am not an Indigenous scholar, so I have limits to my own knowledge and understanding. Or when I talk about sexual orientation: I was still raised in a very heteronormative frame, so I am still a little bit uncomfortable because I am afraid of doing it wrong. So I am always very careful and very reflective, and I have to put all these trigger warnings into all of my lectures to say “we are going to talk about this issue, but I am not an expert, I am just going to facilitate a discussion to the limits of my knowledge, and afterwards if we need more resources, come to me and we will find them.”

(Health Science)

The participant is aware of her own limitations, but is able to balance her desire to reflect the diversity of her students in the curriculum with her fear of making a mistake while incorporating these

diverse perspectives. Incidentally, the fact that she is able to hold these dual instincts in tension is a compelling example of yet another intercultural teaching competency: tolerance for ambiguity (#5). Rather than steering clear of Indigenous perspectives in the classroom, she acknowledges her lack of expertise on the topic to ensure that she does not assume ownership of a body of knowledge and experience that does not rightfully belong to her. In other words, she incorporates diverse perspectives into her classroom without assuming that she can step into or speak from the space of the other. By explicitly acknowledging the limits of her knowledge to her students, she also models the importance of being aware of one's own positionality.

There were other examples in the focus groups where instructors intentionally mobilized their identity in the classroom in order to teach about cultural differences. In the next example, by drawing attention to German mono-chronic time norms in a humorous manner, the instructor models how to explore difference respectfully by making it clear that talking about difference is acceptable and simultaneously making her policies regarding grading and punctuality explicit:

I talk about my German-Canadian-ness. I use German [cultural patterns] ironically and self-reflexively in order to playfully mediate cultural differences - for example, to describe strict grading or emphasize punctuality. I use humour to diffuse tense situations and set expectations.

(Humanities)

Other participants reported that they frequently draw on their own experience of having once been international students themselves. According to one Science professor, personal experience allows him to better identify with his international students: "I tell them: I'm like you. I'm international too. Even if you're not speaking in perfect English, we'll be able to understand each other." Another participant similarly mobilizes her own experience when she helps new international students understand expectations for participation in Canadian academia:

Most courses [in the program I teach] have high participation grades, but Asian students don't want to stick out. I feel for them because I was once an international student. They're smart kids and could bring interesting perspectives to class discussions and they like to stay after class to talk to me. So now, I give them a sheet of paper so they can write down their thoughts and submit this to me at the end of the class. I put this toward their participation grade.

(Business)

Each of the above comments demonstrates how participants grounded their understanding of the ITC model through their own complex identifications: their positionalities impacted the extent to which they feel the model is relevant to their teaching and how they incorporate it in the classroom. In other words, their interpretation of each competency (from foundational competencies such as modelling perspective-taking in the classroom to curriculum design competencies such as providing opportunities for students to reflect on their own identifications) is directly filtered through the instructor's own cultural and disciplinary identities and the extent to which they believe the framework is relevant to the subject matter being taught.

Theme 2: Perspective-Taking

Perspective-taking highlights the role that multiple viewpoints play in the construction of knowledge without privileging one perspective over another. During focus groups, many participants commented on the importance of perspective-taking to both their discipline and their teaching. These discussions included examples of how participants mindfully model perspective-taking for students in the classroom (#3), diversify the curriculum to reflect global perspectives (#17), and incorporate learning activities that enable students to explore difference in perspectives (#18).

Again, a disciplinary trend emerged in the implementation of perspective-taking in the classroom with participants from the Arts and Humanities, soft Social Sciences, and Health Professions expressing the belief that this skill is “fundamental to what we teach” (faculty member from Social Science). One participant from Arts and Humanities highlighted the fact that “perspective-taking can’t be divorced from power” and cautioned against forms of perspective-taking that assume one can embody the experiences of ‘the other.’

I would be very nervous to encourage my students (my Euro-Canadian students) to occupy an Indigenous perspective. There is a privilege in mobility for Western subjects that enables them to imagine that they could insert themselves into different positions. People from other cultures that have been shaped by legacies of colonialism don’t feel that privilege of being able to escape the physical identification as opposed to a universal mobile whiteness and universal mobile English. So for perspective-taking, it would be more, as I understand it, taking into account your cultural perspective and coming to terms with it rather than encouraging an easy kind of mobility of stepping into someone else’s perspective. It’s more about positionality than perspective-taking.

(Humanities)

Perspective-taking is closely linked with, and stems from, positionality, and this participant is keenly aware of the role that power plays in the way in which we understand and experience the world and is sensitive to the fact that assumptions that one can occupy marginal perspectives, however briefly, are a fallacy. The example previously cited under in this chapter of the faculty member who incorporates Indigenous perspectives into her classroom by first acknowledging the limits of her own knowledge and experience, demonstrates for her students how to model a mindful approach to perspective-taking that is grounded in her own cultural positionality.

Participants also provided numerous examples of how they encourage students to explore different perspectives on a variety of topics. One participant from Health Science discussed how she helps her students develop an understanding that their perspective is but one of many possible ways of conceptualizing health care practices:

A lot of my students in Health Science have adopted a very strongly Western-informed model of individual health, in terms of “if you exercise and you eat right, then you can be independent and healthy.” So there is a very individual level of analysis that tends to happen, such as if this person is not feeling well then we need to do this intervention so they can get better. What I try to do is problematize ideas of independence. For example, “Why is independence important? What

if there are people for whom this is not a priority? What if they are happy to have their spouse cook all their meals for them and drive them where they need to go?"

I help students understand that these concepts are not neutral: they are culturally informed and that they need to situate themselves in relation to those concepts to understand why they believe what they believe, where those assumptions come from, and what forms those assumptions. I point out that when you work as a health professional, you cannot assume that others will share the same values. When clients are non-compliant, it is not necessarily because they don't want to comply, but because what you are suggesting does not necessarily fit how they want to live their lives.

(Health Science)

The questions this participant asks her students provide a reflective framework that students can follow when practicing their perspective-taking skills.

Participants related several examples of learning activities that allow students to explore difference and practice perspective-taking in meaningful ways that relate directly to the learning goals of the course. In an upper year Gerontology course, students engaged in a semester-long capstone project to research and design an "empathy lab." The empathy lab is a set of experiential learning activities that engages its participants (students, university staff, and community members) in a simulation of the neurological, perceptual, and physical experiences of aging. Lab participants are guided through stations where they complete tasks such as reaching objects on a high shelf, carrying grocery bags, picking up small pill-like objects, or making phone calls while their movement, vision, or hearing is impeded in ways that simulate different stages of the aging process. The activities are designed, facilitated, and debriefed by students in the course. The goal of each activity is to evoke and promote empathy through direct experience:

The lab addresses perspective-taking at a theoretical level that you can then transfer to culture or anywhere else: it's a metacognitive skill. If I had designed the whole thing, the students would take my idea and deliver it. But what I've done in the course is ask them what they think the lab should look like.

And they have brought a lot of cultural experiences to it because one thing that they had to do is to interview an older person who has the condition that they are simulating. So students discover things like "my grandmother who lives in India doesn't have a problem with this mobility issue because there is a younger female in the family who is assigned to her care to help her with it." And the students completed reflections, and in the reflection there was a lot of associating the simulation with the next thing they know about it – which is usually a grandparent – and then connecting that to the book and to the content of the course. So "Here is what I have learned, here is what my grandma is going through, and now I know what she feels."

The lab is really multi-layered: Part of it is curriculum development. I really thought about this. I just wanted students to really know what it feels like. That was the guiding concept behind the curriculum design. Then facilitation [involved] students delivering the lab to each other and to the greater community.

(Health Science)

Because the assignment is student-driven, it centres student experiences and invites cultural perspectives on health care through the interviews that students conduct. The written reflections completed at the end of the assignment provide an opportunity for students to concretely connect diverse perspectives to the content of the course. More importantly, it encourages students who will enter health care professions such as gerontology to practice with empathy.

Another learning activity described by a participant prompts Psychology students to identify and look beyond their assumptions and biases related to addictions:

In the Psychology of Addictions course, one of the ways in which we get students to see their original perceptions of addiction is to put up a chalk talk board with the question, “What does addiction sound, look, and feel like to you?” Students can write whatever they think and then they can connect ideas by an arrow and show visually what different perspectives people have on this one topic and how they connect or disconnect.

(Social Science)

What takes this assignment to the next level is the fact that the instructor returns to this question at the end of the course and urges students to actively reflect on what they have learned and how their ability to engage in perspective-taking has developed over the course of the semester:

At the end of the year when students have gone through their community engaged learning project and their placement, we ask them the same question and ask them to write their answers on the board. We show them a picture of the board from the beginning of the year to show them the change in their perspectives as a result of the course. It is both a change in their own perspectives and recognizing the perspectives of others in the class and where those assumptions come from.

What is so amazing is that in the beginning, students look at people who experience addictions in a very negative light. Students perceive them as “homeless” and “grubby looking” and all of the words seem to be negative. And once they have gone through the community service learning experience, their descriptors switch to “survivors”, “they are making it through difficult times”, or “they are dealing with traumatic experiences they had”. So the position really changes. And the same activity could be applied to any intercultural difference as well.

(Social Science)

Both the empathy lab and chalk talk (Brookfield & Preskill, 2012) activities are thoughtfully designed and sequenced to promote student engagement with difference and employ reflection to deepen student learning and to connect the exercise to the curriculum.

Theme 3: Provide opportunities for students to reflect on their own cultural and disciplinary identities

Instructors who are skilled in facilitating intercultural learning in diverse classrooms not only model awareness of their own cultural identity, power, and positionality, but also find ways to provide students with opportunities to reflect on their identities, including their core values, beliefs, cultural assumptions, privileges, and how they communicate with members of other cultures and other disciplines.

One example cited by a participant challenged students to grapple with difficult concepts such as power and privilege and to locate themselves in this complex nexus:

Once I had a guest speaker come into our class who did an identity mapping activity with students where they have to identify every different aspect of their identity through culture and gender, to other aspects. And little by little, throughout the activity, they have to give parts of that away, and by the end they are left with only one single aspect of their identity. And of course this is a manufactured environment, but then we have conversations about circumstances in the classroom or on campus when you feel like you have to give [pieces of] your identity away because they are not valued or not understood.

(Education)

The discussion that takes place after the activity allows students to debrief the experience, while the initial individual nature of the activity provides a sense of safety for students who are engaging in this topic for the first time. Both of these cited examples provide students with a powerful opportunity to explore who they are, where they stand in relation to others, and how this shapes how they experience the world around them.

Another example focuses on disciplinary identity and unspoken assumptions that members of the discipline share about what types of knowledge are valued, how knowledge is used, and how it is communicated:

We were piloting an interdisciplinary project this year where health communication students were paired up with master's level data science students to analyze a dataset that had health oriented information from a community partner. And the data science students had to run the analyses and the health sciences students had to interpret it and communicate it in a meaningful way to the prospective target audience. After the term, we debriefed and asked students what it was like to inform each other of the information and make it clear and what it was like to be a mentor to younger students. The feedback from students on both sides was that it was really beneficial to have to communicate outside their discipline, and they recognized what they each had to contribute to create high quality projects that were informed by very diverse perspectives.

(Experiential Learning)

As many students are likely to work in interdisciplinary environments after graduation, this kind of reflection on their own disciplinary identities is an important learning opportunity.

Theme 4: Challenges to facilitating intercultural learning

During focus groups, participants shared various challenges that make it difficult to practice intercultural teaching competencies effectively. The primary challenges can be categorized as *individual challenges* (such as limits to their own knowledge), *institutional challenges* (such as the way in which graduate programs are structured), and *ideological challenges* (such as the inherent difficulty in attempts to de-centre Western epistemologies).

Individual challenges. A predominant concern reported in implementing the ITC model relates to differing levels of instructor knowledge about cultural differences and how to mobilize this knowledge in appropriate ways in the classroom:

I'm just going to play devil's advocate for a bit: My perspective for why some professors may be reticent about stepping away from a standard model is that no one can know every culture. Even if you know two cultures well, you are pretty exceptional. So even if you just accommodate one other culture, then have you just switched from preferring one to preferring two? And is that a good thing? You don't know what you don't know and you can't know the whole set of data. So maybe some people's perspective is "I want to be as fair as possible, so I am just going to use whatever I think is the Canadian way." And I know that this is problematic.

(Social Science)

This instructor voices the impossibility of knowing all cultural points of view and the implications of being cognizant of some cultures in the classroom and not others. Participants also discussed the classroom management challenges that may accompany discussions of cultural difference:

I think the fear is about how am I going to open up dialogue about culture in my classroom? Am I going to look foolish? Am I going to offend somebody? Am I going to cause conflict among the students? It is so much easier to pretend that we all come at this from the same angle, and pull through the content and go forward.

(Education)

It is something that I struggle with. Instructors know that it is important and it needs to be addressed, but many are afraid of doing it wrong. So that leads to a lot of silences for other instructors who just don't take the risk and it becomes absent from the curriculum.

(Health Science)

While reflecting on the challenges of incorporating global and intercultural perspectives into the curriculum, participants also shared solutions and strategies for overcoming challenges:

For me the big thing is taking the fear out of it. Because it's not that we are saying you need to teach different content – I know that is scary – adding one more thing to an already full curriculum. We are not saying you need to teach intercultural content. We are asking you to consider different ways of knowing, different ways of participating, different ways of contributing. I think the work is going to be in trying to identify "simple" tools that don't require knowledge of

individual cultures, but are dialogue openers, are questions that allow people to be more inclusive in their classrooms without that deep knowledge of another culture.

(Education)

Institutional challenges. A second theme that emerged in terms of challenges relates to the limited flexibility to provide assessments that accommodate cultural differences in communication and writing styles at the graduate level. A number of participants reported that, while there is flexibility in assessment at the undergraduate level, the structure of most programs at the graduate level is much less open to alternative forms of assessment, discourse, or writing:

In psychology, accommodating different verbal communication styles in the classroom is fine, but in writing there are set ways of writing that will give you success, so if you open it up, you might be doing a disservice to the students. How you tend to write is almost like a set language. I worry about that. The field would have to change for that not to be a disservice.

(Social Science)

Ideological challenges. Finally, participants described the ways in which they scaffold identity-involving discussions and use pedagogical dexterity to facilitate intercultural conversations among students. Several instructors also emphasized the importance of de-centering Western epistemologies and the concomitant challenges such a task presents:

A lot of the challenge I have is encouraging Euro-Canadian students to unlearn the fact that the kinds of universal truths that they thought were universal truths are, in fact, not universal truths. And how do you speak in ways that are affirming to Indigenous cultures? So I start with a recognition of the land that we are on and the creation story from this area. It is about re-mapping the very ground they are standing on that they thought they knew, like I talk about how the Thames [River] is called Deshkan Ziibi or the "the antler river" by the Anishinaabe people and that we have to rethink the way we think about the land.

(Humanities)

Unlearning systemic privilege is an effortful act, as is the meaningful incorporation of multiple cultural frames into the curriculum. The example cited by this instructor demonstrates one act of centering Indigenous perspectives in class in ways that challenge students to shift their worldview.

How do faculty develop their intercultural teaching competence?

When asked how they learned to facilitate learning across cultural and disciplinary differences, participants reported a variety of learning strategies including formal training, reflection, making connections between research and teaching, soliciting student feedback, and learning from personal experiences. This mosaic of strategies underscores the dedication and uniqueness of each participant's journey to intercultural teaching competence. In fact, even among these categories of learning strategies lies a vast degree of variability; for example, the category of *formal training* ranges from attendance at one day conferences or two-to-three day workshops to the completion of online or face-to-face semester-long courses on pedagogy. Additionally, the focus of the training differed from participant to participant:

some instructors attended sessions devoted to teaching inclusively while others attended generalized courses or workshops on student centered pedagogy and forged their own links between that material and teaching across cultures:

Some of the community engaged learning [CEL] training workshops that I have participated in have given me the relevant pedagogical knowledge because CEL as a pedagogy is so founded in diversity and bringing multiple voices into the classroom from the community. So a lot of the ideas on how to build intercultural competence have come out through that pedagogy.

(Education/Experiential learning)

For some participants, opportunities to challenge Eurocentric teaching paradigms emerged from new and evolving research and scholarship related to Indigenous knowledges and perspectives in their disciplines. For example, one participant reported that

There has been a turn to crossover academic-activism in my field which is coming to greater critical awareness. So I would say that my growth [as an instructor] has been very much tied to the evolution of my field. My re-structuring of the course has coincided with a growth in the availability of resources that have enabled me to do that. So it's part of being involved in professional associations and watching my field gain prominence and start to tackle some of these questions at a broader national and international level, and it's helped me. And this highlights the intersection between research and teaching.

(Humanities)

Many participants learned by reflecting on their personal experiences with difference. Faculty members who had once been international students themselves reflected on what helped them learn best and incorporated those strategies in their own classes, such as representing material in multiple ways by using both text and visuals to highlight important concepts. Another participant incorporated feedback she received from international students and provided alternative avenues for class participation in order to meet the needs of these students. A science professor shared her learning in relation to accommodating a student with visual impairment:

I had to train myself to make sure that when I was solving a problem on the board that I say everything that I was putting down on the board. Every now and then I'd catch myself and think "You've got to remember to say all this." And actually I think it helped everyone because suddenly I couldn't skip along in the class.

(Science)

The variety of learning strategies reported by participants suggests that there are many roads that lead to intercultural teaching competence. In part, this variety is the result of the differing instructional needs across the disciplines and the unique cultural identifications and experiences of faculty members themselves.

FURTHER RESEARCH DIRECTIONS

The current study represents an initial foray into mapping the landscape of intercultural learning and its accompanying teaching practices across the disciplines in higher education. The first stage in expanding the data set will be to conduct additional focus groups with faculty from a wider range of disciplines, particularly engineering, science, public health, business or interdisciplinary programs in order to explore the application of intercultural competence in disciplines where students frequently work in diverse teams. The second stage will involve conducting focus groups with students to explore how students learn from instructor modelling in order to investigate whether students are aware that instructors are modelling non-judgmental approaches to exploring difference, how students transfer perspective-taking from in-class activities to real world settings after graduation, and which learning activities and assessments help students demonstrate global learning outcomes most effectively. The third stage will involve direct classroom observation of effective instructors. The goal of this phase is to conduct a discourse analysis of positionality and perspective-taking in the classroom and to identify behaviours that interculturally competent instructors employ.

Because the Intercultural Teaching Competence model is not meant to be a static or prescriptive document, future research will help to refine the model. In fact, based on the feedback received from participants in this study, the description of several competencies was clarified. It is expected that data from future research will contribute to the evolution of the framework and result in additional revisions in order to reflect how intercultural teaching competence is practiced and demonstrated in classrooms.

CONCLUSION

University teaching has been conceptualized as a meta-profession that faculty members acquire and develop in addition to their base profession as researchers in their home discipline (Theall, Mullinix, & Arreola, 2009). The meta-profession model suggests that in order to be effective in their multiple roles, faculty members need to engage in professional development in order to expand their skills in instructional design, instructional delivery, and leadership (Arreola, Aleamoni, & Theall, 2001). Intercultural teaching competence is a subset of both the instructional design and instructional delivery skills that are becoming increasingly relevant to higher education teaching practice today.

Institutions that are modeling the way in supporting faculty development in this area usually have a clearly stated institutional mission that articulates the value of global learning. These institutions showcase the work of faculty who contribute to the global learning mission of the university in innovative ways, provide concrete examples for faculty from a variety of disciplines, and provide instructors with time and space for personal reflection and experimentation. Opportunities for reflection and experimentation may include workshops on course design for intercultural learning, faculty learning communities that focus on supporting international students, community based learning courses that support global learning goals, and grants for internationalizing the curriculum. Institutions that foster dialogue about intercultural learning include the University of British Columbia and Thompson Rivers University (Canada), the University of Minnesota (US), and Curtin University (Australia), among others. For example, the “Intercultural Understanding Mid-Level Strategic Plan” at the University of British Columbia has engaged faculty in dialogue about learning on a diverse campus and involved focus groups and interviews with several hundred instructors and students (Habacon, 2014). At the same institution, a faculty learning community about global learning has resulted in an online guide that includes examples

of learning activities that promote global citizenship in several disciplines ranging from forestry, history, zoology, and regional planning (Harlap, 2008). Educational developers at Thompson Rivers University engage dozens of faculty each year in week-long intensive Interculturalizing the Curriculum workshops that enable instructors to re-design their courses with global learning goals in mind (Bourassa & Garson, 2015). Western University (Canada) offers an Internationalizing the Curriculum grant and has started a learning community for faculty engaged in facilitating international and intercultural learning.

As universities continue to internationalize their curricula and recruit a growing number of international students, institutions need to continue and, hopefully, increase learning opportunities for faculty members to develop and enhance their intercultural teaching competence and look to some of these institutions for examples of excellence in intercultural teaching across the disciplines.

REFERENCES

- Agnew, M. (2013). Strategic planning: An examination of the role of disciplines in sustaining internationalization of the university. *Journal of Studies in International Education* 17(2), 183-202.
- Amant, K. S., & Flammia, M. (2016). *Teaching and training for global engineering: Perspectives on culture and professional communication practices*. Cincinnati, Ohio: John Wiley & Sons.
- Arreola, R.A., Aleamoni, L.M., Theall, M. (2001). *College teaching as meta-profession: reconceptualizing the scholarship of teaching and learning*. Paper presented at the 9th Annual AAHE Conference on Faculty Roles and Rewards Conference: Tampa, Florida, February, 2001.
- Baernholdt, M. (2014). Educating culturally competent nurses at home and abroad. In *Diversity and Democracy: Global Learning -Reaching Across Horizons*, 17(2). Retrieved September 8, 2016 from <http://www.aacu.org/diversitydemocracy/2014/spring/baernholdt>
- Bell, L.A. & Griffin, P. (2007). Designing social justice education courses. In M. Adams, L.A. Bell & P. Griffin (Eds.) *Teaching for diversity and social justice* (pp. 67-87). New York, NY: Routledge.
- Becher, T. & Trowler, P.R. (2001). *Academic tribes and territories. Intellectual enquiry and the culture of disciplines*. (2nd ed). Buckingham: SRHE & Open University Press.
- Benninghoff, M. & Sormani, P. (2008). Culture in interaction: academic identities in laboratory work. In J. Välimaa and O-H. Ylijoki (Eds.) *Cultural Perspectives on Higher Education* (pp. 109-127). New York: Springer.
- Bennett, J. M. (2011). *Developing intercultural competence for international education faculty and staff*. Presented at the Association of International Education Administrators Conference, San Francisco, CA. Retrieved September 8, 2016 from <http://site.valenciacollege.edu/inz/library/Culture/Developing%20Intercultural%20Competence%20for%20International%20Education%20Faculty%20and%20Staff.pdf>

- Berumen, F. C., & Silva, C. (2014). A journey with a refugee family: raising culturally relevant teaching awareness. *Inclusive Teaching: Presence in the Classroom: New Directions for Teaching and Learning*, 140, 51.
- Betancourt, J. R. (2003). Cross-cultural medical education: Conceptual approaches and frameworks for evaluation. *Academic Medicine*, 78(6), 560-569.
- Bourassa, E., & Garson, K. (2015). *Faculty perceptions of the impact of the interculturalizing curriculum professional development program*. Presented at the Learning at Intercultural Intersections Conference, Thompson Rivers University.
- Brookfield, S. D., & Preskill, S. (2012). *Discussion as a way of teaching: Tools and techniques for democratic classrooms*. Hoboken, NJ: John Wiley.
- Calder, L. (2006). Uncoverage: Toward a signature pedagogy for the history survey. *The Journal of American History*, 92(4), 1358-1370.
- Clifford, V. A. (2009). Engaging the disciplines in internationalising the curriculum. *International Journal for Academic Development*, 14(2), 133-143.
- Cooley, M., Dunn, W., & Kirova, A. (2005). Promoting the pursuit of intercultural competence among pre-service teachers. In J. Walrond-Patterson (Ed.) *One vision- many voices: Submitted proceedings from the cross-cultural/ anti-racism education conference* (pp. 51-57). Edmonton, AB, Canada: Faculty of Education, University of Alberta.
- Cushner, K., & Mahon, J. (2009). Developing the intercultural competence of educators and their students: Creating the blueprints. In Deardorff, D. (Ed.) *The SAGE Handbook of Intercultural Competence* (pp. 304-320). Thousand Oaks, CA: Sage.
- Deardorff, D. K. (2006). The identification and assessment of intercultural competence as a student outcome of internationalization at institutions of higher education in the United States. *Journal of Studies in International Education*, 10(3), 241–266.
- Deardorff, D. (2009). Exploring interculturally competent teaching in social sciences classrooms. *Enhancing learning in the social sciences*, 2(1). Retrieved September 8, 2016 from https://www.tru.ca/_shared/assets/Exploring-interculturally-competent-teaching29343.pdf
- Deardorff, D. K. & Deardorff, D. (2016) Assessing intercultural outcomes in engineering programs. In K. S. Amant, K. S., & M. Flammia, M. (Eds.). *Teaching and Training for Global Engineering: Perspectives on Culture and Professional Communication Practices* (pp.239-258). Cincinnati, Ohio: John Wiley & Sons.

- Dimitrov, N. & Haque, A. (2016). Intercultural teaching competence: A multi-disciplinary framework for instructor reflection. *Intercultural Education: Special issue on Learning at Intercultural Intersections*. (27)5, 437-456.
- Dimitrov, N., Dawson, D. L., Olsen, K. C., & Meadows, K. N. (2014). Developing the intercultural competence of graduate students. *Canadian Journal of Higher Education*, 44(3), 86-103.
- Dimitrov, N. (2012). The development of disciplinary communication competence among teaching assistants: A research agenda. In G. Gorsuch, (Ed.), *Working theories for teaching assistant development* (pp. 169-199). New Forums Press: Stillwater, OK.
- Downey, G. L., Lucena, J. C., Moskal, B. M., Parkhurst, R., Bigley, T., Hays, C., Jesiek, B. K., Kelly, L., Miller, J., Ruff, S., Lehr, J. L. and Nichols-Belo, A. (2006), The globally competent engineer: Working effectively with people who define problems differently. *Journal of Engineering Education*, 95, 107–122.
- Fong, R. (2009). Culturally competent practice in social work. In Deardorff, D. (Ed.) *The SAGE Handbook of Intercultural Competence* (pp. 350-361). Thousand Oaks, CA: Sage.
- Grandin, J. M., & Hedderich, N. (2009). Global competence for engineers. In Deardorff, D. (Ed.) *The SAGE Handbook of Intercultural Competence* (pp. 362-373). Thousand Oaks, CA: Sage
- Goode, M. L. (2008). The role of faculty study abroad directors: A case study. *Frontiers: The interdisciplinary journal of study abroad*, 15, 149-172.
- Haigh, M. (2009). Fostering cross-cultural empathy with non-western curricular structures. *Journal of Studies in International Education*, 13(2), 271-284.
- Habacon, A. (2014). The intercultural promise: Intercultural understanding mid-level strategic plan. UBC Vancouver. Retrieved September 8, 2016 from <https://blogs.ubc.ca/interculturalu/files/2014/04/Intercultural-Understanding-Strategic-Plan-Final-Draft-UBCV-May-2014.pdf>
- Harlap, Y. (Ed.). (2008). *Road to global citizenship: An educator's toolbox*. Vancouver, BC: University of British Columbia & UNICEF. Retrieved September 8, 2016 from <https://ctlt.ubc.ca/files/2011/05/rgctoolbook.pdf>
- Hermida, J. (2010). Inclusive teaching: An approach for encouraging non-traditional student success. *The International Journal of Research and Review* 5, 19-29.
- Laroche, L. & Rutherford, D. (2007). *Recruiting, retaining and promoting culturally different employees*. New York: Butterworth-Heinemann.

- Leask, B. (2013). Internationalizing the curriculum in the disciplines: Imagining new possibilities. *Journal of Studies in International Education*, 17(2), 103-118.
- Leask, B., & Bridge, C. (2013). Comparing internationalisation of the curriculum in action across disciplines: Theoretical and practical perspectives. *Compare: A Journal of Comparative and International Education*, 43(1), 79-101.
- Kahn, H. E., & Agnew, M. (2015). Global learning through difference: Considerations for teaching, learning, and the internationalization of higher education. *Journal of Studies in International Education*. Advance online publication. doi: 10.1177/1028315315622022
- Miles, M. B., & Huberman, A. M. (1994). *Qualitative data analysis: an expanded sourcebook (2nd ed)*. Thousand Oaks, CA: Sage.
- Neumann, R., Parry, S., & Becher, T. (2002). Teaching and learning in their disciplinary contexts: A conceptual analysis. *Studies in higher education*, 27(4), 405-417.
- Nisbett, R. (2004). *The geography of thought*. New York: Simon & Schuster.
- Theall, M., Mullinix, B. B., & Arreola, R.A. (2009). *Qualitatively excavating below the quantitative surface: An action-oriented, case-based application of the meta-professional model*. Paper presented at Annual Meeting of the American Educational Research Association, San Diego, CA.
- Paige, R. M., & Goode, M. L. (2009). Intercultural competence in international education administration—cultural mentoring: International education professionals and the development of intercultural competence. In Deardorff, D. (Ed.) *The SAGE Handbook of Intercultural Competence* (pp.333-349). Thousand Oaks, CA: Sage.
- Reid, A. & Petocz, P. (2007). Internationalisation as an orientation for learning and teaching in mathematics. In Atweh, et. al. (Eds.) *Internationalisation and Globalisation in Mathematics and Science Education* (pp.247-268). Springer.
- Shulman, L. S. (2005). Signature pedagogies in the professions. *Daedalus*, 134(3), 52-59.
- Winter, D. (2007). Infusing mathematics with culture: Teaching technical subjects for social justice. *New Directions for Teaching and Learning*, 111, 97-106.