Study of the Educational Impact of International Students in Campus Internationalization at the University of Minnesota

Phase One – Focus Groups and Interviews Over-Arching Report on Phase One Findings

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Executive Summary

In Phase One, the *Study of the Educational Impact of International Students in Campus Internationalization at the University of Minnesota* sought to identify contributions of international students to teaching and learning on campus. Thirty-two focus group interviews and seventeen individual interviews were conducted with 121 domestic and international students (graduate and undergraduate) and 47 faculty members on the Twin Cities, Morris, and Crookston campuses of the University of Minnesota in the time period from January to April of 2014.[1]

The overall aim of this study was to document domestic and international student experiences as they interact both inside and outside of the classroom at the university. The findings illustrate how, and under what conditions, domestic and international student interactions can improve learning outcomes for both groups of students. Additionally, we investigated the pedagogical and institutional strategies that faculty members found helpful in facilitating cross-national interactions.

The rationale for this research was twofold. First, we sought to better understand how international students contribute to all students' learning in diverse University classrooms and campuses. Second, international students at the University of Minnesota remain marginalized in some programs and activities, despite their potential for contributions on and off-campus. While the University of Minnesota offers several programs[2] to connect domestic and international peers, recent institutional research suggests that many students still remain largely segmented into their own cultural groups and may not actively participate in cross-national interactions on campus.

The research findings provided several insights into the types of cross-national peer interactions that occur on campus and how they impact student learning and development:

- **Interaction in the Classroom.** For most domestic and international student participants, group work in and outside of class provided the majority of opportunities for interaction around common goals and academic tasks.

- **Outcomes of Interaction**. All faculty and student (domestic and international) participants shared that cross-national interactions in teaching and learning contexts at the University of Minnesota had a number of affective, cognitive and behavioral benefits. Major areas of learning for domestic and international students alike included gaining knowledge, attitudes and skills needed for effective intercultural communication and increased cultural self-

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1. The College of Education and Human Development, the Global Programs and Strategy Alliance, and the International Student and Scholar Services have initiated this study. This study is an integral part of the Internationalizing the Curriculum and Campus initiative at the University of Minnesota.

2. http://global.umn.edu/students/involved.html

awareness. Importantly, international students reported benefitting from interactions with other international students.

The major student outcomes faculty participants highlighted were an improved ability of all students to reflect on their own culture, to communicate effectively and appropriately across cultural differences, to appreciate different perspectives on class content, and to create life-long social and professional networks were the major interaction outcomes.

- **Obstacles to Interaction**. Interview findings suggest there exist several challenges to cross-national interactions at the University of Minnesota. These challenges include language and cultural barriers, bias and prejudice, and the pressure to succeed in academics, as well as students' tendency to seek out culturally similar friends in order to gain emotional and practical support. Large class sizes, the lack of structured opportunities to interact in and outside the classroom (as perceived by student participants), and the limited amount of time domestic students spend on campus also hinder the development of cross-national peer interactions.

- **Conditions Facilitating Interactions.** Student and faculty participants described a range of helpful instructional practices supporting cross-national interactions, including creating explicit expectations for interaction among all students, integrating cross-national interactions into classroom activities and assessment (e.g. via group assignments), ensuring comprehension of activity goals among international students, and building on international diversity in the classroom as a resource to engage with content knowledge. Individual student motivation and openness to cultural difference as well as overall institutional support were also named as factors that encourage interaction.

- **Tensions.** Undergraduate student participants did not always view the classroom as a comfortable or appropriate space to engage in purposeful cross-national interactions beyond the required group work. They overwhelmingly relied on faculty support to create structured opportunities to gain experience communicating across cultural differences. While all student participants named personal motivation as a necessary condition for learning from cross-national interactions, faculty respondents across interview sites often perceived that many domestic and international students lacked the motivation to consistently engage in cross-national encounters on campus.

- **Institutional Support.** Overall, faculty participants reported that they encountered instructional challenges in designing and supporting cross-national interactions. However, they recognized that overcoming those challenges could enhance learning in their classes. Some faculty participants expressed a desire for increased institutional support to address their feelings of certainty in working with the growing international student population.

Introduction

One of the University's strategic goals is to recruit, educate, retain and graduate lifelong learners, leaders, and global citizens who "demonstrate the knowledge, skills, and perspectives necessary to understand the world and work effectively to improve it."[3] Simultaneously, one way to internationalize the campus is to facilitate the in-class and out-of-class interactions between domestic and international students, as such interactions can enhance student learning and development in the areas of global knowledge acquisition and intercultural competency. The impact that international students (IS) have on all five campuses of the University of Minnesota is the area that remains less understood but has great potential for achieving University's goals.

Higher education providers in the United States can expect strong demand from international students for the next ten years according to three separate market assessments from its main competitors in the United Kingdom, Canada, and Australia (Ruby, 2013). Reflecting national trends, the number of international students enrolled in the University of Minnesota system-wide[4] has been gradually increasing, averaging over 6,000 IS per semester over the past three years, from 2011-2014.[5]

This increased international student presence could mean that more domestic students (DS) on campus will be engaged in cross-national interactions, something the University has attempted to do via a variety of programs[6] designed to support cross-cultural understanding. Although much research has been conducted on the economic impacts of international students,[7] the aim of this study is to focus on **the educational contributions** of IS within the teaching and learning environment of the University of Minnesota, especially as the potential number of cross-national interactions on campus increases.

Recent institutional studies suggest that the student population remains largely segmented into IS and DS groups and may not fully benefit from interactions (Student Voices, 2012). In spite of the potential benefits of cross-national interactions, University of Minnesota DS may be having less frequent interactions with IS in their classes, as compared to more frequent interactions during informal and co-curricular activities (Soria and Troisi, 2013). International students are often expected to bear the responsibility of cultural adjustment and building relationships with domestic students. Yet many IS report that getting to know DS is one of the main obstacles in their adjustment to the University of Minnesota (International

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3. http://global.umn.edu/icc/about.html

4. Office of Institutional Research (OIR), 2014

5. International Student and Scholar Services (UMTC) Annual Report, 2013

6. http://global.umn.edu/icc/teaching-learning.html

7. NAFSA, 2013

Student Barometer, 2013). Such marginalization represents a lost opportunity for enhanced learning for all students.

Definitions

International and Domestic Students

We use the term "international" to define any student who resides in a country outside the U.S. and is studying under the provision of a nonimmigrant visa.[8] We define "domestic" as any student with U.S. citizenship or residency (e.g., a Green Card holder), recognizing that there is tremendous heterogeneity in both populations. This report focuses on international students at the undergraduate and graduate levels.

Many study participants recognized that both DS and IS are diverse populations, with varied backgrounds, academic achievement levels, and English proficiency levels. Many faculty participants also shared that refugee student experiences in dealing with cultural differences may be hard to distinguish from IS experiences. Some participants noted that student immigrant or visa status was usually unknown to faculty and peers and was less important than cultural differences. Reflecting the interplay between one's ethnic background and their legal status, some domestic student participants considered those who grew up in another country to be international students, irrespective of actual legal status. Such "blurriness" is an important consideration for this study.

Theoretical Background

Educational Impact of Cross-National Interactions

Broadly, we propose that the educational impact of international students in campus internationalization may manifest itself via multiple curricular and co-curricular experiences of students. (Leask, 2012). We view IS impact along three dimensions within the teaching and learning process: 1) the impact on domestic and international students; 2) the impact on faculty; and 3) the impact on wider processes of university internationalization. We will focus on the first two impact areas.

The impact on students. Research indicates that, with faculty support, increased interaction between international and domestic students in teaching and learning contexts has a number of benefits. For students, frequent interactions with diverse others, with faculty support, helps them develop cognitive skills, effective communication skills and intercultural effectiveness (Arkoudis et al., 2010; Deardorff, 2006; Paige 1993; Lee at al., 2012).

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8. According to Institute of International Education counting methodology an international student is defined as "anyone who is enrolled at an institution of higher education in the United States who is not a U.S. citizen, an immigrant (permanent resident) or a refugee. These may include holders of F (student) visas, J (exchange visitor) visas, and M (vocational training) visas." For the purpose of the study, we also call short-term, non-credit program participants from abroad international students.

Previous researchers have focused on international students who were generally understood to benefit from engaging with domestic students in terms of their psychological adjustment, level of satisfaction with their experience in the U.S., and social integration (Dunne, 2009; Jon, 2013; Trice, 2004; Volet and Ang, 1998). Cultural similarities, intercultural competence, personality, and identity all influence how well international students connect with U.S. students (Gareis, 2012).

The analysis of domestic students' social and academic interactions with international students has been less extensive (Soria and Troisi, 2013; Parsons, 2010). Several studies have focused on positive effects of cross-national interactions on DS, such as intercultural competence development (Luo and Jamieson-Drake, 2013; Parsons, 2010). In another study, Darla Deardorff (2006) argued that the frequency and quality of interactions with diverse perspectives correlated to general DS learning and development outcomes, not just intercultural competencies. A body of quantitative research of diversity and racial dynamics in higher education has also established the impact of intentional, facilitated peer interactions in fostering intercultural awareness, knowledge, and behavioral competencies in college students (Bowman, 2010; Denson, 2009; Milem, 2003).

However, **there is a gap in studies highlighting the learning outcomes of domestic students that occur as a result of the interaction between international and domestic students in the classroom.** In spite of our efforts towards higher education internationalization, domestic students may fail to benefit from contact with cultural "others", as the mere presence of international students, even in large numbers, is insufficient to promote beneficial cross-cultural interactions (Andrade and Evans, 2009; Leask, 2009). Rather, intentionally structured and designed interactive and collaborative learning processes (Van der Wende, 2000) are needed to foster these interactions.

The impact on faculty. For students to realize the benefits of cross-national interactions, faculty need to provide "a basis for developing the skills, habits, and tools of intercultural effectiveness that will support respectful and substantive interaction" (Lee et al., 2014), especially in the students' first year. Pedagogical and curricular support for faculty may include the adjustment of instructional methods and course design to promote interaction between students from diverse cultural and linguistic backgrounds. As underscored by the Personalization Model of Intergroup Interactions, interpersonal interactions involving common goals, self-disclosure, self-other comparisons, and perspective-taking may create perceptions of similarity and familiarity as well as feelings of trust, liking, friendship, and decreased intergroup anxiety (Ensari and Miller, 2006). Timely and consistent support of cross-national interactions (including student self-evaluation) also helps to avoid an increased reinforcement of stereotypes, feelings of superiority or inferiority, and prejudices (Hurtado, 2001; Otten, 2003) associated with interactions with cultural "others".

Leask's 2009 study of using formal and informal curricula to improve interactions between home and international students concludes that the development of inter-cultural competencies in students is a key outcome of an internationalized curricu-lum, which requires a campus environment and culture that motivates and rewards interaction between international and home students in and out of the classroom. Faculty can play a critical role in this process by supporting students' cross-national interactions.

The obstacles to interaction. Cross-national peer interactions can be a challeng-ing experience for both groups of students due to language and cultural barriers, bias and prejudice, and the pressure to succeed in academics, as well as students' tendency to seek out culturally similar friends in order to obtain emotional and practical support (Kimmel and Volet, 2012; Ogbu, 1991; Trice, 2004). A study by Arkoudis et al. (2010) reported that large class sizes, beginner-level English language skills of some IS, the limited amount of time domestic students spend on campus, and exclusively content-focused pedagogy hindered the likelihood of extensive cross-national peer interactions.

Methodology and Sample

The study sought to fill the gap in understanding IS impact at the University of Minnesota by including both domestic and interactional student voices, as well as faculty voices into the study. The primary data sources for this report are stu-dent and faculty focus groups and individual interview responses collected during January - April of 2014. Quantitative data from two surveys – the International Student Barometer and the Student Experiences in the Research University – were utilized in order to provide a holistic, institution-level overview of cross-national peer interactions on campus. Thus we were able to triangulate the data by respon-dent group and by methods applied to collect data.

Qualitative Data

Interview protocol. Focus group interviews with students and individual inter-views with faculty followed the same interview protocol, though individual inter-views allowed for a more conversational style to address questions at a deeper level (see Appendix 1). Student interview questions focused on lived experiences and perceptions of DS-IS interactions. Faculty interview questions were aimed at iden-tifying the impacts of DS-IS interactions on both student populations, and also at identifying effective teaching and learning activities that enhanced DS-IS interac-tion.

The advisory group, i.e. faculty and staff members at the University of Minnesota and external experts (see Appendix 6), approved the protocol. Some advisory group members commented on drafts of every written product for the study.

Table 1. *Research and Core Student Interview Questions*[9]

Research Question	Core Interview Questions (Students)
1. In what ways does interaction between international students and domestic students at the University of Minnesota take place?	1. In what ways do you usually interact with international students/U.S. students in class?
2. To what extent does interacting with international students influence domestic students' learning and development at the University of Minnesota?	2. In what ways do you usually interact with international students/U.S. students outside of class?
3. To what extent does interacting with domestic students AND other international students influence international students' learning and development at the University of Minnesota?	3. In your experience, when interacting with international students/U.S. students in class/ outside of class… a. What have you learned, if anything? b. Do you feel international students have learned anything from you? c. What was challenging for you? d. What was helpful for you? i. Have your instructors/TAs been helpful in facilitating your interaction with international students? ii. In an ideal world, what would help to facilitate this interaction? In what way?
4. To what extent do faculty members support domestic and international student interactions in and out of the classroom?	

Participant Recruitment. To recruit the faculty and student participants in the fall of 2013, we used multiple methods, including distributing email recruitment messages via university email networks, social media, paper flyers, and in-person conversations. Potential interview participants who responded to the messages were invited for an hour-long interview session and provided with a Starbucks gift card. Participant recruitment stopped after the maximum of seven focus groups were conducted, as the research team decided that data saturation occurred, i.e. data collected became repetitive both within and across groups (Krueger and Casey, 2000). The number of interviews varied by site due to time and budgetary constraints (see Table 2).

The interview sample was self-selected and drawn from participating colleges on the Twin Cities, Crookston, and Morris campuses. A wide range of disciplines (see Appendix 1) and background characteristics were represented (see Tables 2 and 3).

Table 2. *Interview Respondents: An Overview*

	Undergraduate	Graduate	Faculty
Total Participants	80	41	47
International	30	20	8
Domestic	50	21	39

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9. For the faculty interview protocol, see Appendix 2

Table 3. *Interviews by Site[10]*

Interview Site	Number of participants	Number/type of interviews
College of Education and Human Development (CEHD)	37 students 11 faculty members	Students: 7 focus group interviews Faculty: 2 focus group interviews and one individual interview
College of Liberal Arts (CLA)	31 student 9 faculty members	Students: 5 focus group interviews Faculty: 2 focus group interviews and 5 individual interviews
Carlson School of Management (CSOM)	29 students 6 faculty members	Students: 6 focus group interviews and 2 individual interviews Faculty: 1 focus group interview and 4 individual interviews
UM-Morris	13 students 6 faculty members	Students: 3 focus group interviews Faculty: 1 focus group interview and 2 individual interviews
UM-Crookston	11 students 9 faculty members	Students: 2 focus group interviews Faculty: 2 focus group interviews
Internationalizing Teaching and Learning professional development cohort (ITL)	13 faculty members	1 focus group interview and 3 individual interviews
Total:	121 students 47 faculty members	Students: 23 focus group interviews and 2 individual interviews Faculty: 9 focus group interviews and 15 individual interviews
	168 total participants	49 total interviews

Student sample. Interview participants represented the College of Liberal Arts, the College of Education and Human Development, the Carlson School of Management, the University of Minnesota-Morris, and the University of Minnesota-Crookston. There were 50 international and 71 domestic student participants, and the focus group size ranged from two to 14 participants. DS and IS were interviewed together.

Most student participants had previous experience learning a foreign language, with higher variability around study abroad experiences. Over 92 percent of student participants had previous experience learning a foreign language[11] (for faculty, percentages ranged from 78 percent to 100 percent). On average, 75 percent of stu-

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10. Seven ITL faculty members were interviewed separately. Other six ITL faculty members were interviewed together with their respective college or coordinate campus colleagues, which included non-ITL faculty members, bringing the total number of ITL faculty to 13 participants.

11. Includes graduate and undergraduate, international and domestic students

dent participants and 89 percent of faculty participants[12] had previous experience studying abroad across interview sites.[13]

Faculty sample. Interview participants represented the College of Liberal Arts, the College of Education and Human Development, and the Carlson School of Management at the University of Minnesota-Twin Cities; the University of Minnesota-Morris; and the University of Minnesota-Crookston. Some of the participants were members of the Internationalizing Teaching and Learning (ITL) program[14] focused on working with faculty to internationalize their courses. The ITL faculty were included in interview groups at their respective colleges, except for seven participants who were interviewed separately (one group and three individual interviews for ITL faculty only) on Twin Cities campus. All 13 ITL faculty responses were synthesized in a separate report.

Faculty participants across the five colleges had a mean 16.4 years of experience teaching at the undergraduate level. Twin Cities' faculty member participants had a mean 32.2 years teaching experience at the graduate level. Most of the participants had previous experience learning a foreign language and/or studying abroad. While the participants represented faculty of various ranks, the most common was that of an Associate Professor. The focus group size ranged from two to eight participants; individual interviews, either face-to-face or over the phone, were also conducted (see Table 3). Domestic and international faculty members were interviewed together.

Quantitative Data

International Student Barometer (ISB)[15] survey open-ended question data and the Student Experience in the Research University (SERU)[16] survey closed- and open-ended question data were also analyzed to triangulate the interview results. Both surveys were distributed on University of Minnesota-Twin Cities campus only, and only for undergraduate student populations.

International Student Barometer. Two questions were added to the survey in the fall of 2013 to address questions relevant to the study:

> ISB Question 1: How often did you communicate with U.S. students in the classroom? Please describe a typical situation in the classroom when you communicated with American students.

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12. Includes domestic and international faculty

13. Includes graduate and undergraduate, international and domestic students

14. http://global.umn.edu/icc/itl_cohort.html#about-tab

15. http://www.i-graduate.org/services/international-student-barometer/

16. http://www.seru.umn.edu

ISB Question 2: How often did you communicate with U.S. students outside the classroom? Please describe a typical situation outside the classroom when you communicate with American students.

Student Experience in the Research University. Descriptive, correlation and regression analyses were performed utilizing the 2014 SERU data set. The SERU is a collaboration between academic scholars and institutional researchers devoted to creating new data sources and policy relevant analysis to help broaden our understanding of the undergraduate experience and to promote a culture of institutional self-improvement.[17]

The University of Minnesota has participated in this national study of undergraduate students since 2009. The SERU was distributed online to 28,540 degree-seeking undergraduate students at the UMTC, with 10,987 responses received (38.5 percent response rate).[18] The sample was not representative in terms of college, gender (the respondents had a greater proportion of females than university population overall), and race (the respondents had a greater proportion of White students than university population overall). International student responses were excluded from the analysis.

Following these steps, our colleagues from the Office of Institutional Research[19] (OIR) utilized 2,933 undergraduate domestic survey responses (the majority of students in the sample were White, female, between the ages of 18 and 22 and high achievers in terms of cumulative GPA). The OIR team conducted factor analysis for the purpose of data reduction, to explain a larger set of measured variables with a smaller set of constructs. Five factors (see Appendix 2) were retained and factors cores were computed using the regression method and saved as standardized scores. Each of the factors had good reliability. After confirming reliability, hierarchical least square regression analyses were conducted.

Data Analysis

For the qualitative portion of the data, we employed the Classic Approach (Krueger and Casey, 2000), which involved a holistic review of the transcripts, preliminary coding of themes, followed by a more detailed process of creating the categories within the data.

Prior to the analysis, we defined several codes and categories in order to explicitly guide our assumptions about what we were looking to investigate, following Miles and Huberman's (1994) suggestion to assign codes to phrases, sentences or paragraphs connected to a specific context or setting. The focus group interview protocol reflected the initial codes, as questions were aimed at identifying the types

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17. http://www.oir.umn.edu/surveys/seru

18. For wildcard SERU items developed jointly by the ICC and the OIR, see Appendix 3, part B

19. Krista Soria, Teruo Yokoyama

of DS-IS interaction, their depth and frequency, potential benefits and challenges, along with teaching, learning and assessment activities that enhanced interaction between IS and DS. The interviews were digitally recorded and either partially or fully transcribed prior to the analysis. Quotes are presented verbatim.

The authors of this report read the interview transcripts and coded two of them separately to reach inter-rater agreement on major codes, which were then utilized throughout the study. Once few new codes were being generated and theoretical saturation seemed near (Glaser and Strauss, 1967), authors engaged in a thematic analysis, looking in particular for themes complementing or contrasting one another and related to teaching and learning. Multiple themes emerged during the open coding and the concurrent analysis processes and were checked against previous data, looking for differences across interview sites and within respondent groups. The summary below reflects several of those themes.

Study Findings

Learning about other cultures is a skill that many can take for granted. You have to teach yourself to think about how things might be different before you can start asking the right questions and getting to the good stuff.

—Senior domestic undergraduate, Biochemistry major, University of Minnesota-Crookston

Types and Frequency of Cross-National Interactions

Most graduate and undergraduate participants had interacted with international students socially and in the classroom at the University of Minnesota more than once and were able to share their experiences. In fact, most domestic and international student participants reported that **group work** in and outside of class provided the majority of opportunities for interaction around common goals and academic tasks, although some DS and IS also emphasized that in-class interactions were usually brief, and cultural differences were quickly made apparent through group work.[20]

For DS participants in majors or classes with greater proportions of international classmates, DS-IS interaction took place more frequently. Conversely, IS and faculty participants reported an opposite effect: the fewer international peers in their classes, the more IS reported they interacted with domestic classmates. University of Minnesota-Crookston was the only interview site where student participants felt that most cross-national interactions took place out of class or in social contexts, possibly due to a smaller community size and the inability of any student group to

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20. International Student Barometer survey data also indicate that international undergraduate student respondents (at the University of Minnesota-Twin Cities only) commonly interacted with American students through structured in-class activities (group work, class discussions, and lab work, etc.), where they felt they could learn from each other and domestic students. Social interaction was also present but academics-related interaction was mentioned more often.

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isolate themselves within a larger, culturally similar community, as is the case with a large campus.

During some of the interviews at the system campuses (UMM and UMC), where the student sample indicated that social interaction prevailed over academic interaction, most IS and DS student participants believed that classroom interactions were not a primary arena for cross-national interactions beyond required group work tasks, which took place only occasionally.

Perceived Student Benefits of Cross-National Interactions

We identified two main themes related to cross-national interactions in University of Minnesota classrooms across the five interview sites:

1. Structured and intentional cross-national interactions can help facilitate student learning and development (what students learned).

2. Faculty facilitation and support is an essential condition for maximizing cross-national interactions in the classroom (under what conditions students learned best).

What students learned: Interview data. Graduate and undergraduate DS and IS participants associated several affective, cognitive and behavioral benefits with cross-cultural interactions. Those benefits included gaining knowledge, attitudes and skills needed for effective intercultural communication, reflecting on one's own culture, developing leadership and problem–solving skills, engaging with course content, and creating social and professional networks among all students (see Table 4). Importantly, IS felt they benefited from interacting with IS from countries other than their own, in addition to interacting with DS.

Faculty participants believed that undergraduate DS and IS benefited from those interactions the most due to the limited experience with international diversity in high school that is common to many students, making it less likely those students would engage with difference in meaningful ways (Lee et al., 2014). Reflecting on one's own culture, communicating across cultures, appreciating different perspectives on class content, and creating life-long social and professional networks were the major DS-IS interaction impacts that faculty participants highlighted. Faculty believed that IS also benefitted from interactions with DS, especially if they were willing to reach out beyond their own ethnic groups and engage with DS on campus. One precondition to successful interaction was the willingness of DS and IS to listen and ask questions to reach beyond a superficial level of interaction (see the introductory quote to this section).

Table 4. *Outcomes of Cross-National Interactions: Interview Themes*

Common Themes for All Participant Groups
Attitudes
• Awareness and acceptance of diversity on campus
• Curiosity and openness to cultural difference
• Willingness to adapt to cultural differences
• Interest in study abroad, world events, and foreign language learning
• Appreciation of and reflection on own culture and values
Knowledge
• Learning overt and subtle aspects of other cultures
• Developing multiple perspectives on course content and academic culture
• Gaining better understanding of global community/future workforce
• Challenging cultural assumptions and stereotypes
Skills
• Communication and networking skills across cultural contexts
• Learning to avoid tokenizing cultural "others"
• Foreign language skills
• Leadership skills
• Problem-solving skills
• Relationship-building skills
• Taking initiative, pushing oneself out of the "comfort zone"

Another theme indicated that IS presence enriched in-class learning and academic engagement for all students when opportunities to share knowledge, experiences, and perspectives across cultures were provided.

> *On my group project we had German and South Korean students in the group, and hearing and understanding from their perspective how the same kind of psych topics were discussed in their countries and how research over there is handled… that I wouldn't have otherwise learned from the class. (Junior domestic undergraduate, Psychology major, University of Minnesota-Twin Cities, CLA)*

This finding supported the Zhao and Douglas (2012) study on international students as a resource facilitating student academic achievement and engagement.

Most faculty participants considered skills gained during cross-national interactions and developing personal and professional international connections to be useful in the job market for both DS and IS. Several student responses indicated that students also consider cross-national interactions important for future careers.

> *At least in our program we have a lot of international students who have a great professional experience…just being able to learn from that, how HR is viewed around the world, compare it with my experiences here in the US. I know I'm gonna be able to take this information and apply it in my career in the future. (Graduate*

domestic student, Human Resources and Industrial Relations, University of Minnesota-Twin Cities, CEHD)

What student learned: survey data. The interview findings above are supported by the analyses of SERU 2014 data.

Out-of-class interactions. Interest in studying abroad and interest in world events, news, or politics were the top two perceived student development areas stemming from interactions with IS outside the classroom (except Carlson School of Management responses). The regression results indicated that domestic students' self-perceived intercultural competence development was positively associated with whether they were involved in a University organization linking U.S. and international students via academic or social events

In-class interactions. According to the regression results, the frequency with which domestic students worked with an international student during an in-class group activity was also positively associated with domestic students' self-perceived intercultural competence development.

The descriptive SERU analysis indicated that, across the participating colleges, 1) the skills and attitudes needed for working effectively with others from different national backgrounds and 2) an interest in studying abroad were the top two perceived impacts on student development stemming from interactions with IS in the classroom. These outcomes were broadly defined, but it is likely that when students developed specific attitudes (such as sensitivity to and willingness to adapt to cultural differences) and skills (such as navigating cultural differences) – both strong themes in student interviews – the students felt an increased sense of self-efficacy in working across cultural differences.

Interview themes support the SERU data. Many students described developing skills to work and communicate effectively with others when confronted with cultural differences.

> *Something that I became more aware of is how differently we think. …. When I first came here I thought that I was tolerant enough. But then I had roommates, Americans, and had some difficulties. Like something would shock me, and then I noticed that … they're not doing it on purpose, it's just the way they live. …. I became more aware of diversity and more tolerant to something that someone would do, and more willing to give - to allow someone to react and do something that is different than the way I'm used to doing it. (Junior international undergraduate, Applied Studies major, University of Minnesota-Crookston).*

> *And so being able to learn of those different, I guess learning styles, is important to me. … they might not, when we're in a group setting, they might not communicate that as well, but I feel like that's my responsibility to open that up and make it a more comforting environment for you -- or knowing what your history*

is or wherever you came from, just to know that you can speak at the table… I really appreciate it and I feel like I learn a lot. (Senior domestic undergraduate, Political Science and African American Studies major, University of Minnesota-Twin Cities, CLA)

Correlation data. These assertions are further supported by correlation analysis results indicating there were positive weak relationships between self-perceived development of DS intercultural and global skills (defined in the same manner as in the regression analysis)[21] and student agreement around the importance of engaging with culturally diverse communities. Possibly, students who already believed in the importance of learning from cultural differences tended to already have stronger intercultural competence skills.

However, there were negative weak relationships between the DS development of intercultural and global skills[22] and interaction with IS in and outside the classroom. There is a chance that the more confident students felt about their intercultural competence due to previous international experiences abroad or in the U.S., the less they felt they could learn from their international peers. Alternatively, in the absence of support around cross-cultural interactions, students found it hard to manage high levels of anxiety and uncertainly (connected to previous challenges they've experienced or the realization that more practice is needed to communicate effectively), according to Gudykunst's (2005) threshold theory of intercultural communication.

Conditions for Maximizing Cross-National Interactions

While DS and IS participants acknowledged the role of personal agency and motivation (i.e., open-mindedness, awareness, willingness to listen, ask questions, address stereotypes, and reach out across cultural difference) in establishing and sustaining cross-national interactions, they also highlighted the importance of faculty facilitation and support.

Student perspectives. Many DS and IS participants discussed ways in which faculty could be more supportive of cross-national interactions, e.g., by attending campus events related to IS cultures and showing support for building relationships between domestic and international students. The IS participants appreciated faculty members' willingness to talk with them, address any problems, and build a supportive relationship. The DS participants noted that having international instructors helped them adjust to interacting with international students in their

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21. Utilizing academic engagement items from 2013 and 2014 datasets, three skill sets were defined as students at the University of Minnesota were asked to rate their abilities on: 1) international perspectives skills; 2) skills related to working with cultural and global diversity-related skills; and 3) skills related to working with racial and ethic diversity. A difference was calculated between a) student respondent perceived levels of ability in those skill areas prior to attending University of Minnesota and b) their perceived current levels of ability.

22. Development in the areas of understanding different philosophies and cultures, awareness of own culture, effective cross-cultural team work, world event awareness, and interest in study abroad (as compared to the beginning of students' academic career at the University).

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classes. An international undergraduate commented on faculty members' level of awareness and engagement with IS.

> *It depends on the professors, like some are aware of the difference between international students and American students, so for me then when I took I-Core... I think they [both professors] are really aware of the fact that like international students and the language barrier, and they notice that sometimes we usually sit in a bunch of group with like Chinese students together in class with 200 people ... they'll sometimes bring that up too and they'll like, "You know what, it would be better if you can hang out with different people." So they try to listen. (Senior international undergraduate, Management Information Systems and Finance major, University of Minnesota-Twin Cities, CSOM)*

Reflecting the diversity of participants' experiences, conversations among graduate student participants (both IS and DS) revolved around the lack of time to interact beyond class projects due to family and work commitments, making faculty support during in-class work even more important.

Faculty perspectives. Faculty participants overwhelmingly reported that almost no cross-national interaction took place in their classroom unless the instructor made an effort to structure class activities and influence class culture to enhance interaction. They reported that IS presence enriched in-class learning and development for all students when opportunities to share knowledge, experiences, and perspectives across cultures were consistently provided. A CEHD faculty member explained the need for faculty to facilitate in-class interaction, especially in large classes:

> *I pretty much, what's the word, orchestrate it. Because otherwise they won't … when they come to a lecture and sit there with 100 students and no one's talked with each other, what's the point. It's such a big institution, with big classes, we really have to vigilantly create arenas for cultural exchange, we have to make it a part of their academic learning. (PsTL Faculty, University of Minnesota-Twin Cities, CEHD)*

While faculty participants acknowledged the increasing need for English as a Second Language and writing support for IS, they also shared (often extensive) experience with a number of instructional strategies helpful in enhancing DS-IS interactions. These strategies are outlined below.

1. <u>Setting the groundwork for future interaction</u> within the first few class periods. The participants who taught participation-oriented classes found it helpful to explicitly create expectations around cross-national interactions at the beginning of class. Below are sample pedagogical strategies utilized by participants (referring to both DS and IS):

    a. Preparing students to ask and respond to questions by explaining what it means to have an in-class dialogue.

b. Participating in icebreaker activities in the first or second class.

c. "Speed discussions" - every student interacts with every other student in the class period.

d. Emphasizing the importance of learning to work across cultural differences, setting expectations.

e. Shaping projects around international students' countries.

f. Addressing differences in communication styles.

g. Calling on students by name.

2. Providing support throughout the course.

a. Regularly calling on students by name to avoid making international students feel singled out.

b. Allowing students to write out notes on their thoughts prior to discussions.

c. Structuring an in-class discussion about different perspectives on class content.

d. Recognizing students who make a consistent effort to interact and become mindful of other countries' academic cultures

3. Ensuring comprehension among international students.

a. Adjusting lectures to be more explicit in their explanations in class and purposefully using examples and references that international students would relate to or be familiar with.

b. Becoming more attentive to students' body language when they had international students in their classes.

4. Engaging IS areas of expertise. For some faculty, unique knowledge and expertise held by international students was considered a tool to encourage interaction and mutual learning. Faculty participants noted that some international students had skills and knowledge that domestic students lacked, and shared the following strategies:

a. Encouraging international students to "show off" in class. Some faculty said that international students are often highly aware of current events, which gives them a chance to participate confidently in class discussions. Furthermore, they realized that when international students are given the opportunity to share their point of view, domestic students are genuinely interested in hearing their perspectives.

b. This observation is supported by students' comments, as many of them valued chances to compare and explore each other's perspectives.

A management faculty participant shared an example of giving an international student the opportunity to share her expertise with classmates:

> *Last year we had someone from China, and I asked her to present a few topics in some of my classes. … She actually outlined things that a regular person would not know … I noticed a level of interest from the local students that was much higher than when I teach in class … She really did a good job of talking about some things that I had no idea about, so really some kind of things that only an insider would know from China. So it was really beneficial and very interesting as well. (Management faculty, University of Minnesota-Crookston)*

Overall, faculty responses on instructional strategies facilitating cross-national interactions revolved around the following themes:

Including interaction in curriculum planning (assigning groups, aligning interactive activities with class objectives and student learning assessments; designing lectures and course content with international students in mind).

Setting up classroom environments conducive to interaction (requiring all students to speak in class; motivating students before and during teamwork projects; utilizing online platforms to encourage various forms of interaction). One faculty participant explained her approach to in-class student interaction:

> *There's no way anyone can sit quietly in my class. … I do that almost twice a class, I think: talk to someone else, talk to someone else. And normally I try to pair them up so there will be one American and one - Not that I know exactly which one is which, especially in the beginning of the class, but I try to pair them up. But even now after four or five classes they're automatically turning to each other and talking. Because I don't let them sit quiet, or I'll make the person get up and I'll say go sit with that one and join and talk. …. So they do form fairly good friendships also. (Economics faculty, University of Minnesota-Twin Cities, CLA)*

Supporting interaction when it happens (providing resources for cross-cultural communication; recognizing problems of speaking quickly and not giving enough time or support to non-native English speakers; addressing differences between American communication styles and those in other countries).

Building on international diversity in the classroom as a resource to engage with content knowledge (providing different cultural perspectives on course topics; shaping projects around countries IS come from; emphasizing the importance of drawing on IS cultural experiences).

Due to the limited time during group interviews, few faculty members offered a detailed description of how the in-class activities they utilized influenced cross-national interactions. However, faculty participants often mentioned "forcing" students to interact with cultural "others", i.e., by applying pedagogy that combines challenging the students and supporting them in intercultural interactions. These

findings support the developmental need of students to take risks in collaborative tasks and utilize reflective and critical writing skills to improve awareness of their own culture, as well as question assumptions and generalizations (Meerwald, 2013).
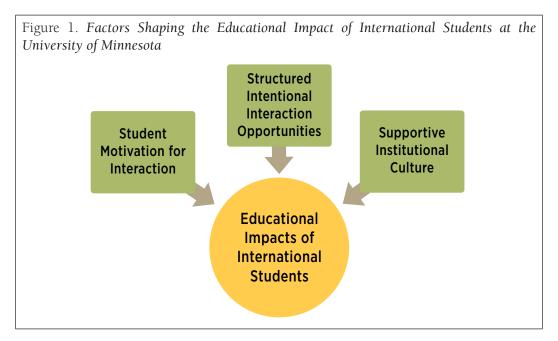
Findings Summary

Through the analysis of student and faculty interview data, we identified that as a result of cross-national student interactions in the classroom, students can gain knowledge, attitudes and skills needed for effective intercultural communication; reflect on their own culture; develop leadership and problem–solving skills; engage with course content utilizing multiple perspectives; and create social and professional networks. International students reported benefitting from interactions with other international students and from interactions with American students in similar ways.

Many attitudes, skills, and knowledge areas identified by undergraduate DS and IS participants[23] and measured via the SERU survey among DS in Twin Cities constitute the foundation for intercultural competence development, according to Deardorff's (2006) process-oriented, cyclical model of intercultural development. The model suggests that intercultural attitudes such as respect for other cultures, openness, curiosity and discovery – all evident in interview findings – can help students develop the capacity to engage with and benefit from others' cultural perspectives. Similar conclusions have emerged in multicultural and diversity education research in regard to cognitive, affective and behavioral learning benefits associated with diverse students actively engaging in a series of purposeful interactions (Bowman, 2010; Denson and Chang, 2009; Gurin, Dey, Hurtado and Gurin, 2002).

Graduate and undergraduate students as well as faculty participants all named faculty support of interactions as a major factor in facilitating cross-national peer interactions. Attitudes such as respect for other cultures, openness, curiosity, awareness of cultural differences, and willingness to listen and ask questions (sometimes by "pushing" oneself out of the cultural comfort zone) were also seen as helpful; such attitudes develop the capacity to engage with others' cultural perspectives.

Various forms of course-based group work or team projects provided the majority of opportunities for cross-national student interaction around common academic goals and tasks. Both student and faculty study participants described a range of instructional practices used to create such opportunities: 1) creating explicit expectations for peer interaction and collaboration among all students; 2) integrating peer interactions into course activities and assessments; 3) ensuring content and expectation comprehension among international students; and 4) consistently

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23. According to SERU 2014 data, a similar percentage of female and male DS respondents interacted with IS in and outside the classroom and established friendships with IS. These interactions are a critical piece of fostering intercultural competence development.

Figure 1. *Factors Shaping the Educational Impact of International Students at the University of Minnesota*

Student Motivation for Interaction

Structured Intentional Interaction Opportunities

Supportive Institutional Culture

Educational Impacts of International Students

building on international diversity in the course as a resource to engage with content knowledge.

Discussion

The data presented were collected over several months from a diverse sample of students and faculty at the University of Minnesota, a university with demonstrable commitment to curriculum and campus internationalization. The purpose of Phase One of the study was to illustrate **what constituted the educational impact** of international students at the University of Minnesota and **how the impact could be maximized** in the classroom setting.

An informed understanding of cross-national peer interactions can positively impact learning across diverse cultural and linguistic groups at the University of Minnesota. Below are some of the findings well worth dissecting. Findings are illustrated in Figure 1.

First, study findings based on group and individual interviews indicate that University of Minnesota student and faculty participants believed there were multiple benefits of cross-national interactions both in and out of the classroom. Only a few graduate and undergraduate student participants, however, could specify how often and how intensively they interacted across cultural lines. Additionally, approximately one-third of the undergraduate student participants believed that classroom interactions were not a primary arena for cross-national interactions, although many of their social contacts originated in the classroom.[24]

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24. At CEHD, we did not have enough undergraduate IS in the sample and could not gain enough information on their views around the types and extent of DS-IS interactions.

Similarly, faculty reported that few to none of the interactions in class happened naturally, without faculty support. However, we did not obtain detailed information on how "deep" or extensive the few initial student interactions were likely to be. Similarly, our analysis of students' responses regarding their experiences with cross-national interaction made clear that many graduate and undergraduate student participants shared a limited understanding of how to consistently realize the potential benefits of their interactions. While most student participants acknowledged the role of their personal agency and motivation (i.e., openness, awareness, willingness to listen, ask questions, address stereotypes, and reach out across cultural difference) for successful cross-national interaction, they strongly emphasized faculty facilitation or even "forcing" the interactions as an essential condition for interactions to take place.

A closer analysis of findings around the impacts of and barriers to interaction reveals a contradiction. On the one hand, all DS and IS participants named personal motivation as a necessary condition for learning from cross-national interactions, referring to their own as well as friends' efforts to reach out across cultural difference. Yet faculty across interview sites perceived that many undergraduate IS and DS lacked motivation and the linguistic and intercultural training necessary to fully benefit from cross-national encounters on campus.[25] In these situations, students depended on faculty members to facilitate opportunities for peer enhanced learning.

The findings illustrate the importance of an intentionally structured classroom environment with opportunities for interaction, reflection, and faculty support. Therefore, the study suggests that not all student participants viewed the classroom as a comfortable or appropriate space to engage in purposeful cross-national interactions beyond required group work. These findings support research indicating that the mere presence of international students, even in large numbers, is insufficient in itself to promote intercultural interactions with cultural "others" or to result in mutually beneficial cross-cultural understanding (Andrade and Evans, 2009; Leask, 2009; Mestenhauser, 2011). Rather, faculty planning and support is needed to foster these interactions and help find a "common ground" (Arkoudis et al., 2010) for students to tread on. In fact, without structured support and reflection in the classroom, exposure to diversity can lead to reinforcement of negative stereotypes on cultural others (Pettigrew, 2008).

The integration of international students into the academic and co-curricular student experiences is both a process and an outcome. In terms of the latter, it may lead to faculty continuously modifying course delivery, adjusting pedagogical and instructional practices, adjusting course content, and developing strategies to im-

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25. Several faculty participants commented theta graduate students often had more experience in and motivation for cross-national interactions, given the need for collaborative research and publications.

prove domestic and international student interactions within a learning environ-ment (Arkoudis et al., 2010; Lee et al., 2012). Specifically, the Internationalizing Teaching and Learning faculty participants spoke of "modeling" interactions and engaging different ways of thinking among their students by making culturally-defined expectations and rules (the "hidden curriculum") explicit (Leask, 2009), ultimately benefiting all students.

Institutional Recommendations

The study suggests that practitioners can design curricula and implement peda-gogical strategies that effectively facilitate students' cross-national interactions in their classroom. Faculty responses proposed specific institutional resources that could support practitioner needs. For instance, most student and faculty partici-pants named the international student orientation, the academic assistance cen-ters, and ESL tutors as some of the existing campus resources that supported both interactions and IS academic skills. Faculty participants felt that they were quite successful in utilizing both campus resources and their own teaching strategies to adapt to international student presence in their classrooms.

However, the respondents also suggested a need for further education for DS and faculty members on international students' academic background and for addition-al IS support around academic expectations and academic culture at the University of Minnesota. These institution-level suggestions are outlined below.

Utilizing campus resources effectively. Faculty participants suggested that not all faculty and students consistently utilized existing current campus and depart-mental resources, such as the Academic Assistance Center support or writing and ESL assistants.

Faculty and IS training around differences in academic cultures and expec-tations. Faculty participants recognized opportunities for new faculty education and training on differences in academic culture between the U.S. and other parts of the world. Some were unsure of how best to facilitate interaction and requested formal training on this topic. Faculty participants believed that increased mutual awareness of academic cultures could prevent DS-IS interaction challenges down the road. Although they emphasized the importance of acknowledging differences between individual students as well as countries of origin, some were unfamiliar with international students' backgrounds. Their suggestions included:

- Providing faculty with information on the academic background and culture of international students to anticipate student needs and strengths

- Offering international students detailed information on the academic culture and expectations at the University of Minnesota prior to or upon their arrival

- Addressing the need for more in-class writing tutoring, which would have the dual effect of providing an opportunity for cross-national interactions and making writing support more available to all students (DS and IS)

- Connecting University of Minnesota-based classes with on-campus international student organizations and/or with similar international classes (possibly online) to increase students' awareness of cultural differences

Similarly, one of the common suggestions graduate and undergraduate student participants offered as a way to overcome cultural and linguistic barriers in interactions was participating in on-campus events or courses aimed at raising all students' awareness of the benefits of cross-national interactions. Ideally, as several IS and DS participants suggested, such courses would be mandatory and relevant to their major and future field of employment.

Table 5 outlines main strategies and recommendations for improving cross-national interaction at the collegiate and classroom level.

Study Limitations

It is apparent that group level generalizations based on this study are questionable on both statistical and sampling criteria. An alternative approach is to view each individual in the focus groups as representing a particular demographic, lifestyle, or attitudinal segment, which encourages a within-person rather than an across-person analysis. Thus, this research allows the reader to see value in individuals' viewpoints.

Our student and faculty samples are limited and do not represent all University of Minnesota student and faculty views. Our interview sites varied by total enrollment of IS, size of the college/system campus, and the extent to which the academic climate and culture supported the increasing number of IS[26] on campus. At most interview sites, the IS constituted the majority of the undergraduate student sample, with two exceptions (CLA and CEHD undergraduate student sample majority was represented by domestic students).[27]

Students and faculty participants may have had a higher level of intercultural development or interest in international students and experiences compared to other students and faculty, which could explain why many faculty indicated no or limited need for support and/or intercultural training. Most faculty participants and a large percentage of student participants had studied abroad.

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26. Faculty participants at UMM specifically described some major changes in the proportion and composition of the IS body at UMM since the beginning of the relationship with the Shanghai University of Finance and Economics (SUFE).

27. CEHD international student population is mostly that of graduate students

Table 5. *Faculty and Student Recommendations for Institutional Supports for Improving Cross-National Interactions*

1. Develop additional opportunities for early exposure to cross-national interactions for undergraduate students	Require all new students to learn the importance of intercultural competence during orientation and throughout their first year. Opportunities could be built into undergraduate curriculum, raising student awareness of the benefits of cross-national interactions and the diverse cultures represented in their freshman class.
2. Develop intercultural competency curriculum for students	Create an intercultural competence certificate program through a series of workshops and activities.
3. Strengthen departmental faculty support (online or face-to-face) in the areas of English language, writing, and pedagogical strategies to facilitate DS-IS interactions	Experienced faculty could share pedagogical tips with beginners and train faculty and staff to model hospitality toward international students and how to facilitate cross-cultural and cross-national interactions. Increase in-house writing support for IS: Several faculty members struggled with how to help and assess IS (and secondarily, DS) who had inadequate writing skills for their courses. They found that existing resources, such as the Writing Center, did not provide sufficient assistance to their students, specifically mentioning a lack of support for grammatical problems. Departments could provide funding for a writing and/or ESL specialist and online resources to support faculty in working with increasing numbers of non-native English speakers.
4. Foster cross-departmental collaborations around integrating IS into the academic community	Support student advisers as they work with IS who may have difficulties understanding course requirements and sequences. Help students develop cross-cultural communication skills, diplomacy and hospitality through Residence Life, the Career Center, and departmental collaboration in planning social activities attractive to domestic and international students. Recruit returned study abroad students and "experienced" international students as assistants for these events.
5. Create opportunities for faculty discussion and collaboration around the pedagogy of cross-national interactions	Train faculty and staff to model hospitality toward international students. Resources such as emails or a lecture series to educate faculty on cultural differences, particularly around academic culture and expectations would be helpful. Faculty who had the opportunity to discuss challenges and strategies with their colleagues found it beneficial.

Social desirability bias[28] could have led to under-reporting of types of faculty and student experiences. In some cases (e.g., at the College of Liberal Arts), DS participated in focus group discussions more actively than IS, thus affecting focus group dynamics.

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28. Social desirability bias is the tendency of informants to answer questions in a manner that will be viewed favorably by others.

Despite certain limitations of representativeness, broad-based questions, and potential interview moderator influence, study findings provide the research team with documented data to begin the next stage of inquiry into international student impacts on campus internationalization at the University of Minnesota.

Future Directions for the Study

While the research questions we posed were partially answered, there is a need to further address the dynamics of DS-IS interactions and outline broader implications for practitioners at the University of Minnesota. In Phase Two of the study we plan to continue exploring the impact of those interactions on all domestic and international students in terms of knowledge, skills and attitudes and connecting those impacts to the relevant student learning and development outcomes.[29]

Ultimately, there is also a need to document faculty practices focused on enhancing cross-national peer interactions and increasing the educational impact of international students at University of Minnesota. Table 6 represents the current gaps in our understanding of the topic at hand and potential future research areas.

Further studies could explore ways to develop faculty capacity to engage student feelings of frustration and the challenges related to interactions with international diversity (Lee et al., 2012). Other studies may correlate student interaction according to University academic unit data and demographics, as well as students' previous experiences with diversity both before and during college. Strong collaboration among University departments is needed to further define and investigate discipline-specific educational impacts of international students as related to the effects of cross-national interactions on student learning, development, and retention.

Conclusion

Extending past studies, the current Phase One research study captured a wide range of student and faculty experiences with international diversity at the participating sites within the University of Minnesota system (CEHD, CLA, CSOM, UMC, UMM). The study identifies and synthesizes a number of positive outcomes of cross-national interactions and a number of instructional strategies to facilitate and promote peer interaction for learning across diverse cultural and linguistic groups.

Interview data allowed us to partially answer our research questions and helped outline the direction for future studies. Study findings also help us document and begin to analyze the dynamics of domestic and international student interactions at the University of Minnesota, as perceived by both faculty and students. We learned the ways in which University of Minnesota faculty members maximize the

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29. Relevant University of Minnesota-Twin Cities Student Development Outcomes (appreciation of differences by recognizing the value of interacting with individuals with backgrounds and/or perspectives different from their own) and the Student Learning Outcomes (understanding diverse philosophies and cultures within and across societies)

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Table 6. *Gaps and Promising Future Research Areas*

Phase One Gaps	Phase Two Areas of Inquiry
1. **Student motivation to Interact** Faculty perceived a lack of motivation among IS and DS, yet acknowledged a strong potential for educational impact of international students leading to positive learning and development outcomes for both DS and IS	Micro-level and/or quantitative studies of connections between the extent of DS-IS interactions and student learning and development outcomes (including those specifically valued by employers, i.e., the 21st Century Skills) Activities designed to increase student awareness of positive impacts of interactions
2. **The extent of student interactions** Understanding how frequently students interact, and how "deep" or substantial those interactions are Note: Data indicate that frequency of interaction varies among majors and programs of study	Further detailed studies of environments, frequency and types of DS-IS interactions
3. **The extent and types of in-class activities supporting interaction**	Micro-level studies of proven practices to facilitate interaction, including descriptions of individual and group work assignments, class materials, and alignment between class goals and activities within programs/academic units with high and low proportions of IS Providing evidence of effectiveness of specific practices
4. **Faculty support and training needs related to increased numbers of IS**	Investigating areas of collaboration with campus administration, student services, Residence Life, ESL practitioners, teaching and learning support specialists
5. **Interaction and content knowledge**	Because many of the results focused on intercultural learning and perspective enhancing learning, further investigation is needed regarding the academic benefits of heterogeneous group interactions.

cross-national interaction potential for their students. We heard what it meant for faculty to work with cross-national interactions in their classrooms and what it meant for students to engage in those encounters.

Findings from the study highlight the affective, cognitive and behavioral benefits that all students – graduate, undergraduate, domestic, and international – believed they gained from cross-cultural interactions. Our results indicate that interaction between international and domestic students in teaching and learning contexts at the University of Minnesota has a number of benefits, including the development of cognitive skills, effective intercultural communication skills, and increased cultural self-awareness among all students. Phase Two of the study will further define the educational impact of international students and suggest assessment measures to use. Important next steps in the process include determining specific impacts on teaching and learning followed by creating clear indicators of the knowledge,

attitudes and skills faculty plan on developing by facilitating cross-national interactions.

Importantly, international students believe they benefit from interacting with other international students who came from countries other than their own as much as from interactions with domestic U.S. American students. Thus, cross-national peer interactions at the University of Minnesota may help increase the global and intercultural learning of both student populations, if properly structured.

Suggestions for Practice

International diversity, as with any form of diversity, plays a pivotal role in student learning in higher education, as highlighted in recent research on diversity in first year programs in the U.S. (Lee, Williams, Shaw, and Jie, 2014), as well as in international contexts (Venables, Tan, and Miliszewska, 2013).

One main precondition to successful cross-national interaction that our study participants spoke of was the willingness of both DS and IS to listen, as they move beyond superficial questions to more meaningful interactions. Establishing more environments that support meaningful interactions is especially important for many University students and faculty who may have had limited exposure to diverse student populations.

Lee et al. (2012) calls for an intercultural pedagogy that structures opportunities for collaboration and interaction with diverse peers, values the assets students bring to the classroom, and explicitly identifies specific intercultural skills, behaviors and attitudes relevant to course content and goals. Our study's faculty participant responses indicate that a number of strategies have been employed successfully with both domestic and international students. The utilization of strategies with both domestic and international student populations demonstrates the understanding of many University academic community members that effective cross-national interaction does not depend solely on international students' adjustment to the host culture and personal initiative in reaching out to U.S. peers.

There is evidence that strong collaboration among University departments is needed to further define and investigate discipline-specific educational impacts of international students as related to the effects of cross-national interactions on student learning, development, and retention. We are in support of a broader campus discussion regarding the benefits international students bring to campus.

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Appendices

Appendix 1. Disciplines Represented in Interview Sample

Disciplines Represented		
CEHD	**Students**	**Faculty**
	• Kinesiology • Human Resource Development • Business and Marketing Education • Comparative and International Development Education • Second Languages and Cultures • Elementary Education Foundations • Recreation, Park, and Leisure Studies • Evaluation Studies • Social Sciences Education • Higher Education • Sport Management	• Family Social Science • Social Work • Postsecondary Teaching and Learning • Organizational Leadership, Policy, and Development • Kinesiology
CLA	**Students**	**Faculty**
	• Political Science • Mathematics • Communication Studies • English • Economics • Psychology • French • Journalism • Anthropology • Studies in Cinema and Media Culture • Global Studies • Advertising • Chemistry • Computer Science • Asian Languages and Literature • Statistics • Strategic Communication	• Writing Studies • History • Speech-Language-Hearing Sciences • English • Asian Languages and Cultures • Economics

CSOM	Students	Faculty
	• Finance • Accounting • Management Information Systems • Supply Chain and Operations Management • International Business and Marketing • Master of Arts in Human Resources and Industrial Relations • MBA	• Human Resources/Industrial Relations and Labor Studies • Finance • Marketing • Strategic Management/ Entrepreneurship
Morris	**Students**	**Faculty**
	• English and Literature • Economics • Management • Gender, Women's and Sexuality Studies • International Business • Anthropology • Statistics • History • Biochemistry • Spanish	• Division of Science and Mathematics • Division of Social Sciences • Division of Humanities
Crookston	**Students**	**Faculty**
	• Software Engineering • Animal Science • Accounting • Applied Studies • Manufacturing Management • Agricultural Systems Management • Business • Health, Sciences, and Biology	• Agriculture and Natural Resources • Business • Liberal Arts and Education • Math, Science, and Technology

Appendix 2. Interview Protocols

Pre-interview survey: 3-5 minutes to fill out

Questions for students	Questions for Faculty
Class standing	Discipline
International/Domestic student status	Years teaching at undergraduate level
Previous experience studying abroad or living abroad	Previous experience studying abroad or living abroad
Previous experience learning a foreign language	Previous experience learning a foreign language

Focus Group Questions - Students

1. You have probably noticed that the University of Minnesota is attended by a diverse group of students from around the world. What comes to mind when I say "international student"? How would you describe an international student?

2. Could you tell me a little bit about what your experiences interacting with international students have been like here at the University? Please think back of an example of when you interacted with one or multiple international students in class/out of class and write it down. We will share our experiences and have a discussion with the group.

3. Let's talk about your experiences. Do you usually interact with international student(s) in class?

    a. In what way do you interact?

        i. Could you give an example of a typical interaction (what did you do together in class, during an activity or lecture, etc.)?

        ii. Did you work on class assignments after class (e.g., in a peer learning group, project team, etc.)? Was it one-on-one/in a group setting?

3. Do you usually interact with international students outside of the class?

    a. In what way do you interact?

        i. Could you give an example of some typical activities (what do you do together outside of class when you spend time together)?

        ii. Do you have friends among international students?

        iii. Are you involved in any student groups focused on interacting with people from different cultures?

    b. How often do you spend time with international students socially?

4. In my friend's Jana's class they have to do a group project at the end of the semester to create a marketing plan for a product. Jana is American. There are three U.S. students and two international students in her group.

    a. What do you think may happen as they start working on the project?

    b. What might Jana learn from international students in her team?

    c. What might international students learn from Jana?

    d. What might be some challenges for them working together as a team?

5. In your experience, when interacting with international students in class…

    a. What have you learned, if anything?

    b. Do you feel international students have learned anything from you? In what way?

    c. What was challenging for you?

    d. What was helpful for you?

        i. Have your instructors/TAs been helpful in facilitating your interaction with international students?

        ii. In an ideal world, what would help to facilitate this interaction? In what way?

6. In your experience, when interacting with international students outside of class

    a. What have you learned, if anything?

    b. Do you feel international students have learned anything from you? In what way?

    c. What was challenging for you?

    d. What was helpful for you?

        i. Have university staff members/faculty been helpful in improving your interaction with international students?

        ii. In an ideal world, what would help to improve this interaction? In what way?

        iii. Do you have any other thought on studying with or spending time with international students at the University of Minnesota?

Focus Group Questions - Faculty

1. The University of Minnesota's population of international students has been steadily increasing for the past few years. What comes to mind when I say "international student"?

2. Do you have any international students in your classes this semester? How do you know they are international students?

3. How often do your students engage in structured activities demanding interaction with international students in your classroom?

   a. Could you give an example of this interaction (what do they do together in class)?

      i. How often does this happen (every class, only for major assignments, during exam prep, etc.), as far as you can tell?

      ii. How often does this happen while students are working on class assignments after class (e.g., in a peer learning group, project team, etc.) as far as you can tell?

   b. Are there students with particular interest in interacting with international students?

   c. Are there students not willing to interact with the students born outside of the U.S.?

4. How does international student presence in your classroom influence your work?

   a. Do you use any specific strategies to facilitate interaction among the groups of students?

      i. How do you know there is a positive impact of those strategies?

      ii. Are there any challenges related to these strategies? Are there students for whom this approach does not work?

5. Do you think there is a learning process that occurs as an outcome of these interactions?

   a. What, if anything, do you think might domestic students be learning from these interactions? (in terms of knowledge, attitude, and skills)

   b. What, if anything, do you think might international students be learning from these interactions? (in terms of knowledge, attitude, and skills)

   c. What are the main factors facilitating student interaction and learning process that you have observed?

   d. What are the main barriers for domestic and international student interaction and learning process that you have observed?

6. Do you feel you have enough support in working with international students?

7. What kind of support or professional development would be helpful?

8. Is there anything else you would like to say about the interaction between domestic and international students in your classroom?

Appendix 3. SERU Items Utilized in the Study

Academic Engagement SERU Items: SERU 2013 and 2014

1. While attending the University of Minnesota, how frequently have you engaged in the following?

   a. Interacted with students from outside the U.S. in class (e.g., through section discussions, study groups, or class projects)

   b. Interacted with students from outside the U.S. in social settings (e.g., in clubs or student organizations, or in informal settings)

   c. Developed a friendship with a student from outside the U.S.

2. During this academic year, how frequently have you followed news about the following?

   a. Global politics and diplomacy

   b. Global climate and environmental issues

   c. International business and economics

   d. Global health issues

   e. International conflicts and peace issues

3. Similarly, please rate your abilities now and when you first began at this campus on the following dimensions:

   a. WHEN YOU STARTED HERE-Ability to appreciate and understand racial and ethnic diversity

   b. WHEN YOU STARTED HERE-Ability to appreciate cultural and global diversity

   c. CURRENT ABILITY LEVEL-Ability to appreciate and understand racial and ethnic diversity

   d. CURRENT ABILITY LEVEL-Ability to appreciate cultural and global diversity

4. Please rate your level of proficiency in the following areas when you started at this campus and now. As a University of Minnesota student, how would you rate your competencies below? :

   a. WHEN YOU STARTED HERE-Understanding the complexities of global issues;

   b. WHEN YOU STARTED HERE-Ability to apply disciplinary knowledge in a global context

   c. WHEN YOU STARTED HERE-Linguistic and cultural competency in at least one language other than my own;

d. WHEN YOU STARTED HERE-Ability to work with people from other cultures;

e. WHEN YOU STARTED HERE-Comfort working with people from other cultures

f. CURRENT ABILITIES-Understanding the complexities of global issues

g. CURRENT ABILITIES-Ability to apply disciplinary knowledge in a global context;

h. CURRENT ABILITIES-Linguistic and cultural competency in at least one language other than my own

i. CURRENT ABILITIES-Ability to work with people from other cultures

j. CURRENT ABILITIES-Comfort working with people from other cultures

5. Have you completed or are you now participating in the following activities at the University of Minnesota?

   a. Enrolled in a course with an international/global focus

   b. Obtained a certificate/minor/major with an international/global theme (e.g., in Latin American Studies)

6. While attending the University of Minnesota, how frequently have you engaged in the following?

   a. Worked with a faculty member on a project with an international/global theme

   b. Presented a paper at a symposium or conference or participated in a panel on international/global topics

   c. Attended lectures, symposia, workshops, or conferences on international/global topics

   d. Attended a performance with an international/global focus

7. You indicated participation in the previous SERU International Students and Education Abroad question the following program(s) or activities. Please answer the following questions below about it. : In which country were/are you located?

   a. A study abroad program lasting a full academic year

   b. A study abroad program for a semester or at least four months

   c. A short-term study abroad program or tour lasting less than three months

   d. An intensive language only study program

   e. An international internship or work abroad experience

   f. A service learning or volunteer service opportunity in another country

g. A research project or field placement in another country

Wildcard Items (SERU 2014) – written by the research team

1. In the classroom, how often have you been asked to:

    a. Examine the cultural origin of your discipline

    b. Understand another culture's way of practicing your discipline

    c. Explore other cultural perspectives on issues related to your discipline while withholding judgment

2. To what extent do you agree or disagree with the following statements?

    a. Opportunities to connect and engage with culturally diverse communities are important to me

3. How often during this past academic year have you:

    a. Worked with an international student during an in-class group activity

    b. Interacted with an international student in a social setting outside of class

    c. Asked an international student questions about his or her country, language or culture

    d. Been involved in a University organization linking U.S. and international students via academic or social events

4. If you have interacted with international students in the classroom, to what extent do you feel these interactions have enhanced your development in the following areas:

    a. Working effectively with others from different national backgrounds

    b. Understanding diverse philosophies and cultures within and across societies

    c. Awareness of your own culture

    d. Interest in studying abroad

    e. Interest in world events, news, or politics

5. If you have interacted with international students outside the classroom, to what extent do you feel these interactions have enhanced your development in the following areas?

    a. Working effectively with others from different national backgrounds

    b. Understanding diverse philosophies and cultures within and across societies

    c. Awareness of your own culture

    d. Interest in studying abroad

    e. Interest in world events, news, or politics

Appendix 4 Advisory Group Members – Phase One

The advisory groups for the study are comprised of faculty members and university staff with experience in international education research and/or practice at the University of Minnesota in Twin Cities, Crookston, Morris and Duluth. Additionally, there are three external advisory committee members serving as faculty and administrators at higher education institutions in the U.S. and Australia.

The two groups, which were instrumental in defining the project scope and structure, were the Philosophy and Epistemology Group and Core Advisory Group. Additionally, the Preliminary Discussion Expert Group was created to involve our partner university units in Twin Cities and in coordinate campuses.

During October – December 2013, the Research Associate for the study consulted with every advisory group member at least once, soliciting feedback of research questions, theoretical frameworks, and design. See the table below for the complete list of names and unit affiliation.

Philosophy and Epistemology Group	Core Advisory Group Members	Preliminary Discussion Expert Group
Gerry Fry	Kim Gillette	Akosua Addo
Darwin Hendel	Betty Leask	Mike Anderson
Josef Mestenhauser	June Nobbe	Laura Bloomberg
	Paula Pedersen	Anne D'Angelo
	Gavin Sanderson	Hilda Ladner
	Krista Soria	Jeff Lindgren
	Mike Stebleton	Kate Martin
	Rhiannon Williams	Leigh Neys
	Jennifer Windsor	Mary Katherine O'Brien
		Trisha O'Keefe
		Karen Seashore
		Inge Steglitz
		Elaine Tarone
Process: One-on-one discussions around research goals, theoretical frameworks and epistemology	Process: One-on-one discussions around research goals, theoretical frameworks and methodology	Process: One-on-one discussions on a. Definitions of IS/DS b. Indicators: What does it mean to have IS impact educational process and student outcomes? Who is learning what from whom? c. How do we know when/if there is a positive impact of IS-DS interaction? d. Barriers and factors enabling the interaction