

Beyond English Language Instruction: The Academic and Social Experiences of Former Intensive  
English Program Students at the University of Minnesota

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## **Abstract**

This paper uses Student Experience at the Research University (SERU) survey data to explore the academic and social experiences of former IEP students who later become full-time undergraduate students at the University of Minnesota. SERU survey data from the international student population and the overall student population are used for descriptive comparison. Findings suggest that former IEP students report experiences similar to those of other international students in many ways, including use of and improvement in academic skills. However, they may show some unique characteristics as a group, including weaker tendencies to interact with faculty, greater feelings of respect on campus, lower levels of academically disengaged behaviors, and less frequent use of higher-order thinking skills. Implications for IEP teachers are given based on these potential areas of success and challenge.

The number of international students studying in the United States is once again on the rise. In the 2012/2013 academic year, numbers reached an all-time high of 819,644 students, up 7.2% from the preceding academic year (Institute for International Education, 2013). In addition to contributing to a diverse campus climate during this time period, these students also contributed \$24 billion to the U.S. economy and supported 313,000 U.S. jobs (NAFSA, 2013). This growth trend exists not only in the United States, but in other English-speaking nations as well. Such stunning figures show the benefit of international student populations for host economies but do not shed light on the experiences these students have within the host institutions. To better understand these experiences, a growing pool of research exists within the context of English-medium institutions of higher education in Canada, Australia, the U.K., and the U.S. This research tends to focus on how factors such as first language and culture relate to these students' academic and social experiences, particularly during the transitional period of the first year. However, while this research is informative, it often fails to address the diversity within the international student population.

One growing subgroup within the international student population is students who, rather than immediately transitioning to full-time academic study, first enter the university community through an Intensive English Program (IEP). In the 2012/2013 academic year, ESL became the 7th most popular field among U.S. international students, with a total of 39,990 students reporting "Intensive English" as their study focus (Institute of International Education, 2013). This was up from 26,059 students in the 2009/2010 academic year, an increase of 53% in just three years (Institute of International Education, 2011). Despite this rapid growth, IEP students have received relatively little research attention. While some research does explore

these students' experiences within IEPs, these students are grouped with the rest of the international student population and receive little individual attention once they are admitted to academic programs.

The purpose of the present study is to begin to build a better understanding of this unique student population. While many aspects of these students' experiences are likely similar to those of the international student population as a whole, it seems probable that transitioning from a U.S. IEP to a university is somewhat different than transitioning directly from the home country to a U.S. university and could lead to differing experiences. In addition, if part of the purpose of an IEP is to help prepare students linguistically and culturally for academic study, then developing a deeper understanding of this population's successes and challenges could help inform teaching and administrative decisions within IEPs.

In order to learn more about this population, the present study took place within the context of the University of Minnesota-Twin Cities (future references to the University of Minnesota or U of M refer only to the Twin Cities campus) and its IEP, which is part of the Minnesota English Language Program (MELP). Like U.S. institutions of higher education, the University of Minnesota has experienced dramatic growth in its international student population, particularly among undergraduate students. From 2009 to 2013, the number of international undergraduate students rose from 1,411 to 2,613, an increase of over 85% (International Student & Scholar Services, 2013). This growth extends to non-degree international students, including the IEP student population, which has grown by 45% from 286 to 416 over the same time period (ISSS, 2013). Considering this, the University of Minnesota is an appropriate context for developing a better understanding of former IEP students who later

become full-time undergraduate students.

Part of the Minnesota English Language Program's mission is as follows:

**Improve English language skills of students at the University of Minnesota,** helping them develop cultural understanding and the communication, critical thinking, and academic skills needed to be successful in academic, professional, and social settings.

If part of MELP's mission is to help students develop the skills necessary for academic and social success, then describing former IEP students' successes and challenges when they become full-time undergraduate students could help to assess whether that mission is being fulfilled and perhaps how to better fulfill it. In order to do this, it is necessary to consider the social and academic experiences of two key groups: former IEP students who become full-time undergraduate students and the larger international undergraduate population of which they are a part.

### **Review of Literature**

Before looking at the specific population of former MELP IEP students who become full-time undergraduate students, it is useful to look at the broader context in which these students exist. To do this, the following sections will briefly review the literature on the international student population in terms of two areas of research: 1) international students' academic experiences and 2) international students' social experiences. The term 'experiences' is used here, and later in the research questions, in order to capture multiple aspects of these students' lives, such as engagement, performance, and satisfaction both academically and socially. Following this discussion of the broader population, these same two themes will be considered within the University of Minnesota undergraduate international student population and then the target group within the international student population: IEP students who later

become full-time academic students.

### **Academic Experiences**

International students' academic experiences, including successes and challenges, have received considerable research attention. This is not surprising since academic study is the primary reason why international students attend host institutions, which means these institutions are accountable for students' academic success. Some studies look at international students' GPAs as a way to determine academic success, while others look at measures of academic engagement, such as interaction with faculty and other students. Of course these studies also examine what factors affect these experiences, and one of the most commonly studied factors is language proficiency.

The results on the relationship between proficiency and academic experience are somewhat mixed. In an in-depth analysis of research on international students' adjustment factors, Andrade (2006) found that the relationship between academic achievement and language proficiency was inconclusive (p. 142-143). Despite the inconclusive nature of this study it is commonly accepted that international students often face academic challenges due to language proficiency. Some studies examine international students' English proficiency using outside assessment from faculty or researchers. In one study focusing on academic writing at an Australian university, Ramburuth (2001) found that 76% of NNS vs. only 20% of Australian NS were judged to have English language difficulties based on a writing diagnostic. At another Australian university, Robertson, Line, Jones, and Thomas (2000) surveyed faculty to gain their perspectives on international students' academic experiences. In addition to other issues, faculty reported international students having problems with written language, spoken English,

and critical thinking abilities (p. 94). In a U.S. study, Andrade (2009) found that faculty members reported “alter[ing] their pedagogical methods to support NNES” in the classroom (p. 27), which suggests that faculty may not only perceive language difficulties among NNS but may actually alter their pedagogical practices in response to these difficulties.

Other studies look at students’ own assessments of how their language ability affects their academic experiences. At the University of Tennessee, Senyshyn, Warford, and Zhan (2000) surveyed 30 international undergraduate students and found that only 36% of respondents felt confident in their English reading and writing abilities (p.25). Senyshyn et al. were surprised by this because all participants obtained a minimum TOEFL score of 530, which should have indicated preparedness in these areas. In addition to surveying faculty, Robertson et al. (2000) also surveyed international students themselves and found their top three language-related concerns were a lack of confidence in verbal skills, difficulty writing essays, and comprehension difficulties (p. 93).

Apart from language, other factors, including engagement in effective educational practices and stress levels, have also been the subject of study. Importantly, not all findings reflect challenges. For instance, Zhao, Kuh, and Carini (2005) used data from National Survey of Student Engagement to examine to what extent international students engage in effective educational practices. Their data were from 317 U.S. four-year colleges and universities, and they found that, compared to their domestic counterparts, international students had higher levels of engagement with faculty and willingness to take on academic challenge (p. 223). However, this high level of engagement may be linked to stress. At an Australian university, Ramsay, Barker, and Jones (1999) found that first-year international students exhibited greater

degrees of stress and anxiety in their courses than their domestic counterparts and had to put in greater effort in order to succeed. Robertson et al. (2000) also found that, in addition to the language factors discussed above, international students cited feelings of isolation and stress associated with workload as factors that affected their academic experience (p. 93).

Other studies look at additional factors that affect international students' academic experiences, such as age, years of study, motivation, and use of test-taking strategies. It is beyond the scope of the present study to examine all of these factors, but they have been found, at least in certain contexts, to affect these students' academic achievement (e.g. Stoyhoff, 1997; Poyrazli, Arbona, Bullington, & Pisecco, 2001).

Despite the fact that much of this research focuses on challenges, it is important to keep in mind that this does not represent the entirety of international students' academic experiences. As Andrade (2006) concludes after an in-depth exploration of the topic, in spite of their academic challenges, international students are academically successful (p. 149). For example, despite finding that 20% of domestic students vs. 76% of NNS students were judged to need writing support, Ramburuth (2001) found no significant difference in "average academic results" between these two groups of students (p. 90). With this in mind, the research does begin to show a few common trends, predominantly that international students experience academic challenge due to language and other factors, but these challenges do not necessarily stop them from being academically engaged and successful.

### **Social Experiences**

Considering students' academic experiences is crucial for universities who want to be accountable for student success. However, more and more universities have realized that social



experiences are also an integral part of the larger picture of student success.

Like the research on academic experiences, much of the research on social experiences also looks at domestic and international students comparatively. Three well-known studies compare international and domestic students' social experiences with similar results. In a longitudinal study over a six-month period, Hechanova-Alampay, Beehr, Christiansen, and Van Horn (2002) discovered that international students experienced lower levels of social adjustment than their domestic counterparts, particularly upon entry and after three months. Rajapaksa and Dundes (2002) studied psychological adjustment and social adaptation and found that international students reported higher levels of loneliness, homesickness, and the feeling that they "had left part of themselves at home" (p. 15). Finally, Lopez and Poyrazli (2007) reported higher levels of homesickness and perceived discrimination among international students. In a non-comparative study, Robertson et al. (2000) found that international students reported difficulty in making friends with locals (p. 94). In terms of why these effects might exist, Trice (2007) suggests that cultural differences, such as those between collectivist and individualistic cultures, may cause international students to have somewhat different views about what friendship really means and how to establish friendships.

As with academic experiences, differences also exist in social experiences within the international student population. For instance, at a U.S. university Senyshyn et al. (2000) found that Canadians and Western Europeans had an easier time with adjustments than Asians and that males, overall, had fewer difficulties when compared with females. Interestingly, the researchers also found that students who were "satisfied, confident, and comfortable" were not necessarily students who reported fewer problems (p. 26). This suggests that, although

international students may face a variety of unique challenges, these challenges alone may not prevent them from feeling satisfied and comfortable within their host institutions. In addition, Al-Sharideh and Goe (1998) found interaction with co-cultural groups, meaning other international students from the same cultural background, to be a significant factor for social adaptation. This suggests that students who are part of larger cultural groups on campus may have some advantage socially over those who are from smaller groups.

### **Summary, Criticisms, and Connections to the University of Minnesota**

Although this research on social and academic experience provides valuable insights about international students, there are reasons to be cautious when considering the findings. First, studies that group all international students together may miss key differences, such as cultural background, language proficiency, and field of study. As Hellsten (2007) points out, grouping students in this way into “one homogenous category” is problematic because resulting generalizations can be used to defend “conservative and ill-formed assumptions about cultural distinction” (p. 80). In addition, studies that directly compare international students with domestic students in order to point out areas of weakness have been criticized as promoting a “deficit model.” In opposition to this approach, some scholars argue that differences should be emphasized more than deficiencies. Vandermensbrughe (2004) presents one example of this counter approach. Writing from an Australian context, she argues against the idea that international students lack critical thinking skills, saying that there is actually very little agreement about what ‘critical’ even means within Western academic discourse and that Australian universities should become more interculturally competent. Montgomery and McDowell (2008) argue against another criticism leveled against international students: that,

compared with domestic students, they are not active participants in their courses. To make their argument, they provide evidence that international students in the U.K. are in fact active participants in the student community, even if that community “may not include UK students” (p. 461).

Despite differences in interpretation, it is clear that some trends exist across studies in both areas, in particular academic challenges due to language proficiency and social challenges due to homesickness and cultural differences. Even though these trends reflect generalizations that may not apply to all international students, it is reasonable to predict they will be relevant at least a somewhat broad range of international students since the studies took place in a wide variety of contexts and included diverse groups of students.

This prediction appears to be largely valid for the undergraduate international student population at the University of Minnesota. Anderson, Isensee, Martin, Godfrey, and O’Brien (2012) conducted a multi-departmental study in 2010 to create a more informative picture of international student experiences at the University of Minnesota during the first semester. For this study, Anderson et al. (2012) surveyed 232 international undergraduate students and found similar challenges to those already discussed. For example, many students reported language difficulties, feelings of social isolation, and difficulties adapting to U.S. academic culture. With these challenges in mind, Anderson et al. made curricular and co-curricular suggestions for how the campus community could better assist international students in adjusting to the University without compromising academic standards.

However, Anderson et al. (2012) did not take differences within the international student population into account in the study. For example, there was no differentiation

between international students who had gone directly from their home countries into full-time academic coursework and those who first enrolled as full-time ESL students within the University's IEP. In addition, their data focused on first semester experiences, which leaves experiences after the first semester unexplored. Therefore, research from other institutions must be considered to begin to understand the IEP student population.

### **A Sub-Group of the International Student Population: IEP Students**

While no literature was found on the population of former IEP students who later became undergraduate students at the University of Minnesota, there is at least limited literature related to similar populations elsewhere. However, most of the existing literature focuses on these students' experiences within the IEP, such as use of learning strategies (e.g. Hong-Nam & Leavell, 2006), social networking (e.g. Reinhardt & Zander, 2011), and perceptions of NS vs. NNS teachers (e.g. Mahoob, 2004), but does not extend to their experiences after enrolling in full-time academic programs.

There is at least one in-depth study of students' academic and social experiences within a U.S. IEP, Ota's (2013) study on Chinese IEP student adjustment. Like much of the research on undergraduate international students, Ota aimed to identify factors that help or inhibit transitions among international students. The key difference was Ota's context, a large IEP at a midwestern university. Ota interviewed 8 Chinese IEP students and had three particularly noteworthy findings: 1) not all participants had the social capital to fully understand international travel and adjustment, 2) many participants found cultivating friendships with Americans to be challenging, and 3) academic culture shock due to the differing pedagogical practices was a common experience, with many feeling that the ESL courses were too easy. The first two

findings are similar to much of the research on international student populations, particularly with regard to social challenges, and the third finding relates specifically to English study. It should be noted, however, that Ota did not interview any students after their transition to full-time academic study, which leaves the experiences of this second transition unknown.

Another study gets somewhat closer to describing former IEP students' later experiences as academic students. In order to shed light on the efficacy of Canadian English Language Programs (ELPs), Fox, Cheng, and Zumbo (2013) administered surveys to 641 students at 36 ELPs at 26 Canadian universities to gather information about these students' academic and social experiences. There were differences among the language programs, but all tended to share the common purpose of "developing L2 learners' English language in order to support their successful transition to and engagement with academic work in university" (p. 2) and were either ESL or EAP (English for Academic Purposes) programs. Of the 641 participants, 80% (n=513) were international students (p. 9). They found that both EAP and ESL courses directly impacted academic engagement, which showed a significant and strong correlation, and social engagement, which was significant but somewhat weaker (p. 12). They also found that, of the three types of course outcomes evaluated (goal-directed practices, language use, and strategy use), only strategy use, which emphasized the development of academic skills and strategies, appeared to have a mediating impact on later academic engagement (p. 13). Fox et al. argue that this supports the idea that one of the primary purposes of ESL and EAP programs, rather than just facilitating language learning, is to "help students connect with the new academic cultures they are encountering" (p. 14-15). It is important to note, however, that although goal-directed practices did not appear to impact academic engagement, they did have a

positive impact on social engagement (p. 15). However, the authors also found that these positive impacts in academic and social engagement could be mediated by other factors, such as anxiety and stress (p. 19-20). Fox et al.'s findings are complex, but they begin to suggest that ESL instruction prior to full-time academic study may positively influence later academic and social experiences and that these influences may not be limited to language proficiency.

Ota (2013) and Fox et al. (2013) are both connected to previous work on international student populations participating in intensive English study. Ota is one of the only studies to date to really examine what experiences IEP students have adjusting to full-time English study in the U.S. While the study took place in a Canadian rather than a U.S. context, Fox et al. asks important questions about whether ELPs are effective and uses actual student experiences in universities to answer that question. However, neither study fully connects IEP experience to later academic experience. Therefore, more research is needed on the experiences of former IEP students who become full-time undergraduate students. Perhaps their experiences are highly similar to other international undergraduates, but it is impossible to know without further research.

In order to better understand this population and the larger population they are a part of, the following research questions were developed:

1. What successes and challenges do former Intensive English Program (IEP) students who become full-time undergraduate students experience in terms of the following areas:
  - a. Academic experience

- i. Includes academic performance and improvement in areas such as writing, reading, speaking, and higher-order thinking
    - ii. Includes academic engagement, such as challenging self, participating in class, interacting with faculty, and interacting with other students
    - iii. Includes academic disengagement, such as not completing course readings, missing class, and turning in assignments late
    - iv. Includes academic satisfaction
  - b. Social experience
    - i. Includes feelings of belonging and sense of respect within the campus community
    - ii. Includes time spent in social engagement outside of class
    - iii. Includes social satisfaction
- 2. How do these successes and challenges compare to those of the larger undergraduate international student population and the overall student population?

## **Methods**

### **Instrument**

The instrument used in this study was the University of Minnesota's Student Experience at a Research University (SERU) survey. This survey is used at many large research universities to measure student's academic and social experiences in a variety of ways. It was neither developed nor administered by the researcher. This survey was chosen for three primary reasons. First, the use of a standardized survey would allow for comparisons with both the

undergraduate student body as a whole and the larger international study body. Second, these descriptions and comparisons could take place over time, both from years before the present study and potentially in years following the present study. Finally, and perhaps most importantly, the SERU survey aligns well with the research question in that it aims to describe students' academic performance, engagement, and satisfaction in addition to a variety of other topics. In order to provide a better understanding of the SERU project and its present uses, a brief history is presented below.

**History and Development of the SERU.** The concept that eventually became Student Experience at a Research University (SERU) survey originated at the University of California-Berkeley in 1999 (Center for Studies in Higher Education (CSHE), 2013). John Aubrey Douglass, a Senior Research Fellow at the CSHE, saw a need for better information on student experiences in an era of growing enrollment and financial difficulties and proposed a comprehensive online survey to meet this need (CSHE, 2013). The survey was first implemented on a trial basis at UC-Santa Barbara in spring of 2002.

In 2008, the SERU Project expanded to include not only all UC campuses but other large research universities as well. Currently, the SERU survey is administered annually to all UC campuses, 14 other large U.S. research universities, and 9 international universities (CSHE, 2013). The SERU Mission is as follows:

To help improve the undergraduate experience and educational processes by generating new, longitudinal information on the undergraduate experience at research universities—via an innovative survey—to be used by administrators, policy makers, and scholars. (CSHE, 2013)



As the mission shows, the survey is meant to help improve undergraduate experience, and it has been used at many institutions to do so. As in the present study, SERU has often been used to study particular student demographics, such as transfer students, veterans, and women in science (CSHE, 2013).

The SERU survey was administered by the Office of Institutional Research (OIR) to all degree-seeking University of Minnesota undergraduate students in 2010, 2012, and 2013. Students were asked to complete a twenty-five minute online survey. Survey administration occurred over a four-month window during the spring semester of each of the three years. University of Minnesota students who did not meet the inclusion criteria at the time of the survey, such as graduate, professional, and non-degree students (including current IEP students), were not included. In addition, degree-seeking undergraduates younger than 18 years old were not included.

At the University of Minnesota, the SERU consists of a 20-page core module that is given to all students as well as additional wild card modules that are given to only some students. For the present study, only questions within the core module were considered. This was due to the small number of former IEP student participants, which would have resulted in even smaller numbers for the wild card modules. However, this was not problematic because the core module consists of questions that aim to provide understanding of students' social and academic experiences, which is the focus of the present study. A full copy of the core module can be found on the OIR website for University of Minnesota.

## **Participants**

To answer the first research question, a participant population containing former IEP

students who later became undergraduate students at the University of Minnesota was needed (called *IEP group*). To compare this target participant group to other U of M students and answer the second research question, two other participant groups were needed: U of M international undergraduate students (called *international group*) and the overall undergraduate U of M student body (called *overall group*). Through work with the Minnesota English Language Program and the Office of Institutional Research, survey data for all three participant groups were found. It is important to note that, for the 2013 data, all three groups overlapped. This means that the IEP group was part of the international group and the international group was part of the overall group. Each participant group is described in detail below.

**IEP Group.** To better understand the target subgroup of the international student population, former ESL students within MELP's IEP who later became undergraduate students at the University of Minnesota were needed as participants. However, there was no comprehensive list of these students when the study began. In order to identify these students, the researcher worked with MELP's director and administrative staff to create a comprehensive list of IDs of all former IEP students from summer 2007 through fall 2012. The list was sent to OIR to identify former IEP students who later enrolled at the university. Of these students, OIR then identified how many had taken part in the university's SERU survey in 2010, 2012, or 2013. 38 unique students were identified. Aggregate demographic information about the 38 participants (*IEP group*) is described below. The information was aggregated to protect the identities of the individual respondents. In cases where fewer than five participants shared the same demographic information, an 'other' category was created to further protect participant

identities. Demographic information was self-reported for 'Arrival in the US' and 'Country of Origin' and aggregated from student records for the other categories. Because of this, the data are sometimes incomplete.

**Arrival in the US.** Of the 38 participants, 1 student (2.6%) was born in the U.S., 1 (2.6%) arrived in 1997 or earlier, and 28 (73.7%) arrived between 2007 and 2013. The remaining 8 (21.1%) respondents did not report their arrival.

**Country of Origin.** 22 participants (58%) were from China, 6 (15.8%) were from Vietnam or Korea, 9 (23.7%) were from 'other,' and 1 (2.6%) participant's information was missing.

**Start of English Learning.** 1 participant (2.6%) reported English as his or her native language, 6 (15.8%) began learning English between ages 6 and 10, 12 (31.6%) began learning English between ages 11 and 15, and 10 (26.3%) began learning English after age 16. The remaining 9 respondents (23.7%) did not report when they began learning English.

**College Enrollment.** 9 students (23.7%) were enrolled in the College of Liberal Arts (CLA), 6 students (15.8%) were enrolled in the College of Science and Engineering (CSE), 10 students (26.3%) were enrolled in other colleges, and 13 (34.2%) were missing enrollment information.

**Year in School.** 6 participants (15.8%) had sophomore/junior status, 15 (39.5%) had senior status, 4 (10.5%) had 'other' status, and 13 participants' (34.2%) information was not available.

**International Group.** The international undergraduate student population was not the target population for this study, but their survey results were used for descriptive comparisons. Without these participants' data, it would have been impossible to place the IEP group within

the larger context of the U of M's international student population. These participants' data were obtained through OIR, which had already created an 'international student' data break within the 2013 SERU survey data. This group was defined by OIR as "includes all International (Non-resident alien) students." Because this definition does not include a language component, this means that these participants included a small percentage of NS international students. The researcher obtained permission from OIR to access only the 2013 SERU survey data for this group. This meant that, although the survey items were the same across the 3 years, the IEP group data came from the broader timeframe of 2010, 2012, and 2013 vs. only 2013 for the international group. See below for a more detailed summary of the 2013 SERU international student participant population. Note that less information was available for this group than the target IEP group.

***Country of Origin.*** Countries of origin were unavailable for this group. However, 100% reported that both their mother and father were born outside of the United States.

Demographic information on the international student population as a whole for 2013 is available from International Student and Scholar Services (2013), who report that of the 2,613 international undergraduates enrolled in 2013, 1,337 (51.2%) were from China, 461 (17.6%) were from Korea, 144 (5.5%) were from Malaysia, 102 (3.9%) were from Vietnam, 95 (3.6%) were from India, and the rest (18.1%) were from other countries outside of the United States.

While it is impossible to know how closely this aligns with the SERU participant demographics, it is reasonable to guess that the countries of origin are similar.

***Start of English Learning.*** 33 participants (5.4%) reported English as their native language, 78 (12.7%) began learning English when they were under five years old, 234 (38.2%)

began learning English between ages 11 and 15, and 84 (13.7%) began learning English after turning 16 years old.

***Definition of International Student.*** For the purpose of the present study, the Institute of International Education's (2014) definition of an international student as "anyone studying at an institution of higher education in The United States on a temporary visa that allows for academic coursework" will be used with two modifications. Because the present study and the bulk of the previous research focuses on international students for whom English is a second or other language, only non-native speakers (NNS) of English will be included within the definition. In addition, because much of the literature on international student experiences is from contexts outside of the United States, NNS international students in Canada, the U.K., Australia, and New Zealand will also be included within the definition. With these additions, the definition is as follows:

*An international student is any non-native English speaker studying at an institution of higher education in The United States or another English-speaking nation on a temporary visa that allows for academic coursework.*

For the international student participant group, *international student group* or simply *international group* will refer to the specific group of international students who took the SERU survey in 2013, meaning this term includes a small percentage (5.4%) of NS students.

**Overall group.** As with the international group, the overall group was not the target population for this study, but their survey results were used for descriptive comparisons. Aggregate 2013 SERU survey data for the overall University of Minnesota student population is available to the whole University of Minnesota community. The overall U of M student

population includes both international and domestic students and both native speakers and non-native speakers. According to the self-reported SERU data, 7.9% of the overall student population was from outside of the United States and 16.5% did not report English as their native language. This means that the overall student population 1) includes students who are also within the international group and 2) includes some NNS domestic students. While this group is not the target group for the present study, these data were used to better understand the international student population as part of the whole student population. However, it is important to keep in mind that the overall group includes the entire international group and the 2013 IEP group. Like the international group, only 2013 data were available for the overall group.

### **Data Collection**

The SERU survey was administered to all undergraduate students at the University of Minnesota in spring semesters of 2010, 2012, and 2013. In 2013, the researcher worked with MELP administration and OIR to obtain responses from the target population for all three years. This process involved MELP administrators creating a list of all former IEP student ID numbers and providing these ID numbers to OIR. Then, OIR identified matching survey participants for all three years. To simplify the process for OIR, the researcher requested participant data for only 65 relevant items rather than the entire survey. These targeted responses were provided to the researcher in the form of aggregated tables, not individual data, in order to protect participant identities. In addition, not all participants answered all questions, which resulted in a range in number of responses from 29 to 36 for each item.

As stated previously, OIR also provided the researcher with temporary access to

responses from the undergraduate international student population as a whole (*international group*) for the 2013 SERU survey. This provided a basis for comparing the target population of former IEP students to the larger population of international students to look for any meaningful similarities or differences. Like the target former IEP population, the number of international student responses varied from question to question, with a range of 625 to 721 for the target items.

The researcher also had public access to the aggregate 2013 SERU data for the overall University of Minnesota student body, whose responses ranged from 8,778 to 9,664 for the target items.

### **Data Analysis**

To analyze the data, the researcher grouped the 65 items into two categories based on the research question: 1) 40 academic experience items and 2) 15 social experience and sense of belonging items. Both categories contained a variety of question types, including student reports of their behaviors, satisfaction levels, and perceptions of the campus as a whole. All items used 6-point Likert-type scales. To capture different question types, several categories were also used in alignment with the research question. The academic experience categories created by the researcher were academic satisfaction, use of higher-order thinking skills, academic skills improvement, academic engagement with self and classmates, academic engagement with faculty, and academic disengagement. The satisfaction category ranged from *very dissatisfied* (1) to *very satisfied* (6). The higher-order thinking skills and academic engagement/disengagement categories were measured in terms of reported frequency of behavior, from *never* (1) to *very often* (6). The academic improvement items had two parts,

measuring skills “when [the participant] started” and then “current ability” on a scale from *very poor* (1) to *excellent* (6). Each category’s description and its corresponding SERU items can be seen in Table 1 (Academic Experience and Corresponding SERU Items).

Table 1  
*Academic Experience Categories and Corresponding SERU Items*

<p style="text-align: center;"><b>Categories</b>  <i>Created by researcher</i></p>	<p style="text-align: center;"><b>SERU Items</b>  <i>Taken verbatim from the SERU survey, except for parenthetical portions</i></p>
<p><u>Academic Satisfaction</u></p> <ul style="list-style-type: none"> <li>▪ Includes one item that assesses students’ overall academic satisfaction</li> </ul>	<ul style="list-style-type: none"> <li>▪ Overall academic experience</li> </ul>
<p><u>Academic Skills- Use of Higher-Order Thinking</u></p> <ul style="list-style-type: none"> <li>▪ Includes higher-order thinking skills such as analyzing, evaluating, synthesizing, and creating (based on Bloom’s Revised Taxonomy).</li> <li>▪ Some items report <i>required</i> academic skills. Other items reflect <i>used</i> academic skills. This differentiation comes from the SERU survey, which aims to report both on “required effort” and “own effort.” This distinction is captured with the words REQUIRED and USED in the column to the right.</li> <li>▪ All items in this category are reported in terms of frequency of behavior within the past academic year, ranging on a six-point scale from never to very often.</li> </ul>	<ul style="list-style-type: none"> <li>▪ Required to break down material into component parts or arguments into assumptions to see the basis for different outcomes and conclusions (REQUIRED)</li> <li>▪ Required to judge the value of information, ideas, actions, and conclusions based on the soundness of sources, methods, and reasoning (REQUIRED)</li> <li>▪ Required to create or generate new ideas, products or ways of understanding (REQUIRED)</li> <li>▪ Used facts and examples to support your viewpoint (USED)</li> <li>▪ Incorporated ideas or concepts from different courses when completing assignments (USED)</li> <li>▪ Examined how others gathered and interpreted data and assessed the soundness of their conclusions (USED)</li> <li>▪ Reconsidered your own position on a topic after assessing the arguments of others (USED)</li> </ul>
<p><u>Academic Skills- Improvement</u></p> <ul style="list-style-type: none"> <li>▪ Includes questions that asked students to assess ability level “when you started here” and “current ability level” on a six-point scale ranging from very poor to excellent. Thus, each bullet point had two corresponding items.</li> </ul>	<ul style="list-style-type: none"> <li>▪ Critical thinking skills</li> <li>▪ Ability to be clear and effective when writing</li> <li>▪ Read and comprehend academic material</li> <li>▪ Foreign language skills</li> <li>▪ Ability to speak clearly and effectively in English</li> <li>▪ Ability to understand international perspectives</li> <li>▪ Ability to prepare and make a presentation</li> </ul>
<p><u>Academic Engagement- Class, Studying, and Challenging Self</u></p>	<ul style="list-style-type: none"> <li>▪ Raised your standard for acceptable effort due to the high standards of a faculty member</li> </ul>



<ul style="list-style-type: none"> <li>▪ Includes frequency of behaviors that indicate academic engagement, again on a six-point scale ranging from never to very often.</li> <li>▪ Academic engagement in this category includes behaviors in class and outside of class but related to course content.</li> </ul>	<ul style="list-style-type: none"> <li>▪ Extensively revised a paper before submitting it to be graded</li> <li>▪ Worked on class projects or studied as a group with classmates outside of class</li> <li>▪ Helped a classmate better understand the course material when studying together</li> <li>▪ Contributed to a class discussion</li> <li>▪ Asked an insightful question in class</li> <li>▪ Found a course so interesting that you did more work than was required</li> <li>▪ Chosen challenging courses, when possible, even though you might lower your GPA by doing so</li> </ul>
<p><u>Academic Engagement- Interaction with Faculty</u></p> <ul style="list-style-type: none"> <li>▪ Includes frequency of behaviors that indicate engagement with faculty, again on a six-point scale ranging from never to very often.</li> </ul>	<ul style="list-style-type: none"> <li>▪ Had a class in which the professor knew or learned your name</li> <li>▪ Taken a small research-oriented seminar with faculty</li> <li>▪ Communicated with a faculty member by email or in person</li> <li>▪ Talked with an instructor outside of class about issues and concepts derived from a course</li> <li>▪ Interacted with faculty during lecture class sessions</li> <li>▪ Worked with a faculty member on an activity other than course work, such as student organization, campus committee, or cultural activity</li> </ul>
<p><u>Academic Disengagement</u></p> <ul style="list-style-type: none"> <li>▪ Includes frequency of behaviors that indicate academic disengagement, range on a six-point scale from never to very often.</li> </ul>	<ul style="list-style-type: none"> <li>▪ Turned in a course assignment late</li> <li>▪ Gone to class without completing the assigned reading</li> <li>▪ Gone to class unprepared</li> <li>▪ Skipped class</li> </ul>

As with the academic experience items, categories were also created for the social experience and sense of belonging items. These categories were overall experience, social engagement, freedom of expression, and feelings of respect. Like the academic experience items, satisfaction was measured from *very dissatisfied* (1) to *very satisfied* (6). Social engagement was measured in terms of time allocation, from *0 hours* (1) to *30+ hours* (8). The freedom of expression and feelings of respect items were measured in terms of agreement,

ranging from *strongly disagree* (1) to *strongly agree* (6). Table 2 (Social Experience and Sense of Belonging and Corresponding SERU Items) describes the categories and their corresponding SERU items in detail.

Table 2  
*Social Experience and Sense of Belonging Categories and Corresponding SERU Items*

<p style="text-align: center;"><b>Categories</b>  <i>Created by researcher</i></p>	<p style="text-align: center;"><b>SERU Items</b>  <i>Taken verbatim from the SERU survey, except for parenthetical portions</i></p>
<p><u>Overall Experience</u></p> <ul style="list-style-type: none"> <li>▪ Includes questions that ask students to holistically assess their social satisfaction and feelings of belonging on a six-point scale ranging from strongly disagree to strongly agree.</li> </ul>	<ul style="list-style-type: none"> <li>▪ I feel I belong at this institution.</li> <li>▪ Overall social experience.</li> </ul>
<p><u>Social Engagement</u></p> <ul style="list-style-type: none"> <li>▪ Includes one question that gauges students' improvement in social skills</li> <li>▪ Includes questions that ask students to estimate time spent in social activities as a way to gauge social engagement outside of class.</li> </ul>	<ul style="list-style-type: none"> <li>▪ Interpersonal (social) skills, when you started here vs. current ability level</li> <li>▪ Hours per week spent participating in clubs or organizations</li> <li>▪ Hours per week spent socializing with friends</li> </ul>
<p><u>Freedom of Expression</u></p> <ul style="list-style-type: none"> <li>▪ Includes questions that ask students to rate whether or not students feel free to express themselves in a variety of ways on a six-point scale from strongly disagree to strongly agree.</li> </ul>	<ul style="list-style-type: none"> <li>▪ I feel free to express my ... on campus               <ul style="list-style-type: none"> <li>○ Political beliefs</li> <li>○ Religious beliefs</li> </ul> </li> </ul>
<p><u>Feelings of Respect</u></p> <ul style="list-style-type: none"> <li>▪ Includes questions that ask students to rate whether or not students are accepted regardless of a variety of factors on a six-point scale from strongly disagree to strongly agree.</li> </ul>	<ul style="list-style-type: none"> <li>▪ Students are respected here regardless of:               <ul style="list-style-type: none"> <li>○ Economic or social class</li> <li>○ Gender</li> <li>○ Race or ethnicity</li> <li>○ Religious beliefs</li> <li>○ Political beliefs</li> <li>○ Sexual orientation</li> <li>○ Disabilities</li> </ul> </li> </ul>

Once these categories were in place, the IEP group's answers were analyzed in order to describe the academic and social experiences for each category and answer the first research question. Then, this analysis was compared descriptively with international group and the

overall group to look for possible similarities and differences. Statistical analyses of significance were not run for these group comparisons because of the differences in group size (n=29-36 for IEP group, n=625-728 for the international student group, n=8778-9664 for the overall student body) and the descriptive nature of the study.

### **Findings**

Major findings for each category are reported on here for the IEP group, the international group, and the overall group. Aggregate means are reported for all three groups 1) to maintain conciseness and 2) because individual student data were unavailable. Medians were also calculated for a sample of the items but not found to be markedly different for any of the groups and thus are not reported here. As mentioned previously, differences between the two groups are not discussed in terms of statistical significance. This is due to the small sample size of the IEP group, which would not yield a meaningful comparison and allowed for only aggregate data. Because the data were aggregated, it wasn't possible to control for factors such as country of origin, first language, college, or year in school.

#### **Part I: Academic Experiences**

**Overall satisfaction.** A single item captured overall academic satisfaction on a scale from *very dissatisfied* (1) to *very satisfied* (6). The IEP group reported satisfaction levels between *somewhat satisfied* (4) and *satisfied* (5), at 4.42 (see Table 3 for full details).

Table 3  
*Academic Satisfaction Items*

Satisfaction Item	IEP Group Mean Frequency*	International Group Mean Frequency*	Overall Group Frequency*
Please rate your level of satisfaction with the following aspect of your university education. –Overall academic experience	4.42 (n=32)	4.44 (n=646)	4.53 (n=8953)

\*1=very dissatisfied, 2=dissatisfied, 3=somewhat dissatisfied, 4=somewhat satisfied, 5=satisfied, 6=very satisfied

**Use of academic and higher-order thinking skills.** For the seven items that looked at *required* and *own use* of academic skills on a six-point scale from *never* (1) to *very often* (6), the mean responses for the IEP group were all between *somewhat often* (4) and *often* (5), with a category mean of 4.19, in the *somewhat often* range. For these items, there was a tendency for the IEP group to rate the frequency of utilizing these skills as lower than both the overall and the international group. The difference in category means between the IEP and international groups was .25. See Table 4 for the full findings.

Table 4

*Academic Skills Involving Higher-Order Thinking*

<b>Behavior</b>	<b>IEP Group Mean Frequency*</b>	<b>International Group Mean Frequency*</b>	<b>Overall Group Mean Frequency</b>
Required to break down material into component parts or arguments into assumptions to see the basis for different outcomes and conclusions (REQUIRED)	4.25 (n=32)	4.55 (n=634)	4.62 (n=8786)
Required to judge the value of information, ideas, actions, and conclusions based on the soundness of sources, methods, and reasoning (REQUIRED)	4.25 (n=32)	4.54 (n=635)	4.58 (n=4.58)
Required to create or generate new ideas, products or ways of understanding (REQUIRED)	4.00 (n=32)	4.35 (n=635)	4.33 (n=8785)
Used facts and examples to support your viewpoint (USED)	4.31 (n=32)	4.63 (n=629)	4.98 (n=8796)
Incorporated ideas or concepts from different courses when completing assignments (USED)	4.19 (n=32)	4.35 (n=629)	4.61 (n=8781)
Examined how others gathered and interpreted data and assessed the soundness of their conclusions (USED)	4.16 (n=32)	4.35 (n=627)	4.26 (n=8778)
Reconsidered your own position on a topic after assessing the arguments of others (USED)	4.19 (n=32)	4.33 (n=625)	4.23 (n=8778)
<b>Category means</b>	<b>4.19</b>	<b>4.44</b>	<b>4.52</b>

\*1=never, 2=rarely, 3=occasionally, 4=somewhat often, 5= often, 6=very often

**Academic improvement.** For the 14 items that looked at academic improvement on a six-point scale from *very poor* (1) to *excellent* (6), the IEP group reported improvement in all seven areas. The “when you started here” ability self-assessments tended to range from *fair* (3) to *good* (4), with a category mean of 3.30 (*fair* range), whereas the “current ability level” self-

assessments all exceeded *good* (4), with a category mean of 4.27 (*good* range).

The category mean “when you started here” ability for the international group was slightly higher than for the IEP group at 3.40 (*fair* range). However, the “current ability level” mean ratings were extremely close, at 4.26 and 4.27 respectively (*good* range). For the IEP group, the largest jump was in “ability to speak English clearly and effectively,” which moved from a mean of 2.97 to a mean of 4.34. Despite gains for both the IEP group and the international group, the overall group’s means for “when you started here” and “current ability level” were higher in all areas except “foreign language skills.” See Table 5 for the full findings.

Table 5  
*Academic Improvement Findings*

<b>Skill</b>	<b>Mean IEP Group Rating: “When you started”*</b>	<b>Mean IEP Group Rating: “Current ability”*</b>	<b>Mean International Group Rating: “When you started”*</b>	<b>Mean International Group Rating: “Current ability”*</b>	<b>Mean Overall Group “When you started”*</b>	<b>Mean Overall Group “Current ability”*</b>
Analytical and critical thinking skills	3.87 (n=31)	4.32 (n=28)	3.49 (n=654)	4.3 (n=647)	3.95 (n=9043)	4.80 (n=9017)
Ability to be clear and effective when writing	3.19 (n=31)	4.14 (n=29)	3.19 (n=649)	4.14 (n=637)	3.94 (n=9010)	4.67 (n=8974)
Read and comprehend academic material	3.16 (n=31)	4.17 (n=29)	3.33 (n=653)	4.29 (n=648)	3.89 (n=8980)	4.71 (n=8959)
Foreign language skills	3.32 (n=31)	4.34 (n=29)	3.46 (n=651)	4.22 (n=645)	3.11 (n=8979)	3.39 (n=8962)
Ability to speak clearly and effectively in English	2.97 (n=31)	4.34 (n=29)	3.36 (n=653)	4.27 (n=647)	4.53 (n=9007)	5.24 (n=8982)
Ability to understand international	3.53 (n=30)	4.38 (n=29)	3.63 (n=650)	4.35 (n=644)	3.77 (8980)	4.64 (n=8956)

perspectives						
Ability to prepare and make a presentation	3.06 (n=31)	4.17 (n=30)	3.33 (n=648)	4.26 (n=650)	3.95 (n=9019)	4.68 (n=9023)
<b>Category means</b>	<b>3.30</b>	<b>4.27</b>	<b>3.40</b>	<b>4.26</b>	<b>3.88</b>	<b>4.59</b>

\*1=very poor, 2=poor, 3=fair, 4=good, 5=very good, 6=excellent

**Academic engagement: class, studying, and challenging self.** Eight items examined participants' frequency of participating in academically engaged behaviors in and outside of class on a six-point scale from *never* (1) to *very often* (6). The mean frequency for items in this category was 3.54 for the IEP group (low end of *somewhat often*). The range was from 3.28 (*occasionally* range) for "asked an insightful question in class" to 3.83 (*somewhat often* range) for "extensively revised a paper."

The mean frequency for the international group was very similar to the IEP group at 3.58 (*somewhat often* range). The overall group's mean frequency was slightly higher at 3.69. There were some differences between the IEP group and the other two groups for particular items (see Table 6 for full details).

Table 6  
*Academic Engagement: Class, Studying, and Challenging Self*

<b>Behavior</b>	<b>IEP Group Mean Frequency*</b>	<b>International Group Mean Frequency*</b>	<b>Overall Group Mean Frequency*</b>
Raised your standard for acceptable effort due to the high standards of a faculty member	3.58 (n=36)	3.45 (n=721)	3.47 (n=9602)
Extensively revised a paper before submitting it to be graded	3.83 (n=36)	3.75 (n=724)	3.77 (n=9612)
Worked on class projects or studied as a group with classmates outside of class	3.61 (n=36)	3.85 (n=724)	3.85 (n=9619)

Helped a classmate better understand the course material when studying together	3.64 (n=36)	3.78 (n=724)	3.63 (n=9632)
Contributed to a class discussion	3.64 (n=36)	3.40 (n=723)	4.06 (n=9664)
Asked an insightful question in class	3.28 (n=36)	2.67 (n=725)	3.57 (n=9594)
Found a course so interesting that you did more work than was required	3.36 (n=36)	3.81 (n=717)	3.30 (n=9511)
Chosen challenging courses, when possible, even though you might lower your GPA by doing so	3.44 (n=36)	3.96 (n=727)	3.89 (n=9613)
<b>Category means</b>	<b>3.54</b>	<b>3.58</b>	<b>3.69</b>

\*1=never, 2=rarely, 3=occasionally, 4=somewhat often, 5= often, 6=very often

**Academic engagement: interaction with faculty.** Six items assessed student engagement with faculty, each measuring certain behaviors on a six-point scale ranging from *never* (1) to *very often* (6). The IEP group showed some level of interaction with faculty for all six items, ranging from 2.28 (*rarely* range) for “taken a small research-oriented seminar with faculty” to 3.69 (*somewhat often* range) for “had a class in which the professor knew or learned your name” with a mean frequency of 3.02 (*occasionally* range). Four of the six items were rated 3 or lower for the IEP group, which indicates that the behavior happened only *occasionally* or less on average.

Frequency ratings were slightly higher in the international group than the IEP group for all six items. The international group mean was 3.40 (high end of *occasionally* range), which was .38 higher than the IEP group mean. The overall group’s mean fell between the IEP group and the international student group at 3.19 (see Table 5 for full findings).

Table 7  
*Academic Engagement: Interaction with Faculty*



<b>Behavior</b>	<b>IEP Group Mean Frequency*</b>	<b>International Group Mean Frequency*</b>	<b>Overall Group Mean Frequency*</b>
Had a class in which the professor knew or learned your name	3.69 (n=36)	4.12 (n=728)	4.33 (n=9643)
Taken a small research-oriented seminar with faculty	2.28 (n=36)	2.45 (n=725)	1.67 (n=9603)
Communicated with a faculty member by email or in person	3.67 (n=36)	4.23 (n=720)	4.45 (n=9569)
Talked with an instructor outside of class about issues and concepts derived from a course	2.94 (n=36)	3.54 (n=722)	3.17 (n=9589)
Interacted with faculty during lecture class sessions	3.00 (n=36)	3.40 (n=723)	3.49 (n=9580)
Worked with a faculty member on an activity other than course work, such as student organization, campus committee, or cultural activity	2.52 (n=36)	2.67 (n=725)	2.04 (n=9596)
<b>Total means</b>	<b>3.02</b>	<b>3.40</b>	<b>3.19</b>

\*1=never, 2=rarely, 3=occasionally, 4=somewhat often, 5= often, 6=very often

**Academic disengagement.** For the four items that assessed frequency of disengaged behaviors on a six-point scale ranging from *never* (1) to *very often* (6), the IEP group reported a tendency to avoid such behaviors. All four behaviors ranked as less frequent than *occasionally* (3), with “turned in a course assignment late” the lowest at 1.78 (*rarely* range) and “gone to class unprepared” the highest at 2.78 (*occasionally* range). The mean frequency level for the group was 2.40 (*rarely* range).

The international group reported higher frequencies of disengaged behaviors than the IEP group for all four items with a category mean of 2.60 (*occasionally* range). The overall student body also had a higher mean at 2.57 (*occasionally* range). See Table 8 for the full findings.

Table 8  
*Academic Disengagement*

<b>Behavior</b>	<b>IEP Group Mean Frequency*</b>	<b>International Group Mean Frequency*</b>	<b>Overall Group Mean Frequency*</b>
Turned in a course assignment late	1.78 (n=36)	1.93 (n=728)	1.75 (n=9647)
Gone to class without completing the assigned reading	2.69 (n=36)	2.95 (n=726)	3.31 (n=9571)
Gone to class unprepared	2.78 (n=36)	2.98 (n=723)	2.78 (n=9631)
Skipped class	2.36 (n=36)	2.53 (n=724)	2.45 (n=9592)
<b>Total Means</b>	<b>2.40</b>	<b>2.60</b>	<b>2.57</b>

\*1=never, 2=rarely, 3=occasionally, 4=somewhat often, 5= often, 6=very often

## Part II: Social Experiences

**Overall social experience.** Two items addressed participants' overall social experiences.

For the item that addressed feelings of belonging, the IEP group reported agreement levels between *somewhat agree* (4) and *agree* (5), with a group mean of 4.35. The other item addressed overall satisfaction with social experience, and the IEP group reported mean levels of satisfaction within the *somewhat satisfied* (4) range at 4.09.

For both questions the international group's ratings were slightly higher, at 4.47 and 4.18, although the differences were not large at .12 and .08. The overall group's mean ratings were slightly higher than either the IEP group or the international group at 4.73 (*agree* range) and 4.47 (*somewhat satisfied* range). See Table 9 for full details.

Table 9  
*Overall Social Experience*

<b>Statement</b>	<b>IEP Group Mean Rating</b>	<b>International Group Mean Rating</b>	<b>Overall Group Mean Rating</b>
I feel I belong at this institution.*	4.35 (n=31)	4.47 (n=646)	4.73 (n=8972)
Level of satisfaction with	4.09 (n=32)	4.18 (n=646)	4.47 (n=8936)

overall social experience.**			
<b>Total Means</b>	<b>4.22</b>	<b>4.33</b>	<b>4.6</b>

\*1=strongly disagree, 2=disagree, 3=somewhat disagree, 4=somewhat agree, 5=agree, 6=strongly agree

\*\*1=very dissatisfied, 2=dissatisfied, 3=somewhat dissatisfied, 4=somewhat satisfied, 5=satisfied, 6=very satisfied

**Social engagement.** Three items addressed students’ overall social engagement and social ability. The mean IEP group rating for social ability “when you started” was 3.71, and the “current ability” rating was 4.21, for a mean increase of .50 (both in *good* range). As for time spent in social activities, the IEP group’s mean hours ratings were 1.82 (clubs or organizations) and 2.88 (socializing with friends), which put them slightly below the *1-5 hours* and *6-10 hours* categories respectively.

The international group’s ratings were similar to the IEP group for improvement in social skills, moving from 3.58 to 4.19 (both in *good* range). The overall group’s ratings for this were higher on average, moving from 4.15 to 4.72 (*good* range to *very good* range). For hours spent in clubs or organizations and socializing with friends, the international group reported slightly higher means than the IEP group at 2.63 (*6-10 hours* range). The difference was particularly marked for the clubs and organizations item, which was 1.82 (IEP) vs. 2.16 (international) on average, although both were within the *1-5 hours* range. The overall group’s mean for the two items fell between the IEP group and the international group at 2.49 (high end of *1-5 hours* range). See Table 10 and Table 11 for full details.

Table 10  
*Social Skills*

Skill	IEP group Ratings “When	IEP group Ratings	International Student Ratings	International Group Ratings	Overall Group Ratings	Overall Group Ratings
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	you started"*	"Current ability"*	"When you started"*	"Current ability"*	"When you started"*	"Current ability"*
Interpersonal (social) skills, when you started here vs. current ability level	3.71 (n=31)	4.21 (n=29)	3.58 (n=649)	4.19 (n=649)	4.15 (n=9024)	4.72 (n=9028)

\*1=very poor, 2=poor, 3=fair, 4=good, 5=very good, 6=excellent

Table 11  
*Hours Spent in Social Engagement*

Activity	IEP Group Mean Hours Per Week*	International Group Mean Hours Per Week*	Overall Group Mean Hours Per Week*
Hours per week spent participating in clubs or organizations	1.82 (n=34)	2.16 (n=681)	1.86 (n=9337)
Hours per week spent socializing with friends	2.88 (n=34)	3.09 (n=685)	3.11 (n=9329)
<b>Total means</b>	<b>2.35</b>	<b>2.63</b>	<b>2.49</b>

\*1=0 hours, 2=1-5 hours, 3=6-10 hours, 4=11-15 hours, 5=16-20 hours, 6=21-25 hours, 7=26-30 hours, 8=30+ hours

**Freedom of expression.** Two items addressed participants' perceptions of their ability to express themselves freely on campus. The IEP group's mean agreement for both items, related to political and religious beliefs, fell between *somewhat agree* (4) and *agree* (5). The international group and the overall group also fell within this range. However, for freedom to express political beliefs, the IEP group agreement (4.65, *agree* range) was slightly higher than both the international group (4.42, *somewhat agree* range) and the overall group (4.50, low end of *agree* range). For freedom to express religious beliefs, the IEP group's agreement was slightly lower than both other groups, at 4.41 (*somewhat agree* range) for the IEP group vs. 4.55

(agree *range*) for the international group vs. 4.57 (*agree range*) for the overall group. See Table 12 for full results.

Table 12  
*Freedom of Expression*

<b>Statement</b>	<b>IEP Group Agreement*</b>	<b>International Group Agreement*</b>	<b>Overall Group Agreement*</b>
I feel free to express my political beliefs on campus.	4.65 (n=32)	4.42 (n=646)	4.50 (n=8958)
I feel free to express my religious beliefs on campus.	4.41 (n=32)	4.55 (n=646)	4.57 (n=8945)
<b>Category Means</b>	<b>4.53</b>	<b>4.49</b>	<b>4.54</b>

\*1=strongly disagree, 2=disagree, 3=somewhat disagree, 4=somewhat agree, 5=agree, 6=strongly agree

**Feelings of respect.** Seven items addressed whether students felt respected on campus regardless of a variety of factors. The items asked students how much they agreed that “students are respected here regardless of their...” on a six-point scale from *strongly disagree* (1) to *strongly agree* (6). Overall, the IEP group reported levels near *agree* (5) for all 7 items, with a mean of 4.91 across the items. The lowest levels of respect were reported for “race or ethnicity,” “sexual orientation,” or “disabilities,” which all had means of 4.81 (*agree range*). The highest level of respect was reported for “gender” at 5.19 (*agree range*).

The international group and the overall group also had means near the *agree* (5) mark, at 4.80 and 4.76 respectively. The lowest level of agreement for the international group related to respect regardless of “race or ethnicity,” which had a mean rating of 4.55 (low end of *agree range*). The highest level of agreement was reported for respect regardless of “gender,” which had a mean rating of 4.96 (*agree range*). For the overall group, “political beliefs” was the lowest

rated at 4.49 (high end of *somewhat agree* range) and the highest was “gender” at 4.95 (*agree* range). While the three groups all had different lowest rated categories, they all had the same highest rated category with “gender.” See Table 13 for full results.

Table 13  
*Feelings of Respect*

<b>Students are respected here regardless of their...</b>	<b>IEP Group Mean Rating*</b>	<b>International Group Mean Rating*</b>	<b>Overall Group Mean Rating*</b>
Economic or social class	4.94 (n=31)	4.75 (n=644)	4.72 (n=8949)
Gender	5.19 (n=31)	4.96 (n=641)	4.95 (n=8936)
Race or ethnicity	4.81 (n=31)	4.55 (n=644)	4.72 (n=8933)
Religious beliefs	4.90 (n=31)	4.78 (n=640)	4.67 (n=8926)
Political beliefs	4.94 (n=31)	4.78 (n=638)	4.49 (n=8933)
Sexual orientation	4.81 (n=31)	4.81 (n=641)	4.88 (n=8930)
Disabilities	4.81 (n=31)	5.00 (n=642)	4.89 (n=8935)
<b>Category means</b>	<b>4.91</b>	<b>4.80</b>	<b>4.76</b>

\*1=strongly disagree, 2=disagree, 3=somewhat disagree, 4=somewhat agree, 5=agree, 6=strongly agree

### Discussion

As the literature suggests about international students in general, the IEP group appears to be academically engaged overall. These participants reported use of and improvement in academic skills between “when [they] started” at the University of Minnesota and their “current ability” levels. The single item that addressed overall academic satisfaction shows that the former IEP students, on average, had levels of satisfaction between *somewhat satisfied* (4) and *satisfied* (5) at 4.42. They also reported feeling at least somewhat respected, socially engaged, and socially satisfied on campus on average. This picture is quite positive overall, but it does not describe these students in great depth. To get a better sense of what the IEP group’s academic and social experiences truly are, it is necessary to look more closely at the individual items and categories.

In order to most concisely describe these experiences, a mixed reporting structure is used. To address the first research question in a more isolated, descriptive manner, the IEP group is first described individually for each category. After this, comparisons are drawn, when relevant, between the IEP group and the other two groups. These comparisons address the second research question and, ultimately, aim to create a more thorough description of the target population: former IEP students at the University of Minnesota. As was previously mentioned, these comparisons will not be made in terms of statistical significance. Rather, comparisons will be descriptive and used to better understand the specific characteristics of this target population.

### **Academic Experience**

**Academic satisfaction.** The IEP group's mean satisfaction rating for "overall academic experience" was 4.42, which falls at the high end of the *somewhat satisfied* range. This indicates that, on average, former IEP students are at least somewhat satisfied with their academic lives at the University of Minnesota. The international group had a very similar mean at 4.44, which suggests that former IEP students experience satisfaction levels similar to those of the international population as a whole. The overall student body's mean was 4.53, which, while in the low range for the *satisfied* (5) rating, is not very different from the other two groups. This suggests that overall academic satisfaction is not a great area of difference among the groups.

**Academic skills involving higher-order thinking.** In terms of *required* and *own use* of higher-order thinking skills (see Table 4), the IEP group reported using these skills at a level at the high end of the *somewhat often* (4) range. This suggests that, while *somewhat often* leaves

room for higher frequency, former IEP students use higher-order thinking skills both when required and otherwise to at least some extent. This may counter the criticism that international students have weak critical thinking skills (e.g. Robertson et al. 2000) or are not engaged in critical thinking, supporting Vandermensbrugge's (2004) criticism of this approach.

When compared with the other two groups, however, some possible areas of difference emerge. The category mean for the IEP group was 4.19 (*somewhat often* range), which, although it indicates use of these skills, is lower than that of the international group (4.44, high end of *somewhat often* range) and the overall group (4.52, low end of *often* range). In fact, all seven items individually were rated lower for the IEP group. The three *required* items in particular showed higher means for both the international group and the overall group (4.17 for IEP vs. 4.48 and 4.51). This is surprising because these items assess what students are *required* to do for their coursework, not what they choose to do. Thus this would not necessarily be an expected area of difference since there is no obvious reason for predicting that former IEP students would experience different skills requirements. This is especially surprising since the other two groups are so similar in these *required* areas (4.48 international and 4.51 overall). This suggests the possibility that the IEP group was less likely to notice that critical thinking skills were required.

Adding to the differences, all four *own use* skills were also lower for the IEP group. This is despite the international group showing more nuanced, with slightly higher ratings than the overall group for two items and lower ratings for two items. The higher items for the international group were "incorporated ideas and concepts from different courses..." and "examined how others gathered and interpreted data." This suggests that, while international



students in general may indicate higher-order thinking skill use similar to or even higher than the overall student body, this may not be true for former IEP students. Taken together with the *required use* items, this suggests that the former IEP students may exhibit differences in how they perceive their use of higher-order thinking skills, or perhaps even how they actually use them, whether required or not.

**Academic improvement.** Moving from examining frequency of skills to skill levels, the IEP group reported improvement from “when [they] started” to “current ability” for all fourteen items that aimed to capture academic improvement. The group’s lowest “started” rating as well as its largest area of growth came for the “ability to speak clearly and effectively in English,” which started in the *fair* range at 2.97 and increased to 4.34, at the high end of the *good* range. This indicates that, while the former IEP students started academic study with self-assessments near *fair* (3) for speaking, this did not necessarily prevent them from later perceiving their abilities as greater than *good* (4). In fact, while this skill has the lowest rating for “started,” it actually has the second highest for “current ability,” suggesting particularly large perception of growth in this area. This general trend of growth was apparent for the other items as well; the category mean moved from of 3.30, in the *fair* range, to 4.27, in the *good* range, for the seven two-part items, a mean growth of nearly one point. Overall, these items show that former IEP students, at least in their perceptions, believe they have experienced overall academic growth at the University of Minnesota. This supports Andrade (2009), who found that, despite language challenges, international students reported that their language skills progressed while at university.

The international and overall groups also reported growth in all seven areas, although

there are some interesting areas of possible difference. The most marked difference is that, compared to the overall group, both the international group and the IEP group reported lower abilities for “started” and “current” in six of seven areas. This suggests that the overall group, on average, perceived their abilities to be higher both at the beginning and currently. Looking at mean growth across the seven two-part items, the international group was quite similar to the IEP group, moving .86 from 3.40 (*fair*) to 4.26 (*good*), whereas the overall group moved .71 from 3.88 (*good*) to 4.59 (*very good*). This shows that, while the overall group’s mean is higher at 4.59 (*very good* range), they reported less overall than the other two groups. In the case of the IEP group, this could be in part because of their earlier arrival at the U of M through its IEP.

The only skill that the overall group reported as lower than the international and IEP groups was “foreign language skills.” Not only did the overall group report starting lower, at 3.11, they also reported little growth, moving only .28 to 3.39. Both 3.11 and 3.39 fall within the *fair* range. The IEP and international groups, on the other hand, moved from 3.32 to 4.34 (*fair* to *good* for a difference of 1.02) and 3.46 to 4.22 (*fair* to *good* for a difference of .76). Of course this is not surprising since international students (apart from the small NS portion) likely perceive English as a foreign language, meaning they have much more opportunity for language development than domestic students, who make up the majority of the overall student population.

Another area where international student skills might be expected to be higher, however, was not found in this study. This was for the item “ability to understand international perspectives,” for which the overall group moved from 3.77 (*good*) to 4.65 (*very good*), while the IEP group moved from 3.53 (low end of *good*) to 4.38 (high end of *good*) and the

international group moved from 3.63 (low end of *good*) to 4.35 (high end of *good*). This is surprising because, just as international students are likely to use foreign language skills more frequently, they seemingly would also be more likely to encounter a variety of international perspectives simply by living in another culture. This difference, while impossible to fully explain, suggests the possibility that international students, including former IEP students, may conceptualize their own skills differently than the overall student body, perhaps due to cultural or individual differences. This could possibly be because the overall group experienced fewer opportunities to understand international perspectives, perhaps making them less realistic in expressing their ability to do so and overinflating their responses as a result.

Despite this, it remains clear the IEP group perceived themselves, on average, as having experienced academic growth while at the University of Minnesota. In fact, their reported growth was larger, on average, than any of the other groups, with a mean reported improvement of .97 from “when [they] started” to “current ability.” The international group’s mean reported growth was similar to the IEP group growth at .93, whereas the overall group’s mean reported growth was lower at .73. This suggests that, while international students (including former IEP students) may start out with lower (or perceived lower) abilities, they may make larger gains.

**Academic engagement.** Looking at the items that address behaviors related to academic engagement rather than academic skills, former IEP students appear to be engaged in their academic coursework overall. For all seven items related to academic engagement in and outside of class, the IEP group’s mean frequency levels were between *occasionally* (3) and *somewhat often* (4), with a category mean of 3.54 (the low end of the *somewhat often* range).

This indicates that, while these engaged behaviors still could have higher frequencies, the group as a whole appears to participate in academically engaged behaviors. This trend extends to academically engaged behaviors that are directly related to faculty. While these behaviors had somewhat lower means overall, falling closer to the *occasionally* (3) level, no single behavior was reported as less frequent than *rarely* (2) on average.

Looking at the other two groups' perceptions of academically engaged behaviors in and outside of class, some differences and similarities emerge. For two behaviors related to participating in class, "asked an insightful question in class" and "contributed to a class discussion," the IEP group's mean ratings were higher than the international group's as a whole at 3.28 (high range of *occasionally*) vs. 2.67 (*occasionally* range) and 3.64 (low range of *somewhat often*) vs. 3.40 (high range of *occasionally*). Both international groups, however, reported lower frequencies than the overall group, which had means of 3.57 and 4.06, both within the *somewhat often* range. Nonetheless, this suggests that the former IEP students may be slightly more likely to participate in class than the international student population as a whole. This could, perhaps to a small extent, counter the complaint that international students participate less frequently in class, or at least show the problematic nature of forming assumptions about international students as a whole. This difference could perhaps come from the IEP group's experiences in the IEP, where courses are typically small and student-centered and where participation is often part of the grade.

The reverse situation, however, is true for the two items that relate to challenging oneself academically: "found a course so interesting that you did more work than was required" and "chosen challenging courses, when possible, even though you might lower your

GPA by doing so.” The international group rated these items at 3.81 and 3.96 respectively, both within the *somewhat often* range, and higher than the overall student group in both cases, which had means of 3.30 (*occasionally*) and 3.89 (*somewhat often*). The IEP group did not report these higher frequencies for these two items when compared to either the international or the overall group, which had means of 3.36 and 3.44 (both within the *occasionally* range). Looking at these differences between the groups together, it demonstrates that, while category means for engagement are not very different between the IEP and overall group (3.54 vs. 3.58, both at the low end of *somewhat often*), there are larger differences when particular items are considered. This suggests that, while it may be accurate to say that both groups report engagement overall, the manifestation of this engagement could be slightly different for each group. This is particularly important when considering which skills are more or less visible to instructors or others. For instance, the most frequent perceived behavior for the overall student group was “contributed to a class discussion,” which was rated 4.06. This is a more visible behavior than something like choosing more challenging courses, but does not necessarily indicate higher engagement when considered alone.

This variation within engaged behaviors extends to the items related specifically to engagement with faculty. Looking at these items in particular, both the IEP group and international group reported higher behavior frequencies than the overall group for two items related to working closely with faculty: “taken a small research-oriented seminar with faculty” (2.28 IEP vs. 2.45 international vs. 1.67 overall) and “worked with a faculty member on an activity other than course work...” (2.52 vs. 2.67 vs. 2.04). However, for items that involved more general contact with faculty, such as “had a class in which the professor knew or learned

your name,” “communicated with a faculty member by email or in person,” and “interacted with faculty during lecture class sessions,” the overall student group had the highest ratings (see to Table 7 for full details). This suggests that, as with the other engagement items, international students may demonstrate engagement in ways slightly different from the overall student body. Nonetheless, they appear to be academically engaged. This may be slightly less true for the IEP group, which reported slightly lower frequencies for these behaviors, but still appears to be true overall.

**Academic disengagement.** Although the academically engaged behaviors provided somewhat mixed results, the IEP group consistently reported low frequencies for academically disengaged behaviors for the category as a whole. The category mean was 2.40 (high end of *rarely*). The group was particularly unlikely to have “turned in a course assignment late,” which had a mean of 1.78 (*rarely*), while somewhat more likely to have “gone to class unprepared,” which had a mean of 2.69 (low end of *occasionally*). This indicates that, overall, former IEP students avoid (or at least perceive themselves as avoiding) academically negative behaviors.

The IEP group’s frequency ratings for these four items were lower than those of the other two groups on average for the category, at 2.40 (high end of *rarely*) vs. 2.60 (low end of *occasionally*) for the international group and 2.57 (low end of *occasionally*) for the overall group. This was particularly true for going to class “without completing the assigned reading,” which had an IEP mean of 2.69, vs. 2.95 and 3.31 for the other two groups. This could, in theory, be tied to the IEP group’s slightly lower assessment of academic reading ability in the academic skills improvement item (see Table 5). It seems logical that, if a student perceives his or her reading ability as low, he or she might compensate by taking the time to read outside of

class rather than relying on the ability to skim quickly or use some other makeup strategy during class. Taking this further, the tendency to avoid academically harmful behaviors could be tied to that many skills-related items were slightly lower for the IEP group than the other two groups, possibly causing them to compensate by avoiding these negative behaviors.

### **Social Experience**

**Overall social experience.** Based on the overall social experience items, IEP students appear, on average, to be *somewhat satisfied* (4) with their social experience and *somewhat agree* (4) that they belong at the University of Minnesota, with a category mean of 4.22. While this does indicate at least some level of satisfaction, it leaves room for improvement. Compared with the other two groups, the IEP group is slightly below the international group (4.22 vs. 4.33) and further below the overall student group (4.22 vs. 4.60 *agree*).

**Social skills and social engagement.** The IEP group reported social growth from “when [they] started” to “current ability,” though not as much growth as for the previously discussed academic skills. The overall increase was from 3.71 to 4.21 (both within the *good* range) for a mean growth of .50. For hours spent in social engagement, the IEP group reported spending time both in “clubs and organizations” and “socializing with friends,” although time with friends was reported as more frequent. This suggests that, as a group, former IEP students experienced (or at least perceived to experience) social growth, perhaps through both academic settings and their non-academic experiences in clubs and with friends.

Both other groups also reported experiencing growth in social skills and at slightly greater levels, with a difference of .61 for the international group and a difference of .57 for the overall group. These two groups also had slightly higher means for time spent in “clubs or

organizations” and “socializing with friends,” at 2.63 (6-10 hours range) and 2.49 (high end of 1-5 hours range) respectively vs. 2.35 (1-5 hours range) for the IEP group. This suggests that the IEP group may be slightly less socially engaged than the other groups, particularly the other international student group. However, it is unclear whether or not this might affect their levels of social satisfaction and feelings of belonging.

**Campus climate for diversity.** Campus climate for diversity, a term used as the SERU category containing these items, encompasses students’ perceptions of respect and freedom of expression on campus. For the IEP group, the category mean for freedom of expression fell at the low end of *agree* at 4.53. This indicates that, as a whole, former IEP students likely feel free to express themselves. In terms of respect, they also *agree* (4.91 category mean) with statements that “students are respected here regardless of their...” for a variety of factors. Taken together, these items show that, overall, former IEP students likely feel comfortable on campus regardless of any particular characteristics or beliefs they may have.

The international and overall groups also reported feelings of respect and freedom of expression. In terms of freedom of expression in particular, all three groups were quite close, with category means falling in the middle of *somewhat agree* and *agree*, at 4.53 for IEP, 4.49 for international, and 4.54 for overall. Feelings of respect, however, had more differences. The IEP group’s category mean was higher than the other two groups, at 4.91 vs. 4.80 international and 4.76 overall (all within the *agree* range). Looking at the items individually, the IEP group’s agreement ratings were higher than both other groups for 5 out of the 7 items. It was particularly interesting that the IEP group’s rating for “race and ethnicity” was the highest of the three, at 4.81 vs. 4.55 international and 4.72 overall. This suggests that, although the IEP



group's students come from different cultural backgrounds, they do not necessarily perceive a lack of respect based on this factor. In fact, they may even feel more respected than other groups on campus. Perhaps this is because, due to their previous experience in IEP classrooms, these students already have experience interacting with diverse student populations in small, supportive classroom settings. Such experiences could conceivably lead to feelings that students are respected regardless of a variety of diverse factors.

### **Overall Group Trends**

Taking the discussion categories as a whole, some possible trends emerge within the target population of former IEP students. Overall, it does appear that the IEP group has many things in common with the international group and even the overall group in terms of academic and social experiences. However, there are some possible differences as well, at least in students' perceptions of their experiences. In order to more fully examine these trends, the international group will first be examined more holistically in comparison with the overall group. Then, these trends will be used as a baseline for better understanding the IEP group.

***International vs. overall group.*** Overall, there appear to be many similarities between the international students, of which the IEP group is a part, and the student body as a whole, according to their reports. Both groups are academically satisfied overall. Both groups experienced academic growth in a variety of skills. Both groups are relatively unlikely to participate in academically disengaged behavior. However, some key differences emerged as well. Overall, international students rated a variety of academic skills both "when [they] started" and "current ability" as lower than the overall student body. The only exception was "foreign language skills." International students also reported slightly lower frequency levels of

behaviors that show academic engagement in the classroom, such as participating in discussion and interacting with faculty in class. Outside of class, though, they showed slightly higher levels of engagement, such as more frequent engagement with faculty in ways unrelated to course material, more frequent participation in study groups outside of class, and more frequent completion of work beyond what was required for a course. These differences and similarities are interesting even taken alone, but it is particularly important for the present study to address how these and other trends relate to the IEP group in more detail. This is because, if these two groups appeared to have no marked differences, then lumping former IEP students with all other international students would be sufficient for understanding both populations. In order to show that this is not the case, the following discussion will emphasize differences between these two groups in particular.

***Summary of academic trends.*** In terms of *required* higher-order thinking skills, the international student group and the overall student group were very similar. The IEP group, however, ranked these three items lower by .30, .29, and .35 when compared with the international student group. It is difficult to know what might account for this difference because it is unknown whether this is an actual (IEP students really were not required to use these skills as often) or perceived difference (IEP students perceived the frequency terms differently but actual frequency was the same). This difference persists for the *own use* academic skills items as well. On average, the IEP group reported lower frequencies than the international group for all four skills (refer back to Table 4). Whereas the international student group actually rated themselves higher than the overall group in two of these areas (“examined how others gathered and interpreted data...” and “reconsidered your own position...”), this was

not true for the IEP group. Again, it is impossible to know whether the IEP group actually used these skills less frequently, but it is striking that the average frequencies were lower for all items. This could suggest that IEP students actually are less likely to use (or think they have used) higher-order thinking skills, whether required to or not. If this difference in fact exists, this could be a key area of focus for IEP instructors as they prepare their students for academic study.

In terms of improvement in academic skills, however, the IEP group was quite similar to the international group as a whole. Like the international group, the IEP group reported lower skill levels than the overall group both “when [they] started” and “current ability” for all skills except “foreign language skills.” Both groups also experienced larger amounts of growth, on average, than the overall student group across the seven skills, particularly for language-related skills such as reading, writing, and speaking in English. This could support Andrade (2009), who found that, although many NNS international students cite English language proficiency as an academic challenge, they nonetheless report feelings that their language skills have progressed at university (p. 22).

Another notable difference was that the IEP group reported their “analytical and critical thinking skills” as higher than the international student group “when [they] started,” 3.87 (low end of *good*) vs. 3.49 (high end of *fair*). This is surprising since the IEP group reported their actual use (both *required* and *own use*) of these skills as lower on average. Another key difference is the “when you started” ranking for “ability to speak clearly and effectively in English.” Whereas the international group ranked this at 3.36 (high end of *fair*) on average, the IEP group ranked this skill at 2.97 (*fair*). This suggests that, despite at least some amount of

time in the US prior to beginning undergraduate coursework, the IEP group assessed their beginning speaking abilities as lower. This is not surprising, though, since the timeframe the IEP group perceived for “when you started” may have been starting in the IEP rather than starting their undergraduate coursework since both are part of the University of Minnesota.

The area of academic engagement also showed some key differences between the two groups. Whereas the international group was similar to the overall student population in terms of frequency of “worked on class projects or studied as a group with classmates outside of class,” the IEP group was slightly lower on average (3.85 vs. 3.61, both *somewhat often* range). And whereas the international student group reported slightly higher frequencies for “helped a classmate...,” the IEP group was more similar to the overall student body in this area. The IEP group was also lower for “found a course so interesting that you did more work than was required” and “chosen challenging courses...,” at 3.36 vs. 3.81 (*fair* range vs. *good* range) and 3.44 vs. 3.96 (high end *fair* vs. *good*) respectively. Taken together, these three items suggest that, whereas international students may on average be slightly more academically engaged than the overall student body outside of class, this may not hold true for IEP students. This same trend appears to be true when academic interactions with faculty are considered. Unlike the international student population as a whole, which reported higher frequencies for three faculty-related behaviors (see Table 5) when compared with the whole student body, the IEP group reported lower levels of engagement with faculty than the international group for all six items. However, there were two areas (“taken a small research-oriented seminar...” and “worked with a faculty member...”) where the IEP group, like the international student group, reported higher frequency.

It is important to note, though, that not all academic engagement items indicated lower levels of engagement among the IEP group when compared with the international student population as a whole. For academically disengaged behaviors, the IEP group actually reported lower frequencies for all four behaviors on average.

Considering the data as a whole, it appears that the IEP group fits with the overall profile of international students' academic experiences at the University of Minnesota in many ways. Both groups ranked skills "when [they] started" and "current ability" as lower than the overall student body in all areas except foreign language. Both groups also reported feeling respected and free to express themselves on campus. However, there were enough differences to suggest that this population is somewhat unique from the international student population taken as a whole (how these similarities and differences might inform IEP instruction will be explored in the 'Implications' section). This supports Hellsten's (2007) warning that grouping all international students together is overly simplistic.

This descriptive picture of IEP student experience at the University of Minnesota could relate to some previous findings on academic abilities and engagement, particularly those related to how faculty perceive international students' engagement and ability levels. While the overall international student findings relate to Zhao et al. (2005), who found that international students were more engaged with faculty and willing to take on academic challenges, the IEP findings are less clearly connected since IEP students appear to be less likely to interact with faculty and take on challenge in several areas. However, both international students as a whole and former IEP students' lower assessment of their academic ability levels could be connected to Ramsay et al.'s (1999) findings that international students exhibit greater degrees of stress

and anxiety in their courses as well as Senyshyn et al.'s (2000) and Robertson et al.'s (2000) findings that international students lack confidence in a variety of areas, including reading and writing. This lack of confidence could relate to international students' slightly lower participation within the classroom and lower assessments of their own abilities. This also supports Cheng and Fox (2008), who found that 52% of international students at a Canadian university reported high levels of "anxiety and shyness" when asking professors or TAs for help (p. 316). However, since IEP students may be slightly more likely to participate in class than other international students, perhaps because of previous experiences in small, participative IEP classrooms, this finding may be less relevant for them. More generally, both groups' levels of engagement outside of class could lead to Andrade's (2006) statement that, despite academic challenges, international students are successful overall. However, if former IEP students actually have slightly lower levels of engagement than the international population as a whole, examining information on academic performance (such as GPA and retention) could be informative. Even without this additional information, IEP instructors still might consider how to best encourage academic engagement among students, particularly since Fox et al. (2013) found that ESL/EAP instruction could actually have an impact on students' future academic engagement.

***Summary of social experience trends.*** For overall social experience items, the IEP group also reported slightly lower levels than the overall group for feelings of belonging and overall levels of satisfaction. Their levels were not only lower than the overall student population, however, but also slightly lower than the international student population. In terms of interpersonal skills "when [they] started here," though, the IEP group had a slightly higher

average than the international student group, at 3.71 vs. 3.58 (both in the *good* range). Both, though, were lower than the overall student body rating of 4.15 (also in the *good* range). Still, this suggests the possibility that, since IEP students already had some time to develop social skills within the context of the University of Minnesota, they entered undergraduate coursework slightly more socially capable. This idea, however, is undermined by the ratings for hours per week spent in student groups or socializing with friends, which were both lower for the IEP group than the overall international student group (see Tables 10 and 11).

The IEP group's reports on freedom of expression and feelings of respect may corroborate the idea that previous experience at the University of Minnesota led to higher feelings of respect and freedom of expression. For the 7 of the 9 items related to these topics, the IEP group reported higher or equal levels of freedom of expression and student respect in addition to a higher category mean. As mentioned previously, this could relate to the levels of instructor and student support within small, diverse IEP classrooms.

Taken as a whole, former IEP students and international students appear to be engaged and feel that students are respected on campus. These reported feelings of respect on campus run somewhat counter to previous research on international student perceptions of respect. For example, Lopez and Poyrazli (2007) found that international students reported higher levels of perceived discrimination compared with domestic students, but the SERU data paint a picture of little difference when it comes to feelings of respect. In fact, the IEP group actually reported even higher levels of respect than the international group. Despite these feelings of respect, however, international students, including former IEP students, rated their social abilities lower when compared with the student body as a whole, on average. This supports

some of the previous research on international students' social adjustment. Hechanova-Alampay et al. (2002) showed that international students experienced lower levels of social adjustment when compared to domestic students and Robertson et al. (2000) found that international students had trouble making friends with locals. This could be related to students' ratings of their own interpersonal abilities, whether or not those ratings represent actually lower social ability or simply perceived lower ability.

### **Implications for Teachers and Administrators**

IEP instructors and administrators have a unique opportunity to help prepare international students for full-time academic study because they are geographically and culturally situated within the future host institution. In order to best prepare students for full-time academic coursework, however, these instructors should have as strong a grasp as possible of what these students will experience once they begin full-time undergraduate or graduate coursework. Some of the present study's findings about the specific former IEP student population can help inform teachers as to the unique characteristics of this group, including both their successes and challenges.

Academically, former IEP students appear to face more challenges than the international student body as a whole overall. This is particularly true when it comes to use of higher-order thinking skills and frequency of academically engaged behaviors concerning, self, other students, and faculty. Knowing this, IEP instructors should strive not only to prepare students in terms of language proficiency but also in terms of academic skills utilization. This implication is also in line with Fox et al.'s (2013) findings that, of the three goal types evaluated for former ESL students, only strategy use, which emphasized academic skills and strategies,



actually affected students' future academic engagement. This suggests that teachers may actually have an impact in this area if they help students engage in academic skills development. This type of instruction might include explicit discussion of higher-order thinking skills and how those skills are used academically in both written and spoken contexts.

Compared with both international students as a whole and the overall student population, former IEP students also showed possibly weaker tendencies to interact with faculty. This is particularly problematic due to research suggesting that faculty members sometimes perceive international students as having weaker abilities (e.g. Andrade, 2009; Robertson et al., 2000) and that international students often feel stress and anxiety related to interaction with faculty (e.g. Cheng & Fox, 2008). To work on this area, IEP instructors could encourage interaction with instructors through practices such as facilitating class participation, encouraging students to email instructors and attend their office hours, and possibly even providing opportunities for IEP students to interact with university faculty. Such instruction would help students take advantage of being geographically situated within the university, something that is not true for the international student population as a whole prior to academic study.

In terms of successes, former IEP students showed potentially lower frequencies of academically disengaged behaviors. Therefore, instructors should continue to discourage these behaviors through holding students accountable for attendance and completing assignments. This is particularly feasible in an IEP setting where classes are quite small, making individual attention and accountability more feasible. Effective practices might include clear attendance policies and the use of multi-part, scaffolded assignments that require regular attendance.

The IEP group also showed success in terms of perceiving campus as a place where students are respected regardless of a variety of factors. Overall, the IEP group ranked these feelings of respect as higher than the overall student body or international student population taken as a whole. This suggests that IEP instructors should continue to provide opportunities for interaction with the campus community, ideally with a diverse range of individuals. Such opportunities already exist for IEP students in the form of trips outside of the classroom and involvement within diverse classrooms and should continue to be emphasized.

Of course IEP instructors are not fully responsible for their students' future success. The University of Minnesota is equally if not more responsible for providing support services to help admitted students towards having successful academic and social experiences. However, if IEP instructors can help students better prepare for both the academic and social aspects of university life, then they have a responsibility to do so. Administrators can further these ideas by providing instructors with the resources and flexibility to meet these students' needs and, when possible, providing systematic data on these students' post-IEP experiences.

### **Limitations**

Despite these potential implications, there are several limitations on the strength of these findings. The greatest limitation relates to the sample size. Because the number of former IEP students is so small when compared with the international student population as a whole and the student body as a whole, three years of SERU data were used. However, only the 2013 data were available to the researcher for the other two groups. This meant that the timeframes were not the same among the three groups. Also, due to the small population, it was not possible to control for other factors, such as first language, country of origin, year in school, or

major. Controlling for these factors would have led to more meaningful results for all three groups since such factors could also influence students' academic and social experiences.

In addition to the issue of small sample size, there was also population overlap among the three groups. This means that, for the 2013 year, the IEP participants were part of both of the other groups. In addition, the entire international group was part of the overall group. To create more meaningful comparisons, it would be ideal if all three groups were entirely separate. It is also unknown how many of the students in the international group attended IEPs outside of the University of Minnesota.

The very nature of self-reported data is also problematic. As Gonyea (2005) states in a discussion of self-reporting as a tool in institutional research, "attitudinal questions are subjective, based on personal beliefs and perceptions" (p. 76). This means that each student could interpret the question and his or her answer differently according to his or her own beliefs. Of course since beliefs and perceptions are at least somewhat tied to culture, this factor may be particularly relevant for international student populations, especially for highly subjective measures such as overall satisfaction and feelings of respect.

### **Conclusion and Future Directions**

Due to these limitations, this study is meant as a starting point rather than a definitive answer to the research questions. If such questions are really to help inform teacher and administrator decisions, more data are needed. As Gonyea (2005) recommends, multiple data sources should be used and not just self-reports if the data will be used to inform policy decisions (p. 84). With this in mind, here are some suggestions for future research:

1. Interviews should be conducted with former IEP students at a variety of stages in undergraduate study, ranging from the immediate transition from IEP to undergraduate classes to the final semester. Questions should focus on successes and challenges, both academically and socially. The present study could be used as a starting point for question design, particularly with regard to areas of possible difference between the former IEP population and the international population as a whole.
2. Indicators of academic and social experience from sources outside of the students themselves should also be utilized in future study. Although this would take further coordination with the Office of Institutional Research, academic indicators could include GPA, retention rates, and graduation rates. This could also include more qualitative data such as interviews with instructors and peers.
3. In addition to finding new data sources, further utilization of the SERU data would also be useful for better understanding this population. Since the SERU survey is administered every year, tracking could be implemented wherein IEP student IDs are matched with the SERU data annually. This would allow for viewing changes over time and further comparisons between the IEP group and the international student population as a whole. If IEP numbers continue to rise, it may also be possible to create a study wherein former IEP students are matched with other international students with similar backgrounds. This would make controlling for factors such as first language, year and school, and major possible.

4. Communication and possible collaboration with other university IEPs would also be a useful future direction. In particular, it would be informative to know whether and how other programs track students from the IEP to undergraduate programs. From there, a possible collaborative study could be developed to more broadly answer the question of what experiences former IEP students have as full time undergraduates beyond any one context.

If part of the Minnesota English Language Program's mission is to "develop cultural understanding and the communication, critical thinking, and academic skills needed to be successful in academic, professional, and social settings," then research in the directions mentioned above could help create a more complete picture of to what extent this mission is being accomplished. Of course teachers and administrators already have highly creative, personalized ways of assessing this through classroom interactions, assessments, and conversations with individual students in and outside of class. However, as MELP's IEP continues to grow, and as more former IEP students continue to make the transition to full-time academic study, a more systematic approach to assessing these students' later experiences could add to instructors' and administrators' overall picture of how to best prepare students for later academic and social success. Since IEP instructors naturally want to help students attain their goals, the more information they have on the successes and challenges students later have in attaining these goals, the more they can assist in this process. The present study begins to explore IEP students' future successes and challenges, particularly in terms of critical thinking, engagement, and feelings of respect, but more information could provide a fuller picture in the future.

This fuller picture would certainly be beneficial to instructors and administrators, but perhaps even more importantly it could be beneficial to students. In choosing to attend an IEP with the hope of eventually becoming a university student, an international student is making a large commitment, both in terms of financial resources and time resources. Making this commitment is especially meaningful for IEP students since many have not yet gained admission to a university. This makes it difficult for a student to know whether or not the risk is worth taking. As the current situation stands, there is information to help guide prospective IEP students in making the decision of whether or not to apply for and later enroll in an IEP. Such information includes cost, location, program design, and the quality of the associated university. However, more information on the experiences of former IEP students who do go on to successful academic study, could help prospective students better understand what their situation might be like beyond the IEP, particularly in relation to their personal goals.

Taking all of this together, the present study is just a possible beginning of what could become a more systematic way of approaching students' experiences once they leave the IEP and, from this information, how IEP teachers and administrators can best help prepare students to meet their future academic and personal goals.

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