

RETAINING INTERNATIONAL STUDENTS:
IDENTIFYING THE NEEDS OF INTERNATIONAL
STUDENTS ATTENDING MEMORIAL UNIVERSITY
OF NEWFOUNDLAND

CENTRE FOR NEWFOUNDLAND STUDIES

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Retaining international students: Identifying the needs of international
students attending Memorial University of Newfoundland

by
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*Dedicated to my grandfather Parsons who was
very proud of my educational accomplishments.*

ABSTRACT

International students have many challenges to face when studying abroad. They have to be prepared to deal with cultural, academic, and social differences. When recruiting international students, Canadian universities need to be cognizant of these challenges and the needs of students. Institutions that are aware of the needs of international students can provide the appropriate programs and services and thus increase the universities' abilities to retain them.

This study assessed the pre-entry and entry needs of undergraduate and graduate international students who were first time entrants to Memorial University of Newfoundland during the fall semester of 1997 and the winter semester of 1998. The aim of this research was to identify the needs of international students and to make recommendations to Memorial University and more specifically, the Office of Student Affairs and Services as to how these needs could be met.

The sixty-five item questionnaire collected information concerning needs in the following categories: academic, social/cultural, housing, finances, and recruitment and retention. The focus of this study was to explore the similarities and differences of the needs of undergraduate and graduate international students.

A total of sixty-five questionnaires were available for data analysis. The most notable findings indicated that undergraduate and graduate international students have similar needs. Both groups would like to have information about Canada, and the university they will be attending before they leave to study abroad. Once they arrive in Canada, graduate students rely on their supervisors and respective faculties to assist in

their adjustment to their new environment, whereas undergraduate international students tend to rely on friends and family for support and assistance. Other similar needs included (a) being met at the airport, (b) attending an orientation session, (c) participating in a peer-pairing program and a host family program, (d) assistance with locating accommodations, (e) assignment of an academic advisor, (f) academic assistance specifically with written and oral communication, (g) the lack of work opportunities on campus. The majority of students came to Memorial University because of recommendations from family and friends, and they believed that prospective international Memorial University students should be provided with information concerning the culture of Newfoundland, the university, and the weather conditions.

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INTRODUCTION

Most Canadian universities have a percentage of students who come to Canada to study. The adaptation to a new culture creates challenges for students and institutions. International students bring similar developmental issues as other students. Institutions must address cultural issues and translate them into services, programs, and policies to maximize academic success for international students.

Many benefits accrue to those involved in the recruitment of international students. For international students, there are opportunities to further develop their education while learning more about other cultures and countries of origin. For the host country, the presence of international students encourages cross-cultural interactions both within and outside of the academic environment. Canadian students have the opportunity to learn from the perspectives and insights of international students. Programs such as host family visiting and acting as a resource person within the community, allow community members to learn more about another country's culture and customs. This invites both groups to think beyond the boundaries of their home countries to further develop and enhance their global understandings.

To maximize gain from such initiatives, universities across the country are challenged to explore the needs of international students. Identifying these needs will enable the institution to develop programs and services to meet students' needs. With such information, international students can determine if the institution is compatible

with their academic and social expectations. Students who find this 'fit' may be more inclined to remain at the institution for the duration of their studies. In doing so, the institution has created an effective recipe for retention.

An institution which currently plans to recruit international students often has to change its mission and its recruitment and retention activities. Institutional programs and services must reflect the needs of this particular student population. To adequately prepare Memorial University for an increase in its international student population, the institution must develop an understanding of the needs of international students in order for them to successfully adjust to Memorial University. Identifying these needs is synonymous with identifying the key ingredients for retaining the international student. Once the needs are identified, the university can then develop appropriate retention strategies.

Background to the Study

Recruitment

While universities nationally aim to recruit more Canadian students, the recruitment of international students is becoming increasingly important. According to Hosoi (1996), universities recruit international students for three reasons: "to give international students quality educational opportunities, to secure financial resources to maintain educational quality in times of reduced government funding, and to tell the world that the institution is alive and well" (p. 45). In addition, it is important to explore

the cultural benefits Canadian students will receive from recruitment of international students and the significance of international students studying abroad to further develop the international community.

Financial Benefits

Recruiting international students provides financial resources for institutions when there is a decrease in government funding for post-secondary institutions. Many Canadian universities are currently experiencing such government cuts. According to O'Heron (1997), in the early 1980s about 85% of university operating revenues came from government financing, while the remaining 15% came from tuition and other sources. However, between 1980 and 1995, income from government dropped by more than 25% per student and now covers only 70.9% of operating revenues. Since 1991/92, Newfoundland and Labrador has also received a decrease in funding from the federal government for post-secondary education. According to the *Post-Secondary Indicators '98* (1998) report produced by the Government of Newfoundland and Labrador, in 1991/92 the province received \$11,840,656 in federal funding and \$6,023,485 in 1996/97. This represents a decline of 49% in such funding to Newfoundland and Labrador's post-secondary education system. In response to a decrease in government funding, institutions have had to explore other means to maintain their operations. Two commonly used strategies are boosting student enrolment and increasing tuition fees.

Student enrolment.

Canadian universities are experiencing declines in student enrolment levels. For instance, in 1993/94 full-time and part-time university enrolment for Canada was 874,604. However, during 1997/98 enrolment had dipped to 822,772 (Statistics Canada, 1998). This represents a 5.9% decline of students attending Canadian universities. Although Memorial University has traditionally maintained its enrolment numbers, enrolment levels reached a high in 1992 of 18,632 and have since steadily declined to 14,139 in 1998. This indicates that enrolment from 1992 to 1998 has declined by 24% (Goudie, 1997). In addition, Memorial University's future enrolment projections are not positive. Given the changes due to natural demographic declines, the enrolment levels for 2006 are projected to be 11,092, a 24.5% decline since 1998. Universities that rely on enrolment numbers as a means of generating revenue are at risk when enrolments decline.

In deciding how Canadian universities will increase enrolments, it is important to first identify the reasons for the decline. According to O' Heron (1997), some of the reasons include (a) the stabilization of the size of the 18- to 21- year old population group, (b) the fact that the value of a university degree has reached a plateau, (c) that increasing tuition costs create a barrier for some students, (d) the changes in the student loan system resulting in students increasing their debt load may influence their decision to attend university, and (e) the high levels of out-migration of families, especially for the province of Newfoundland and Labrador. From 1990 to 1996, because their families have left to find employment, there are 15,259 less of the population aged between 15 and 24 (Goudie, 1997). In addition, post-secondary students have a variety of private and public

colleges from which to select. For instance, in 1986/87, five percent of the total student enrolment for Newfoundland and Labrador (20, 280) were attending private colleges. However, in 1995/96, this increased to 28.8% of the total student enrolment (32,275) (Newfoundland, 1998). Since the pool of prospective students is changing, institutions have to target other student populations as a means of increasing their enrolment levels.

International students are viewed as one such population upon whom universities can focus their recruitment efforts. For instance, Currie (1998) states that McGill University is hoping to increase its current international student population from 12 % to about 25% of the student body. Similarly, the University of British Columbia is hoping to attract 2,500 to 3,000 more international students over the next 10 years. In addition, Memorial University is also hoping to double the number of international undergraduate students and triple the number of international graduate students by the year 2001 (Slade, 1997). An increase of international student enrolment would result in increased revenue for universities.

Tuition fees.

A second strategy universities use to offset revenue losses is the increase of tuition fees. Nationally, tuition fees for domestic students have increased. According to the Association of Universities and Colleges of Canada (AUCC) (1996), the average Canadian university tuition fee charged virtually doubled between 1980 and 1995. For instance, in 1980, undergraduate students were paying on average, approximately \$1,400

in tuition fees, in comparison to a little over \$2,200 in 1994. Memorial University has also experienced an increase in tuition fees. In 1988/89 undergraduate students were paying approximately \$1,300 and in 1997/98 tuition fees were \$3,300. Graduate students were paying approximately \$377 in 1988/89 and \$930 in 1997/98 (Newfoundland, 1998). Tuition fees are increasing because they are being used to cover the proportion of costs for Canadian universities. For example, Memorial University's revenue from tuition fees increased from 15% in 1991/92 to 24% in 1996/97. The AUCC (1996) states that "recent tuition increases cover well over a third of the operating costs in many institutions" (p. 19). The common criticism of this trend is that "Canadian universities are evolving from being publicly funded institutions to being publicly assisted" (AUCC, 1996, p.2). The danger of this is that as universities become more dependent on tuition fees as a revenue source, they are more susceptible to being effected by enrolment fluctuations (O'Heron, 1997).

Many institutions require international students to pay a differential fee which, is higher than that of domestic students. According to the AUCC (1996), undergraduate international students are charged between \$4,000 - \$5,000 more each year than Canadian residents for a general arts/science degree. Donald Wehrung, Director of International Recruitment at the University of British Columbia (1998) states "that because universities are experiencing a decline in the provincial grants, higher tuition fees are needed to provide high quality teaching and student services for domestic and international students" (p.4). One reason for the differential fee is that international students do not,

nor do their families, contribute to income taxes which support post-secondary institutions. For some institutions, the differential fee charged to international students result in a full recovery of the costs. In other words, the revenue generated from international fees pays for the entire costs associated with educating international students.

For those universities in the UK and Australia, international students are viewed as a potential source of revenue. According to Greenaway and Tuck (1994), UK universities in 1992-93 had a revenue of \$7.750 million from tuition fees which came from international students (as cited by Moran, 1996). Diambomba (1993), who conducted an exploratory cost-benefit analysis of international students studying at universities in Canada, found that the net value of the tuition income from international students attending Dalhousie University (Nova Scotia) and the University of Ottawa (Ontario) was \$1,142,676 and 5,612,160 respectively.

Economic impact.

International students attending universities abroad also contribute directly and indirectly to the local, provincial, and national economies. Greenaway and Tuck (1994) (as cited by Moran, 1996) found that while attending universities in the UK in 1992/93, international students spent approximately \$10.125 million on UK produced goods and services. Similarly, Chandler (1989) (as cited by Moran) found that expenditures of international students in Canada are as high as \$400 million annually. In addition,

Diambomba (1993) found that the total contribution of the 886 international students attending the University of Ottawa in 1991 was \$12,157,600. At Dalhousie University, the 547 international students enrolled in 1991 had a total economic impact in the Halifax area was \$5,923,508, or 3% of the university's estimated annual impact on the local economy (\$200 million). Increased numbers of international students have a direct economic impact on accommodations, food, clothing, books, and transportation. Furthermore, if international students are pleased with their experiences while studying at a Canadian university, they are more likely to recommend the university to their family and friends for educational or business initiatives, thereby possibly enhancing economic benefits for Canada (Calderwood, 1993; Canada, 1987).

Although tuition fees for international students are significantly higher than those of average Canadian students, an education in Canada is more affordable than in other countries. Many international students come to study in Canada because of the low tuition fees relative to similar fees in other countries. According to Wehrung, one year's tuition and living expenses at a Canadian university is about \$16,000 compared to \$21,000 in Britain and \$25,000 in US private institutions (as cited in Lewington, 1998). It is therefore an advantage for Canadian institutions to retain fee structures in order to attract international students to study in Canada.

Cultural Benefits

International students bring with them their diverse culture, customs, and values which may enrich the Canadian community (Boonyawiroj, 1982). International students on Canadian campuses provide all students with an opportunity to learn about new cultures, explore global issues, and appreciate different lifestyles (Calderwood, 1993; Canada, 1987; Heikinheimo & Shute, 1986). With careful planning and supervision by universities, "international students can enrich the life of the institution and gain for themselves valuable educational and cultural skills" (Byrd, 1991, p. 15). According to Carley (1998a), the presence of international students at Memorial University invokes cultural, ethical, and racial understanding.

Institutions are also recognizing the importance of internationalization on their campuses. Byrd (1996) states that internationalization includes four things: (a) developing Canadian students studying abroad, (b) creating research and study opportunities for faculty, (c) adding an international focus to the curriculum so that students can see their courses and professors in an international context, and (d) recruiting international students to Canadian campuses. In addition, Knight (1995) found that the preparation of graduates and scholars who are internationally knowledgeable and inter-culturally competent to be one of the two most important factors for internationalization as identified by AUCC member institutions.

Since Canada is a part of the international business community, it is important for its future leaders to be aware of other cultures and issues in other countries. An important

aspect to this would be to have international students in the classroom so that they can share their experiences. In addition, to be economically and politically successful, Canadians need to understand that their work and lives are influenced by the activities and actions of other countries (Byrd, 1996). Canadians need to understand that people's cultural background influences their thoughts and actions. Exposure to different cultures, through the recruitment of international students, encourages Canadian students to think of their country as part of the international village.

Institutions also recruit international students to increase diversity on their campuses. Currie (1998) asserts that the infusion of international students make for a more cosmopolitan campus. "In an era where globalization is an important trend, many Canadians don't get the chance to study or live abroad themselves" (p. 13). More importantly, "visible minorities and those from diverse cultures cannot but increase tolerance and understanding and contribute to the development of humane values that should be an important feature of the college and university experience" (Moran, 1996, p.6).

Memorial University recognizes the importance of increasing its cultural milieu. According to Joe Byrne, Director of the Office of Student Recruitment and Promotion, the objective of this office is to not only increase Memorial University's student population but also to change the mix of students by increasing the population of international students on its campus (personal communication, February 10, 1998). This is particularly significant for Memorial University since the student population of the

province of Newfoundland and Labrador is very uni-cultural. Therefore, many students do not have the opportunity to meet or learn about other cultures until they begin their post-secondary studies. Students can stay on their campuses while learning about other cultures, thus preparing them for the global reality and helping them to become more aware of the issues in the global marketplace.

Benefits for the International Community

As a developed and wealthy member of the international community, Canada has a responsibility to assist in international development by providing international students with educational opportunities. Some students are not exposed to quality education due to the economic situation of their home countries. Ubadigbo (1997) provides further support of the responsibility of developed countries to assist in the international development of underdeveloped countries. His study explored the declining enrolment of foreign students in U.S. post-secondary institutions and its implication for global education and international development. He found that students not exposed to quality education because of the economic situation of their country results in an untrained labour force, which has little knowledge of technology. As the Western Hemisphere embraces the technological age, other parts of the world are falling behind, thus affecting their ability to participate in international development. Chen (1996) contends that when international students study abroad they are able to bring back to their country new techniques and knowledge which may strengthen their economy. According to the Canadian Bureau for

International Education (CBIE) document, *The Right Mix: The Report on the Commission on Foreign Student Policy in Canada (1981)*, Canada can assist in alleviating global inequalities by providing training and research experience to students from Third World countries. Canadians are confirming their commitment to international development through the provision of opportunities for students from under-developed countries to study at Canadian universities.

Recruitment Initiatives at Memorial University

Student recruitment at Memorial University was not a priority until after 1993 when the enrolment numbers began to decline (Glenn Collins, as cited by Etchegary, 1995). This prompted the university to take more aggressive initiatives in the area of student recruitment. One such initiative was the creation of the Office of Student Recruitment and Promotion which purpose was to increase enrolment and to promote Memorial University locally, nationally, and internationally. According to Byrne, part of the mandate of this particular office is to increase the currently small population of international students at Memorial (as cited in "Doing it right," 1997). In 1995, according to Memorial University's *Fact Book* (Bessey, 1998), there were 294 international students attending its institution. This represented about 1.8% of the total enrolment of 16,273. In 1997, the 350 international students represented about 2.2% of the total enrolment of 15,822. Mr. Joe Byrne (personal communication, March 3, 1999) asserts that the first tangible results of their recruitment efforts were evident in the enrolment

figures for 1997. An internal document from the Office of Student Recruitment and Promotion states that the enrolment of new students from other countries increased by 42% (28 students to 40) (Office of Student Recruitment and Promotion, 1998).

The trend of international student recruitment is common throughout most Canadian universities. As the number of domestic students decreases, the recruitment of international students becomes considered as a means to maintain enrolment levels and financially benefit from differential fees, and to promote a global perspective on campuses.

Providing Student Services

Historically, the student affairs profession was established to support the academic mission of higher education institutions and was committed to the development of the whole person, academically, socially, spiritually, and physically (Nuss, 1996) "Attention is currently focused on ways in which student affairs professionals and academic planners can collaborate to enhance the overall experience for an increasingly diverse student clientele" (Nuss, 1996, p. 37). Equally important is that student affairs programs reflect the institution's mission, its academic goals, its characteristics, and the needs of its students (Sandeem, 1996).

Although the functions of student affairs offices vary from one university to another, the following student affairs services are usually found at most universities: admissions and recruitment, orientation, financial aid, academic advising and support

services, international student services, career development, residence life, counselling services, health services, and student clubs and societies. All of these programs and services are aimed at meeting the myriad needs of students during their academic careers.

Additionally, many universities also have special offices extending these and other services to international students. Some of the services of these offices include assisting students with travel, orientation, registration, financial aid, housing, and counselling. At Memorial University of Newfoundland, there are many departments/divisions that provide services specifically for international students. The office of student affairs and services provides support for international students through the international student advisor who acts as the contact person for the duration of students' programs and provides assistance with accommodations, immigration issues, and administering the university's health plan. The office of student development provides materials and publications for incoming and outgoing exchange students, researches students' international experience, and acts as a host/supervisor for exchange students. The international student centre (ISC) is a student organization that helps international students adjust to their new culture by encouraging friendships and providing an environment for international students to seek advice and assistance from their peers. The English as a Second Language Program offers a variety of courses and programs to students who are learning English as a second language (The International Centre, 1998).

Conclusion

To maximize and ensure that the above factors are realized, attention to all aspects of an international student's university education is critical. Services need to be in place both before and after students arrive which will assist them in their adjustment to the Canadian University. According to Carley (1998b), "how Memorial University regards its international community should be reflected in its international service and resource efforts" (p. 10). Universities may have a greater chance to retain and attract new students if students are provided with services to assist in their adjustment to a new environment (Patti, Tarly, Goree, & Tice, 1993).

Purpose of the Study

The purpose of this study was to identify the pre-entry and entry needs of international students. These students were first-time entrants to Memorial University of Newfoundland. These needs were assessed under the categories of academic needs, social/cultural needs, housing needs, and financial needs. The findings of this study will be used to make recommendations to Memorial University regarding the quality of life initiatives and internationalization strategy for international students.

Definition of Key Terms

The following are definitions of key terms used throughout this thesis.

International Student

Any student attending a Canadian post-secondary institution who is not a Canadian citizen and is not a landed immigrant. The student will have been granted a student authorization (VISA) which is issued by the Canada Employment and Immigration Commission.

The Office of Student Affairs and Services

The mission of the Office of Student Affairs and Services is “to facilitate a quality of student life which fosters personal, social, and academic growth and development” (Student Affairs and Services, 1994, p. 6). The Office of Student Affairs and Services also acts as the liaison between the student body and university administration. This office includes the Counselling Centre, General Student Services, International Student Advisor, Student Health Services, Student Development, Student Housing and Food Services, Student Recruitment and Promotion, Co-operative Education, Marine Institute Student Affairs and Services, and Sir Wilfred Grenfell College Student Affairs and Services.

Student Services Professionals

The role of student services professionals is to fulfil the mission of the Office of Student Affairs and Services. These professionals design and implement programs and services to meet the needs of students. They work in the student services offices mentioned above.

International Student Advisor

The international student advisor (ISA) is usually a part of the Office of Student Affairs and Services and the employee's role is to provide programs and services to international students. Some responsibilities include assisting students with immigration matters, providing orientation sessions, and helping students during their adjustment to a new environment.

Pre-Entry

This would include the period of time before international students begin their studies at university.

Entry

For the purposes of this study entry refers to international students' first year or first semester at Memorial University.

Significance of the Study

This study is significant not only to Memorial University but also to post-secondary institutions across Canada. For those Canadian institutions which have well developed services and programs for international students, this study will reinforce the efficiency of their practices. This study can also be used as a benchmark for those institutions that can improve upon their services and programs to better meet the needs of their international student populations.

Memorial University's desire to internationalize the university is reflected in several documents. The document *Launch Forth* outlines the university's strategic plan to meet the challenges of the 21st century. One of the goals stated in this document is that "the university will develop its international linkages to promote individual, cultural, and economic growth" (Memorial University of Newfoundland, 1994, p. 22). Another stated goal is to provide fellowships and counselling for international students, integrate international students into the university community, and internationalize the curriculum (p. 22). The Office of Student Affairs and Services' strategic plan, *Opening Doors*, identified a goal to increase the enrolment of international students attending Memorial University (Student Affairs and Services, 1994). This led to the university's reorganization of an office dedicated to internationalization at Memorial University. This office became known as the Office for International Cooperation and is now called the International Centre.

The document *Expanding Horizons* (Slade, 1997) focuses on increasing the number of international students attending Memorial University. According to Slade (1997), Memorial University's goal is to double the number of full-time international graduate students from the current 219 and to triple the number of full-time international undergraduate students from the current 159 by the year 1999/2000.

The enrolment of international students at Memorial University is increasing. In the fall of 1995, there were 92 undergraduate and 202 graduate students for a total of 294 international students attending Memorial University. In the fall of 1996, there were 106 undergraduate and 240 graduate students for a total of 346 international students. In the fall of 1997, there were 122 undergraduate and 228 graduate students for a total of 350 international students attending Memorial University (Bessey, 1997). As this component of the student population continues to grow, there is a need for increased programs and services for international students.

Memorial University presently offers a variety of programs and services for international students. These programs and services are provided by the Office of Student Affairs and Services, the International Centre, the Graduate Students' Union, the English as a Second Language Program (ESL), the office of the registrar, and individual faculties and departments. Unfortunately, many of these services work independent of one another instead of working as a collective group to meet the needs of international students.

The results of this study will be of interest to the International Student Advisor, the Office of International Co-operation, Student Recruitment and Promotion.

counsellors, and others who are concerned with international students. The recommendations of the researcher and of the students involved in this study will provide the basis for the development of programs for international students.

Institutions of similar size, academic structure, and student profile as Memorial University will also be interested in the results of this study. The identified needs of international students in this study could assist these institutions in the development of policies and programmes for international students.

This study will also add to the current body of Canadian literature dealing with the needs of international students which is limited. In addition, this study will offer further insight into (a) the pre-entry and entry needs of international students attending universities in Canada, and (b) the needs of undergraduate international students in comparison to those of graduate international students.

The research questions for this study include:

1. What are the academic, social/ cultural, housing, and financial needs of international students attending Memorial University for the first time?
2. To what extent do these needs differ for students' pre-entry and entry time frames?
3. Is there a difference between the needs of undergraduate and graduate international students?

Chapter Two

LITERATURE REVIEW

The review of the literature will first focus on two distinct yet interdependent aspects of the international student experience. The first aspect examines the variables that influence student retention. In other words, variables will be identified that encourage international students' to continue their studies at the institution. These variables include (a) students' involvement, (b) the relationship between academics and social needs, (c) students' relationship with faculty members, and (d) programs and services that are designed to meet the needs of international students.

The next section of the literature review will examine the exact nature of the needs of international students. These needs are broken down into two categories that identify students' needs pre-entry and entry needs. Pre-entry needs refers to the types of information and services that international students need to receive prior to arriving at the institution. Post-arrival students develop certain entry needs. These would include (a) students' academic needs such as English proficiency, an academic advisor, and the academic environment, (b) social/cultural needs such as services that can help students to adjust to a new cultural environment, (c) housing needs such as providing assistance to find accommodations, (d) and financial needs such as the types of scholarships and on campus work opportunities provided for international students.

Retention of International Students

Recruiting international students to the university is one of the first steps in the development of a stable international student enrolment. The next step, and perhaps the most important, is retaining students once they arrive. International students who develop positive academic skills and attitudes about the institution are more inclined to be retained. This section will examine the link between retention and other key variables such as student involvement, relationship between academic and social needs, students' relationships with faculty, and programs and services offered to international students.

Student Involvement

Student involvement is an important variable of retention. The student involvement theory, developed by Alexander Astin to explain environmental influences on student development, "refers to the amount of physical and psychological energy that the student devotes to the academic experience" (Astin, 1984, p. 297). Involved students spend their time studying, participating in on-campus activities and organizations, and interacting frequently with faculty and other students. Astin's (1984) theory postulates that students who show greater involvement in college, receive a greater degree of student learning and personal development. The goal of the institution, therefore, should be to find ways to increase student involvement in both the academic and non-academic areas of the lives of students. In examining the effect involvement variables have on retention, Astin (1993) found that high involvement with faculty, fellow students, or with academic work is positively associated with retaining students.

Tinto (1987) also emphasizes the importance of student involvement in persistence to college. His model of student departure states that voluntary withdrawal from the college is a longitudinal process of the students' interactions with the academic and social aspects of the college. These interactions will decide if a student will remain at the college or leave. According to Tinto (1987), persistence is the "integration of the individual ... in the social and intellectual communities of the college" (p. 126).

There are also certain periods in students' lives when the actions of the institution could assist in retention. For international students, the most critical period in their lives is before and after their arrival to their host country. According to Tinto (1987), students need to be provided with accurate and complete information that will describe the intellectual and social life of the institution. He emphasizes that this information will help students to decide whether or not the institution fits their needs which may reduce the number of students who chose to leave the institution. Students will also want this complete information to be presented to them upon arrival. Tinto (1987) states that it is equally important for students to make informal contacts with individuals and offices that can assist students in their adjustment to their new environment.

The first semester at the university is also very critical in student retention. According to Tinto (1987), the first semester "requires individuals to separate themselves from past associations and patterns of educational participation and make the transition to the new and possibly much more challenging life of the college" (p. 148). In addition to this, international students also have to adjust to leaving their home culture and learning to live in another one. International students who are not able to quickly adapt to their new environment may find their experience to be negative. Thus, they may be more

inclined to seek another institution that is able to meet their needs.

Relationship between Academic and Social Needs

To successfully retain students, particularly international students, there must be congruence between the characteristics and needs of the students and the academic and social aspects of the campus environment. When incongruity is evident, the students become uncomfortable with the relationship and may leave the institution to seek one that meets their needs. According to Bean (1986), "it is unethical to admit students for the benefit of the institution and not for the good of the student" (p. 47). Students need to have the social and academic characteristics that fit with those of the institution. For instance, Byrd (1991) emphasizes the importance of selecting the appropriate international students for the institution. She states that there must be a match between the students' educational level and the educational level expected by the institution in different countries because academic expectations differ from Canadian institutions.

It is equally important for the institution to be comprehensive in communicating the nature of its services and courses it offers to prospective international students. In doing so, both the institution and the student can decide whether or not the programs and services will meet the student's needs. It cannot be assumed that the institution's present services and courses are suitable for all students.

International students who feel socially accepted by the community are also more likely to be retained by the institution. Chen (1996) found that the more friends international students made, the more they felt like an 'insider' because peers provide the emotional and academic support needed by international students. Friends assist the

students in understanding the academic and cultural norms. This enables international students to become a part of the norm and less marginalized. Patti et al. (1993) found that another factor that predicted retention was students' perception of the university community's personal concern for them. "Students who feel connected through someone's personal concern for them are likely to remain enrolled" (Patti et al., 1993, p. 19).

The international student advisor (ISA) usually provides this personal concern. This is usually students' initial contact person while students are in their home country and offers a continuous source of assistance for the duration of students program of study. The international student advisor often assists international students with immigration matters, organizes airport reception and orientation, assists to find acceptable accommodations, and helps students adjust to their new culture. More importantly, the ISA lends a source of emotional support to international students if they experience academic, social, or cultural difficulties. In addition, the ISA promotes awareness of issues facing international students to members of the university community.

Relationships with Faculty

The research relating to retention has identified an important link between students' relationship with faculty members and students' persistence in college. Astin's (1984) research suggests that meaningful contact between faculty and students related to intellectual or career issues increases students' motivation and involvement. Similarly, Pascarella and Terenzini's (1977) study of undergraduate students found that first year

students who persist with university had significantly higher interaction with faculty than those students who left voluntarily. In addition, Bean (1986) states that students who have a positive relationship with their professors feel positive about their experiences in school. Tinto (1987) also asserts that students who have meaningful contact with faculty both in and out of the classroom environment are more encouraged to remain in college. "Just as faculty-student contact encourages involvement and involvement leads to persistence, effective advising can increase the incidence of faculty-student contact, intensify involvement, and encourage persistence" (Tinto, 1987, p. 10). Informal contact with faculty members provides students with a positive attitude about themselves and the institution, thus affecting retention.

Students' interaction with faculty members also affects students' academic achievement. For instance, Girves and Wemmerus (1988) found that masters students' perceptions of their relationship with faculty were associated with their grade point average and, indirectly, with degree progress. Doctoral students' involvement in their program was a factor in predicting degree progress. Involvement includes financial support through teaching assistantships and research and students' perceptions of their relationship with faculty (Girves & Wemmerus, 1988). For undergraduate, masters and doctoral students, interaction with faculty is very important in shaping their attitudes about the institution and their decision to remain at the institution.

Programs and Services

It is equally important to maintain the good will of international students once they arrive at Canadian universities as it assists in retaining the student in the institution.

One way to retain students is to provide them with the programs and services they need to adjust to a new environment. In a case study of the admission and recruitment of international students at eight Canadian universities, the AUCC found that there is a strong relationship between international student recruitment strategies and retention, and the level, quantity, and availability of campus services for international students (Association of Universities and Colleges of Canada, 1998). The case-study evidence indicated a need for better services for international students. It states,

Investment in recruiting without a similar commitment to student services is not good practice. If special resources are to be found for recruitment, comparable resources must be found for the student services that are critical to retention and the recruitment of other international students (Association of Universities and Colleges of Canada, 1998, p. 33).

In addition, Carley's (1998b) focus group research of international students attending Memorial University, revealed that a "comprehensive knowledge of MUN services would provide a positive and substantial contribution to the students' initial experiences" (p. 7). In other words, international students would like to have more information regarding the services offered by the Office of Student Affairs and Services and the academic services offered to Memorial University students. Similarly, Novak (1994) found that the creation of an English immersion program for at-risk English as Second Language (ESL) undergraduate international students increased their retention levels. The study by Patti et al. (1993) also found that retention of international students could be predicted by the increased use of the counselling centre and the career services centre. In addition, Byrd (1991) asserts that international students who are provided with

counselling and advising to help them to deal with the effects of culture shock are more likely to be retained by the institution.

It is also important that students have the necessary English skills for academic success. Many institutions admit only those international students who meet the standard Test of English as a Foreign Language (TOEFL) mark that indicates students' ability to function in an academic English environment. However, Byrd advocates for institutions to be responsible for offering services to those students who may need to improve their English skills, he suggests, this will reduce student frustration in the classroom (Byrd, 1991). Therefore, institutions need to determine the skills students need to succeed academically and to provide them with the appropriate assistance.

From an economic perspective, retaining students is more cost effective than competing with other institutions over the dwindling numbers of prospective students. Institutions need to examine the variables such as student involvement, the relationship between academic and social needs, relationships with faculty, and programs and services that affect retention for certain student populations. Although there are similarities, the variables that affect retention for North American students are somewhat different than those for international students. In addition, there are also certain times in students' lives when different variables affect retention. For the purpose of this study, the researcher is concerned with retaining students during their first year of studies. Before an institution can plan "how" to retain the student, it has to know "what" is needed to retain the student. It is of the utmost importance to identify the needs of international students.

Needs of International Students

International students face many cross-cultural challenges when pursuing a post-secondary education in another country. Students are faced not only with academic challenges but with cultural and social ones as well. To assist international students in their adjustment and to help retain students in the university, student services professionals, and other members of the institution must be aware of the needs of international students. These needs can be categorized as pre-entry needs and entry needs which include academic, social/cultural, living arrangements, and finances.

Pre-entry and Entry Needs

To prepare students for their study abroad, it is helpful to first send information about Canada, the university, accommodations, and academic procedures to student candidates. According to Boonyawiroj (1982), pre-departure preparation assisted international graduate students in their initial adjustment to the university. This pre-departure preparation should include arranging contact between someone from the university with the international student and sending students an information package about studying and living in Canada. Carley (1998b) found that international students would have liked to have more in-depth information concerning Memorial University and Newfoundland (its culture, people, and economics) before their arrival. It is important that those individuals involved with international students are a part of the pre-departure preparation such as the registrars office and the International Student Advisor. It is unfortunate that the AUCC document, *A Warm Welcome? Recruitment and Admission of International Students to Canadian Universities: Policies, Procedures and Capacity*

(1998), regards the duties associated with recruitment and admission of international students as being the responsibility of the registrar and admission offices. It fails to include the International Student Advisor, who will be students' main source of help upon arrival.

Another way to assist in students' initial adjustment upon arrival is to organize a peer pairing program. This program allows for international students to be paired with a more senior student from the institution. Quintrell and Westwood (1994) studied the effects of a peer contact program for international students during their first year of studies. The results found that students who were paired with a host student indicated they felt more positive about their first year experience, used campus services and felt they had improved their language proficiency in comparison to those international students who were not paired. In addition, Abe, Talbot, and Geelhoed (1998) found that international students who participated in an International Peer Program (IPP) scored significantly higher on the social adjustment scale than did non-participants. Establishing a rapport with a returning university student before and upon arrival helps international students to adjust to a new environment.

Academic Needs

English proficiency.

International students' level of language fluency can affect their ability to adjust to their new academic environment. Fluency may be more of a problem for students from non-English speaking countries attending Canadian universities. The study by Heikinheimo and Shute (1986) focused on African and Chinese students attending

Guelph University in Ontario. They found that African students were more confident in their English than were Asian students because African students studied English in secondary and undergraduate school. In addition, Perkins, Perkins, Gugliemino, and Reiff (1977) identified differences among the responses of Chinese, Indian, and other international students attending the University of Georgia. They also found that the Chinese rated English proficiency as a more important problem than did the other groups. Therefore, institutions should be aware that students from non-English countries will likely require services to assist them with English proficiency.

Students' level of English proficiency also impacts their academic adjustment. Many non-Asian students who had studied English prior to their study abroad, found a decrease in the academic stress of having to learn another language (Deressa, 1988; Ojano Sheehan & Pearson, 1995). For instance, Surdam and Collins (1984) found that international students who felt they had adequate English skills upon arrival were better adapted to the university environment than those who did not.

International students also experience problems with written and oral communication such as understanding lectures, taking notes, answering questions, and writing essays which affect their ability to adjust to their new academic environment. Many students have problems. Kakuta, Ker-Durlabjhi, and Bowman (1997) found in their study of Japanese students at a United States university that although students experienced difficulties understanding lectures, writing papers, and taking notes, most difficulty was experienced while participating in class discussions. Kao and Gansneder (1995) found that significantly more Asians cited problems with English as one of the reasons for not speaking in class. In addition, Boonyawiroj (1982) found that students'

inadequacy in the language affected their participation in class discussions and ability to write essays and term papers. He also found that students who came from English speaking countries experienced problems with vocabulary, colloquial expressions, and accents. Moreover, many international students require assistance in learning to listen to spoken English because of the new word combinations, identifying the context in which they are used, and determining the underlying meaning and names of words (Mongillo, 1995).

However, many international students do recognize their need to improve their English proficiency, especially in the area of oral communication and therefore, seek assistance to improve their ability to speak English. Eid and Jordan-Domschot's (1989) study of the needs of international students attending Eastern Oregon State College, United States found that students wanted more opportunities to improve their English-speaking abilities. Similarly, Calderwood (1993) found that international students attending Alberta universities felt that their level of satisfaction would have increased if they had the opportunity to participate in small conversational English sessions. International students could also improve their English by participating in English as Second Language (ESL) courses and summer programs and having an English tutor.¹

Academic advisor.

An academic advisor is very important for students' initial adjustment to the Canadian academic environment. Mongillo (1995) states that "these people constitute the front-line of educational exchange and the quality of their interaction directly effects how

students from China perceive Canada as a whole” (p. 85). Parr, Bradley, and Bingi’s (1992) study of international students attending U.S. universities and colleges found that students were concerned with finding an advisor who would devote their time to them. International students attending Alberta universities also felt that more time was needed to discuss course work with faculty (Calderwood, 1993). In addition, Leong and Sedlacek (1989) found that international students expressed a greater need for assistance in selecting/scheduling courses and establishing their academic program plan and for assistance from an academic advisor than did U.S. students.

Canadian academic environment.

The Canadian academic environment is also an adjustment for international students who are entering a different educational setting from that of their home country. International students often have to learn a new system of grading, a different method of classroom instruction and exam formats, and a classroom environment which encourages participating in discussions. In examining the experiences of Hong Kong students at the University of Toronto, Mickle (1984) found that students were not used to participating in class discussions. In their home country, students are not encouraged to share their opinions. Similarly, Boonyawiroj (1982) and Tompson and Tompson (1996) found that students did not participate in class discussions because of cultural differences, thus undermining their academic success. Another behavior that was detrimental to their success was studying or working in-groups with only other international students

¹ As an admission requirement, international students are tested for English language competence which can be done through such tests as TOEFL (Test of English Fluency Language) and CAEL (Carleton Academic English Language). Different universities require different scores for admission.

(Tompson & Tompson, 1996). In doing so, international students did not benefit from Canadian students' knowledge of the academic environment and of the English language.

The difficulties encountered in adapting to the Canadian academic environment can create problems for international students. These concerns can be addressed through programs for non-western students which include cross-cultural communication, study skills, and test-taking skills (Surdam & Collins, 1984). Calderwood advocates that faculty members who teach international students should be cognizant of the differences between their perceptions of student roles and norms and those perceptions of international students (Calderwood, 1993). Similarly, the AUCC's case-study evidence stressed the importance of cultural sensitivity and awareness for faculty members who are advising international students (Association for Universities and Colleges of Canada, 1998).

Social/Cultural Needs

When international students study abroad, they leave behind their social support network of family and friends. They need to develop social support in the host country in order to develop a sense of belonging, which positively affects their academic success. The AUCC (1998) asserts that it is important for international students to have a place to gather, socialize, and meet Canadian students as well as students from other countries. In addition, Heikinheimo and Shute (1986) discovered that graduate students who had established a close contact with students and faculty in their department prevented them from feeling alone and isolated. Chen (1996) also found that supportive professors and classmates helped international students to feel a part of the academic community. In addition, Surdam and Collin's (1984) study indicates that those international students

who spent more of their leisure time with Americans were significantly better adapted to their new American environment than those students who spent their leisure time with fellow nationalists. Likewise, Carley (1998b) found that students who had a difficult time adapting did not have any friends from the local area and did not have previous exposure to North American social and academic environment.

The interaction of international students with Canadian students can be influenced by students' level of proficiency in English. For some international students, language challenges result in a tendency to interact with only those students from their own country. This has the potential to impact students' learning, social adjustment, and self-confidence that could lead to social isolation within society (Cho, 1990; Heikinheimo & Shute, 1986; Ransford Antwi, 1993). International students who are provided with the support networks to assist in their adjustment to their new environment and provided with opportunities to listen to and speak English may successfully adapt to their new environment, thus enabling them to focus on their academics.

The main priority for many students who are studying abroad is achieving academic success. According to Sherini (1980), international students who spend the majority of their time studying have limited time to socialize. Leong and Sedlacek (1989) discovered that international students have higher academic and vocational needs and therefore place more emphasis on these needs instead of social and extracurricular needs.

The extent to which international students are involved in campus activities may also affect students' adjustment to the university. In a study of the academic and social needs of international students at a medium-sized university in the Southeast of the United States, Luzzo and Henao (1996) discovered that students who were involved in

campus activities felt that this involvement was important to their college experience. On the contrary, Surdam and Collins (1984) indicated that students who participated in campus and community activities did not feel that this involvement was related to their adjustment. Conversely, some students are concerned that as they become immersed in the host culture, they will lose their home culture. Adelegan and Parks (1985) found that African students were "straddling two cultures, reluctantly relinquishing one and adaptively confronting the other" (p. 507). Students have to decide which aspects of the host culture they are going to incorporate into their home culture. In addition, Parr et al. (1992) found that international students were concerned with how to interpret and respond to aspects of the American culture and how to adapt to American norms without compromising their own cultural norms. International students must find their own balance between retaining their home culture while living in and adapting to the host culture.

International students from different parts of the world have problems that are relevant to their country of origin. Students from the Third World countries have to make more adjustments to North American academic and cultural life than do students from Europe and the Caribbean (Heikinheimo & Shute, 1986). Perkins et al. (1977) suggest that it may be necessary for institutions to identify the differences with adjustment problems experienced by different nationals on its campuses. Such research suggests that the adjustment of campus services and programs may be essential to meet the specific needs of students from a particular country.

Housing Needs

Finding suitable living accommodations is one of the first hurdles faced by international students. Since they are new to the area, they have to quickly find a place that is close to the institution, affordable, and comfortable. According to Chandra (1974), Indian students would like more assistance from their university in locating a place to live. In addition, Calderwood's (1993) study found that international students would also like to have more information given to them concerning rules and regulations when renting an apartment or house, such as damage deposits and notice of departure. Similarly, Carley (1998b) found that housing influenced how students perceive Memorial University and its environment. The participants agreed that

the non-academic experiences garnered within their place of residence had a major influence on their cultural and social awareness of Memorial University and . . . these experiences . . . shaped their perceptions, expectations, and corresponding opinions of Memorial (p. 7).

Many international students can choose to either live on or off campus. Luzzo and Henao (1996) found that international students who live on campus feel the experience provided them with the opportunity to interact with students of other backgrounds and to share cultural experiences. Similarly, Chandra (1974) found that students who live on-campus experience less emotional strain and loneliness than those who live off-campus. Students living on-campus always have access to friends for both personal and academic support. However, the study by Eid and Jordan-Domschot (1989) indicates that students felt that dorm life did not enhance their academic success.

A common concern for many students living on-campus was the inadequate selection of food in the dining hall. Students in Luzzo and Henao's (1996) study suggested that the on-campus food services should offer foods from different parts of the world on a more regular basis. Similarly, over half of the students in the study by Eid and Jordan-Domschot (1989) indicate that there should be more variety in foods offered by the food services. International students in Carley's (1998b) study also felt that there was inadequate food selection at Memorial University's housing. They recommended that the housing office should ask international students living in residence about their specific dietary needs, food preparation, and handling or presentation of food. However, Boonyawij (1982) found that although students did not like the food, they realized that they had to cultivate a taste for North American food.

Financial Needs

Having adequate funding to study abroad is a concern for many international students. Adelegan and Parks (1985) found that students' financial concerns were mainly related to finding work opportunities. Unfortunately, some were disappointed when they came to Canada expecting to find part-time work easily and discovered that this was not the case (Chandra, 1974). According to Eid and Jordan-Domschot (1989), students need financial assistance such as scholarships in order to support their studies. Financial assistance is especially important for graduate students to continue their studies (Association of Universities and Colleges of Canada, 1998).

Since all countries have different financial practices, international students must be provided with information concerning the banking procedures relevant to the country

in which they are studying. For instance, Kitao (1988) indicates that international students need information concerning the different types of bank accounts and the process of writing cheques. Students also indicated that they would like to know the average cost of things such as meals and accommodations.

Conclusion

Retaining international students once they arrive at university is critical. However, in order to successfully retain students, institutions must be made privy to what variables affect students decision to either remain at the institution or to leave. It is important to determine what students' needs are and to provide them with the programs and services required to meet these needs. The most critical time for students is before and after they arrive because this experience will influence their opinion of the university for the remainder of their studies. Universities that are aware of the needs of international students and have programs in place to meet these needs will help students adapt to their new environment and thus retain them.

Chapter Three
METHODOLOGY
Design of the Study

Introduction

To assess the pre-entry and entry needs of international students who were first-time entrants to Memorial University, a quantitative approach was used. Although questionnaires were mailed to 94 international students, seven questionnaires were returned because of wrong addresses, which resulted in 87 international students being able to respond to the questionnaire. Sixty-three (63) students responded to the questionnaire, which resulted in a response rate of 72%.

Data Collection

Questionnaire

International students who began studies at Memorial University between Fall 1997 and Winter 1998 semesters were mailed a questionnaire during the summer of 1998 (see Appendix A) to assess their pre-entry and entry needs. This period of time was selected to allow students to have at least one or two semesters to reflect upon their recent experiences at Memorial University.

The questionnaire was based on a review of the literature on the needs of international students (Eid & Jordon-Domschot, 1989; Derressa, 1988; Chandra, 1974; Heikinheimo & Shute, 1986; Leong & Sedlacek, 1989). The design of the questionnaire was also based on the following surveys and texts (a) the questionnaire for international students, conducted by the Office of the International Students Advisor at McMaster

University (Jackson, 1998), (b) the survey by Calderwood (1993) to assess the satisfaction levels of international students attending Alberta universities, (c) a 1988 survey of international students in Canada conducted by the Canadian Bureau for International Education (De Vries & Richer, 1988), (d) a book on conducting surveys by Salant and Dillman (1994), (e) and a social research book by Babbie (1992). The questions in the questionnaire were also derived from observations of focus group interviews with Asian and American international students conducted by the Office of Student Affairs and Services of Memorial University in February, 1998.

A draft of the questionnaire was pre-tested on eight international students who were beyond their first year of studies at Memorial University during the months of April and May 1998. It was also circulated to the following administrators: (a) the Dean of Student Affairs and Services, (b) the International Student Advisor, (c) the Director of Student Development, and (d) the Director of English as a Second Language Program. After the questionnaire was returned it was modified according to the suggestions of the students and the administrators to improve the clarity and administration of the questions.

The questionnaire contained 65 questions in the form of forced choice, Likert scale, and open-ended questions. The first section contained questions relating to demographic information such as students' country of origin, age, and sex. The next section explored students' experiences in preparing to come to Canada such as the types of pre-departure information required by students and immigration concerns. This was followed by a section concerning students' experiences in Canada which included (a) arrival and orientation, (b) housing accommodations, (c) academic assistance, (d) English

language skills, (e) social/cultural expectations, (f) contact with home country, (g) finances, and (h) recruitment and retention.

Each questionnaire was accompanied by two letters: One letter explained the purpose of the study and reassured participants that all collected information would be confidential (Appendix B), and the second letter was from the International Students' Advisor to indicate her support of this research (Appendix C). In order to ensure a high response rate, follow-up letters were sent to participants. The questionnaires were mailed to participants on June 26, July 17, and August 7 of 1998 to provide participants with approximately two weeks to read and respond to the questionnaire. The first mailing included the original letter and questionnaire, and the second and third mailing included a follow-up letter with an attached copy of the questionnaire (Appendix D).

Data Analysis Plan

Questionnaire

The quantitative data collected from the questionnaire have been described and summarized by using descriptive statistics such as frequency distribution and cross tabulation. An alpha level of .05 was used for all statistical tests. Relationships between the responses for undergraduate and graduate students were examined using chi-square to determine whether or not the differences between them were significant (Babbie, 1992). Chi-square was based on the null hypothesis which stated that there were no significant differences between the needs of undergraduate and graduate international students. For the purposes of this study, the researcher is concerned with the relationship of the needs of undergraduate international students and those of graduate international students.

Limitations

There were several limitations in conducting this study. The results of this study do not allow the researcher to make broad generalizations to all Canadian universities that have an international student population. This study reflects the cultural milieu of Memorial University and therefore the results may be generalized to those institutions which have a similar international student make-up as that of Memorial University. However, the findings of this research will advance the knowledge concerning the needs of international students attending Canadian universities.

In addition, the data collected for this study do not apply to all international students attending Memorial University. The purpose of this study was to identify the needs of those international students who were first-time entrants to Memorial University. Therefore, the results cannot be generalized to the needs of international students beyond their first year of studies.

Another limitation of this study is that the researcher is not able to make assumptions regarding a particular cultural group because the sample is not representative of all the geographical origins of all international students attending Memorial University. This may limit the extent of accurate assessment with which to identify the needs of students coming from certain geographical areas.

The time of the year in which the data was collected is another limitation. The data collection occurred during the 1998 Summer semester. Although many of the international students attending Memorial University do not return to their home

countries between semesters, the international student population is difficult to engage in a survey because of travelling and changes of address.

In addition, it is difficult to know whether or not the questions were answered as fully as possible within the cultural context in which the questionnaire was designed. For example, for many of the international students English was not their first language and they were requested to respond to a questionnaire which was written in English.

Ideally, a more in-depth understanding of students' needs could be achieved by conducting student interviews at various stages of international students' study at Memorial University.

Chapter Four

RESULTS OF DATA ANALYSIS

The purpose of this study was to determine the academic, social/cultural, housing, and financial needs of undergraduate and graduate international students at Memorial University. The results of the data analysis for the questionnaire included a description of the sample and a discussion of the needs of international students.

Description of the Sample

Sixty-three international students responded to the questionnaire. Of these, 15 were undergraduates, 47 were graduates, and one student did not indicate student status. Some students did not respond to all the questions on the questionnaire.

As Table 1 indicates, the majority of undergraduate international students indicated two areas as their course of study: the Faculty of Medicine (36.4%) and the Faculty of Business (36.4%). The course of study for the majority of graduate international students was clustered around three faculties: the Faculty of Science (34%), the Faculty of Engineering (34%), and the School of Medicine (12.8%) (see Table 1).

Table 1

International Students' Course of Study (N= 48)

	Undergraduate		Graduate	
	Percentage (%)	Actual (N)	Percentage (%)	Actual (N)
Faculty of Arts	-	-	8.5	4
Faculty of Science	9.1	1	34	16
Faculty of Engineering	9.1	1	34	16
School of Medicine	36.4	4	12.8	6
School of Pharmacy	-	-	2.1	1
Faculty of Business	36.4	4	2.1	1
Faculty of Education	-	-	6.4	3
Other	9.1	1	-	-
Total		11		37

The ages of undergraduate students ranged from 19 to 24 years of age, with the average age of undergraduates being 22. Graduate international students ranged from 21 to 42 years old, with the average age of graduates being 29.

Females accounted for 73.3 % of undergraduate international students and males accounted for 26.7% of undergraduate international students. In comparison, 68.1% of graduate international students were male, while 31.9% were female.

When asked to indicate their country of origin, 33.3% of undergraduate international students were from Asia, 33.3% were from North America, and 26.7% were from Africa. Although the answers varied for graduate international students, they were clustered

around three countries: China (31.9%), Asia (29.8%), and North America (19.1%) (see Table 2).

Table 2

Country of Origin of Graduate and Undergraduate Students Attending Memorial University (N=62)

	Undergraduate		Graduate	
	Percentage (%)	Absolute (N)	Percentage (%)	Absolute (N)
Asia	33.3	5	29.8	14
North America	33.3	5	19.1	9
South America	-	-	2.1	1
Africa	26.7	4	8.5	4
Middle East	-	-	4.3	2
Europe	6.7	1	4.3	2
China	-	-	31.9	15
Total		15		47

A higher percentage of graduate international students (78.7%) indicated that English was their second language as opposed to 53.3% of undergraduate students who indicated that English was their second language.

Students were also asked to indicate their marital status. One hundred percent of undergraduate international students were single. However, the marital status of graduate international students varied: 57.4% were single and 36.2% were married. Of those married, 6.2% have children.

The next question asked students to indicate the number of dependents, such as spouse, children, parents, or relatives living with them in Canada. Graduate students were more likely to have dependents than were undergraduate students. The majority of graduate students who responded to this question had at least one dependent living (70.6%) with them.

Finally, students were asked to indicate their means of financial support for studying in Canada. Eighty percent (80%) of undergraduate international students were self-supporting or were supported by their family or friends. This was followed by 13.3% of students who were sponsored by the government, other group, or organization from their home country and 6.7% of students were sponsored by the Canadian government. The means of support for graduate international students was more varied with 46.7% of graduate students being supported by the Canadian government, while 31.1% were self-supporting or were supported by family or friends (see Table 3).

Table 3

International Students' Means of Financial Support (N= 59)

	Undergraduate		Graduate	
	Percentage (%)	Absolute (N)	Percentage (%)	Absolute (N)
1. A student self-supported or supported by family or friends	80	12	31.1	14
2. A student sponsored by the Canadian Government	6.7	1	46.7	21
3. A student sponsored by the home government/ other group or organization in your home country	13.3	2	8.9	4
4. Fellowship	-	-	13.3	6
Total		15		45

Discussion of the Needs of International Students

Preparing to Come to Canada

The decision to study abroad can be both exciting and intimidating. The second section of the questionnaire explored the types of information that would be helpful to prepare students for study in Canada. The first question of this section asked students what information they felt they needed before coming to Memorial University. Although student responses were varied, significantly more graduate international students (57.4%)

indicated that they would have liked to have the names of international students from their home country than did undergraduate international students (20%) prior to their arrival in Canada.

Just over ninety-three percent (93%) of undergraduate international students indicated that they would have liked to have information concerning on- and off-campus accommodations, as did 74.5% of graduate international students. Just over 73% of undergraduate international students and 66% of graduate international students indicated the need to have an informational brochure about Memorial University and St. John's (see Table 4).

Table 4

International Students' Needs Before Coming to Memorial University

	<u>Undergraduate</u>	<u>Graduate</u>	<u>Chi-Square</u>	
	Percentage (%)	Percentage (%)	X ²	p
1. Currency exchange Service	60	55.3	.101	.750
2. Maps: e.g. St. John's and Memorial University	66.7	55.3	.601	.438
3. Web site addresses e.g. Memorial University and off-campus housing	60	42.6	1.390	.238

Table 4

International Students' Needs Before Coming to Memorial University

	<u>Undergraduate</u>	<u>Graduate</u>	<u>Chi-Square</u>	
	Percentage (%)	Percentage (%)	X ²	p
4. Accommodations: on and off-campus	93.3	74.5	2.442	.118
5. Names of international students from your home country attending MUN	20	57.4	6.385	.012
6. Brochure: MUN, St. John's and Newfoundland	73.3	66	.283	.595
7. St. John's weather conditions and required clothing	66.7	68.1	.010	.919
8. Costs of essentials: e.g. bus and taxi fares, milk, haircut	46.7	51.1	.088	.767
9. Employment	53.3	36.2	1.392	.238
10. Other	13.3	14.9	.022	.881

When asked if they had any difficulty obtaining documentation required by Canadian Immigration before coming to Memorial University, both undergraduate (93.3%) and graduate (78.3%) international students felt that they did not have any difficulty in obtaining this information.

Arrival and Orientation

Students' initial introduction to a new country and a university can affect their overall adjustment to the new environment. Various questions asked students to provide information concerning the assistance and orientation offered to them upon arrival to St. John's and Memorial University. The first question asked students to indicate who met them at the airport upon their arrival in St. John's. The data indicated that significantly fewer undergraduate international students (53.3%) were met at the airport than graduate international students (23.4%) upon their arrival. However, the responses from graduate international students were more varied. Just over 36% of graduates indicated that a friend or relative met them at the airport and 23.4% were met by a professor or supervisor (see Table 5). When asked to provide additional comments about aspects of the questionnaire, one student stated that he/she would have been more relaxed upon arrival if he/she had been picked up at the airport. "I think everyone may get nervous when he arrives overseas. If there was somebody who welcomes new comer, the new comer would be more relaxed and pleased."

Table 5

Individuals who Met International Students at the Airport (N=62)

	Undergraduate		Graduate		Chi-Square	
	Percentage (%)	Absolute (N)	Percentage (%)	Absolute (N)	X ²	P
1. A friend or relative	13.3	2	36.2	17	2.790	.095
2. A member of the International Student Centre	0	0	0	0	0	0
3. An international peer	-	-	2.1	1	.324	.569
4. A professor or supervisor	6.7	1	23.4	11	2.041	.153
5. No one	53.3	8	23.4	11	4.792	.029
6. Other	26.7	4	14.9	7	.678	.410
Total		15		47		

Students were then asked if it was important that someone meet international students at the airport when they arrived. The majority of both undergraduate and graduate students agreed that this was important. Just over 93% of undergraduate international students and 82.6% of graduate international students indicated that it was important for students to be met at the airport upon arrival.

The next series of questions concerned orientation offered to students upon arrival. When asked if they had attended an orientation session, the majority of students indicated that they had not attended such a session. For both undergraduate and graduate

international students, 80% did not attend an orientation session for international students.

Of those students who did attend an orientation session, 33.3% of undergraduate international students were provided with an orientation session by each of the following: a nationality organization, friends, and “other” (33.3%) which included the Graduate Students’ Union (GSU) and the English as a Second Language (ESL) Program. Just over 62% of graduate international students indicated that the Office of Student Affairs and Services provided them with an orientation session, followed by 25% of “other”, which includes the GSU and the ESL Program (see Table 6).

Table 6

Who Provided the Orientation Session? (N=11)

	Undergraduate		Graduate	
	Percentage (%)	Absolute (N)	Percentage (%)	Absolute (N)
1. Department	33.3	1	12.5	1
2. Nationality organization	-	-	-	-
3. Friends	33.3	1	-	-
4. Office of Student Affairs and Services	-	-	62.5	5
5. Other	33.3	1	25	2
Total		3		8

Note. $\chi^2=5.118$, $p=.163$

The majority of both undergraduate (84.6%) and graduate (62.2%) international students indicated that they would have attended an orientation session upon arrival at Memorial University.

The next question asked students to select topics that should be included in an orientation session. The responses from both undergraduate and graduate international students were very similar. Undergraduate students indicated that health insurance (93.3%) should be an orientation topic, followed by academics (86.7%), student services (86.7%), and obtaining student identification cards (86.7%).

Graduate international students also indicated that student services (76.1%) should be an orientation session topic, followed by health insurance (71.7%), academics (69.6%), and obtaining student identification cards (67.4%).

However, significantly more undergraduate international students (26.7%) than graduate international students (6.7%) selected "other" as topics to be included in an orientation session. The "other" option included student employment, registration procedures, campus events, and car insurance (see Table 7).

Table 7

Topics that Should be Included in an Orientation Session

	<u>Undergraduate</u>	<u>Graduate</u>	<u>Chi-Square</u>	
	Percentage (%)	Percentage (%)	X ²	p
1. Academics	86.7	69.6	1.710	.191
2. The health insurance plan	93.3	71.7	2.983	.084
3. Banking	60	65.2	.134	.715
4. Budgeting	53.3	39.1	.933	.334
5. Health/Wellness issues	60	39.1	1.997	.158
6. Student services	86.7	76.1	.755	.385
7. Obtaining off-campus housing	80	58.7	2.227	.136
8. Emergency loan fund	73.3	56.5	1.340	.247
9. Entertainment	66.7	45.7	1.999	.157
10. Campus and library tour	53.3	63	.447	.504
11. Obtaining student ID cards	86.7	67.4	2.091	.148
12. Laundry and shopping facilities: location & expenses	53.3	45.7	.268	.605
13. Physical education facilities	66.7	47.8	1.610	.204

Table 7

Topics that Should be Included in an Orientation Session

	<u>Undergraduate</u>	<u>Graduate</u>	<u>Chi-Square</u>	
	Percentage (%)	Percentage (%)	X ²	p
14. Location of places of worship	46.7	34.8	.680	.410
15. Other	26.7	6.7	4.367	.037

Note. N is equal to the total number of yes responses.

The next set of questions concerned a peer-pairing program in which international students were paired with a more senior student upon their arrival at Memorial University. The majority of both undergraduate (64.3%) and graduate (82.6%) international students indicated that they were not paired with another student.

Those students who were paired with another peer were asked to indicate who organized this program. Their faculty/department organized this program for undergraduate international students (75%), while a supervisor organized the peer-pairing program for graduate international students (42.9%). It is interesting to note the important role supervisors play in the lives of graduate students (see Table 8).

Table 8

Who Organized the Peer-pairing Program? (N=12)

	Undergraduate		Graduate		Chi-Square	
	Percentage (%)	Absolute (N)	Percentage (%)	Absolute (N)	X ²	p
1. Faculty/ department	75	3	12.5	1	4.68 8	.030
2. My nationality organization	0	0	0	0	0	0
3. Supervisor	-	-	42.9	3	2.35 7	.125
4. Other	33.3	1	50	4	.244	.621
Total		4		8		

Note. N = the total number of yes responses

Finally, students were asked if they would have participated in a peer-pairing program. Almost 80% of undergraduate international students indicated that they would. However, 52.6% of graduate international students indicated that they would not have participated in a peer-pairing program.

Accommodations

Students were asked to comment on their living arrangements and the on-campus food service. The first question asked students to indicate who assisted them in finding accommodations. The answers varied for both undergraduate and graduate international students. The data indicated that 42.9% of undergraduate international students and 29.8% of graduate international students selected the "other" category, which included

the Canadian Commonwealth Agency, the Internet (Memorial on-line housing services), no one, and Student Affairs and Services as providing assistance for students to find accommodations. This was followed by 28.6% of undergraduate and 48.9% of graduate international students who were assisted by friends and family.

One significant difference was that 28.6% of undergraduate international students indicated that they had used a brochure to find accommodations as opposed to only 6.4% of graduate international students (see Table 9).

Table 9

Assistance in Finding Accommodations (N=77)

	Undergraduate		Graduate		Chi-Square	
	Percentage (%)	Absolute (N)	Percentage (%)	Absolute (N)	X ²	p
1. Friends and family	28.6	4	48.9	23	1.813	.178
2. Professor/supervisor/	7.1	1	19.1	9	1.134	.287
3. Academic department	-	-	4.3	2	.616	.433
4. Brochure	28.6	4	6.4	3	5.228	.022
5. Off-campus housing	21.4	3	17	8	.142	.707
6. Other	42.9	6	29.8	14	.836	.360
Total		18		59		

Note. N = the number of yes responses

Students indicated more than one source of assistance in finding accommodations.

Students were asked to indicate whom they lived with in Canada. Just over 33% of undergraduate international students indicated that they lived with a Canadian family, and 20% lived with other international students. Of graduate international students, 27.7% lived with their spouse, 23.4% lived with other international students, and 23.4% lived with students from their home country. However, more undergraduate international students (20%) than graduate international students (2.1%) lived with relatives who reside in Canada. It is also important to note that none of the undergraduate and 27.7% of graduate international students lived with a spouse. In addition, none of the undergraduate and 23.4% of graduate international students lived with students from their home country. In other words, none of the undergraduate respondents lived with a spouse or other students from their home country (see Table 10).

Table 10

Who do you Live with in Canada? (N=77)

	Undergraduate		Graduate		Chi-Square	
	Percentage (%)	Absolute (N)	Percentage (%)	Absolute (N)	X ²	p
1. Other International Students	20	3	23.4	11	.075	.784
2. Canadian students	20	3	19.1	9	.005	.942
3. Canadian family	33.3	5	14.9	7	2.477	.116
4. Spouse		-	27.7	13	5.250	.022

Table 10

Who do you Live with in Canada? (N=77)

	Undergraduate		Graduate		Chi-Square	
	Percentage (%)	Absolute (N)	Percentage (%)	Absolute (N)	X ²	p
5. Students from my home country		-	23.4	11	4.268	.039
6. Relatives resident in Canada	20	3	2.1	1	6.018	.014
7. Alone	20	3	6.4	3	2.412	.120
8. Other	20	3	4.3	2	3.802	.051
Total		20		57		

Note. N= the number of yes responses

Students selected more than one category.

Sixty percent of undergraduate international students lived in an off-campus apartment and 13.3 % lived in each of the following settings: a university residence and a room in a private home. Just over 38% of graduate international students lived in an apartment and 29.8% lived in a room in a rental house with other students (see Table 11).

Table 11

In What Type of Setting do you Live? (N=62)

	Undergraduate		Graduate	
	Percentage (%)	Absolute (N)	Percentage (%)	Absolute (N)
1. University residence	13.3	2	14.9	7
2. An apartment	60	9	38.3	18
3. Host family	6.7	1	-	-
4. Room in rental house	6.7	1	29.8	14
5. Room in private home	13.3	2	12.8	6
6. Other	-	-	4.3	2
Total		15		47

Note. $\chi^2=7.536$, $p=.184$

When asked why students decided to live off-campus instead of living in residence, significantly more undergraduate (76.9%) than graduate (34.1%) international students selected the "other" option, which included accommodations not being suitable and the limited selection of food in residence. Cost was also a variable which influenced both undergraduates and graduates decision related to residence (see Table 12).

Table 12

The Decision to Not Live in Residence (N=62)

	Undergraduate		Graduate		Chi-Square	
	Percentage (%)	Absolute (N)	Percentage (%)	Absolute (N)	X ²	p
1. Cost	30.8	4	58.5	24	3.048	.081
2. Missed application deadline	-	-	4.9	2	.659	.417
3. Filled	15.4	2	7.3	3	.765	.382
4. Was not accepted into residence	-	-	7.3	3	1.007	.316
5. Other	76.9	10	34.1	14	7.315	.007
Total		16		46		

Note. N= the number of yes responses

Students selected more than one category.

Just over 69% of undergraduate international students indicated that when obtaining off-campus housing they were aware of the procedures and regulations for renting (e.g. damage deposits and notice of departure). Just over 60% of graduate international students also agreed that they were aware of these regulations.

When asked if the dining hall and on-campus cafeterias provide a variety of food, both undergraduate and graduate international students had similar responses. The undergraduate international students (40.4%) agreed that there was a variety of foods offered in the dining hall and on-campus cateterias, as did 45% of graduate international

students. However, 60% of undergraduate international students and 55% of graduate international students felt that the cafeterias did not provide a variety of foods.

Questions concerning changing living accommodations revealed that just over 58% of undergraduate international student have moved once, while 38.6% of graduate international students have moved once and 38% have moved twice (see Table 13).

Table 13

How Often have you Changed Living Accommodations Since your Arrival at Memorial University? (N=56)

	Undergraduate		Graduate	
	Percentage (%)	Absolute (N)	Percentage (%)	Absolute (N)
1. None	8.3	1	9.1	4
2. Once	58.3	7	38.6	17
3. Times	-	-	9.1	4
4. Twice	25	3	38.6	17
5. More than 3 times	8.3	1	4.5	2
Total		12		44

Note. $\chi^2=2.694$, $p=.610$

The majority of students, 60% of undergraduate and 45.7% of graduate, indicated that unsuitable accommodations was the main reason for their relocation (see Table 14).

Table 14

What was the Main Reason for the Move(s)? (N=45)

	Undergraduate		Graduate	
	Percentage (%)	Absolute (N)	Percentage (%)	Absolute (N)
1. Distance	10	1	17.1	6
2. Cost	20	2	20	7
3. Accommodations not suitable	60	6	45.7	16
4. Family/Friends came to live with me	10	1	14.3	5
6. Location	-	-	2.9	1
Total		10		35

Note. $X^2 = .973$, $p = .914$

Academic Assistance

When coming to an international university, students have different cultural expectations of the teacher and the learner and thus have to adjust to a new academic environment. Students have to learn professorial expectations as well as rely on the advice of professors concerning academics. The questions in this section were designed to assess students' academic needs. The first question asked if students were assigned an academic advisor. The data revealed that significantly more graduate international students (80.4%) than undergraduate international students (33.3%) were assigned an advisor. Of those students who responded "no" to having an academic advisor, 80% of undergraduate international students said that they would like to have an advisor and 44.4% of graduate international students would not like to have an advisor.

When asked if students thought that it was important to receive assistance from an academic advisor in selecting courses, 53.3% of undergraduate international students and 66.7% of graduate international students thought that it was very important (see Table 15).

Table 15

Importance of Receiving Assistance from an Academic Advisor in Selecting Courses: (N=57)

	Undergraduate		Graduate	
	Percentage (%)	Absolute (N)	Percentage (%)	Absolute (N)
Very important	53.3	8	66.7	28
Somewhat important	33.3	5	19	8
Not at all important	13.3	2	14.3	6
Total		15		42

Note. $X^2=1.307$, $p= .520$

The next question asked students to indicate the type of academic assistance that they received since coming to Memorial University. Although the answers varied, there was one significant difference. Of those graduate international students who responded, 47.5% indicated that they have received assistance giving in-class oral presentations, whereas none of the undergraduate international students reported receiving assistance in this area (see Table 16).

Table 16

Have Received Assistance with the Following Academic Areas (N=70)

	Undergraduate		Graduate		Chi-Square	
	Percentage (%)	Absolute (N)	Percentage (%)	Absolute (N)	X ²	P
1. Giving in-class oral presentations		0	47.5	19	8.982	.003
2. Understanding lectures	16.7	2	25.7	9	.408	.523
3. Writing papers and essays	33.3	4	53.7	22	1.535	.215
4. Note taking	-	-	16.7	6	2.286	.131
5. Time management	8.3	1	11.4	4	.090	.764
6. Other	100	1	100	2		
Total		8		62		

Note: N= the number of yes responses

Students selected more than one category.

The data indicated that 61.5% of undergraduate international students would like to receive assistance in each of the following areas: giving in-class oral presentations and understanding lectures. Of graduate students, 82.1% would like assistance with giving in-class oral presentations and 75.9% would like assistance writing papers and essays (see Table 17).

Table 17

International Students Would like to Receive Assistance with the following Academic Areas: (N=134)

	Undergraduate		Graduate		Chi-Square	
	Percentage (%)	Absolute (N)	Percentage (%)	Absolute (N)	X ²	p
1. Giving in-class oral presentations	61.5	8	82.1	23	2.044	.153
2. Understanding lectures	61.5	8	56.7	17	.088	.766
3. Writing papers and essays	54.5	6	75.9	22	1.726	.189
4. Note taking	57.1	8	47.1	16	.403	.525
5. Time management	50	6	57.6	19	.205	.651
6. Other	100	1	100			
Total		37		97		

Note. N= the number of yes responses

Students selected more than one category.

The responses of undergraduate and graduate students were varied when asked who provided students with the academic assistance as indicated in Tables 17 and 18. However, the one significant difference was that the Math Centre assisted 14.3% of undergraduate international students yet none of the graduate international students received assistance from this particular centre (see Table 18).

Table 18

Who has Provided you with this Assistance? (N=70)

	Undergraduate		Graduate		Chi-Square	
	Percentage (%)	Absolute (N)	Percentage (%)	Absolute (N)	X ²	p
1. Friends	50	4	30.6	11	1.101	.294
2. Math Centre	14.3	1	-	0	5.265	.022
3. Writing Centre	28.6	2	5.6	2	3.680	.055
4. Not applicable	-	-	5.6	2	.408	.523
5. Professors	71.4	5	38.9	14	2.516	.113
6. Supervisors	28.6	2	47.2	17	.827	.363
7. Other	28.6	2	22.2	8	.132	.716
Total		16		54		

Note. N= the number of yes responses

Students selected more than one category.

The final question of this section asked students whether or not they have an understanding of the grading system at Memorial University. The data indicates that 73.3% of undergraduate international students and 75.6% of graduate international students have an understanding of Memorial University's grading system.

English Language Skills

This section explored students' written and oral English skills. The first question asked whether or not students wanted to practice speaking English in small conversation groups. The data indicated that significantly more graduate international students (58.7%) than undergraduate international students (21.4%) wanted to practice their English in

conversation groups. Of those students who responded, 46.7% of undergraduate international students and 56.5% of graduate international students indicated that they needed assistance with academic writing. In addition, when asked if students found it difficult to participate in class discussions, 26.7% of undergraduate international students and 37.8% of graduate international students responded "yes".

Finally, students were asked why they found it difficult to participate in class discussions. Fifty percent of undergraduate international students selected the "other" option, which included being able to speak freely as the reason for finding it difficult to participate in discussions. Graduate students identified this difficulty in relationship to their lack of confidence in speaking in English (35.3%) and in combination with their problem understanding lectures in English (35.3%) (see Table 19).

Table 19

Difficulties Experienced by International Students' as they Participate in ClassDiscussions? (N=21)

	<u>Undergraduate</u>		<u>Graduate</u>	
	Percentage (%)	Absolute (N)	Percentage (%)	Absolute (N)
1. Lack of confidence speaking in English	25.5	1	35.3	6
2. Problem in understanding lectures in English	25.5	1	11.8	2
3. Lack of confidence speaking English and problem understanding lectures in English	-	-	35.3	6
4. Problem understanding lectures in English and other	-	-	5.9	1
5. Other	50	2	11.8	2
Total		4		17

Note. $X^2=4.632$, $p=.327$

Social/Cultural Expectations

As international students begin to adjust to a new country, they also have to adjust to the social and cultural expectations of that country and, in particular, of that province. This section asked students to comment on these expectations. The first question asked students to rate the importance they placed on discussing their home country with other Memorial University students and members of the St. John's community. The data

indicated that 46.7% of undergraduate international students and 50% of graduate international students felt that it was somewhat important to discuss their home country with others.

Students were asked to rate the importance of being involved in activities similar to those of their home country. The data indicated that 46.7% of undergraduate international students thought that it was somewhat important to be involved in these activities. Of graduate international students, 44.7% indicated that it was very important to be involved in activities similar to their home country and 44.7% believed that it was somewhat important.

Students were then asked if it was important for the university to recognize traditional holidays as celebrated in their home country. Just over 53% of undergraduate international students and 40.4% of graduate international students felt that it was not at all important.

Finally, students were asked to rate the importance of finding a place of worship. The responses varied for both undergraduate and graduate international students. Undergraduate international students indicated that it was very important (35.7%) and somewhat important (35.7%). Graduate students indicated that it was not at all important (43.5%), followed by very important (32.6%) to find a place to worship.

The next question asked students whether or not they would like to visit the home of a Canadian family. The data indicated that 57.1% of undergraduate international students and 74.5% of graduate international students would like to visit a Canadian family.

When asked if they have had an opportunity to interact with Canadian students, 100% of undergraduate and 82.6% of graduate international students answered yes. However, in an open-ended question, some graduate students indicated that there should be programs to provide international students with an opportunity to meet Canadian students. Students also commented that Canadian students do not make an effort to befriend an international student. Another student stated that “Canadian students should take more initiative to show international students around.”

Finally, students were asked to indicate who were their close friends in Canada. The responses varied as 53.3% of undergraduate international students and 71.7% of graduate international students indicated that their close friends were students from their home country. Albeit, significantly more undergraduate international students (73.3%) than graduate international students (41.3%) considered Canadian students to be their close friends (see Table 20).

Table 20

International Students Close Friends in Canada (N=96)

	Undergraduate		Graduate		Chi-Square	
	Percentage	Absolute	Percentage	Absolute	X ²	p
	(%)	(N)	(%)	(N)		
1. Students from Home country	53.3	8	71.7	33	1.739	.187
2. Students from International countries other than your own	40	6	41.3	19	.008	.929
3. Students from Canada	73.3	11	41.3	19	4.643	.031
Total		25		71		

Students selected more than one category.

Contact with Home Country

The next two questions concerned students' contact with their home country.

When asked to indicate the frequency of contact, 66.7% of undergraduate international students and 57.4% of graduate international students had weekly contact with their family (see Table 21).

Table 21

International Students Frequency of Contact with Family in Home Country (N=62)

	<u>Undergraduate</u>		<u>Graduate</u>	
	Percentage (%)	Absolute (N)	Percentage (%)	Absolute (N)
Weekly	66.7	10	57.4	27
Monthly	20.0	3	29.8	14
Other	13.3	2	12.8	6
Total		15		47

Note. $\chi^2 = .562$, $p = .755$

The next question asked students to indicate the variety of communication modes that students use to contact their family. Sixty percent of undergraduate international students and 66% of graduate international students used e-mail to contact their family. However, significantly more graduate international students (100%) than undergraduate international students (86.7%) contacted their family by telephone (see Table 22).

Table 22

International Students Method of Communication with Family in Home Country?

(N=134)

	Undergraduate		Graduate		Chi-Square	
	Percentage (%)	Absolute (N)	Percentage (%)	Absolute (N)	X ²	P
1. E-mail	60	9	66	31	.176	.675
2. Telephone	86.7	13	100	47	6.476	.011
3. Letter	46.7	7	55.3	26	.342	.559
4. Other	6.7	1	-	-	3.185	.074
Total		30		104		

Note. N = the number of yes responses

Students selected more than one category.

Finances

This section asked students to respond to questions concerning means of financing their education. The first question asked students if they have to supplement their income in order to finance their studies. The data indicated that 66.7% of undergraduate international students and 86.4% of graduate international students have to supplement their income.

When asked if it was easy to find employment on campus, 46.7% of undergraduate international students respond "no", and 46.7% of these students indicated that they did not know if it was easy to find employment on-campus. One undergraduate students stated in an open ended question that "finding employment on campus was near impossible." Graduate international students also indicated that they did not know

(59.6%) if it was easy to find employment on campus, and 31.9% said that it was not easy to find on campus employment.

When asked if it was important for Memorial University to offer financial assistance in order to attend university, the responses from undergraduate and graduate international students were significantly different. The data indicated that more graduate international students (85.1%) than undergraduate international students (46.7%) said that it was very important to offer financial assistance. However, 20% of undergraduate international students and 2.1% of graduate international students said that it was not at all important (see Table 23). Conversely, one undergraduate student stated in an open ended question that the high differential fee caused them to live in cold, cheap apartments and little money to spend on food.

Table 23

Is it Important to you that Memorial University Offers Financial Assistance for you to Attend its University? (N=62)

	Undergraduate		Graduate	
	Percentage (%)	Absolute (N)	Percentage (%)	Absolute (N)
Very important	46.7	7	85.1	40
Somewhat important	33.3	5	12.8	6
Not at all important	20	3	2.1	1
Total		15		47

Note. $\chi^2=10.557$, $p=.005$

There were also significant differences in students' responses when asked if they experienced delays in receiving money from home. Forty percent (40%) of undergraduate international students said they have experienced delays, while only 13% of graduate students agreed. However, 58.7% of graduate international students said that delays in receiving money from home was not applicable to them, whereas 6.7% of undergraduate international students agreed.

Recruitment and Retention

The last section of the questionnaire asked students a variety of questions concerning recruitment of international students and on-campus services available to them. The first question asked students to identify their main source of help since their arrival in St. John's. Although the answers varied, there were some significant differences. A higher percentage of graduate international students (57.4%) than undergraduate international students (7.1%) indicated that their faculty/department/supervisor has been their main source of help. However, a higher percentage of undergraduate international students (64.3%) than graduate international students (25.5%) indicated that their source of help was from the "other" category which included Canadian friends, relatives, and Students Affairs and Services (see Table 24).

Table 24

International Students Main Source of Help Since their Arrival in St. John's (N=82)

	Undergraduate		Graduate		Chi-Square	
	Percentage (%)	Absolute (N)	Percentage (%)	Absolute (N)	X ²	P
1. International student advisor	7.1	1	10.6	5	.149	.700
2. Faculty/department/supervisor	7.1	1	57.4	27	10.992	.001
3. Student from my home country	28.6	4	48.9	23	1.813	.178
4. Other	64.3	9	25.5	12	7.176	.007
Total		15		67		

Note. N = the number of yes responses

Students selected more than one category.

The next question asked students to indicate their reason for choosing to study at Memorial University. Of those undergraduate international students who responded, 60% chose Memorial University because of the availability of the program that they wanted to study and 40% came because of the cost of attending this university in comparison to other Canadian universities. Graduate international students also chose Memorial University because of program availability (60.9%) and upon recommendations from friends, family, or teachers (26.1%).

However, there were some significant differences between the responses of undergraduate and graduate international students. Graduate students came to Memorial University because of scholarships or other financial incentive (54.3%). The reputation of a particular professor/supervisor was a reason for 21.7% of graduate students, and 21.7% also came to Memorial University because of the availability of research facilities. None of the undergraduate students selected these options as their reasons for choosing Memorial University.

Table 25

Why did you Choose to Come to Memorial University?

	<u>Undergraduate</u>	<u>Graduate</u>	<u>Chi-square</u>	
	Percentage (%)	Percentage (%)	X ²	P
1. Scholarship, assistance, or other financial incentive	-	54.3	13.813	.000
2. Reputation of particular professor(s)/supervisor	-	21.7	3.900	.048
3. Recommendation from family, friends, or teachers	33.3	26.1	.295	.587

Table 25

Why did you Choose to Come to Memorial University?

	<u>Undergraduate</u>	<u>Graduate</u>	<u>Chi-square</u>	
	Percentage (%)	Percentage (%)	X ²	P
4. Cost of attending this university compared to other Canadian Universities	40	17.4	3.270	.071
5. Availability of program I want to study	60	60.9	.004	.952
6. Availability of research facilities	-	21.7	3.900	.048
7. Quality and reputation of Memorial University	20	15.2	.189	.664
8. Other	20	19.6	.001	.971

Note. N = the number of yes responses

When asked how they first learned about Memorial University, 46.7% of undergraduate international students indicated that it was by advertisement such as a brochure or pamphlet and 46.7% learned about Memorial University through friends or family who are attending or who have attended Memorial University. The response of graduate students was similar as 27.7% learned about Memorial University through advertisements such as a brochure or pamphlet and 46.8% learned about Memorial

University through friends or family who are attending or who have attended Memorial University (see Table 26).

Table 26

How did you First Learn about Memorial University?

	Undergraduate	Graduate	Chi-square	
	Percentage (%)	Percentage (%)	X ²	p
1. Brochure/ pamphlet/ advertisement	46.7	27.7	1.880	.170
2. Friends/family attended/ attending Memorial University	46.7	46.8	.000	.992
3. Internet	13.3	17.0	.114	.735
4. Supervisor	6.7	8.5	.052	.819
5. Government	0	0	0	0
6. Other	20.0	17.0	.069	.793

Note. N = the number of yes responses

The following question was designed to assess the support services available to students. The question asked students to indicate which services they have accessed. Although the responses were varied, there was one significant difference. The data

indicated that significantly more undergraduate international students (78.6%) were aware of the two-day orientation than graduate international students (28.6%) (see Table 27).

Table 27

Percentage of Students who have Used the On-campus Student Support Services/Programs

	<u>Undergraduate</u> Percentage (%)	<u>Graduate</u> Percentage (%)
1. Counselling Centre	71.4	57.8
2. Career Development Centre	73.3	59.5
3. Chaplaincy	46.7	26.8
4. Health Services	85.7	86
5. Student Volunteer Bureau	46.7	27.9
6. Off-campus housing	69.2	75
7. On-campus housing	80	84.1
8. Locker allocation	86.7	46.3

Table 27

Percentage of Students who have Used the On-campus Student Support Services/Programs

	<u>Undergraduate</u> Percentage (%)	<u>Graduate</u> Percentage (%)
9. Identification cards	100	92.9
10. Emergency loans	42.9	41.9
11. Two-day orientation	78.6	28.6
12. Clubs and societies	78.6	53.5
13. Academic help Centres	76.9	37.2
14. Varsity/ Intramural sports	71.4	32.5
15. Daycare Centre	0	47.6
16. Wellness Centre	35.7	16.7
17. Blundon Centre	14.3	9.3
18. International Students Centre	78.6	74.4
19. M.U.C.E.P.	42.9	19
20. International Student Advisor	86.7	71.7

Student Involvement

The next question asked students whether or not they were involved with any groups or societies on campus. The data indicated that a majority of undergraduate international students (73.3%) and graduate international students (71.7%) were not involved with any groups or societies.

When asked to list the on-campus groups or societies of which they were members, the majority of students listed culturally based groups. Some of these groups included the MUN International Student Society, MUN Chinese Student Society, and the MUN Muslim Society.

When asked to indicate their involvement with a group or society off campus, 73.3% of undergraduate international students and 84.4% of graduate international students indicated that they were not involved with an off-campus group or society.

Once again, students listed off-campus culturally based groups of which they were members. Some of these groups included Amnesty International, the Scottish Dancing Society, and the Filipino Association of Newfoundland.

The next question asked if students' involvement with a group or society helped them adjust to life at Memorial University. Interestingly, 50% of undergraduate international students and 43.2% of graduate international students said yes, whereas, 50% of undergraduate international students and 51.4% of graduate international students said that their involvement was not related to their adjustment to Memorial University.

When asked if they know who the International Students' Advisor is, 86.7% of undergraduate international students and 71.7% of graduate international students said

yes. The majority of students also knew where the Advisor's office was located. The data indicated that 80% of undergraduate international students and 73.9% of graduate international students knew where to find the Advisor's office.

By reflecting upon their experiences at Memorial University, students were asked to provide advice they would give to an international student coming to Memorial University for the first time. The data indicated that the advice of 41.7% of undergraduate international students would be to develop friendships with other students, and 16.7% would suggest that students enjoy the opportunity to study abroad. Graduate international students' advice would be to become acquainted with Canadian/Newfoundland culture (13.8%), to be aware of weather conditions (13.8%), and to improve English skills (13.8%).

Students provided a variety of suggestions that would ease the transition from their home to Memorial University. The top three suggestions were (a) having a good social and academic support network of friends, family, and Memorial University personnel, (b) attending an orientation session; and (c) having information about Memorial University and St. John's prior to arrival at Memorial University.

Chapter Five

DISCUSSION

Discussion of the Findings

Preparing to Come to Canada

Prospective students would like to receive information that is pertinent to living in St. John's and attending Memorial University. Both undergraduate and graduate international students indicated they needed similar information before coming to Canada. This included information about on- and off-campus housing, brochures and maps of Memorial University and St. John's, and information concerning weather conditions. In addition, significantly more graduate international students (57.4%) would like the names of other students attending Memorial University from their country. Thus, before international students leave their home country to study abroad, they should be sent detailed and comprehensive information about the university and the surrounding area to adequately prepare them for their arrival in Canada.

It is essential that international students obtain the necessary information from Canadian immigration. Although the majority of international students did not experience immigration problems, it was a problem for 6.7% of undergraduate international students and 21.7% of graduate students. It may be beneficial for the university to investigate what these problems were as they may have prevented or discouraged other prospective international students from attending Memorial University.

Arrival and Orientation

Traditionally, Memorial University did not have an airport reception for international students. In September 1998, the International Special Projects office, in conjunction with the International Students Centre and the Graduate Students Union, organized an airport reception. According to the results of this study, international students were met at the airport by a variety of people. However, it is interesting to note that undergraduate (53.3%) international students were more likely to not be met upon arrival than were graduate international students because many graduate international students were more likely to have made arrangements for someone from their faculty to meet them at the airport. This is due, in part, to the nature of graduate schools which is able to provide more personable service for their graduate students because of the manageable student population size. However, both undergraduate (93.3%) and graduate (82.6%) international students felt that it was important for international students to be met at the airport. This initial experience could have long lasting effects on students' attitudes towards their host country. Arriving in a foreign country must be a daunting experience, one that could be less daunting by having someone meet international students when they arrive. This simple gesture eliminates the concern of finding transportation from the airport to the university, and finding the international student advisor to assist them with locating housing and academic matters.

Although Memorial University did not provide an orientation session for newly arriving international students, in September 1998, an evening session was organized specifically for them. Unfortunately, this was not in place for the participants of this

research study. The majority of both undergraduate and graduate international students (80%), did not attend an orientation session geared specifically toward them. However, some students did attend an orientation session that was organized by friends, Student Affairs and Services, Graduate Students Union, or English as a Second Language Program. This raises the question, if orientation sessions were organized, then why did the majority of students not attend? Was it because the sessions were focused on a particular sub-group of international students? Were international students aware of the orientation sessions? When did the sessions occur? Did they occur before the beginning of the semester? This is important as some international students tend to arrive a few weeks after the beginning of the semester. Do the orientation sessions provide the type of information that attracts international student participation? Perhaps these organizations need to include senior international students in the planning and implementation of orientation sessions? When the reasons have been identified why international students did not attend the orientation sessions, the organizations can make the necessary changes to improve the participation rates. This is of particular importance since the majority of students (84.6% of undergraduate students and 62.2% of graduate students) indicated that they would attend an orientation session if it was available.

Both undergraduate and graduate international students indicated that they required orientation topics related to academics and essential life information. These would include topics such as academics, health insurance, housing, student services, and obtaining identification cards. However, when international students arrive at the university, they could feel overwhelmed from information overload during their

orientation. Thus stated, the orientation session should include essential information, as mentioned above, and present other pertinent information to students through workshops during the semester.

A peer-pairing program provides the opportunity for newly arriving international students to be paired with a more senior student. Memorial University does not formally have such a program although certain departments on campus may pair students in their particular faculty. For instance, the Centre for International Business Services organizes a buddy system for international business students. According to an article in the *Gazette*, Memorial University's newspaper, one international student involved in the buddy system stated that "it is a great way for students to adjust to the city and to campus during the first few days, when everything can be very confusing" (Pecore, 1996, p. 5). Almost 78% of undergraduate students and 47.4% of graduate international students in this study indicated that although they were not paired with another student upon arrival, they would have been interested in participating in such a program. However peer-pairing is not a practice of the university. Students who were paired with another student upon arrival (35.7 % of undergraduate international students and 17.4% of graduate international students) were primarily the concern of, and organized by faculty or a supervisor.

There have been numerous studies conducted supporting the benefits of a peer-pairing program to help students adjustment to university. A study conducted by Quintrell and Westwood (1994) found that students who were involved in a peer-pairing program were better adjusted than those students who were not involved in such a

program. Abe et al. (1998) found that international students who participated in a peer-pairing program showed higher social adjustment scores than those of non-participants. Memorial University international students also recommend that there should be a buddy system for international students (Carley, 1998b). The peer-pairing program should be organized before international students arrive in Canada. This would allow international students to contact their peer-pairing partner and ask questions about the host country. Upon arrival, the international students will have already established a connection with a fellow student who can provide them with support.

Accommodations

Undergraduate international students seem to be left to their own resources when finding accommodations, whereas graduate international students receive assistance from friends, family, or a professor/supervisor. Once again, graduate students have the advantage of being connected with a faculty given the nature and size of their graduate program. Locating appropriate accommodations can have a significant impact on students' initial experiences, especially when the majority of students live off-campus. Memorial University should assess their current services and consider the improvements that could be made to assist international students find accommodations.

International students also seem to live with a variety of people and in a variety of settings. The majority of undergraduate students (76.9%) decided against living in a university residence because of the lack of privacy and a lack of ethnic food selections offered in the dining halls. The on-campus housing office should assess their services in

order to determine what changes might encourage more international undergraduate students to live in residence. Graduate students do not have these concerns because the graduate students who live on-campus have accommodations that enable them to prepare their own meals.

The university may also want to re-examine the variety of food offered in residence dining hall and on-campus cafeterias because 60% of undergraduate and 55% of graduate international students felt that the selection was limited in its ethnic variety. For instance, some students prefer to eat spicy foods, while others are required by their religion to eat vegetarian dishes or are forbidden to eat beef. International students judge that the on-campus food service does not provide sufficient ethnic variety in their selections.

Academic Assistance

The role of academic advisor is very important for students who are entering a new academic environment. Since students depend on academic advisors for assistance with their selection of appropriate programs and courses. Although the majority of graduate students (80.4%) were assigned an academic advisor, it is interesting to note that 44.4% of graduates indicated that they did not want an advisor. Since graduate students are assigned a supervisor, these students are making a distinction between the titles of a supervisor and an advisor. However, more effort needs to be made to assign advisors to undergraduate students as 66.7% indicated that this had not been done. An advisor is especially important for undergraduate international students because many of them are

undecided about their program of study. In addition, an advisor could also help students who are experiencing difficulties adjusting to the culture of a new academic environment. This would decrease students' academic anxiety and positively affect retention.

Although both groups of international students received academic assistance in a variety of areas, students would like to receive additional support in giving presentations, understanding lectures, note taking, writing papers and essays, and time management. Although these programs are offered to Memorial University students by various departments, international students have different needs. For instance, the counselling centre often provides workshops related to these topics. Their focus might require adjustments to meet the need of students whose first language is not English. Therefore, international students may require a more intensive program or workshop. The fact that many international students are studying within an academic environment whereby international students are taught a second language, requires that programs and academic advisors be sensitive to their needs and provide them with the appropriate strategies.

English Language Skills

Since many international students are learning English as a second language, students often benefit from conversational English groups. It is interesting to note that more graduate international students (58.7%) than undergraduate international students (21.4%) indicated that they would like to practice their English in this forum. This may be due to the fact that 78% of graduate international students were learning English as a second language in comparison to 53% of undergraduate international students. Another

reason could be that graduate students are more inclined to seek assistance to improve their skills as they are expected to perform well in their course work and because their teaching assistantship positions require them to interact with English speaking students. Regardless, it is important for international students to be provided with the opportunity to participate in conversational English groups. The English as a Second Language Program offers such a program for international students in their programs, however, this program does not include all international students attending Memorial University. The university may want to investigate how to expand or further develop the current ESL conversational English program to increase international student participation or offer separate conversational English program from that of ESL.

Graduate international students (56.5%) indicated that they needed assistance with their academic writing and 46.7% of undergraduate international students agreed. This may be an area that the School of Graduate Studies and undergraduate faculties/ departments may want to further explore.

International students often experience difficulties participating in class discussions. Professors need to be sensitive to the reasons that may prevent students from doing this. Students indicated that their reasons include lack of confidence speaking English, problems understanding lectures, and speaking freely. Having an awareness of the possible problems that may prevent students from participating in class discussions may help professors to identify international students who are experiencing difficulties.

Social/Cultural Expectations

Some international students experience homesickness while they are living abroad. Some students feel better when they discuss their home country with other students and members of the local community. For instance, Cunningham (1991) found that almost two thirds of universities and colleges indicated that their international students are interested in being more involved in the community as resource persons, such as conducting workshops for school children. Carley (1998b) found that international students would like to share their beliefs, practices, and expectations with others in the university and other scholastic settings. International students of this study, indicated that it was somewhat and very important for them to discuss their home country with others. The university could arrange for international students to conduct workshops for various groups both on and off campus. This experience would provide the opportunity for international students to practice their public speaking skills and to interact with Canadians.

Another way for international students to learn more about their host country is to participate in a host family program, which pairs a local family with an international student who visits the family to share meals and/or holidays. In some cases, the international student may live with the host family during his/her studies. Both undergraduate (57.1%) and graduate (74.5%) international students of this study indicated that they would like to visit the home of a Canadian family. Although Memorial University does not formally offer such a program, this study supports the development of a host family program.

Although the majority of international students interact with Canadian students, international students tend to rely on students from their own country and those from Canada for support. Many international students commented that Canadian students do not initiate friendships with international students. The university may want to explore institutional activities to organize and provide opportunities for Canadian and international students to interact. Perhaps this should be the initiative of departments who have international students.

The involvement in activities similar to those of international students' home country may also help students adjust to a new cultural environment. It was somewhat important for undergraduate (46.7%) and graduate (44.7%) international students to be involved in such activities. For example, the university could organize sporting activities such as cricket, ping-pong, and soccer that are representative of various countries.

When students come to a new country, they are drawn to those things that are familiar. Religion is something familiar to both their home country and to their host country. In response to a comment about the importance of religion, a Memorial University international business student indicated in an article written by a member of the *Gazette* that for international students who are living in St. John's without any family, it is important for them to interact with people who share their faith (Dannawy, 1996). Becoming involved with a religious group or organization provides an opportunity for international students to practice their faith as well as interact with people who share the same beliefs and traditions. Undergraduate students indicated that this was very (35.7%) to somewhat (35.7%) important, while the responses from graduate students were either

very important (32.6%) or not at all important (43.5%). The university can help international students find a place of worship by providing them with a listing of the contact names of the religious organizations that are available in the city. This could be given to students before and after they arrive at Memorial University.

Contact with Home Country

Maintaining contact with family in students' home country is also important. This is especially important when students arrive since they have not yet had time to establish supportive relationships with others. Undergraduate (66.7%) and graduate (57.4%) international students of this study have weekly contact with their families. The telephone is the most popular method of communication.

Finances

Before international students can obtain student VISAS, which are required to study in Canada, they have to prove that they have sufficient financial resources to study abroad. These resources may be so stringent that students are required to live on very tight financial budgets. The majority of international students in this study (66.7% of undergraduates and 86.4% of graduates) indicated that it was necessary to supplement their income in order to finance their studies. However, it is interesting to note that when students were asked if it was easy to find employment on campus, a large percentage said either no or they did not know.

Of those undergraduate students who responded to the question about whether or not it was easy to locate on campus employment, 46.7% said no and 46.7% said that they did not know. The university may want to assess the employment programs in place for all undergraduate students, such as MUCEP (Memorial's Undergraduate a Career Experience Program), to determine if the number of applicants outnumber the jobs that are available and to examine the number of international student applicants. Based on the findings of this study, the university may want to explore other means of providing students with employment. The bigger question, however, is whether or not international students are aware that they are allowed to work on campus and if they are aware of the services in place to help them find employment, such as the Career Development Centre. Sefa Dei (1992) suggests that information concerning types of financial assistance, such as bursaries/awards that are available to international students should be communicated to them.

Graduate students do not usually have a problem finding employment as there are fellowships and graduate assistantships available. This may account for the reason that 59.6% of graduate international students indicated that they do not know if it is easy to find employment on campus since they have never had to actively seek employment. Given the nature of graduate school, international graduate students are usually informed of the employment opportunities that are available to them.

Recruitment and Retention

Where do international students seek assistance when they require help?

According to the undergraduate international students who participated in this study, 64.3% found friends, relatives, or Student Affairs and Services to be their main source of help. However, 57.4% of graduate international students have found faculty/department/supervisor to be a source of help along with students from their home country (48.9%). Are there ways to increase the sources of assistance for students? It is obvious, from the results of the study, that undergraduate students seek assistance external to their faculty. This may be because many international students did not have an academic advisor. However, it is beneficial to have a faculty member interact with international students who require assistance adjusting to the new academic environment. The university may want to encourage departments to match international students with academic advisors.

When deciding to study abroad, international students have a variety of institutions from which to select their program of studies. From a recruitment perspective, it is important to know why international students choose to study at Memorial University. For undergraduate international students, the main reasons seemed to be availability of program of interest (60%), cost of attending Memorial University in comparison to attending other institutions (40%), and recommendations from family and friends (33.3%). Graduate international students indicated that the main reasons they chose Memorial University was because of the availability of the programs they wanted to study (60.9%) and the financial assistance available (53.3%) to them. The university may need to assess their recruitment strategies to determine if these are sensitive to the

needs of different international students and whether or not the focus of recruitment strategies is on the factors that influence the decision of international students' to study at Memorial University.

Another important element of recruitment is advertising. What types of advertising bring international students to Memorial University? There were a range of responses as to how international students first learned about Memorial. The two main ways were a brochure/pamphlet/advertisement (48.7% of undergraduate students and 27.7% of graduate students) and family/friends (46.7% of undergraduate students and 46.8% of graduate students) who had attended or who were attending the institution. Once again, the opinions of other international students who were connected to Memorial University influenced students decision to study at Memorial University. Clearly, Memorial University's reputation is communicated through "word of mouth". It is important for the university to explore the needs of international students so that they leave the institution satisfied and will recommend other international students to attend.

Memorial University offers a variety of programs and services to meet students needs such as health services, off-campus housing, emergency loans, and academic help centres. The international students involved in this study indicated that they used a variety of services, especially those related to academics, and essential life services such as health services, on and off-campus housing, identification cards, and the International Students' Centre.

It is interesting to note that the counselling centre was used by 10 undergraduate students and 26 graduate students which indicates that some international students use the

services offered by the centre. This is supported by Rimmer, Lammert, and McClain's (1982) findings which indicates that minority graduate students perceived a significant greater need for personal growth counselling groups and support groups for minority students. Conversely, Abe et al. (1998) found that the counselling centre was one of the most unused campus resources by international students.

The counselling centre can be an essential service to assist those students who may need help in dealing with culture shock or with other personal matters. Since the culture of many international students does not encourage the use of counselling services, the university has to make a concerted effort to explain to students what this service provides and the potential benefits of this service in helping students to adjust to their new environment.

Another interesting finding of this study is that only six undergraduate international students used MUCEP. This immediately sparks the question that if students are finding it difficult to find employment on campus, why are they not using MUCEP? Once again, the university needs to explore the reasons why international students are not availing of this service and/or why they are not being hired for on-campus employment.

Student involvement in groups or societies on and off campus are known to increase student satisfaction (Astin, 1984). The majority of undergraduate (73.3%) and graduate (71.7%) international students are not involved with groups or societies on and off campus. However, of those students who are involved, 50% of undergraduate international students and 43.2% of graduate international students indicated that this involvement had helped them to adjust to Memorial University. Subsequently, those

students who are involved in groups or societies expressed the benefits of this experience. The question that remains is why are more international students not involved in clubs and societies? Could the reason be that there are not any groups or societies that are of interest? Or, do international students feel they have little time to become involved because they are focusing on their studies?

Students were asked what advice they would give to potential international students coming to Memorial University. Advice from undergraduate students was related to developing social support networks, such as friendships with other students, and basic life issues, such as bringing suitable clothing. In addition, graduate students provided academic advice, such as improving verbal and written skills and contacting the faculty.

Students then shared their opinions concerning what would make the transition from students' home countries to their new host country easier. Both groups of international students indicated that it is important for students to have both academic and social support and knowledge of Newfoundland and Memorial University. In addition to this, graduate international students also indicated financial support as being important.

Summary

The experiences and opinions of graduate international students were, in some cases, different from that of undergraduate students. This is because graduate studies are very different from undergraduate studies. Graduate schools usually have small-to medium-sized student populations which enable them to provide more personable service

for students. Graduate students often are valuable resources to departments/ faculties because they conduct research which is pertinent to the financial feasibility of many graduate programs. It is because of this that graduate students usually develop closer relationships with faculty members, and in particular their supervisors, than do undergraduate students. Therefore, graduate international students rely on their respective departments for assistance in many areas of their lives. Undergraduate students, especially during the first year of their studies, do not develop a strong attachment to a particular department and therefore tend to rely on fellow students for assistance.

It cannot be assumed that Canadian and international students will establish cross-cultural friendships simply by attending the same institution. It is the responsibility of both groups to make a concerted effort to develop friendships with each other. The bulk of this responsibility lies with the Canadian student, who is still surrounded by a familiar Canadian culture and academic environment. International students, on the other hand, have more adaptations and adjustments to make as they are immersed in a foreign culture and academic environment. Canadian students need to realize that studying abroad can be very lonely for many international students. However, through the development of friendships with international students, the Canadian students may be able to make another students' experience more enjoyable. One student commented that

the young students at the university do not interact much with us. It is very essential that we know each other, respect each other's customs and beliefs so that we live in peaceful co-ordination with each other. It is also

essential that students from other countries reach out to the people who have been born and brought up in this country. If there is better understanding, any foreign student would certainly feel at home here.

Canadian students may need to be reminded of the importance of international students attending our universities as they have the opportunity to learn about another culture without having to leave Canada. Do Memorial University students know which countries are represented by its international student population? Given the homogeneous population of students attending Memorial University do these students feel comfortable approaching international students? To what extent is it the responsibility of the institution to foster and maintain friendships between Canadians and international students? Although the university cannot make students befriend one another, it can provide opportunities for Canadian and international students to socialize. For instance, the university could organize day trips or the sharing of holiday meals during Thanksgiving and Christmas.

The university has a responsibility to provide international students with a warm welcome and ensuring that students' experiences are positive. This can begin by providing students with detailed information before they arrive. International students need to be met at the airport and provided with assistance in finding accommodations. They need to feel that there are people at the university who care about them and who are there to help them. The front-line staff members who deal with international students, such as the international student advisor, the registrar's office and off-campus housing,

need to understand that international students may require more assistance and patience with their questions and concerns.

Faculty also play an important role in helping international students to adjust to a new academic environment. They need to be aware of the potential problems experienced by international students and to provide assistance when necessary. More importantly, professors need to take time to talk with students and to convey an open door policy to international students.

Identifying the needs of international students is key in developing programs and services to meet these needs. It has become clear that Memorial University should be offering international students certain programs and services. Indeed, various departments and faculties at Memorial University are offering a number of programs and services to their international students. Because many of these groups are working independently of one another, some international students benefit from their services while other students do not. It is important for Memorial University to present a comprehensive and unified structure that provides equal programs and services for all international students. An institution that makes the effort to provide these programs and services is conveying that they care about international students and want them to enjoy their experience. International students who leave the institution satisfied are more likely to recommend the university to other international students. With a better understanding of those attributes necessary to meet the needs of international students affords Memorial University the opportunity to develop a strategy for successful retention.

Recommendations

Based on the findings of this study, the following recommendations are made concerning the following categories: (a) pre-entry, (b) arrival and orientation, (c) academic, (d) social/cultural, (e) housing, (f) financial, and (g) programs and services.

Pre-entry

1. Provide detailed pre-departure information to international students. This should include information regarding Canada, the university, arrival, and accommodations. More specifically, this information must convey to students that they need to be (a) aware of the host country (e.g. climate, food, customs), (b) proficient in English, (c) aware of the educational system (e.g. course load, method of instruction and evaluation procedure), (d) prepared for culture shock and how to deal with adjusting to a new environment, (e) prepared to deal with homesickness (e.g. bring things from home such as music), (f) prepared to be independent (e.g. cook for self and learn how to wash clothes). This information should be mailed with each student's letter of acceptance to the university.

Arrival and Orientation

2. Arrange to meet international students at the airport. This is very important in shaping students' initial experiences.
3. Organize a peer-pairing program. This program will provide international students with a resource person to explain the cultural norms of the host country as well as provide an opportunity for students to learn from each other.

4. Organize an orientation program to have an academic and non-academic stream. The academic stream would include topics such as course regulations, evaluation, instruction, course load, and academic assistance. The non-academic stream would include information on housing, cost of living, food, transportation, and cultural norms.
5. Develop an information sheet to be included in students orientation package, such as tips for arrival. This should include information such as (a) interacting with host country in order to learn the language and the culture, (b) preparing to experience frustration, culture shock, and homesickness and having strategies to effectively deal with them, (c) finding an academic support person to answer your questions and address your concerns, (d) finding a social support person such as a friend who will listen to your concerns and frustrations, (e) maintaining a healthy balance between host culture and home culture.

Academic

6. Organize academic advisor to be assigned to international students. Academic advisors play an important role in helping students during their initial adjustment to a new academic environment.
7. Implement academic English and study skills programs focusing on the needs of international students. Specialized assistance and bridging programs are essential to help international students learn how to effectively function in the academic environment.

Social/Cultural

8. Organize opportunities for international students to interact socially within the university and the local community. This could be done through a liaison committee involving faculty, staff, community members, school board members, and international students. The committee could organize host family programs, sharing holiday meals, presenting information to various groups such as secondary schools, and planning activities and trips. This could be a successful way to link the university with the outside community.
9. Provide international students with a list of the support groups that are available. This could include the counselling center, women support groups, religious organizations, and club and societies.
10. Organize and implement an international student success course for international students. This could be similar to the non-credit Student Success course, offered by the Student Development Centre of Orientation and Leadership. A similar program offered by the University of South Carolina found that, by focusing on the social and personal needs of its first year students through a freshman seminar course, it influenced African-American students to integrate more fully in campus life and thus improved chances for their retention and graduation (Fidler & Godwin, 1994). A modification of this course could be offered to international students to assist them during their first year at Memorial University.

11. Organize institutional cultural workshops for faculty, staff, and students. The focus of these workshops could be intercultural sensitivity and academic differences that international students experience when attending a Canadian institution. Before students arrive, it would be beneficial for faculty and staff members to have an understanding of the cultures from where students are coming, be able to identify the cultures that traditionally experience adjustment problems, and to be aware of the typical problems encountered by international students.
12. Provide support programs for spouses of international students. This could include English programs and social meetings, which would provide spouses with an opportunity to meet other people. Families should also be included in social activities and trips.
13. Create an international student newsletter. This would provide information on important matters to international students such as closing dates for administrative procedures, changes in government regulations, activities and trips. A newsletter would also provide a forum for international students to distribute information and share experiences.

Housing

14. Provide students with assistance in finding temporary and permanent accommodations upon their arrival.
15. Assess the housing needs of international students and determine what changes could be made to encourage more international students to live in residence.

Financial

16. Investigate the reasons why international students are not securing on-campus employment. Once this has been done, avenues can be explored to help students find part-time work.
17. Enhance existing emergency loan program for international students.

Programs and Services

18. Assess the services and programs available for international students. This will provide the university with an opportunity to determine how to link the current services and programs to better meet the needs of international students.
19. Involve international students in the planning, development and implementation of policies, programs, and services for international students. These students will have invaluable insights that can improve the programs and services that are offered to international students.

Recommendations for further study

Based on my review of the literature and the findings of this study, the following are recommendations for further study.

1. Examine the needs of international students from a specific country such as Africa as needs may be country specific. This study was based on the student responses from various parts of the world.

2. Determine the dropout rate of international students and investigate why students drop out or transfer to another university.
3. Concentrate on either undergraduate or graduate students. Each one has specific individual needs because of their diverse backgrounds. There are different factors that affect their experiences.

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Appendix A

Questionnaire for International Students

QUESTIONNAIRE FOR INTERNATIONAL STUDENTS AT MEMORIAL

Please check (✓) the appropriate blocks.

SECTION 1: PERSONAL INFORMATION

1. **Student status:** undergraduate student graduate student
2. **Faculty/Department:** _____
3. **Age:** _____
4. **Gender:** male female
5. **Country you are from:** _____
6. **Is English a second language for you?** yes no
7. **Are you:** married single married with children other
8. **How many dependents (children, spouse, relatives) are living with you in Canada?** _____
9. **Are you:**
 - a student supported by self, family, or friends?
 - a student sponsored by the Canadian Government?
 - a student sponsored by the home government/other group or organization in your home country?

SECTION 2: PREPARING TO COME TO CANADA

Please check (✓) the appropriate block (s).

1. **What did you need before coming to Memorial?**
 - currency exchange service
 - maps: e.g. St. John's and Memorial
 - web site addresses: e.g. Memorial University and off-campus housing
 - accommodations: on and off-campus
 - names of international students from your home country attending Memorial: names, E-mail addresses and phone numbers
 - brochure: MUN, St. John's and Newfoundland
 - St. John's weather conditions and required clothing
 - costs of essentials: e.g. bus and taxi fares, milk, haircut
 - employment regulations
 - other (specify _____)

2. Did you have any difficulty in obtaining the necessary documentation required by Canadian immigration before coming to Memorial as an international student.
- yes no

SECTION 3: EXPERIENCING CANADA

A. Arrival and Orientation

Please check (✓) the appropriate block (s).

1. Who met you when you arrived at the St. John's airport?
- a friend or relative
 a member of the International Student Centre
 an international peer
 a professor or supervisor
 no one
 other (specify _____)
2. Is it important that someone meet international students at the airport when they arrive?
- yes no
3. Did you attend an orientation session for international students?
- yes → If yes, go to #4
 no → If no, go to #5
4. If yes, who provided the orientation session?
- department friends
 my nationality organization
 Office of Student Affairs and Services
 other (specify _____)
5. If no, would you have attended such an orientation session when you arrived?
- yes no

Please check (✓) the appropriate block(s).

6. Topics that should be included in an orientation session for international students are:

- academics
- the health insurance plan
- banking
- budgeting
- health/wellness issues
- student services
- obtaining off-campus housing
- emergency loan fund
- entertainment
- campus and library tour
- obtaining student ID cards
- laundry and shopping facilities: location and expectations
- physical education facilities
- location of places of worship: eg. synagogue, mosque
- other (specify _____)

7. Upon arrival at Memorial, were you paired with another student?

- yes → If yes, go to #8
- no → If no, go to #9

8. If yes, who organized this arrangement?

- faculty/department
- my nationality organization
- supervisor
- other (specify _____)

9. If no, would you have participated in a peer-pairing program?

- yes
- no

B. Housing Accommodations

Please check (✓) the appropriate block(s).

1. Who helped you find accommodations?

- friends and family
- professor/supervisor
- academic department
- brochure
- Off-Campus Housing
- other (specify _____)

2. **Who do you live with in Canada? (check all that apply)**
- other international students Canadian family
 students from my home country alone
 Canadian students spouse
 relatives resident in Canada
 other (specify _____)
3. **In what type of setting do you live?**
- University residence room in rental house
 an apartment room in private home
 host family other (specify _____)
4. **If you live off-campus, why did you decide not to live in residence?**
- cost full
 missed application deadline was not accepted into residence
 other (specify _____)
5. **When obtaining off-campus housing, were you aware of procedures for renting and regulations such as, damage deposits and notice of departure?**
- yes no not applicable
6. **Does the dining hall and on-campus cafeterias on-campus provide a variety of food?**
- yes no
7. **Since coming to Memorial, how often have you changed accommodations?**
- once twice
 three times more than 3 times
8. **What was the main reason for the move(s)?**
-

C. Academic Assistance

1. **Have you been assigned to an academic advisor?**
- yes → If yes, go to #3
 no → If no, go to #2
2. **If no, would you like to have an academic advisor?**
- yes no

3. Is it important that you to receive assistance from an academic advisor in selecting your courses?

- it is very important
 it is somewhat important
 it is not at all important

4. Please indicate if you have received academic assistance in the following areas, and in which areas would you like to receive assistance?

	Have received assistance with:		Would like to receive assistance with:	
	Yes	No	Yes	No

(Please circle your answer)

giving in-class oral presentations	Y	N	Y	N
understanding lectures	Y	N	Y	N
writing papers and essays	Y	N	Y	N
note taking	Y	N	Y	N
time management	Y	N	Y	N
other (specify _____)				

5. If you have received assistance with any of the above, who has provided you with this assistance?

- friends professors
 math centre supervisor
 writing centre other (specify _____)
 not applicable

6. Do you understand Memorial's grading system?

- yes no

D. English Language Skills

1. Upon arrival, did you want to practice your English in small group conversations?

- yes no

2. Do you need assistance with your academic writing?

- yes no

3. Do you find it difficult to participate in class discussions?

- yes → If yes, go to #4
 no

4. **If yes, why do you find it difficult?**
- lack of confidence speaking in English
 - problem in understanding lectures in English
 - other (specify _____)
- E. **Social/Cultural Expectations**
1. **Is it important to discuss your home country with other Memorial students and members of the St. John's community?**
- it is very important
 - it is somewhat important
 - it is not at all important
2. **Would you like to visit the home of a Canadian family?**
- yes
 - no
3. **Have you had the opportunity to interact with Canadian students?**
- yes
 - no
4. **Who are your close friends in Canada: (check all that apply)**
- students from your own country
 - students from international countries other than your own
 - students from Canada
5. **Is it important to be involved in activities similar to those of your home country (eg. sports, food and entertainment)?**
- it is very important
 - it is somewhat important
 - it is not at all important
6. **Is it important that the university publicly recognize holidays of your home country?**
- it is very important
 - it is somewhat important
 - it is not at all important
7. **Is it important to find a place of worship (eg. mosque, synagogue, church)?**
- it is very important
 - it is somewhat important
 - it is not at all important

2. **Why did you choose to come to Memorial? (check all that apply)**

- quality and reputation of Memorial University
 other (specify _____)

3. **How did you first learn about Memorial?**

- brochure/pamphlet/advertisement
 friends/family attended/attending Memorial
 Internet
 supervisor
 government
 other (specify _____)

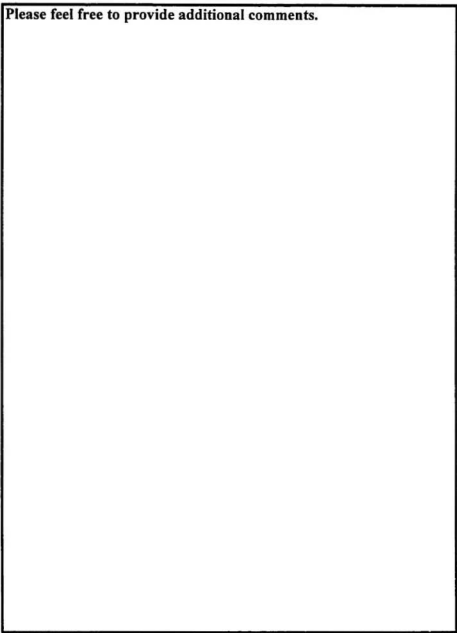
4. **Are you aware of the following services/programs and, if so, have you used these services?**

	Awareness of service		Used service	
	Yes	No	Yes	No
	(Please circle your answers)			
Counselling Centre	Y	N	Y	N
Career Development Centre	Y	N	Y	N
Chaplaincy	Y	N	Y	N
Health Services	Y	N	Y	N
Student Volunteer Bureau	Y	N	Y	N
Off-campus Housing	Y	N	Y	N
On-campus Housing	Y	N	Y	N
Locker allocation	Y	N	Y	N
Identification cards	Y	N	Y	N
Emergency loans	Y	N	Y	N
Two-day orientation	Y	N	Y	N
Clubs/Societies	Y	N	Y	N
Academic Help Centres	Y	N	Y	N
Varsity/Intramural Sports	Y	N	Y	N
Daycare Centre	Y	N	Y	N
Wellness Centre	Y	N	Y	N
Blundon Centre	Y	N	Y	N
International Students Centre	Y	N	Y	N
M.U.C.E.P.	Y	N	Y	N

5. **Are you involved with any groups or societies on-campus?**

- yes → If yes, go to #6
 no

Please feel free to provide additional comments.



I may be conducting interviews with students to gain a more in-depth understanding of students' needs. Please indicate if I may contact you at a later time by providing the following information.

Name: _____
E-mail address: _____
phone number: _____

Thank you for your help.

Please return your completed questionnaire in the enclosed envelope to:

**Ms. Treena Parsons
Mail Room, Box 59
Faculty of Education, G.A. Hickman Building
Memorial University of Newfoundland
St. John's, NF
A1B 3X8
by June 7, 1998**

Appendix B

Introductory Letter to Questionnaire

Introductory Letter to Questionnaire

June 2, 1998

Hello!

My name is Treena Parsons and I am a graduate student in the Faculty of Education at Memorial University. As a future student affairs professional, I am concerned about students' needs and ensuring that services and programs are designed to meet these needs. To assist in my research of the pre-entry and entry needs of international students attending Memorial for the first time, I would appreciate it if you would complete the attached questionnaire.

In conducting this research, my aim is to provide Memorial University with information which may assist in the development of programs and services for international students. Your participation is important in ensuring that the results of my study accurately reflect the needs of this group of students at Memorial.

Individual responses will be kept confidential and no individual results will be reported. If you prefer to not answer any of the questions, please feel free to leave them blank. Your responses will be **confidential**.

Completed questionnaires can be mailed to **Treena Parsons, Mail Room Box 59, Faculty of Education, G.A. Hickman Building, Memorial University of Newfoundland, St. John's, NF, A1B 3X8** using the enclosed self-addressed, postage-paid envelope. Please note that your return envelope has been numbered so that follow-up letters may be sent to you if necessary. You may also ask your department or faculty to place your envelope in their campus mail (no postage is required).

This study has been approved by the Faculty of Education Ethics Committee and meets the ethical guidelines of the Faculty of Education and Memorial University of Newfoundland. If you have any questions regarding any aspect of this research, please contact Dr. Linda Phillips, Associate Dean of Graduate Studies, Faculty of Education. Although she is not directly involved with the study she has agreed to act as a resource person should you have any queries or concerns.

I would like to thank you for your time and cooperation in completing this questionnaire.

Sincerely,

Treena Parsons, B.Ed

Appendix C

Letter of Support from the International Student Advisor



Office of Student Affairs and Services
International Student Advisor

Dear International Student;

It would really be appreciated if you would take a few minutes of your time to complete the attached questionnaire . The information received from this questionnaire will enable the University and me, the International Student Advisor, to better meet your needs.

Lillian Beresford
International Student Advisor

Appendix D
Follow-up Letter to Questionnaire

Follow-up Letter to Questionnaire

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June 2, 1998

Dear Student,

Remember the *Questionnaire for International Students at Memorial*? Unfortunately, I have not yet received your completed questionnaire. Your opinion is very important to me as it will assist in identifying the needs of international students attending Memorial University for the first time.

If you have not already done so, please take a few minutes and fill out the enclosed questionnaire. Please disregard this notice if you have already dropped off or mailed the questionnaire.

Don't forget, you can mail the questionnaire to **Treena Parsons, Mail Room Box 59, Faculty of Education, G.A. Hickman Building, Memorial University of Newfoundland, St. John's, NF, A1B 3X8** using the enclosed self-addressed, postage-paid envelope. You may also ask your department or faculty to place it in their campus mail (no postage is required).

Your assistance with my research is very much appreciated.

Thank you for your time and cooperation!

Sincerely,

Treena Parsons, B.Ed

Appendix E

Letter Requesting Access to Students' Names and Addresses

Mail Box 59
Faculty of Education
G.A. Hickman Building
Memorial University of Newfoundland
St. John's, NF
A1B 3X8

Office of Student Affairs and Services
Arts and Administration Building
Memorial University of Newfoundland
St. John's, NF
A1C 5S7

June 11, 1998

Dear Dean Ludlow,

Further to my letter requesting access to students' names and addresses, I have received approval from the Faculty of Education Ethics Committee to conduct my study of international students at Memorial. I am interested in studying those students with the following parameters: undergraduate and graduate, full-time and part-time, VISA international students whose country of origin is that other than Canada, and who first enrolled at Memorial during the Fall semester of 1997 or Winter semester of 1998. I would also like to include in this cohort the Chinese MBA students who arrived in late March. I will need the local addresses of those international students who are undergraduates and the internal addresses of those international students who are graduates. I am also requesting 4 data sets, 3 of which will need to be on labels.

Should you have any questions, please call me at 722-6328 or you can reach me through e-mail at: g84tap@morgan.ucs.mun.ca.

Thank-you for your time and cooperation.

Sincerely,

Trenea Parsons



