

# International students' friendship network evolving course at the University of Oslo

*A quasi-longitudinal study*

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## Abstract

The purpose of this study is to trace out the development process of international students' friendship networks in Norway and identify the main factors contributing to this development. This study distinguishes between good friends and close friends within one's friendship network. A qualitative research strategy was adopted. Data was collected by use of a quasi-longitudinal design and by use of the *role-model* approach and the *affective* approach. Twelve international students (six from each year) from three two-year master programmes at the Faculty of Education at the University of Oslo were interviewed approximately one or two months before the end of 2009 spring semester. The similarities and differences between the first year cohort and the second year cohort in terms of the characteristics of the friendship networks and *the environmental background* of the friendship networks were indentified from the data.

The results indicated that the overall friendship network development process can be demarcated by three periods occurring in temporal succession: the initialization, the development and the maintaining and refining of the friendship network. During the first year, the international student's friendship network development is characterized by an exponential increase of friends, this is termed as a "network developing year." In other words, the process of tie formation basically takes precedence over the process of tie maintenance and deepening. During the second year, the evolving route of the international student's friendship network is characterized by the polarizing process, termed as the "network maintaining and refining year." That is to say the process of tie maintenance and deepening basically gains ascendancy over the process of tie formation. It should be highlighted that students also benefit greatly from the *pre-context* social capital. So, *pre-context* can be termed as the "inception ( initialization) of the friendship network." All the international students' friendship networks more or less converge on this three-period development route.

On top of this, the results show that the differences of the number of local ties within one's friendship network composition might be mainly influenced by personal determinants while the dynamics of the overall network size may be mainly influenced by environmental determinants.

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## Explanation of the key terms

*Personal network* is an egocentric network with ego at the center.

*Ego* (see diagram A in appendix) is the focal person of the personal friendship network. In this study, ego is the international students themselves (respondents).

*Alter* (see diagram A in appendix) is the members of the personal friendship network. In this study, alter refers to the international student's friends.

*Name generator* is the questions that elicits the names of network members.

*Name interpreters* are the questions that generate attributes of the network members.

*Good friends* (see subsection 4.1.2) also terms as "*normal friends*" are the friends international students share common interests and hobbies with.

*Close friends* (see subsection 4.1.2) are the friends international students confess their personal matters to. *Good friends* are the prerequisite stage to *close friends*.

*Inner/hardcore layer* of the friendship network refers to the close friendship network.

*Outer layer* of the friendship network refers to the good friendship network.

*The relations with decreased frequency of contact* (see subsection 5.2.1) refer to the relations, which manifest two common features: Firstly (feature one), interviewees and their friends were good friends for a certain period of time before the *event change* took place. Secondly (feature two), interviewees were highly aware of the direct outcome - dramatically reduced frequency/ chance of contact/ get-together - originating from this *event change*.

*Unstable, turnover* , and *change* refer to the existence of *the relations with decreased frequency of contact in one's friendship network*.

*The relations with stable frequency of contact* (see subsection 5.2.1) refer to the two situations: 1) international students mentioned the *event change* (feature one) of the relations but didn't specify any radical change corresponding to that *event change* (feature two). 2) international students did not mention anything related to the either feature one or feature two.

*Event change* includes both *endogenous changes* (the problem of the relation itself) and *exogenous changes* (the life course changes) directly related to the decreased frequency of contact of the friendships.

# 1. Introduction

## 1.1 Study background

Over the last two decades, the issues related to the internationalization of HE sector have become a “hot potato” in the policy-level debate and HE research discourse. Without exception, the internationalization of the Norwegian HE sector is also a high priority area in the Norwegian government’s agenda. According to Scott (1998, p. 116), the international dimension of HE refers to the student mobility, international flow of academic staff, collaboration between cross-country universities and flow of innovative knowledge. International student mobility is one of the major forms of cross-border higher education. Norway is one of the 35 leading host countries for foreign students (World Migration, 2008). The figure from the world migration report (2008) indicates that there were nearly 12000 students in the Norwegian HE system in the year 2004. Moreover, increased efforts have been made by the Norwegian ministry of education and Norwegian universities to provide more English-taught degree programs and courses in order to attract the overseas students. Currently in Norway, more than 170 masters programmes taught in English are available to students,<sup>1</sup>spanning a range of disciplines. Besides, the report from the Bergen summit (2005) shows that the quality reform was implemented at all HE institutions in Norway effectively from the autumn of 2003 as a follow-up response to the Bologna process. Key aspects of the reform are the introduction of a new degree structure with bachelor's and master's degrees, the diploma supplement and the introduction of credits based on the ECTS model (European Credit Transfer System). Thus, with the harmonization of the Norwegian HE system with the standard European system, degrees attained in Norway can be recognized by most European countries, which to a large scale facilitates the mobility of the students and renders the Norwegian HE system a more advantageous position in facing up to the competition of attracting international students.

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<sup>1</sup> The Norwegian Centre for International Cooperation in Higher Education(SIU) : study in Norway 2009-03-14 <http://www.siu.no/index.php/no/Konferanser-og-publikasjoner/Publikasjoner/Study-in-Norway-Guide-til-hoeyere-utdanning-i-Norge-spansk-utgave>

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## 1.2 Rational of the Study

With the ongoing internationalization of the Norwegian HE sector, there is an increasing tendency for international students to be enrolled in a Norwegian HE programme every year.<sup>2</sup> Many governments around the world including: Australia, Canada, UK, USA and etc., have deemed international students as “cash cows” to make compensation for their frugal funding allocated into the HE sectors. Instead, international students in Norway mainly contribute to the construction of the multicultural campus and add to the knowledge innovation and transmission. For example, Norwegian students, who interact with international students in a broad campus environment are more likely to be well prepared to participate in a heterogeneous and complex society. The unique cultural experience international students narrate in class can widen host students’ horizons to understand the same academic issues from different perspectives. International PHD students, who are research assistants, can bring new dimensions and perspectives to the knowledge production and foster the innovative knowledge flow between the host country and their own country.

Though academic life is a priority for the international student’s life, university life is far more than just the academic life. For example, international students are interested in exploring a new culture or perhaps developing friendships in the host country. While a large body of literature tends to investigate the social life of international students, most of these studies simply predict how successfully international students adjust to the host social-culture environment via a quantitative research methodology. In contrast, my study intends to study the international students’ social life by utilizing a friendship network framework via a qualitative research design. There are very few prior articles which shed light on the international students’ social life by directly applying the assumptions of a social/friendship network to it. Therefore, this study is novel and pilot. Moreover, despite the cumulative knowledge implicitly or explicitly related to international students’ social network, little is known about the dynamic nature of international student’s network development processes in the host country. However, this missing part of information is vital to both meta-level policy-makers and micro-level students. For policy makers, the information on these aspects may be particularly useful for those who are interested in planning or designing programs targeted

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<sup>2</sup> <http://universitas.no/news/49631/rejects-norway/>

for enhancing international students' level of social interactions with the host nationals (Toyokawa T & N Toyokawa, 2002). For students, learning from other students' past experiences in building up a friendship network can provide themselves pragmatic guidance and information on their own friendship network formation.

### 1.3 Research Questions

The purpose of this study is to carry out a descriptive and exploratory study of personal friendship network formation and development amongst master-level international students by use of the qualitative research strategy. The overall research problem of the study is the following:

*How may the phenomena, pertaining to the personal friendship network, change over time amongst international students?*

This research problem can be further divided into the following research questions:

RQ1: What are the main theoretical assumptions regarding the phenomenon of the social network in general and international students' social/personal network<sup>3</sup> in particular?

RQ2: What factors may impact the developmental process of a friendship network associated with international students?

RQ3: Overall, how can the tendency of change associated with the international student's personal friendship network be interpreted?

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<sup>3</sup> Considering there might be very few studies directly concerning with international students' personal friendship network which is the focus of this study, the two terms: "social" and "personal" are both used here.

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## 1.4 The Reasons to Choose a Social Network Perspective

The reasons to choose the social network perspective are multiple. Firstly, a network perspective can provide a more complete view of the social environment of the individual, since it can encompass relationships with people drawn from any number of structural categories such as kin, neighbours, and co-workers (Shulman, 1976). Secondly, a network perspective can also avoid the assumptions involved in labelling this set of persons with whom the individual has contact as a group (since they may not know one another or act together for any shared purpose) (Shulman, 1976). Thirdly, the network approach has gained currency in the last 30 years. By the 1980s, social network analysis had become an established field within the social sciences, with a professional organization (INSNA, International Network for Social Network Analysis), an annual conference (Sunbelt), specialized software (e.g., UCINET), and its own journal (Social Networks) (Borgatti et al., 2009). Since 1980s, network analysis not only retains the huge influence in the conventional disciplines and domains, including sociology (e.g., Diani & McAdam, 2003), psychology and psychiatry (e.g., McKenna & Bargh, 2000), but also spanned into a great number of non-traditional fields and disciplines, including physics (e.g., Barabasi, 2002), community health (e.g., Phillipson, 2001), geography (e.g., Zimmerer, 2003), biology (e.g., Barabási & Oltvai, 2004), management consulting (e.g., Rynck & Voets, 2006), public health (e.g., Lloyd & May, 2002), crime/war fighting (e.g., Krebs, 2001a, 2001b), internet-study (e.g., Reagans & McEvily, 2003), economics and marketing (e.g., Carney, 2004), and linguistic (e.g., Milroy et al., 1992, 1993).

## 2. Research Methodology

This chapter mainly deals with the research methodology and research design which is employed in this study. Qualitative research design is adopted via semi-structure interviews with 12 master-level degree students (six from each year) from three international programs at the Faculty of Education at the University of Oslo. Qualitative research design, targeted group, sampling, settings at the University of Oslo, the data collection method and procedure, interview guide, pilot interview and the data limitation will be discussed in this chapter.

### 2.1 Qualitative Research Design

A qualitative research design is employed in this study. The preference for adopting qualitative research methodology is based on multi-folded considerations. Firstly, Besides the wide applicability of qualitative research methodology in seeking to explore new phenomenon, Hoepfl (1997) claims that qualitative research can also be used to gain new perspectives on things about which much is already known. Since very little is known about the dynamics related to the international students' social network development, adopting qualitative research design enables me to add to the understanding of international students' unique situation in building up their friendship network, thus generating a comparatively holistic picture of the scenario. Secondly, the ability of qualitative data to more adequately interpret and describe a phenomenon is another important consideration. Qualitative research provides an excellent way to gather in-depth information about what people think and feel. It can provide insights on the attitudes, beliefs, motives, and behaviours of people who are relevant to an issue (Hoepfl, 1997). Since this study is directly concerned with subject perception of international students on their friendship network, qualitative research data is more enriched with detail and insights into participants' experiences of the world, providing more in-depth and in-breadth information that may be difficult to convey quantitatively. Thirdly, qualitative researchers pay attention to the idiosyncratic as well as the pervasive, seeking the uniqueness of each case (Hoepfl, 1997). The different conceptualizations of friendship from international students' points of view call for more individual-level analysis of the case, thus in line with the qualitative research methods. Fourthly, Qualitative research

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reports are descriptive; incorporating expressive language and the “presence of voice in the text” (Eisner, 1991, p. 36). Besides, qualitative research report has an interpretive character, aimed at discovering the meaning events have for the individuals who experience them and the interpretations of those meanings by the researcher (Hoepfl, 1997). In this case, quantitative research data can hardly serve as an analytical tool to describe the specific and interesting stories of international students’ experience of building up one’s friendship network. In order to unveil the friendship network more explicitly, collecting qualitative data is requisite.

## 2.2 Targeted Group

International students are a heterogeneous group in terms of studying length. At the university of Oslo, the international student body constitutes of degree students (self financing and quota), Erasmus students, and bilateral exchange students. However, only degree sojourn students will be the targeted group in this study. The inclusion criteria is based on the consideration of the research problem and research questions. First of all, it is not practical to recruit every type of international students in this study due to the limitation of time, money and resources. Secondly, since degree students stay in Norway for a comparative long period, it is more worthwhile to study their friendship network formation process than most of the Erasmus and bilateral students. In other words, degree students are the priority group meriting the attention of the international student office. Thirdly, since it takes a considerable time for international students to develop their friendship network, most Erasmus and bilateral students are not in Norway long enough (approximately from six months to ten months) to capture the essence of the pictures. Exclusion criteria is applied to subjects who generally meet the inclusion criteria but must be excluded because they cannot complete the study or possess unique characteristics that may confound the results (Lunsford & Lunsford , 1995). Some degree students married to local people can speak Norwegian fluently and have been in Norway for a couple of years. They are excluded from this study since they are already Norwegian citizens instead of typical international students. Therefore, the degree sojourn students—who are enrolled in the two-year English-speaking master

program and obtain a student visa instead of Norwegian citizenship—will be main concern in this study.

## 2.3 Sampling

According to Bryman (2004, p.87), sampling is a segment of the population that is selected to be representative of the whole population. Researchers usually are unable to interview every individual in the population they are studying. Instead, they collect data from a subset of individuals—a sample—and use the findings from this small group to make inferences about the entire population. There are two general approaches to the sampling; probability sample and non-probability sample. The probability sample is a sample that has been selected using random selection so that each unit in the population has a known chance of being selected (Bryman, 2004, p.87). In comparison, non-probability sample is a sample that has not been selected using a random selection (Bryman, 2004, p.87). In other words, non-probability sample is heavily influenced by personal judgments, prospective respondents' availability or by your implicit criteria for inclusion (Bryman, 2004, p.88).

There are three possible ways of doing this longitudinal research:

- 1) Retrospective: Select 12 second-year international students and ask them to recall their friendship network composition both at the present time and one year ago.
- 2) Prospective: Send surveys to 12 newly-enrolled international students before they come to Norway, and follow-up interviews are conducted with them after 1 year and after 2 years respectively.
- 3) Face-to-face interviews will be conducted with 12 international degree students, among which 6 are first year master students and 6 are second year master students. The gender and nationality of first year cohort students should be comparable to those of second year cohort students.

Due to the practical constraint, the ideal way of doing the research (the second way) is impossible because I only have a short term of six-month to write my master thesis. After comparing the pros and cons of the other two ways and consulting my supervisors and

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professors, I decide to select two groups (one from first year cohort students and the other from second year cohort students), and then compare the differences of their friendship network characteristics. Therefore, I decide to adopt the purposive sampling (in other words, non-probability) in my study. Purposive sampling offers researchers a degree of control rather than being at the mercy of any selection bias inherent in pre-existing groups (Barbour, 2001). A purposive sampling technique was also used in the selection of international students to achieve a heterogeneous population. With purposive sampling, researchers deliberately seek to include diversity of the cases in quantitative approaches. The choices of the candidates are designed to maximize the variety of international students' background in terms of their country of origin. Besides, approximately equal number of female and male international students are selected to make the sampling more unbiased.

The specific English-speaking programmes chosen are the three programs at the Faculty of Education; *Comparative and International Education* (2 years of master of philosophy): *Higher Education* (2 years of master of philosophy): *Special Needs Education* (2 years of master of philosophy). The reasons to deliberately choose these three programs are multiple. Firstly, since I am a second year student in the Higher Education program, the social connections already established with faculty staff and my classmates can earn me an easy access to the students at my faculty and receive a fairly good responding rate (i.e. more people are willing to participate in my project). Due to the confidentiality of international students' information, it is hard to gain practical help from the international student office. Secondly, these three programs are among the largest English-speaking programs at the University of Oslo. Therefore, these three programs have some representative implications for the study and are worth the attention. In this study, the international students' length of stay is divided into two intervals/periods: the first year and the last/second year. By comparing the friendship network characteristics over these two periods, the international student's friendship network evolution can be traced out and illustrated.

## 2.4 Settings at the University of Oslo

The University of Oslo, located in the Norwegian capital city is the biggest and oldest higher education institution in Norway. It offers a large number of baccalaureate, master and doctorate degrees spanning a variety of disciplines and fields. The majority of Norwegian

students and almost all the international students are residential students. The foundation for student life in Oslo (SIO) has approximately 6000 student homes in 13 different student houses and villages, with units catering to both Norwegian and international students' needs.<sup>4</sup> International student population is mainly concentrated in student villages which are all off campus. However, the T-bane system offers convenient public transportation from these student villages to the campus and downtown Oslo.

Since Norway is an egalitarian country, access to the university is regarded as an important indicator to reflect the value of equality. Most of Norwegian higher education institutions are funded by the taxpayer's money and tuition is free for both Norwegian degree students and international degree students at the public university. However, a small matriculation fee, approximately 540 Kroner ( approximately 60 USA dollars), must be paid to the student welfare organization at the beginning of every semester.

Norway is well-renowned for its high literacy rate in addition to high educational levels and material affluence. Norwegian is the primary language and is used by Norwegians on a daily base. However, due to heavy exposure of English TV programs including movies not dubbed, the majority of Norwegians have an excellent command of English. Anecdotal evidence shows that international students can survive in Norway without knowing the Norwegian language. However, for the last four years, the United Nations (UN) has ranked Norway as having the highest standard of living in the world.<sup>5</sup> In other words, Norway is well-known to be one of the most expensive countries to live in. Most of the international (degree) students in Norway have a part-time job in order to make ends meet.

At the Faculty of Education, there are altogether four master-degree programs offered in English. One of them is the Erasmus program. The other three programs where the interviewees were selected from all have a common curriculum structure with 120 ETCS

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<sup>4</sup> SIO webpage: housing 2009-3-15

[http://www.sio.no/wps/portal/lut/p/kcxml/04\\_Sj9SPYkssy0xPLMnMz0vM0Y\\_QjzKLN4r3DATJgFjuJvqRyCIG8Y5wAV-P\\_NxU\\_aDUPKBUpDIQKsBYPyonNT0xuVI\\_WN9bP0C\\_IDc0otzb0REAaaFHKw!!/delta/base64xml/L0IJSk03dWIDU11BIS9JTGpBQU15QUJFUKVSRUlrLzRGR2dkWW5LSjBGUm9YZnJDRUEhLzdfMF9QMMy82Mw!!?WCM\\_PORTLET=P\\_C\\_7\\_0\\_P3\\_WCM&WCM\\_GLOBAL\\_CONTEXT=/wps/wcm/connect/SiO/Housing+Units/Looking+for+a+place+to+stay](http://www.sio.no/wps/portal/lut/p/kcxml/04_Sj9SPYkssy0xPLMnMz0vM0Y_QjzKLN4r3DATJgFjuJvqRyCIG8Y5wAV-P_NxU_aDUPKBUpDIQKsBYPyonNT0xuVI_WN9bP0C_IDc0otzb0REAaaFHKw!!/delta/base64xml/L0IJSk03dWIDU11BIS9JTGpBQU15QUJFUKVSRUlrLzRGR2dkWW5LSjBGUm9YZnJDRUEhLzdfMF9QMMy82Mw!!?WCM_PORTLET=P_C_7_0_P3_WCM&WCM_GLOBAL_CONTEXT=/wps/wcm/connect/SiO/Housing+Units/Looking+for+a+place+to+stay)

<sup>5</sup>Study in Norway: living in Norway 2009-3-14 <http://www.studyinnorway.no/sn/Country-specific-information/US-Students/Living-in-Norway>

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(European Credit Transfer system) credits and two-year (four academic semesters) length of study. Besides (see diagram D in appendix), during the first year, all the students from these three programs share some introductory courses with Erasmus students. During the entire second year, students from *Comparative and International Education* and *Special Needs Education* are required to embark on their fieldwork and subsequently conduct their thesis research. Students from *Higher Education* program are required to embark on their fieldwork and thesis writing at the last academic semester.

The lack of nationwide documentation of the number of international students in Norwegian higher education institution in the recent two years is noticed. Here is the number of international students at the University of Oslo in the autumn 2007.

International students at the University of Oslo in the Autumn term of 2007:

- The Faculty of Humanities: 202
- The Faculty of Law: 129
- The Faculty of Mathematics and Natural Sciences: 88
- The Faculty of Medicine: 99
- The Faculty of Dentistry: 7
- The Faculty of Social Sciences: 214
- The Faculty of Theology: 5
- The Faculty of Education: 51
- Centres: 3
- Total: 798

*Source: Database for statistikk om høgre utdanning.*

## 2.5 The data Collection Method and Procedure

In this study, the semi-structured interview will be the main method of the data collection. A semi-structured interview is a combination of both in-depth interview and standard questionnaire. In the open-ended sections, respondents have the freedom to talk about their opinions about a particular issue without the limitation of the time and scope. In the standard

section, questions are predetermined and have a closed-format. An interview is an efficient and practical way of getting data about things that cannot be directly observed such as feelings and emotions. Detailed and in-depth information can allow interviewers to explore information that had either not occurred to the interviewer or of which the interviewer had no prior knowledge. Standard information can help the researcher to organize and present the background information of international students. A total of 12 international students at the University of Oslo were recruited in this study. The coordinator in each of the three programs at the Faculty of Education was asked to forward my e-mail of seeking for respondents to all the degree-seeking full-time students registered in the program. The interviewees included students who responded to the e-mail and were willing to participate in the interview. All the interviews were tape-recorded and transcribed. After I made an appointment with them via e-mails, the semi-structured interviews was conducted with these international students either at the cafe of Helga Engshus (Education Faculty building) at the University of Oslo or at the international student's private flat in the student village. All the respondents' friends were kept anonymous during the entire interview. Instead, in the name generator section, respondents were only asked to nominate every friend's gender and nationality which were assigned to an alphabetical letter consecutively (For instance, A Chinese male; B Chinese female...). *In order to assure the anonymity of all the respondents (i.e. the respondents should not be identifiable), all the names used in this study are not real names and the respondent's specific program of study is not named.*

## 2.6 Interview Guide—Three Stage Interview

My interview has three stages. Firstly, I asked the respondent to recall all the *normative contexts* they had in Norway. Secondly, I used both the *role-model* approach and the *affective approach* to help respondents to elicit their friends' names (name generator). Participants were further asked to place their friends' names on a map. The map consists of two concentric rings with "you" written at the central ring. Names placed in the inner ring means strong ties to the respondents and names placed in the outer ring means weak ties to the respondents. Throughout the process, I asked the respondents to talk about their criteria to place their friends. Thirdly, a series of follow up questions were asked to assess other

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characteristics of the respondent's friendship network. For example, the demographic characteristics of each alter and the relationship between ego and alter.

The data collected through name generator and interpreters provide individual profiles of respondents' personal network members that can be aggregated into measures of network composition, such as average tie strength, mean alter characteristics, communication activity, network range and density (Marin & Keith, 2007). After collecting the network data from both first year and second year international students, a comparison is made in terms of their friendship network characteristics to map out the evolving course of international students' friendship network in Norway.

## 2.7 Pilot Interview

One of the advantages of conducting a pilot study is that it might give advance warning about where the main research project could fail, where research protocols may not be followed, or whether proposed methods or instruments are inappropriate or too complicated (Van Teijlingen et al., 2001). The pilot interview was conducted with one of my American program mates. Analysis of the pilot interviews included identifying the categories of normative contexts that were used to develop the functional model and testing validity and feasibility of the interview questions.

## 2.8 The limitation of the Data

The data has several major limitations in this study.

Firstly, due to the practical constraints, even though this study aims to trace out the international students' friendship network development route, it is only credited as a quasi-longitudinal study. In other words, the snapshot of two different (first year and second year) groups of students' friendship networks has been taken at a specific time point.

Unfortunately, the ideal way of taking a series of snapshots of the same group of students' friendship networks at different time points is unable to be carried out. In this situation, the actual research design of the study is more cross-sectional than longitudinal. However, the two different cohort groups can differ for all kinds of other individual factors than merely the

length of stay which leads to the differences of their friendship network characteristics. Thus, compared with a real longitudinal study, this study tends to have a significant but relatively low "dependability."<sup>6</sup>

Secondly, the data makes generalizations of the friendship network development of the international student body in the university of Oslo based on a small sampling of only 12 participants from three programs at the educational faculty which may not be sufficient and is not the complete purpose of the qualitative research.

Thirdly, even though the bias of the qualitative research's small size sampling is inevitable (Marshall,1996), the method in accessing the interviewees might further increase the bias. The contact with the interviewees was through the help of coordinators of the three programs and the interview was volunteer-based. In fact, there are many more females (ten) than males (four) responding to my e-mails. This is probably due to the anecdotal assumption that there are more female students than male students studying at the Faculty of Education. Another explanation is that female international students might be more extrovert to share their thoughts with " a stranger" than male international students. Thus, the approach to access the subjects might influence the profile of the responding subjects.

Fourthly, what should be brought into the forefront is that this study actually examines international students' perceived friendship network. Marsden(1990) argues that one central question in social network studies remains whether one seeks to measure the actual existing ties or ties as perceived by actors involved in them. Therefore, egocentric views of friendship network in the study are more like a "cognitive" (Marsden,1990) network than a real friendship network.

Fifthly, even though this study strives to enhance the validity and reliability of the qualitative research design ( based on the shortcomings of previous studies' validity and reliability), we cannot rule out the possibilities of respondent's forgetting to recall all the friends in their friendship network. As Brewer (2000, p.32) summarized, forgetting is a pervasive and significant phenomenon in the elicitation of personal and social networks.

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<sup>6</sup> "dependability" here means the stability of the data over time and place.

### 3. Literature Review

In this chapter, discussions are organized in three separate sections. In the first section, I discuss two approaches to the network data collection, and categorizations (major characteristics) of social networks in general. Since all the above discussions apply to the international students' friendship network as well, at the end of section one, the international students' friendship network in particular will be briefly examined with regards to the major differences from other social network. The second section brings the population of the international students back with the reviews of previous studies in relevance of the international students' friendship network. Six main gaps from the literature related to international students' friendship network will be identified in the last section.

#### 3.1 Social Network In General

##### 3.1.1 Two approaches to the social network data collection

In this subsection, the differences between two approaches of social network data collection (*personal network* and *total network*) are briefly discussed.

One early notable study was conducted by professor J A Barnes in the year 1954, who shed light on the face to face relationship in an island parish in western Norway called Bremnes. His starting point is that each person belongs to many social organizations. "He is a member of household, of a hamlet, of a ward and he is a member of the Parish of Bremnes" (Barnes, 1954, p. 40). And then he identified three fields in the social system of Bremnes; territorial location (physical proximity), industrial system (units proximity) and social network. Barnes(1954) makes a remarkable observation that the third field (social network) has no units or boundaries and is made up of the ties of friendship and acquaintance which everyone growing up in Bremnes partially inherits and largely builds up for himself. *He coined the term "network" for this third distinctive field:* "I find it convenient to talk of a social field of this kind as a network" (p.43). "The image I have (about the whole social life) is a set of points, some of which are joined by lines' to form a 'total network' of relations" (Ibid.). He also found that the first and second social field is unable to capsule all the social lives in

Bremnes and concluded that part of the total network that is left behind—when we remove the groupings and chains of interactions which belong strictly to the territorial and industrial system—is largely a network of ties of kinship, friendship and neighbourhood. By identifying the three fields in the social system, Barnes is one of the precursors who distinguish between the *total network* and *personal network*. He argues that a "personal" network has no external boundary and no clear-cut internal division, for each person sees himself at the center of a collection of friends. The inter-linkage and informal relationships are the basic units of the personal network. In other words, if a cluster of people form a collective and exclusive group, the linkage between them is no longer simple personal relationship. This group is deemed as different from personal network. As stated by Barnes (1954, p.44), "the social ties linking the members of the group are no longer merely those of kinships and neighbourhoods." The significance of Barnes's study is that the *personal network* is roughly described.

Mitchell (1969) uses the metaphorical criteria "anchorage" to further distinguish between a personal network and a total network. He defines a '*total network*' of society as 'the general ever-ramifying, ever-reticulating set of linkages that stretches within and beyond the confines of any community or organisation' (Mitchell, 1969, p.12). His notion about *total network* refers to social network as a whole and is not related to any specific reference point in the network. However, he notices that theoretically *total network* is a general heuristic concept and practically there is always a necessity to specify the context. Therefore, a network study should have one starting point: "It must be anchored on a reference point" (p.13). The point of anchorage of a network is usually taken to be some specified individual whose behaviours the observer wishes to interpret. Accordingly, the terms "*personal network*" or "*ego-centered network*" are meticulously defined as "anchored on central individuals."

To sum up, so far, there are two branches of social network data collection methods: one grounded in sociology, and the other in anthropology (Garton et al., 1997). The *sociocentric (total) network* approach comes from sociology and involves the quantification of relationships between people within a defined group (Ibid.): a classroom of children, a board of directors, the residents of a village or town, or the trading partners in a bloc of nations while the *egocentric (personal) network* approach arose from anthropology and focuses on the network surrounding the ego (Ibid.). The ego-centered (*personal*) networks provide a

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Ptolemaic<sup>7</sup> view of their networks from the perspective of the persons (egos) at the center of their network (Ibid.). A *total network* describes the ties that all members of a population maintain with all others in that group (Ibid.). The critical difference between the two is that *egocentric* models include only direct links to the focal individuals (egos) that make up a study population, whereas sociocentric networks include both direct and indirect ties and map the entire sample. Consequently, whereas *egocentric* networks can be mapped by gathering information about social contacts from egos alone, *sociocentric* networks require that contacts (the alters) themselves be observed or queried (Smith & Nicholas, 2008). In the first kind of research, social network analysis has been used as a tool to explain individual behaviour (Wellman, 1988; Granovetter, 1985; Anderson & Jay, 1985; Martino & Spoto, 2006). In the second kind of research, it has been proposed to use the structure of the relationship of the member of a group in order to understand the social (collective) behaviour of a group (Laumann & Pappi, 1976; Martino & Spoto, 2006).

### 3.1.2 Categorization of social network

This subsection strives to categorize the social network in terms of *structural characteristics* and *relational characteristics (components)*.

Among all the social network studies, there is a general consensus about the delineation of the multi-faceted major characteristics of a social network: that is *structural characteristics* and *relational characteristics* (Mitchell & Trickett, 1980; Shulman, 1976; Litwin, 2001). Mitchell (1969) systematically mapped out the previous social network studies and discovered that the deficiency arises since there seems to be no commonly accepted set of criteria which might be used to distinguish the characteristics of one network from another. However, for the social network studies which had been done, Mitchell (1969) summarized several morphological (*structural*) and interactional (*relational*) characteristics to categorize the social network. Morphological criteria such as anchorage, density, reach ability and range refers to the relationship or patterning of the link in the network in respect to another. Interactional characteristics such as content, directedness, durability, intensity, and frequency of interaction refer to the nature of links themselves.

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<sup>7</sup> The Original meaning of Ptolemaic is the assumption that all heavenly bodies revolved around Earth

Although *structural characteristics* can be conceptualized independently of the characteristics of the dyads comprising them, *structural characteristics* of the network are measured by summarizing the characteristics of the member dyads in some way (Adams & Torr, 1998). *Structural characteristics* refer to properties of the overall network, whereas the *characteristics of component* linkages refer to properties of the individual relationships (Mitchell & Trickett, 1980). The focus of *structural characteristics* renders the social network as a whole unit while *relational components* place accent on the specific ties, nodes and functions served by the ties (See diagram A in appendix). *Structural characteristics* refer to the tenets of the big ellipse which is composed of all the nodes and ties (See diagram A). Specific dyadic ties and functions are counted as *component characteristics* within that big ellipse in diagram A. The structural characteristics can offer the detailed and accurate characterization of a specific actor's position in the social network at large and his connections towards other nodes.

Mitchell and Trickett's (1980) study use a table (table 1 in appendix) to systematically enumerate *structural characteristics* and *relational components* of social network from previous studies. They also list the *normative contexts* of the social network but do not give a specified explanation of it. Granovetter (1973) argues that if strong ties of A and B and A and C exist at the same time, common strong ties to A will bring B and C into interaction and generate one strong or weak tie even if B and C have no relationship. The author's assumption is proved by most of the former empirical social network studies (e.g., Simmel, 1950). Thus friends of friends may also become ego's friends.

The subset of variables is developed to measure *structural characteristics* and *relational characteristics* respectively (See table 1). Structural characteristics include two sub-variables: *network size* and *density*. *Network size (range)* refers to the total number of actors/alters the central ego has direct contact with in the egocentric network. *Network density* in a quantitative sense denotes the number of actually-occurring relations or ties as a proportion of the number of theoretically-possible relations or ties (Garton et al., 1997). For example: the network has 13 nodes and 17 known social connections. With 13 nodes there are 78 possible connections. This means the density of the network is  $17/78 = 0.22$ . On the other hand, *relational components* can be measured in terms of multi-facet aspects such as intensity, multidimensionality, directedness and reciprocity, relationship density, durability, dispersion, frequency, and socio-demographic attributes of the actors.

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### 3.1.3 International students' friendship network—an egocentric network

The concept of the “social network” is defined in many different ways. For example, social networks are defined as the web of identified social relationships that surround an individual and the characteristics of those linkages (Bowling, 1991). In Wasserman and Faust’s work (1994), a finite set of actors and their relations are known as a social network. However, the fundamental building bloc of a social network is bond, contacts, or relations. To make the study more focused and precise, only ego’s friendship network will be the target in this study. A friendship network in this study is defined as a configuration of friends around ego. In other words, friendships, instead of other relations or linkages such as acquaintances, constitute the basic units of the analysis for this study. The aim of the study is to describe and depict the change of international students’ friendship network (core) characteristics in Norway. International students are not a homogenous group, but a heterogeneous group with a variety of cultural backgrounds and personal traits. The *egocentric* network can shed light on the variations of the network characteristics amongst international students with different demographic backgrounds and personal traits by aligning the demographic and personal attributes of ego with one’s friendship network characteristics. Besides, the focus of this study is to bring the dynamics of one’s friendship network characteristics into light instead of focusing on the whole network’s effect on individuals. It is more reasonable to use an *egocentric* view to dissect the social network characteristics. Furthermore, in contrast to other forms of intimate relationships in our society, friendship is uniquely voluntary (Adams & Blieszner, 1994). As a result, friendship is an un-institutionalized concept which varies according to individuals. In this way, it is more practical to view the friendship network from a central ego’s perspective.

## 3.2 Review of the Literature in relevance of International Students’ Friendship Network

The studies of international students abound with articles describing the international students’ social life in general in the host country (e.g., Sánchez, 2004; Church, 1982; James & Devlin, 2001; Daroesman et al., 2005; Volet & Karabenick, 2006; Katsara, 2004; Pandit & Alderman, 2004; Dunstan & Drew, 2001; Smart et al., 2000; Abe et al., 1998). Among

numerous articles, several studies are worth special attention here in terms of their presented empirical data and their findings related to the international students' friendship network. Though these studies do not necessarily focus on the friendship network of international students, they may help us to gain a better understanding of the sketch of the international students' friendship network. Relevant data and findings in some of the key studies will be presented and discussed below.

### 3.2.1 Three distinctive types of friendships

Some authors use a functional model of the international students' friendship patterns to identify three distinct types of friendships held by international students namely: (1) the *mono-cultural network* comprising of close friendships with other co-national, which tend to be the international students' primary social network; (2) the *bicultural-network* comprised of locals including academics, students, and advisors, which tend to be their secondary network; and (3) the *multicultural-network* involving internationals from other countries, which tends to be the third network (Bochner et al., 1977; Bochner et al., 1985; Furnham & Alibhai, 1985; Kashima & Loh, 2006). Bochner (1977) argues that these three types of friendships serve separate functions for international students, also known as "the strategic friendship." The *mono-cultural (co-national friendship) network* functions mainly to provide a setting for expressing values and engaging in practices of the culture of origin. Other studies of international students also suggest that participation in networks of co-cultural is a comfortable, familiar and less stressful approach that provides security, support, connection and a means of sharing knowledge about the new culture (Al-Sharideh & Goe, 1998; Carr et al., 2003). The *bicultural- network (local friendship)* serves instrumental functions, facilitating students to reach their academic and professional goals. In other words, international students can acquire knowledge about local culture, local convention, local language and local educational system, gain practical help in their daily life, and develop inter-cultural inter-personal social skills. The *multi-cultural (international friendship) network* has been said to have a social and recreational function (Kashima & Loh, 2006). It means a newcomer from a different cultural background, with the same situation, may impart valuable experience about the host society to each other or be able to spend leisure time together. By outlining three distinctive types of friendships and their utility, an important connection line is drawn between the demographic attributes of friendships and functions of

friendships which is peculiar to the group of international students. Bochner(1977) also found that there is a salience hierarchy of these three social networks. The co-national friendships always precede the host friendships while multi-cultural friendships are least salient in terms of the proportion within one's overall friendship network.

### 3.2.2 Co-national friends

One phenomena uncovered and proved by most of the literature is that international students have a strong preference for co-national friends and tend to form their own close knit co-national cliques which provide a home similar environment (e.g., Rosenthal et al., 2007; Neri & Ville, 2006; Hechanova-Alampay et al., 2002). Maundeni's (2001) study shows most African students reported that a majority of their social network members were other African students. As Maundeni (2001,p.260) sarcastically comments on this phenomenon:

*"Therefore, although this section is entitled 'African and other overseas students', in fact it largely focuses on perceptions of the role played by other African students."*

### 3.2.3 Local friends

It is verified in many studies from Anglo-Saxon countries such as Australia, USA, UK, and New Zealand that only a minority of international students (not even up to half) among the entire sample have a considerable number of local friends.

In Neri and Ville's (2006) article, "the social capital experience of international students in Australia", a large majority of the international students (85%) mostly befriended other university students; In addition, 56.7% reported that most of their friends came from the same country of origin and 60.7% of students reported that most of their university friends were in the same year of study as they were. The overall results reveal that there remained a tendency to build close networks only with students from their own county of origin.

*"Student friendships were predominantly with other members of the same nationality or other international students, with few connections to domestic Australian students who would better understand the institutional and behavioural characteristics of the local educational system and to locals outside the university."* (Neri & Ville, 2006, p. 14)

That is the same case with studies conducted pertaining to international students' life in UK and New Zealand. UKCOSA (2006) organizes a large paper survey in 25 colleges across Scotland, England and Wales. Respondents were more likely to mix with their co-nationals and with other international students than with UK students or other local British people. In total 64% did not include British people as part of their main friendship groups. Students who included UK students and other locals in their friendship groups to a greater or lesser extent made up 27% of the sample. The same scenario can be found in Furnham and Alibhal's study (1985). In their study, 56% of all the foreign students had no British friends at all. Ward (2002) found that 41% of international students formed friendships with the local students; 52% enjoyed socializing and only 37% felt that they were accepted by New Zealanders.

Comparable results can be found in the articles written in the United States. Just under half (49%) of the Japanese, Taiwanese, and Chinese students in a study by Yang, and his colleagues (1994) had what the authors termed "meaningful relationships" with American students (As cited in Twice, 2004). "Meaningful relationships" meant that international students visited their local friends' homes frequently or talked with them about personal matters. Kudo and Simkin (2003) summarized that one of the major themes in the study of international students in United States is just how difficult it is to develop any kind of close relationships with host nationals.

### **3.2.4 Differences among different demographic groups**

Moreover, a large number of studies focus on the specific demographic group's social network composition and try to bring the differences and similarities of "demographic homophily" between different demographic groups' friendship networks to light. Most research discloses consistently that there is a huge spectrum of "demographic homogeneity" among different demographic group's friendship networks, which is in accord with the "fact" that only a minority of international students have local friends. UKCOSA (2006) found that East Asian students were significantly more likely than other groups to mix with co-nationals and EU students have a strong tendency to mix with other international students. However, all the international students in the sample agree that it is difficult to meet British/local students. Yeh and Inose's (2003) study revealed that European international students found it

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significantly easier to fit in the American society than the students from the geographic regions of Asia, Africa and Latin/Central America. Trice (2004) in his study examines the social interaction level between international students and local students in a research university in the USA. Consistent with previous studies, his findings pertaining to the international students' interaction pattern indicate that western European students socialize with Americans frequently and were not concerned with how to relate to or befriend them while students from African and middle east were often isolated from American students. Africans and those from middle east were generally not concerned with interacting with Americans, and those from the Eastern Europe, South Asia and Latin American were moderately interacting with Americans and moderately being conscious of it. Hence, there is a general consensus among all the aforementioned literature: European and North American students, generally, have more host friends in their social network than their Asian and African peers; On the other hand, Asian and African students' social network is usually described as dense and insular, composed of the members mostly from their own country. One possible reason is that cultural distance between home and host culture largely decides the ability and willingness of international students to make friends with host nationals (Bochner et al., 1985 as cited in Ward, Bochner, & Furnham, 2001).

### 3.2.5 Summary

To sum up, overall, there are three hypotheses (see table 2 in appendix) relevant to this study, which can be deduced from the aforementioned articles:

Firstly, there is a broad range of *varied phenomena* within the formation of local friendships among different demographic groups of international students.

Secondly, a small number of international students have close local friend(s). International students, generally speaking, prefer co-national close friends to international and local close friends.

Thirdly, international ties are least salient in the international student's friendship network.

### 3.3 Six Main Gaps from the Previous Literature related to the International Students' Friendship Network

#### 3.3.1 Origin of studies

The majority of the studies related to international students' friendships have been carried out in a few countries such as United States, Britain, Australia, and Canada. As Altbach (1991:307) described:

*The United States probably accounts for more than half of the total research literature, with Britain, Canada, Australia and West Germany as additional major sources for research.*

Little is known about the international students' friendship network pattern in non-English speaking industrialized countries. In other words, our knowledge of international students' friendship network is based on the limited countries where the data was collected. It is likely that the data is biased since all these countries share the same Anglo-Saxon trait. In order to view and analyze international students' friendship patterns in an all-around fashion, more research should also be done from the perspective of non-English speaking industrialized countries. As Altbach (1991:p. 307) commented:

*It is important for those making generalizations concerning foreign study to fully understand that the existing research base is very limited in terms of the countries analyzed.*

It can be inferred that the main difference between dwelling in the English-speaking countries and dwelling in non-English speaking countries is the locals' competency of the English language. The language issue is probably one of the prevalent and significant problems facing international students, which is corroborated by almost all of the literature. Language ability is correlated with social and academic adaptation, and with other variables that facilitate adaptation (Hu & Perrucci, 1999). Language can directly affect the quality of exchanged messages and the international students' willingness and confidence to communicate with locals. Most of the international students in the native English speaking countries found their English ability inadequate to understand the local's accent, idioms and slang (Li et al., 2002). Some of the students even deem the local's English accent as a sign of aggression and insecurity (Ibid.). However, in a third country where people's mother tongue is not English, it might be more communicable between locals and international students

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who both speak English as their second language. It would, therefore, call for more studies conducted in the non-English speaking countries. Insofar, the only literature researching the international students' life in Norway is Sam's (2001) "Satisfaction with life among international students". Sam (2001) constructed the operational definition of friends as "whom you can share problems with" and discovered two out of three of (66%) the respondents (Bergen University international students) had a host national as a friend. However, all the students depict making friends with Norwegians as difficult. The author failed to mention the specific country of origin of the international students, where the 66% of the students were from and where the other 34% of the students from. Neither did the author mention the precise number of local friends within the 66% category. In order to address the gap, this study is going to employ a functional model to conceptualize the term "friends", and then shed light on the concrete number of friends within every international student's friendship network.

### 3.3.2 Lack of a comprehensive picture

The bulk of the literature does mention the function or utility value of cross-cultural and co-cultural interaction, connectedness and friendship. More precisely, that is how and to what extent the varying degree of local, international and co-national contact or friendship has an impact on the international students' socio-cultural life, academic performance, and psychological status. For example, Berry and his colleagues have clearly demonstrated that the attitude of integration—defined by Berry as high identification with both home and the host cultures—is associated with the lowest levels of acculturative stress<sup>8</sup> because the local ties help the international students with the socio-cultural adjustment and co-national ties with the expressing and maintenance of the original cultural values and identity (Berry & Annis, 1974; Berry et al., 1987; Berry et al., 1982; Donà & Berry, 1994). Consistent with Berry's findings, Zheng and his colleagues (2004) find out that Chinese students who were integrated had significantly stronger levels of subjective well-being than their peers who were assimilated, separated or marginalized.

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<sup>8</sup> Acculturation stress is defined by Berry as physical, biological, social and psychological difficulties.

Unfortunately, the studies on international students are inundated with literature attempting to address the issues of cross-cultural adjustment at various levels: socio-cultural, and psychological, etc. Although most of these literatures make considerable contributions to the field of higher education, we are bombarded with a large supply of unsolicited and redundant information with regards to international students' adjustment and well-being. As

Altbach(1991,p.306) commented on this phenomenon:

*Psychologists relating to foreign students, usually use foreign student populations as a research site rather than approaching the research with a clear focus on the phenomenon of foreign study.*

When it comes to the friendships, most preceding studies presumably regard international students' friendships in a host country as an index, a single variable or a factor to measure the overall adjustment or life satisfaction and difficulties. Only a few studies attempt to shed light on the barriers to inter-cultural friendship formation (e.g., Kudo & Simkin,2003). As a matter of fact, very few systematic and extensive efforts have been carried out to elaborately describe the international students' entire friendship network and the relational components which comprise it. Very few attempts in the studies of international students have been made to meticulously define and delineate the concept of friendship from other related concepts such as: interaction, connectedness, acquaintance, companionship, etc. As a consequence, in the data presentation and discussion section, the empirical findings related to international students' friendships are always peripheral and entangled with other findings such as interaction. As so, the audience needs to dip into a range of studies hastily to acquire bits and pieces of information, which hardly constitutes a comprehensive picture of international students' friendship network.

### **3.3.3 Reliability and validity issues**

Moreover, most of the previous studies use a quantitative research methodology to measure the status of international students' friendships. The close-ended survey, lengthy and diffuse questionnaires are commonly used to generate a mass of numerical information, which then undergo statistical analysis (e.g., correlations, regression analysis). However, the survey or the questionnaire may not serve as a rigorous tool to fully measure the international students' friendship network. For instance, one foremost study by Bochner (1977) rigidly limited the

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number of friendship network members and ask respondents to identify five individuals who were their “best” friends. Hence, it remains unclear what is the total size of the international students’ friendship network in his study. Similarly, Harrington (2003) conducts an online survey and limited name interpreters to four network members. In the same fashion, Neri and Ville (2006) investigate how, and to what extent, students renew their social networks by use of participant survey. Students were directly asked to report on the number, and particular characteristics, of their university and non-university friends. However, the number of friends derived from their survey may not be accurate due to the fact that students can not exactly recall the number of their friends at a given time. In order to help respondents to completely enumerate their friends, name elicit questions need to be administrated in the study. Quantitative research design is mainly used to predict the casual relations and quantify the variation. As a result, none of the studies intended to investigate the precise number of friendship network and the developmental process which is the focus in this study.

### **3.3.4 Narrowed focus on “demographic homogeneity”**

As Bochner’s (1977) findings revealed, three types of friendships serve different functions for international students. As such, to a large extent, the “demographic homogeneity” is one parameter of the international students’ friendship network, which defines, and demarcates the whole friendship network as well as remarkably distinguish international students’ friendship network from other group’s friendship network (e.g., the aged or the children). While the “demographic homogeneity” of the friendship network is one of the capstone characteristics, too much attention has been devoted to it. Numerous studies aim at uncovering the constitution of the friendship network in terms of the demographic distribution—the number of intra-cultural ties (co-national) and the number of inter-cultural ties (locals and internationals) by extending and replicating the friendship pattern from Bochner(1977). However, “demographic homogeneity” is not the sole characteristic that determines international students’ friendship network structure. Normative contexts of friendships also serve a significant role in one’s friendship network and totally differ from the dimension of “demographic homogeneity”. Three pitfalls can be identified here as to the relations between demographic attributes and normative context. Some studies investigate the demographic attributes of the relational component without taking into account the normative contexts. For example, Bochner’s (1977) study of friendship pattern is devoid of

normative contexts. International students were directly asked to identify five individuals who were their best friends without any further reference to the normative contexts in the questionnaire instruction. Secondly some studies narrowly focus on one specific normative context due to their research aim and purpose. For instance, Montgomery and McDowell (2008)'s study deliberately focus on learning contexts. Generally speaking, their study is anchored in a classroom environment. Students are selected according to their degree of participation in a "total friendship network" in the class. In this sense, their friends serve more contextual-bounded functions such as encouragement and practical and academic help. Thirdly, some studies assume demographic attributes are equivalent to normative contexts. While Maundeni (2001) pinpointed the gap from other literature that such (previous) studies have also limited themselves to a network consisting of friends, excluding network members such as supervisors, medical practitioners, counsellors, etc. (c.f. Bochner et al., 1977; Furnham & Alibhai, 1985), the way the data is presented is problematic (see diagram 9 below). The authors seems to mix the normative context up with demographic attributes of the ties, which renders her study unable to further investigate cross-cultural or co-cultural friendship formation within one normative context. In this study, culture attributes and normative context are parallel to each other but two totally different dimensions. They form a matrix relation (see diagram 10 below) instead of a simply equal status relation.

Diagram 9

International friendships	Co-national friendships	Local friendship	Normative A	Normative B	Normative C	.....

Diagram 10

	International friendships	Co-national friendships	Local friendships
Normative a			
Normative b			
Normative c			
Normative d			

Adapted from Grossetti (2005)

### 3.3.5 Lack of longitudinal perspectives

So far, no systematic longitudinal study has been conducted on the characteristics of the international students' friendship network. Longitudinal design reveals how time (earlier pre-departure , post-arrival, etc.) characteristics predict social relationship composition at a later point in time(Ying, 2002). The identification of these characteristics holds important implications for pre-departure and early post-arrival interventions aimed at facilitating cross-cultural associations (Ying, 2002). Longitudinal research provides an understanding of change, of the trajectories and dynamic processes of the international students' network development , which is not possible from research based on cross-sectional data.

Moreover, longitudinal study can discover the continuity and change of friendship networks in different periods and reveal a coherent picture, instead of only a segment, of the network development pattern to the researcher. There is an implicit or explicit agreement in a vast body of literature that a certain amount of time as sojourners was essential for the students to undergo substantial changes in their personal network development. The international students' personal network is not stationary but progressive. Existing literature tends to overlook the dynamics related to the friendship network development. Few considerations

are given to the formation, developing process and the change of international students' ego-network over time. Investigating the status of international students' friendship network at a specific and single point in time can only partially predict the subsequent change of international students' friendship network. Unfortunately, most of the studies either give few concerns to the length of stay or reckon the length of stay as a controlled variable. This is probably due to the reason that most of studies pertaining to the international students' social network tend to look into the relations between social network and adjustment to the local society (Maundeni, 2001), social network and academic progress (Harrington, 2003), and social network and the formation of academic community (Montgomery & McDowell, 2008) instead of the evolving nature of friendship network itself. Very few empirical researches has been carried out on the group of international sojourn students to describe developmental process and shed light on the factors which give rise to the change. However, the "time dimension" may play a big role in the international students' friendship network development. It would thus be of interest (in this study) to learn the dynamics of friendship network and time-related factors contributing to change processes.

### **3.3.6 Lack of a clear distinction between friends versus acquaintances, and friends versus close friends**

One unaddressed area prevailing in existing literature is that no special emphasis is placed on the dividing criteria between friends and acquaintances (i.e. what constitutes a friend and what constitutes an acquaintance). For example, social network members in the context of Maundeni's (2001) study broadly refer to people with whom students had contact. Strictly speaking, Maundeni (2001) describes a whole personal network composing of all the acquaintances and friends instead of just the friendship network. In this situation, it is hard to tell the different roles acquaintances and friends play respectively on the international students' life. Harrington (2003) attempts to fill a void in the social network research on international students. That is the role the international students' social network plays in facilitating academic progression. However she didn't elaborately make a distinction between friends and acquaintances. Instead, respondents were only asked to think about the first (4) individuals they thought of when answering the question about network size. That is the same case with Montgomery and McDowell's (2008) study, where they discuss the experience of international students as a community of learning and describe the individual

experience in this well-developed learning friendship network. However, the concept of friends is mentioned but not explicitly defined.

Comparably, the hazy use of term “friends” and “best friends” or “close friends” also causes the problems for the audience to considerably understand the international students’ friendship network. It is indicated in the literature that international students usually have strong ties with co-nationals due to the similarities of culture background. However, the concept of “strong ties” is used presumably without giving further elaborate explanation. Even within the same friendship network, friends have various levels of intimacy with ego. Some friends are in the outer layers while others are in the core or inner layers of friendship network. Much of the research on the international students’ friendship network does not explicitly define what is meant by a “close relationship” or “best friend” and what is meant by a “good friendship”. Few systematic research exist which probe international students’ perception of the degree of closeness with local friends if international students have local friends at all. Instead, respondents are directly asked who their best friends are or who their friends are. The criteria to estimate the strength of friendship is not even mentioned in most of the literature. It would have been better if more studies strive to conceptualize the varying levels of friendship and compare the meaning and implications of “normal friendship” with the meaning and implications of close friendship for ego. In order to resolve this gap, instead of employing single definition of friends, this study is going to further distinguish between close friends and good friends in terms of the behavioural and affective dimensions.<sup>9</sup>

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<sup>9</sup> I will discuss it more elaborately in my next chapter.

## 4. Theoretical Framework and Operationalization

The purpose of the study is to capture the developmental process or evolution of the international students' friendship network by use of a quasi-longitudinal study design. Accordingly, the theoretical model used is supposed to be calibrated to the group of international students in a Norwegian HE context. However, most of the existing models in social network literature are aimed for the population of the aged or domestic groups. Hence, in order to map out the changing path of friendship network, I have decided (on the basis of the existing literature and its shortcomings) to design my own functional model.

### 4.1 Boundary Specification

An important issue contemplated in Marsden's (1990) review of network data and measurement is how to specify the boundaries on the set of units to be included in a network. It is of great importance since the omission of pertinent elements or arbitrary delineation of boundaries may lead to misleading and artifactual results (Barnes, 1979).

#### 4.1.1 Variation of the definition of friends

There is a general consensus among all the studies that there is no single and uniform idealized definition of friends. As Aries and Johnson (1983, p.1184) commented, whilst referring to the works of Suttles (1970, pp 95–325) and Wright (1978, pp196–207):

*“It (friendship) has been characterized as the least programmed and socially defined of any important relationship (Suttles, 1970), and the definition of friendship rests on voluntary association (Wright, 1978).”*

Huang (2008) in her thesis uses qualitative research strategy to exam different conceptualizations of friendship between Chinese international students and U.S. nationals (locals) and analyzes how the different conceptualizations of friendship hinder cross-culture communication and friendship-making between the two groups. Huang (2008) suggested, by referring to the works of Gudykunst(1983, 1985), that friendship is characterized by each

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culture's own unique set of values and dimensions, and friendship patterns emerge as culturally specific.

### **4.1.2 Addressing the variation problem**

Three approaches to dealing with the definitional variation of friendship are identified by Adams and his colleagues (2000) after they briefly review the preceding literature concerning the topics of friendship: 1) They ignore the complexity, bemoan it because they compare people's friendships; 2) They eliminate it by instructing the people they interview to use a limited definition in discussing specific relationships; 3) A much smaller number of researchers examine the variation.

My approaches to address this "variation" problem will be presented as follows:

#### *A. Asking my respondents*

Firstly, I will examine definitions of friendship directly by further asking my respondents about their subjective criteria to select a certain number of relations as friendship (i.e. what the relationship means to them). The individuals in question (international students mentioned) must either live in Norway currently or used to live in Norway. That is to exclude the friends of international students back in home country and only include the friendships in Norway.

#### *B. Operational definition of friends*

Secondly, while it is beneficial to let international students select their own friendships and express their own notion of friendships during the interview, it is equally important that the data base needs to be arranged in a more comparable way for discussion purpose.

In order to align all the "friends" with a common benchmark, according to the social penetration theory (Altman & Taylor, 1973), all the social relationships in this study are categorized along a spectrum of the levels of affective and behavioural dynamics of friendships: acquaintances, good friends and close friends.

### **Acquaintances**

The first relationship, termed as “casual relationship”, is characterised by the relationships highly institutionalized in a *normative context*. With the increased level of involvement in interactions and conversations, ego and his friend explore each other more and more but still only talk about non-private and superficial topics in a formal and socially courteous way. Ego usually doesn't directly express his personal opinions. Ego and his friend act according to the social rules. The main activities are conversations still held only in the initial *normative context*. Ego and his friend usually just enjoy each other's companionship, but didn't contact each other on purpose outside the *normative context*. There are few obligations and commitments between ego and his friend. These casual relations are more like acquaintances than fiends.

### **Good friendships**

The second relationship, which I will call “good friend” is featured by sharing informal joint activities (e.g., having a meal or playing sports) well beyond the original formal or informal context where ego meets his potential friends. In other words, the contact or interactions have almost escaped from the constraint of the initial normative context. The bond formed between ego and his friend is strong enough to independently sustain the growth of friendship. To be more precise, if ego and his friend invite each other for informal and unstructured activities by deliberately contacting each other, it may indicate that they are already partially free from the restraint and enter the stage of “good friendship.” In this stage, ego and his friend tend to share diverse activities with each other most commonly including practicing the common hobby and enjoying the pastime.

The similarity between two casual friends is the crucial factor to advance the casual friendship into the good friendship stage. The results show on the whole, the homogeneity with regards to behavioural characteristics (Mcperson et al., 2001) constitutes a strong gravitated force between two friends. A large number of previous studies (e.g., Berscheid, 1985; Hartup, 1983) discover that adult friends in a general sense tend to be more similar to each other than acquaintances in terms of not only personal visible attributes (e.g., age, sex and appearance) but also invisible attributes (i.e., hobbies, interests). There is a general consensus among these studies that this similarity enhances the inter-personal attraction between two people, which can also be applied to the situation of international students.

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Shared preferences for hobbies and interests contribute considerably to the forming of a good friendship bond.

Moreover, ego and his friend begin to dip into talking about private feelings and thoughts. However, there are still a large number of cautions and reservations for ego and his friend to totally expose themselves to each other.

### **Close friendships**

The close friendship is in the deepest level of relation. With close friends, one can really confide about deep personal feelings and personal problems. The majority of personal emotions, private experiences and past stories can be shared. There is a strong emotional bond between two people. A strong emotional bond means a high level of loyalty and affection. Ego can have a high expectation of receiving emotional or practical help when they request it. On the other hand, a strong emotional bond also refers to the high trust. When one confides in a friend not for fear that he might divulge the information to others, a strong trust was formed. Close friendship is a harbour which safeguards the comfort and safety feeling between two people. According to Hays (1988,p.399), close and good friendships did not differ in the amounts of fun, task assistance or intellectual stimulation experienced but close friends provided more emotional support than good friends. Therefore, the close friendship is characterised by confiding in the friends about personal matters. Besides, confiding about personal matters might indicate that some intimate topics are already open for discussion and a strong emotional attachment is already formed.

Therefore, as table B below summarised, acquaintances, good friends and close friends are in ascending order in terms of behavioural and affective dimensions. As the social penetration theory (Altman & Taylor, 1973) depicts, relationship development is seen as a gradual process from superficial interaction to increasingly intimate interaction. *These three types of relations can be viewed as the dynamics of friendship formation. In other words, acquaintances are the prerequisite stage to good friends and good friends are the prerequisite stage to close friends.*

Table B Acquaintances, Good friends and Close friends

	Acquaintances	Good friends	Close friends
Behavioural	Talk within the normative context	Share the informal activities	Confide
Affective	No	Similar interest/hobby	High emotional trust

## 4.2 The functional model

**The functional model** is composed of four parameters (see diagram B in appendix), which can be further classified into two distinctive categories; *environmental background* (*normative contexts* and *time frame*) and *entity of the network* (*relational components* and *structural characteristics*). All the aspects are discussed in detail below.

### 4.2.1 Normative contexts

The first parameter is *normative contexts* of the relationship. As argued in the literature review section, previous studies tend to overlook the dynamics of *normative contexts* or downplay the role of *normative contexts*. By considering the qualitative nature of this study, a great deal of attention should be paid to the *normative contexts* of the friendship.

*Normative contexts* stand for the width of personal friendship network in terms of the network's interaction with its immediate environment. *The normative context* reveals the imperative of the interaction between the social network composition and the social environment where the social network is situated or embedded. However, a connecting line is supposed to be drawn between *normatives context* and friendship network by demonstrating the context where ego meets alters (e.g., friends from neighbours, classmates,

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labour partner). This can be used to articulate and describe the ego's network formation process and evolving pathways. The ties or friendships in ego's friendship network do not exist in a vacuum place. Grossetti (2005) draws conclusion from Fischer's (1982) study and regroup the contexts for constructing relations as identified by Fischer into three types of situations or contexts: A) relations come from circles: i.e. individuals maintain relations with former school or university companions, former colleagues and former activists in political parties' school or university companions, former colleagues and former activists in political parties, and our kinships; B) relations are constructed around common concerns; In the neighbourhood, one and one's neighbours share common concerns (shared walls, shared utilities in a building); C) relations originate from other relations. Individuals meet their friends' friends in their social network.

*“The initial relations are given to us—parents and close kin—and often other relations are imposed upon us—workmates, in-laws, and so on. But over time, we become responsible; we decide whose company to pursue, whom to ignore or to leave as casual acquaintances, whom to neglect or break away from. Even relations with kin become a matter of choice; some people are intimate with and some people are estranged from their parents or siblings. By adulthood, people have chosen their networks (Grossetti 2005, in Fischer, 1982, p. 4).”*

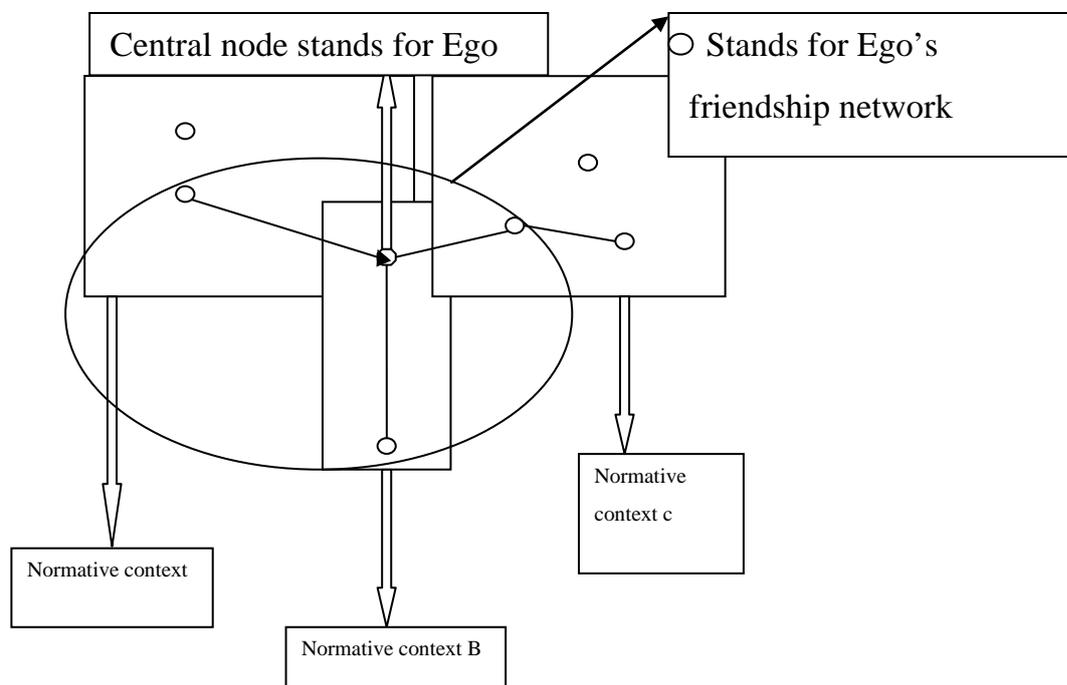
A considerable analogy between the international students' social network re-establishment and above mentioned relationship formation is noticeable. International sojourn students are a special group who temporarily stay in the foreign country for the cause of study and are scheduled to come back to their home country after the completion of their studies. It is unsurprising that family and kinship relationships figure prominently in social networks (Crow, 2004) where ego has a strong and frequent establishment of trust on. Friendship networks are the second instance the ego relies on. While these two ascribed social networks provide affective support and caring to ego intrinsically and extrinsically, still international sojourn students face the harsh situation devoid of these two social networks in their host country. With their close friends and family members geographically away from their host country, they are susceptible to a large variety of psychological difficulties in re-establishing the *egocentric* network and social capital lost in the host country ranging from: simple loneliness, homesickness and irritability to severe depression, confusion, and disorientation (Sandhu, 1995). After arriving in their host country, they, with a limited knowledge of local

customs and language, make attempts to select and engage in a variety of new social settings or contexts they probably never engage in before (e.g., multi-cultural class and neighbours).

During the process of adjustment to the new environment, international sojourn students gradually construct their “lost” ego network by participating in different social settings, making acquaintances with people from these social settings and building up the friendships (See Diagram 12 below). Their friends accrue to the length of stay and finally constitute a new friendship network.

Therefore, normative contexts are the parameter that indicates the transaction between the friendship network and the general environment the friendship network originated from. Normative contexts also reflect the width of the personal friendship network by demonstrating from which settings ego’s friends originate. It can be inferred that the international student’s friends do not necessarily know each other regardless of ego since they stem from different social settings.

**Diagram 12: The normative contexts of international student’s friendship network**



Adapted from Grossetti's(2005) study “Where do social relations come from?”

During their stay in the host country, international students may participate in many social settings. Six primary *normative contexts* have been identified according to the pilot interview: Neighbourhood (student village), part-time job, church or other religious groups, class, volunteer organization and the social organization or club. Due to the reasons that international sojourners spend most of the time on the campus as a full-time student, *normative contexts* can be further classified into 3 categories: *on campus*, *off campus* in terms of the geography location and friends of friends as adopted from Grossetti (2005). *On campus* contexts mainly consist of class, volunteer organizations, social organizations, and clubs. *Off campus* contexts mainly consists of accommodation, part-time job and church or other religious groups. What should also be empathized here is that in line with Granovetter's (1973) the triangular strong ties connection theory, international students may get to know their potential friends through the introduction of other friends. So social networking may create the opportunities for international students to know a thread or chain of friends, and thus may become another type of *normative contexts*. To sum up, all the three categories of *normative contexts* (See also diagram C in appendix) are presented below:

**A. Off campus: accommodation (student village and residence place), part-time job, church, or social organization**

**B. On campus: class, volunteer organization and social organization**

**C. Friends of friends**

#### 4.2.2 Time dimension/frame

*Time frame* stands for the time axis and is used to capture the elapsed time in Norway, which helps to investigate the friendship network at a single time point based on the predisposition that the friendship network may vary from one point to a neighbouring point.

In this study, the international students' length of stay is divided into two specific time periods or intervals: the first year and the last/second year. Due to the limitations mentioned in previous, two comparable groups in terms of the demographic backgrounds from each year are selected. By comparing the friendship network characteristics over these two groups, the international students' friendship network change can be possibly tracked and described.

### 4.2.3 Structural characteristics

As I reviewed before, *structural characteristics* refer to a pattern or configuration of relations within a friendship network. Each sub-variable of structural characteristics in the model will be discussed briefly below.

#### *A. Size (range) of the friendship network*

Size or range of the network in this study refers to the total number of friends the ego has. Size is one of the commonly-used variables in the network measurement. Previous articles only studied segments of the friendship network. Very few of the previous research attempts to delve into international students' friendship network. However, the precise number of friends in one's friendship network is one of the focuses of this study. The abstract "percentage" can be replaced by the exact number of friends, which provides us a more visible and plain picture of how many friends ego has in his friendship network. Since respondents are free to nominate as many friends as they can and are not imposed with the artificial standards, the size is more likely to reflect the actual scale of international students' friendship network. Besides, by comparing the size of second year's students' friendship network with that of the first year's, it is fairly straightforward to see whether the friendship network expands or contracts during international students' stay in Norway.

#### *B. Density (connectedness) of the friendship network*

This has been probably the most frequently utilized characteristic of networks. The concept of density originated from Bott (1957). "Density" (Bott,1957) denotes the ties linking to each other regardless of ego. In this study, it means whether friends befriend other friends independent of ego. "Density" is one of the key variables which can offer insight into the friendship network structure. Networks where almost all of the people know each other can be termed as "close-knit" network while "loose-knit" network is depicted as the network where friends are only lined to ego and not to others. Preceding articles report that international students' co-national friends tend to form a clique. It is worthwhile to examine not only the whole friendship network, but also which segment of the friendship network displays "close-knit" structure and which segment of the friendship network is loosely-coupled.

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#### 4.2.4 Relational Components

*Relational components* place emphasis on the attributes of specific relations. Here six variables which are relevant to the longitudinal study are identified. Each of them will be discussed below.

##### *A. Student type (if alters are students)*

The reason why I placed accent on the student type and regard it as a single variable is that anecdotal evidence indicates that , in the Norwegian HE system, international students not only establish friendships with their self-financing and quota peers, but also with Erasmus and bilateral international students. However, Erasmus and bilateral students usually tend to stay for a shorter time in Norway than their self-financing and quota counterparts. This implies at the end of every semester, international students may part from their Erasmus or bilateral friends since Erasmus or bilateral friends have to return home before their study visa in Norway has expired. This process may give rise to instability and disturbance of the international students' friendship network. Taking into consideration the longitudinal nature of this study, this change of friendship network is highly relevant and also important for my final data analysis.

##### *B. Durability*

Durability is another important variable in measuring the stability of the international students' social network. Coming to study in a foreign country creates instability in the composition and functions of some students' social network members (Maundeni, 2001). By identifying the length of time the focal person knows each of the members, an important outline can be drawn to trace out the international students' friendship network development trajectory. The basic building block of the friendship network is newly-formed friendships. Thus, the overall evolving path of network can be tracked in order to see the pattern and tendency of the developmental process of the friendship network by examining the formation time of every new single dyadic tie, which fits into the framework of quasi-longitudinal study.

### *C. Function(s)*

Function is used here to capsule the ties' impact on ego and the activities involved in the process of friendship development and maintenance. The activities ego shares with his friends can be serious or non-serious, academic-oriented or recreational-oriented, and formal or informal.

### *D. Frequency*

Frequency is a concept which estimates the rate of face to face contact ego maintain with his friends. Contact can be formal and institutionalized in the normative context, and also informal and private in such occasions as sharing dinner and go shopping. Here frequency is mainly adapted to measure how often both formal and informal face to face contact occurs.

### *E. Homogeneity*

“Homogeneity” is a key but a cliché variable which refers to the extent to which members of a network share common geographically demographic attributes with ego. In this study, the focus of the homogeneity is mainly on the local tie's proportion among the entire friendship network.

### *F. Intensity*

Intensity denotes the individual's subjective perception of the degree or order of closeness toward each member of the network, which is one of the key variables in network literature. Previous literature reviews show that international students tend to form close friendships with their co-nationals due to the cultural and language homophile. In order to avoid misusing the terms—“friends” and “close friends”, the variable “intensity” is adopted to distinguish between the friends and the close friends in order to further elaborating the international friendship network's composition.

## 4.3 Operationalization

This subsection aims to present how to translate the measurement of aforementioned variables into specific concrete questions in the interview (i.e. how the desired data was collected).

### 4.3.1 Name generator

There are four main approaches to measuring the composition of the social network (Van Sonderen et al, 1990).

1). *Exchange relationship approach*: (the contents of relationships: C. multidimensionality, E. relationship density in table 1)

The general way is to stimulate the respondent to elicit names of their social network member by assessing the exchanged specific kinds of support existing between the respondent and one's social network members. For example, who would help you if you have an academic problem? Whose advice would you consider in making an important decision? Exchange relationship approaches describe their personal networks by means of the supportive features of their relationships.

2). *Affective approach* (strength of ties, A. intensity in table 1)

The general way is to collect information about people who stand in different degrees of closeness to ego. It is measured through assessing the ego's subject dimensions of relationships' with degree of closeness. The focus is on those with who the respondent has strong ties and weak ties with.

3). *Role-model approach* (normative contexts, III normative contexts in table 1)

The general way is to pre-categorize people's social network members into several domains. For example, neighbours, classmates... The focus is on the institutionalized formal relationships.

4). *Interaction approach* (B. durability; F. dispersion ;G. frequency in table 1 )

The general way is to assess the network members by their interaction level. For example; Who did you have interaction with last week?

All four approaches deal with subsets of the full personal network and are theoretically valid and appropriate for different research questions (Van Tilburg, 1995). Definitions based on the contents of relationships (*exchange method*), role relationships (*role-relation method*), or the affective value of relationships (*affective method*), and *interaction approach* will tap different parts of the total personal networks (Ibid.). Every single generator approach has its limitations. For *interaction approach*, there is little correlation between routine contacts and those ties that people tend to evaluate as most important (Marsden & Campbell, 1984). The validity and reliability of the *interaction approach* data heavily relies on the interactions in a typical day. Retests of the same participants from even one day to the next can produce significant variation in the alters with whom an ego interacts (Marin & Hampton, 2007). For the *role-model approach*, it may end up including a cluster of relationships in a single normative context without identifying the important and active ones. For the *affective approach*, the construction of “closeness and intimacy” is highly subject to the individual interpretations, which may be different to harmonize in one study. *Exchange approach* is also susceptible to the problem of reliability. Bowling (1991, p.549) clearly distinguishes the concept of “social network” and the concept of “support and care network”. Social network is the set of people with whom one maintains contact and has some form of social bond. Social support can be defined as the interactive process in which emotional, instrumental, or financial aid is obtained from one's social network. The *exchange approach*, measuring social network, proceeds from a consideration of its functional content. However, exchange services may not derive solely from one's friendship network. Similar to the *role-model approach*, a mess of people may be elicited in the *exchange approach* without knowing who is important to ego. The use of a single name generator does not address the full dimensions of the friendship network. Therefore, the combination of the approaches is adopted in this study and should depend on the research objective. The aim of the thesis is to investigate the international students' friendship network evolving path and identify the main factors which contribute to this change. As argued in the literature review section, cultural attributes and normative context form a matrix relationship and more rigorous methodologies are required to enable the respondents to recall the number of their friends as precisely as possible in order to trace the size of their friendship network. I decide to adopt the *role-model approach*

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coupled with the *affective approach* to help international students decide who should be included in their friendship network.

### 4.3.2 Role-model approach

Adapted from Grossetti (2005), the starting point is that *normative contexts* are the ultimate and sole sources of international students' friendships that can be traced back. If, initially mutual strangers have the opportunity to interact for a certain period of time within a certain normative context, it is highly likely that friendship bond will be formed. International students continuously partake in diverse *normative contexts* and initialize, develop and maintain the friendships situated in each of the *normative contexts*. As van Duijn and his colleagues (2003) argued, by referring to the works of Fehr (1996):

*A friendship between two people can emerge only when their paths cross in the first place: they will have to "meet" before they can even "mate." That they actually meet is more likely if there is opportunity, by sharing, for example, the same living, school, or work environment, or if their social networks overlap (Fehr, 1996). (Van Duijn et al., 2003, p.154)*

By the *role-model approach*, every type of relationship is covered and deserves the same chance of being chosen as the friendship in the network. Thus, to a large extent, misleading the respondents to fit their relations into the pre-selecting and limited definition of friends can be avoided.

Besides, the *role-model approach* can help respondents to recall their friends more easily than other approaches by setting up a comprehensive framework which captures every possible relation. International sojourners who get a student visa in Norway may engage in finite *normative contexts* in the host country due to the reason that their major duty is to study and their life is tied down to the university most of the time. Accordingly, it is more controllable and more measurable to ask about all their *normative contexts* in order to elicit their friends' names than abstractly ask them about their friendships.

### **4.3.3 The operational problem of a single role-model approach**

However, one operational problem occurs that mere *role-model approach* may encompass a spectrum of relations from acquaintances to close friendships, some of which are not in the boundary of this friendship network study.

### **4.3.4 The Affective approach as subsidiary to the role-model approach**

The *affective approach* is also used to further filter and refine the friendships from the gamut of relations. Not all the relations can be deemed as friendship in international students' eyes. Some contacts are institutionalized and regular due to the nature of the *normative contexts* and the environment which arises from the *normative contexts* (e.g., all your classmates and colleagues). In order to avoid incorporating a mass of relations into friendship network, respondents are requested to nominate friends as many as they can from each identified normative context.

Moreover, in order to disclose different levels of friendship, international students are asked again to place all their nominated friends into two pre-selected categories: normal friends or close friends. Their criteria to classify the closeness of their friends are inquired too. In this way, it is easy to compare the international students' standard of differentiating friends from acquaintances with that of distinguishing close friends from friends. Besides, it follows a logic sequence and incites international students to evaluate their friendship in a gradually deep way.

### **4.3.5 Name interpreters**

After the name generator, a series of additional questions (name interpreters) are designed to elicit information about the alters, their relationships to the respondent and their relationships with one another. To be more concise, respondents are first asked to recall the process of friendship development in the normative context. And then they are asked to give demographic characteristics (age, sex, occupation including student type, gender) of their alters as well as state their frequency of contact with alters and the activities they share with

altars. Finally, respondents are asked to list those pairs of alters who know one another and report the length of knowing their alters in an ascending order from the earliest to the latest.

## 5. Findings

In total 14 international students responded to my e-mails. Two of them have been residing in Norway for more than one decade and are Norwegian citizens, who are not within the scope of my research. Twelve international students (See table 6 in Appendix) volunteered to participate in my project as a result of seeing the e-mails forwarded by their coordinators, including 4 males and 8 females. Since the e-mails were sent to all the degree-seeking registered students in the three programs, of 12 international students, five commenced their studies in the 2007 academic year, six commenced their studies in the 2008 academic year, and one (John) commenced his study in the 2006 academic year. One from the 2006 cohort had been in Norway for three years and just finished his thesis by the time he was interviewed. Of all the twelve subjects, three were Chinese; two were Romanians, with the remaining individuals being from America, Georgia, Ukraine, Zambia, Zimbabwe, Nigeria, and Cameron. The age of the participants ranged from 23 to 42, with majority of the Africans' age skewed to the higher end of this spectrum. The three Chinese participants (including two females and one male) and one Nigeria female are single. Among the rest (eight students) of the participants in a dating/marital relationship, two of the student's partners (boyfriend and husband) are back in their home country. Two second year Romanian students have ongoing dating relationships with Norwegian partners. All the international students were interviewed between March and May (approximately one or two months before the end of spring semester).

The international students are divided into four demographic groups: (Asia, Africa, Europe and USA) In-group friendships denote the intra-continental friendships (e.g., Georgian and French, but excluding co-national and local ties) with one exception of Linda (American). Linda's in-group friendship mainly refers to the ties with the people from native English-speaking countries. Out-group friendships here are defined as the inter-continental friendships (e.g., friendship between Asian and African, but excluding co-national and local ties).

The goal of this study is to identify the factors contributing to the friendship network evolution and trace out the course of the international student's friendship network progress

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over two years by comparing two cohort groups from three English-speaking master programs.

In this chapter, I will first examine the nodes in the international student's friendship network. In other words, the differences between conceptualization of friends amongst international students is summarized and all the ties are divided into three pre-categorized groups (close friends, good friends, and acquaintances). Secondly, I will briefly present the data in light of the theoretical framework. In other words, good friendship network characteristics (*structural characteristics* and *relational components*) and close friendship network characteristics (*structural characteristics* and *relational components*) are described separately within the parameters of environmental background (*time frame* and *normative contexts*). Thirdly, a summary will be given as to the differences and similarities between first year and second year cohorts friendship network in terms of the *normative contexts* and characteristics of the network per se.

## 5.1 Categorizing of International Student's Friends

This section mainly deals with the categorization of international student's friends in Norway via operational definition of good friends and close friends.

### 5.1.1 Selection of friends

According to the international student's description of friends in general and every individual friend in particular, all the "friends" are placed into three pre-categorized clusters: acquaintance, good friends, and close friends. Since the goal of the study is to investigate the friendship network, table 3 (in appendix) reveals and focuses on the size of every international student's friendship network in Norway categorized by two aforementioned clusters (good friends and close friends). The "No" denotes its non-existent in one's friendship network. The numerical number denotes the number of cases reported in one's friendship network.

Those who do not have real close friends tend to nominate good friends as the substitute for their so-called close friends. Besides, they usually confess their personal matters to their friends or family back home.

I tell private matters to friends in my hometown mostly.  
(Hong, first year)

If I need some emotional help, usually I talked to no one in Norway. I would either talk to my best friends at home (one of them) or my sister. If things are private, troubling, and personal belief, something in a deep level than something is very superficial. (Linda, first year)

Things I can discuss with this one, maybe I cannot discuss with another one. They meet different needs at different level. (Just like any other) family issues can't be discussed with friends, it is the same with my close friends. We could discuss issues related to healthy, parties and not more personal. I guess some of the issues that I discuss with him (husband) can't be discussed with friends. They are more personal. (Camara, first year)

On a contrast, one student included more close friends than were actually in her close circle by a broad standpoint of "being close." Generally speaking, international students who have real close friends share a nearly similar view of what it means to "be close": confiding the personal problems and sharing their personal life.

The close one is those I can share private information and private life with and vice versa. (Mary, first year)

I will talk about my personal topics with my close friend here instead of my friends back home. (Kabili, first year)

The topics for less close friends are (such as studies, news, plans for the future, holiday) not very private and on surface talking. (Anne, second year)

Share the happiness and sadness with very close friends in Norway and family back home. (Zheng, second year)

However, when I hang out with them, I can say everything.  
(Yuan, second year)

I can share personal information with any of them because I am an open person. However, I can rely on my close friends much more than the other. There are some very personal matters I only can share with them. (Jack, second year)

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Being so close to me means you need to share the life with someone. Let them know exactly, I mean, the core issues about you. That is a really close friendship. (John, second year)

...A small circle of people near to me long enough that I got to share to know them very well. You know, when you get the feelings of being very comfortable to one person, it is easy to start to talk. (Jennie, second year)

Some students tend to be more inclusive in the good friends segment than other students. For example, Kabili (first year) mentioned nearly twenty good friends, majority of whom, however, were only assessed as acquaintances via the operational definition. Jack (second year) also regarded many acquaintances as his “good friends” due to the length of time spent together.

Because you spend too much time with them and you don't have other environment to meet other people. You need to have friendship with people you spend so much time. They become your friends just due to the length of time instead of common interest. It is not an association of commonality. You are not drawn to them because you are alike and share common interest. You just spend time together and it happened sometimes that people are close because you share something, especially when we have a good day and bad day. And you tell them stuff. Maybe you should consider them friends because if you share some things, it is kind of your friends.

Sharing the common-interest topics such as (motherland, family, religion), participating in physical and political activities (hiking, outdoor sports, invest USA election), enjoying recreational activities (watching movies and cartoons, drinking, dancing, shopping, going to a museum) and dining together are the main forms of joint activities international students engaged with their good/close friends. Besides, the data also reveals that the information exchange of living in a foreign country and task assistance in a specific normative context is the main benefit of having a good friendship. For example, open the door (in a residence place), peer assistance study (in the class), fix things (scooters), health advice are all reported by the international students.

### **5.1.2 Summary**

As I argued previously, the definition of friendship may vary by cultural, social and personal background of the individual. Since this study leaves the interpretation entirely to the

respondents (focal person), unsurprisingly, the subjective and unilateral notion from every individual is found to differ to a certain degree in terms of behavioural and affective dynamics of friendship. All the international students tend to use the cognitive definition to sort those relationships considered close enough and to select out of those deemed as not close enough (acquaintances) based on their current choices in Norway. The process of subjective evaluation of their relationships in Norway is a comparison between different ongoing relationships. Therefore, it can be found that to some extent the meaning of “close friends” and “good friends” is susceptible to the personal differences, which demonstrates the importance of synchronising the data by a functional model.

However, on the other hand, there is a general consensus regarding at least part of the notion of “closeness” amongst international students who have real close friends. This consensus, to a large extent, also coincides with the operational definition of close friends (confiding) in this study. This may imply that emotional support is paramount under the conditions of being a foreign student in Norway. In other words, international students are inclined to establish the close friendships in order to obtain the emotional support and personalized care they need while residing in a foreign country.

## 5.2 Good friends and Close friends

In this section, the results are organized in light of the theoretical framework. Both *environmental parameters (normative contexts and time frame)* and *the entity of the network itself (relational components and structural characteristics)* regarding the good friendship network and close friendship network are described briefly.

### 5.2.1 Good friends

#### A. Normative contexts

One interesting finding is that *pre-context*<sup>10</sup> is the recurring setting the international students' good friendships emerge from. Six out of ten students, which included good friends,

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<sup>10</sup> I will analyze it in a more detailed way in my next chapter.

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described that the initialization of some of their ongoing good friendships take place prior-study or through the indirect connections between them and their prior-study friends. In other words, they tend to establish a certain degree of connections with their prospective good friends before commencing the program study. Besides, some of their good friends are friends of their friends from their prior-study. Among the six students, there are three Europeans, one American, one Chinese and one African. International student's pre-existing social contacts, which developed into good friendships, are primarily composed of co-national and local ties, with no international ties mentioned.

Hong (first year) offered the following example of pre-existing social contact between her and majority of her good friends. In fact, only one classmate was added to her good friendship network after beginning her studies. In addition, one of her pre-arrival social contacts is her classmate to be.

A (one Chinese male) and B (one Chinese female) is a circle. They come from the same city as me. Before we came here, we knew each other a little bit. So when I came here, the relationship went a little closer. D (Chinese female) and E (Chinese female): I already knew them before I went to Norway. We got to know each other in internet.

Lisa (first year) also described pre-existing social communication via Internet between her and her current good Norwegian friend. Furthermore, all Linda's Norwegian friends are friends of her current male Norwegian friend.

Before arrival, we go to the same website. And we talked online a lot beforehand. I was becoming friends with him because I knew I was going to Norway.

Anne and Jennie (second year) had prior-study working experience. In other words, before they commenced their program study, they had already worked in Norway for two years. They tended to establish their good friendships with their former clients.

When I just came here, I worked in an organization for the taking care of the children. I got to know that Norwegian family (good friend) during my work there. (Anne)

Well after I came to Norway and she needed help, I came through a Romanian foundation as a volunteer to offer guidance, help and fathering for father in difficult situation.

She was at that time in the difficult situation. That is how I met her. (Jennie)

On top of that, Jennie's Norwegian boyfriend becomes a connecting line between her and the friends of her boyfriend. Hence, Jennie gradually developed the good friendship with two couples by the overlapping activities between her and those two couples through the medium of her boyfriend.

The first time I met K (a couple: Russian female and Norwegian male), it was last summer in the beach. We had a barbeque in the beach. My boy friend invited K as well. And we exchanged the messages and we spent a weekend one time at a cottage far away. And we have quite a lot of dinner mostly here and in their places as well. With J (a couple: Indian female and Norwegian male), they are more new for me. They invited us (I and my boyfriend) to the dinner first in their place. And then we hanged out the place somewhere around the Easter part of the city. And then they invited us for an Indian party. That was good.

Altogether, classes, residence place, student village, church, social organizations and friends of friends are all more or less regarded by international students as the sources and pre-conditions for forming their good friendships. For example, Camara (first year) talked about the nice, cozy, harmonious social environment in the common kitchen where her and her house mate (one Malawi female, her good friend) frequently met. A common kitchen is an important place for Camara and one Malawi female friend to communicate with each other and develop their good friendship.

The best thing is that she said "Hey Hey Hey" and we start chatting and chatting. If one of us is busy, just say I think I am busy let me finish the work...If we want to go to see a movie together, we can go. If we want to walk in sognsvann, we can go. If we want to go shopping, we can go to the shop together. Just anything, that comes up. For example, today she told me she would come back at 8 PM, yes then this time I am preparing to go home.

Jack (second year) developed friendship with one Romanian male in a Romanian church.

After several times I met him in the church, we found out that we are alike. We had similar hobbies and interests and we like each other's opinion.

Somehow stunning, Internet was mentioned by one student as the bridge to one local friend. Mary (first year) narrated a dramatic story of getting acquainted with her Norwegian good friend.

In this semester, he contacted me on face book on December first because he saw my kind of spotlight in ISNE site. So I had this kind of about-me article or something. He just read about it. And he was a student of international program. He just contacted me because he was very interested in Special Needs Education and when he wanted to take the master program, he had to choose between Comparative Education and Special Needs Education.

### *B. Composition and density of good friendship network*

Generally speaking, the African student's friendship network is composed of mainly co-nationals. There was no single Norwegian tie included in their good friendship network. Among the European and American students (five altogether), a fairly large number of Norwegian ties, nearly all of which are related to prior-study connection, appear in three out of five students' good friendship networks. Besides Norwegian ties, both groups (African and European/American) tend to only include the in-group ties in their good friendship network. On the whole, Asian (Chinese) students are in the middle ground of above two groups. One Chinese student reported only co-national and in-group friends. The rest of the two Chinese students reported Norwegian, out-group (North America) and co-national ties. However, no single African ties were included in all three Chinese students' friendship networks. As to the density, overall, friends from the same *normative context* (e.g., classmates) or *pre-context* make up a circle with high solidarity. Norwegian ties are usually individually separated from the rest of out-group and in-group ties.

### *C. Relational components*

One striking finding from the data is that there are a considerable number of friendships which used to be close enough as good friends. But due to the social and life circumstances changing, ego and his friends simply do not contact each other as often as before. Considering the nature of this quasi-longitudinal study, this cluster of relations is highly pertinent to the goal of this study. While *the decreased frequency* of ties has been extensively researched in other populations: mainly domestic groups (e.g., Morgen et al., 1996; Burt, 2000), it has been seldom discovered in the literature on the international student's

friendship network. Therefore, another category, termed as “*the relations with decreased frequency*,” will be added here to capture the whole picture of international student’s friendship network component. All these ties, mentioned by international students, manifest two common features: Firstly, they were at least good friends for a certain period of time before the *event change* took place. Secondly, interviewees were highly aware of the direct outcome - dramatically reduced frequency/ chance of contact/ get-together - originating from this *event change* . In fact, international students either mention both features within one tie or mentioned the *event change* (feature one) but did not specify any radical change corresponding to that *event change* (feature two). However, these *relations with decreased frequency of contact* are still qualified as friends in the international student’s friendship network since international students used to have a very active friendship with them and still have an ongoing contact (including visual communication) with them once in a while. Therefore, every international student’s good friendships can be further categorized into two clusters: *the relations with decreased frequency of contact* or *the relations with stable frequency of contact*. Table 4 (in appendix) provides an overview of the number of every international student’s good friends, divided by the above mentioned two categories.

#### *D. Size of the good friendship network*

By and large, as table 4 revealed, second year students reported a far larger number of the friendships with *decreased frequency of contact* than the first year cohort. Conversely, second year students tend to have a smaller network of friendships with *stable frequency of contact* than the first year cohort. On average, there are no significant difference in terms of the overall good friendship network size between first year cohort and second year cohort.

### **5.2.2 Close friends**

#### **A. Normative contexts**

Among the nine international students who included close friends in their friendship network, two first year students (Mary and Andreas) and two second year students (Anne and Jennie) tend to have prior-study well-established friendship which were maintained or reinforced pro-study (pre-context close friends). Thus, similar to the *pre-context* good friendships, close friendships can also arise from *pre-context*. These prior-study friends

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include the co-nationals back in home country and Norwegians in their host country. The co-nationals in aggregation consist of one's spouse, one's supervisor, or sometimes even one's childhood friends. For example, Andreas (first year) was being accompanied by his wife during his study period in Norway. Mary (first year) had a peer relationship with her supervisor who later became her best friend in Norway.

We knew each other for 6 months before we came here. Before I came here, I was studying in master (degree of) social work. And I need to work in some of internships in one of the organizations in the areas I was interested in. I was interested in serving the special needs. So one of the organizations ...I worked in, that girl was the project coordinator. So she was kind of my supervisor.

The preceding friendships culminated in Anne's (second year) friendship network composition. All of her three best friends are her compatriots from back in Ukraine. One of them is even her teenage friend. They formed a dense friendship group with strong solidarity and intimate emotional bond in Norway.

... I have known them for more than 10 years since back in Ukraine. It is not just newly met people. I know them very, very well. One girl I know since I was 12. We went to school together back in Ukraine and studied together. We are just like a big family here and in our family back home we are very connected. We came together from Ukraine to Norway in a way and hold on.

A few students even have previous living and working experience in Norway prior to their studies. Jack was a tourist and later a seasonal worker in Norway before he commenced his studies. In the company's dormitory, he discovered that one of his roommates had a shared interest with him. And naturally later they became close friends.

I came in Norway as a tourist fist time, then as a worker - so I was living with other workers at the same company in one big house. There I made few friends... and amongst them one good - my friend. Then I got in to study and I left that house, and the pals have been lost but this friend remained. That was 2 years ago.

Likewise, Jennie developed the romantic relationship with one Norwegian male preceding her master degree studies during her volunteer work.

I knew my boyfriend before I studied. So I knew him at that time (the beginning of the study) and I started my experience in Norway.

It can be seen that student village, residence place, church, social organizations, and friends of friends all create the opportunities for close friendships to form. Two students reported that some of their close friendships evolved from their neighbour relations. Making dinner, playing computer games and chatting in the kitchen constitute the major form of initial socialization with their potential close friend.

We always have dinner together and always play with cards or computer games. (Zheng, second year)

Most of the time we just chatter here. (Yuan, second year)

On top of that, Yuan also reported her Danish friend was a friend of a friend. L (Yuan's good friend) once brought Yuan to a student pub where she coincidentally met another potential good friend, Q.

The first time I saw her (Q, one Chinese female), it was in a student pub. When I first arrived here, L (German female) took me to the pub and she was brought to the pub as well by her friend. So we met each other and after that, we become very good friends. I think I am the only friend of her here. She told me so.

Subsequently, Yuan developed friendship with Q's boyfriend (one Danish male). Even though Q has returned to china, the close friendship with Q's boyfriend remains until now.

He is ex-boyfriend of my female Chinese friend Q. Three of us have very good relations with each other and we can talk about every thing. He is Danish and he knows lot about Norwegians.

One interesting finding is that not only the single *normative context*, but also the *overlapping of two normative contexts* can nurture the growth of close friendship. For example, Kabili (first year) first met her potential close friend in the student village and then they met again in the church. Another interesting finding is that Jack (second year) managed to become acquainted with his potential Norwegian girlfriend via Facebook (*Internet*).

First contact her in facebook, then meet her, and then get to know her. Actually, I was looking for a friend in Facebook and this girl is a dancer. I commented on one of that friend's

pictures. Coincidentally, she is that Facebook friend's friend too. And she commented back. It was not a conversation in the party but was on the Facebook to know each other.

### *B. Composition of a close friendship network*

Those (students) who have a dating partner/spouse in Norway tend to nominate their partner /spouse as at least one of their close friends. As to the demographic composition, besides two second year students dating Norwegians, only one second year Chinese student reported one close Norwegian friend and one close Danish friend. The rest of students all list only conationals (or similar culture<sup>11</sup>) as their close friend(s).

### *C. Size and density of close friendship network*

As table 3 indicated, three first year students have one close friend and the rest have none. On a strong contrast, their close friendship network size ranged from one to four among the entire second year cohort. In alliance with Granovetter's (1973) golden triangle theory that if strong ties between A and B and A and C exist at the same time, common strong ties to A will bring B and C into interaction. This generates one strong or weak tie even if B and C have no relationships. Second year students have the densely-knitted close friendship network since they tend to report at least two members. No difference can be found in terms of the density between local, conational, in-group and out-group ties among the second year students' components of the close friendship network. This means that people tend to be strongly connected to each other regardless of their cultural backgrounds.

### *D. Other relational components*

All international students' close friends were living in Oslo at the time of interview. Interestingly, three students (one first year and two second year) reported sharing the same student residence complex with their close friends. Two students (one from each year) were living in a family compartment with their spouses. Except the prior-study friends, dating partners and family members, the international student's close friends were mostly students. Besides, international students tend to keep a *stable frequency of contact* with their close friends. In other words, *no dramatically decreased frequency of contact* was reported by

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<sup>11</sup> Anne mentioned that her boyfriend was from Macedonia.

international students when they described their close friendships. Thus, *the relations with decreased frequency of contact* are exclusively composed of good friendships.

### 5.3 Summary

Table 7 (in appendix) provides a summary of the findings within the parameters of *time dimension/frame*: the first year cohort and the second year cohort. Generally speaking, no significant differences can be traced out between the first year cohort and the second year cohort in terms of the *normative contexts, relational components* and *structural characteristics*. However, second year students have a larger and denser close friendship network than the first year cohorts. Besides, they have more good friendships with *decreased frequency of contact* and accordingly less good friendships with *stable frequency of contact* than the first year cohorts. *All the close friendships amongst the international students are friendships with stable frequency of contact.*

This result also highlights the fact that there are very few out-group ties whether in the hardcore layer (close friendships) or outer layer (good friendships) of one's friendship network, which confirms the hypothesis 3 derived from the literature review that international ties are least salient compared with co-national and local ties.

On top of that, the result also indicates the same result as hypothesis 2 suggests in the section 3.2.5 : very few number of international students have local close friends even though being "close" may have different connotations between this study and studies reviewed in section 3.2.

## 6. Discussion

This chapter aims to identify the main factors contributing to the international student's friendship network development and then illuminate the friendship network developmental route. Discussion is organized in terms of two primary processes: 1. The process of tie formation and 2. the process of tie maintenance and deepening. The factors driving each primary process will be identified within the *time frame*. In other words, in section 6.1, the factors that contribute to the first year students' tie formation and the factors contribute to the second year students' tie formation will be discussed. In the same fashion, section 6.2 will discuss which factors contribute to the first year students' tie maintenance/deepening and the factors which contribute to the second year student's tie maintenance/deepening. The last section will summarize the aforementioned factors and elucidate the interplay of these two primary processes within one's friendship network.

### 6.1 Tie Formation

The tie formation here refers to the process how the new tie takes shape. Six factors are identified and discussed. A summary will be given at the end of this subsection.

#### 6.1.1 Local friendship formation: the Interplay

My operational definition of good friends, as mentioned, is that good friends tend to share the personal interests and hobbies. One striking finding is that the international student's *local* friendship network is composed according to the *interplay* of their attitudes towards local friendship development and their notion of personal similarity (interests and hobbies). There is a high spectrum of the *interplays* amongst international students (see table 5 in appendix). For international students, the same or similar culture brings about the same or similar preferences for activities or pattern of thinking and communication.

The first group of students (including all the African students and one Asian student) purely focused on the socio-cultural barriers of communications with locals. For example, Kabili

mentioned people of the same culture are more open to her in a sense of self-disclosure than those of another culture.

It is because the way their (Norwegian) culture is. They are not so open and so friendly. I got the impression from few people I met from class and from work. They are nice and not open. Maybe due to the culture, I have met with few Norwegians and the ones I have met have not been so open minded and so friendly. Example is during some of my course registration, and I tried to ask them some basic questions, and they were snobbish and I felt so embarrassed.

Hong offered the following reason of forming good friendships with her compatriots:

They come from the same city as me because we can speak the same local language. That is the major reason of being friends.

Since Hong and her close friends come from the same city in China, they probably communicate with each other by use of the local dialect instead of the Mandarin (the Chinese official language). This provides an even more familiar, comfortable, and intimate artificial home like setting for self-presentation.

The second group of students (Asian students) did perceive the difficulties of developing local friendships. It can also be implied from Zheng's statement below that a similar language provides the similar communication style, similar way of thinking and thus similar sense of humour, which provides a more meaningful emotional and attitudinal exchange.

Norwegian people are very nice .but you still cannot understand things totally. Sometimes culture is a barrier to the development of friends. You cannot understand Western humour. At this time, you should laugh because it is a joke. However, no body laughs.

However, this group of students go on to say that the culture background is only one of the significant factors that facilitate (if it is the same or similar culture) or constrain (if it is a very different culture) the friendship development. Individual factors also play an equal role.

Culture is very important and a necessity, but is not all. In addition, there is a conflict between the inter-culture friendships. That is why I say culture is important but not all because you will meet some problems with the people from the same culture. (Yuan)

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However, in my eyes they are the same. They are just my friends. We are tolerant towards each other. However, we can do some kind of improvement to understand the culture from different countries. It is not because they are Chinese and I want to spend more time with them. It depends on similarity instead of nationality. (Zheng)

Therefore, this group of students have a certain degree of awareness of the difficulties of the local friendship development. In the mean time they, however, also place equal emphasis on the individual hobbies and interests of their potential friends. The friendship development for them is not only inter-cultural but also inter-personal. Cultural differences might inhibit the inter-cultural friendship development. Nevertheless, the individual hobbies and interests also might connect people of various cultural backgrounds together (if it is shared) and separate people from co-culture background (if not shared).

The third group of students (European and American students) did not mention anything related to the impact of socio-cultural differences on their local tie formation. They were not as sensitive to the cultural differences which were a hindrance for local friendship formations as the other aforementioned groups.

The results consistently show that those who overlooked the cultural and linguistic difference and highlighted the common interests and hobbies of two individuals had a strong tendency to develop friendships with a large number of Norwegians ties, compared with those who did not. Generally speaking, from first group of student's (African and Asian) perception, the uncertainty, misunderstanding, or sort of stereotype developed from engaging in inter-cultural interaction took precedence over the shared pleasure and mutual liking deriving from the common activities preference between two individual persons. As a result, their friendship networks were composed of mainly co-national ties and a slight number of in-group ties. For the second group of students (Asian), the weight was equally placed on these two aspects. Concurrent with their moderate attitudes towards the inter-cultural friends, a considerable number of ties with Norwegians were included in their friendship networks. The third group of students (European and American) incline to ignore the difference caused by different nationalities and attenuate the commonality between two compatible human beings. Their friendship networks consist of a comparatively large number of Norwegian ties among the three groups.

This commensurates the relationship between the international students' perception of the socio-cultural barriers in the local tie formation and the composition of one's friendship network, which might suggest that subjective attitudes towards local ties play a certain kind of role in building up the friendship network, especially in choosing who to befriend.

Another alternative explanation is that international students might develop these subjective attitudes from the experience of engaging in a local friendship construction, and in turn these subjective attitudes might guide them how to select friends subsequently. Based on the current data base, it is impossible to determine how this dialectical relationship really functions. However, we cannot rule out the possibility that attitudes towards local ties were partially responsible for the "local segment" of the friendship network.

*To sum up, in every normative context, African students were found not to choose any Norwegian ties in their friendship network even if there were no other alternative ties - which compete for the friendship choice - such as co-national and in-group ties. Asian students prefer co-national and in-group ties to Norwegian ties in every social setting. However, when there are no available "same race" friends, it is highly likely for majority of Asian students to select Norwegians as friends. All European and American students have already established pre-existing connections, sometimes even pre-existing close friendships, with Norwegians, which may imply that the European and American group are not passive receivers of Norwegian friends but take the pro-active approach to establish the ties prior-study. As summarised in the previous chapter, this three-group spectrum may be due to the distance between home culture and host culture. Compared with the other two demographic groups (Asian and African), the European student's culture is most approximate to Norwegian culture while African student's culture is least approximate. Therefore, this finding is in basic agreement with the findings reviewed in previous chapter: European and North American students, generally, have more host friends in their friendship network. Asian student's number of host friends is secondary to the European and the North American peers' while African students have the most insular friendship network.*

However, among the Asian group, there is one exception (see table 5 in appendix, the first group) that does not fit into the mainstream trait of the Asian group. One Chinese female had as a highly demographically homogeneous friendship network as African peer. This may infer that on the one hand the data did present us an outline of the international students'

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friendship network composition in terms of the “homogeneity” and associates the differences of the resultant composition with focal person’s own culture and demographic background. *On the other hand, it cannot account for the differences of the composition between the students from the same demographic group.* Though the cultural pattern of international students is a pivotal variable in predicting their friendship network composition, it has its limitations. Cultural dimension is only one important aspect of the whole picture to capture the essence of the diverse background of international students. International students not only differ in their original culture, but also differ substantially in their personal traits. Therefore, it might be cautious for a future study to make an absolute generalization of the international student’s friendship network composition based on the artificially-divided demographic traits.

### 6.1.2 Normative contexts

There is no universal course among the international student’s friendship formation route. In other words, no pattern and regularity can be traced regarding the frequency of specific *normative contexts* occurrence among the routes of friendship development. Generally speaking, international student’s tie formation process can be described as diverse and even individual tie-based. All the *normative contexts* whether *on-campus* or *off-campus* can be expected to more or less facilitate the friendship development.

One possible reason is that individual factors weigh more in building up the friendship than the constraint of normative contexts. The role of normative contexts in friendship formation is more like initializing the friendly relation and structuring the interaction for at least a period of time. International student’s personal preferences and choices are still enforced on their friendship formation. In other words, if they are interested in pursuing further relations, they will invest more personal spare time to explore the alter even beyond the constraints of normative contexts. This personal-oriented approach of selecting friends can partially explain why two international student’s local ties stem even from *Internet* and one international student’s (Kabili) co-national tie formation transverses *two normative contexts*, which is unfortunately overlooked in the original theoretical framework. Virtual ties can become real ties if ego and alter share the same hobbies and interests as well as find each other attractive.

*The overlapping of two normative contexts* can also have the same effect as any single *normative context* in facilitating the tie formation.

However, this phenomenon may also be due to the small sample size and distinctive individual cases in this qualitative research. A large sample size is recommended in the future studies to further examine this phenomenon.

### 6.1.3 Pre-context

Overall, the data highlights the prominent role of *pre-context* in fostering the international student's friend's formation. *Pre-context* not only encompass the previous relations (pre-established friendships or marital relationships, which international students maintained cross the border), but also previous contacts and social networking. Previous contacts refer to the acquainted or associated relations which probably progressed to the good/close friendships after arrival. In contrast, social networking means the process of engendering new friendships from "prior-study related" friendships (i.e., friends of prior-study friends).

Based on the limited scope of the data in the study, Asian and African students tend to form a certain level of attachment with their compatriots prior departure while European and American students are more likely to have different degrees of attachment to the locals prior-studying.

The findings from the study is inconsistent with the assumption in section 4.1.2 that construction of new friendships is only confined in specific *normative contexts* of host country after arrival for study. In other words, European and American student's friendship networks already took shape preceding the beginning of the program. Especially, the majority of European's and American's local ties originated from the *pre-context*. This phenomenon may imply that European and American students do not stand on the same starting line of the friendship network development as most of their Asian and African counterparts. In other words, they had already embarked on constructing the "Norwegian segment" of friendship network prior-study.

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### 6.1.4 First year syndrome

Most of second year students agreed that they were more motivated by the strong desire to explore new ties in the beginning when they had just arrived in Norway than one year after.

The difference is that it is a totally new environment for those new entrants. Of course, you get acquainted with teachers and new students. You are trying to get closer and you are hanging around somewhere and do some whatever together. (Anne)

...because I intend to make new friends in my first year.  
(Zheng)

If I have to be under accumulative, the first year I met much more people. The first year you are always a stranger and you always want to know people. You want to feel at home so you need to get used to a lot of people to feel secure socially. (John)

I would say the first year mostly and Norwegian language course in the second year. Somehow I formed my life style and social style in the first year. (Jennie)

This can be interpreted that nearly every second year student undergoes the "honeymoon" stage at the beginning of their first year (Church, 1982). That means international students felt fresh, thrilled and excited to embark on a new journey of their life in a foreign country. However, on the other hand, they felt disoriented, confused and uncertain about what was ahead of them. In this situation, those who already pre-established connections prefer to stick to their connections, further develop them due to the comparatively familiar and secure the feelings pre-connections brought to them. Those who do not have pre-existing social capital tend to make tentative efforts to engage in a range of social activities and interact with a large number of potential friends who they meet in their daily normative contexts to cope with the loneliness and establish new friendships.

### 6.1.5 Second year environment

Overall social and leisure time for international students has the tendency to go down during the second year since other commitments (such as school and work) divert the time and energy which otherwise would be allocated to developing friendship network. Thus, the lack of time inhibits the international student's friendship network from expanding further. The second year cohort thought that during the second year, they spent less time in exploring new

friendships. Instead, they had a high tendency to attend to their own business (study, work) and socialize with or strengthen existing good/close friendships.

In second year, you should spend more time in job and study. I do not have much time to know new people. But I can keep my old friends. (Zheng)

Again, you think about your bookwork. So you may not interact so much. So you maybe have only a few friends. That is how the trend is. (John)

In fact, the data also provides strong support to the student's perception of the lack of time in second year. Five out of six students had been engaging in their thesis writing by the time of the interview. For them writing a thesis was a lonely and painstaking task. They no longer had the frequent contact with their friends that they had in the first academic year. Work and other commitments also consume more and more of their social time with their friends.

My friend is not a problem but sometimes I felt I am lack of time spent with them. When I came back from the university and had to go to work, I would love to spend some time with them. My friends have some events and someone has birthday. (Anne)

(In the second year) My social network is very limited and just some friends from student village. They are the most frequent persons I see here. Most of the time, I am not very social active. (Yuan)

To an extreme extent, Jack was forced to work full time for his living expenses due to financial difficulties unresolved by a part-time job. He grumbled over the harsh and intensive job situation facing him. His full-time job occupied too much of his energy and leisure time so that he was not even able to greet his neighbours. Besides, he admitted that he no longer hung out with his fellow students during his second year.

I don't hang out with student's friends since students hang out differently. Because I work a lot and I am a master student. I need to take care of my life. That involves a lot of work. My friends are the same. They are working here. With students, just in school (during first year) we hang out.

To sum up, it seems during the second year international students lead a more individualistic life style. They are more indulgent in their independent learning and their part-time job. This was probably due to the common structure of the curriculum of the three programs

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interviewees come from. At the Faculty of Education, during second year, there are less intensive courses and more independent learning, since students embarked on their field work during the second year.

### 6.1.6 Motives

To some degree, if the focal person regards their friendship network as big and supportive enough, they will probably stop seeking for more friends. The majority of the second year students (five out of six) thought that the foundation of their friendship network had already been laid at the end of first year. In other words, they probably pointed to their common experience that the friendship bond at least—sometimes maybe even strong emotional bond—between them and their present close friends in Norway had already come into existence by the end of first year. Somehow, the data also gives a strong support for that. All the close friends (excluding romantic relations) of second year students were newly acquainted by the mid of the first year, some even at the earlier period of the first year. It can be imagined that the second year cohorts ongoing close friendships are characterized by a successful developmental trajectory over time, stretching from the beginning of the first year to the end of the second year. Thus, in alignment with the focal person's *motives*, when the network reaches such a scale that is considered by ego to have provided sufficient help and sufficient social companionships, ego will probably stop expanding his friendship network or expand it at a declined rate. One similar finding can be found in Pool and Kochen's (1978) study. The authors discovered that the size of personal network rose shapely first and then tapered off to a much slower growth rate, based on a decline in the number of the less active or latent ties that were newly encountered.

### 6.1.7 Summary

Table 8 (in appendix) summarizes all the aforementioned factors and the differences and similarities of the roles on the tie formation process between the first and second year cohort. *The interplay, pre-context and normative contexts* appear to influence both the first and second year cohort's tie formation route. However, the first year cohort seem to be more keen to explore new ties than the second year cohort due to the *first year syndrome* while the

second year cohort have less time, energy and interest to explore new ties due to the *second year environment and motives*

## 6.2 Tie maintenance and deepening

As delineated in the operational definition, *good friends are the prerequisite stage to close friends*. Tie maintenance and deepening refers to the process of how international students sustain old friendships and heighten the good friendship into close friendships. Three main factors will be presented and discussed. A short summary will be given at the end of this section.

### **6.2.1 The intermission : the main cause for friendships with decreased frequency of contact**

As mentioned in the previous section, when asked to describe the characteristics of their close friendships in Norway, none of the international students spoke of any thing related to the history of *decreased frequency of contact*. Therefore, the relations with *decreased frequency of contact* are predominantly composed of good friendships. In other words, there existed a certain number of good friendships with *decreased frequency of contact* under the conditions of *event change*. Here *event change* consists of five types. The data shows overall, there are four types of life course changes (*exogenous*) that remarkably undermined the frequency of contact of newly developed good friendships. Besides, the problem in the relationship itself (*endogenous*, the fifth type) is also mentioned by one student.

The first factor is specific life event associated to *the nature of being an Erasmus (or bilateral) student*. As anticipated in the theoretical framework, friendships with Erasmus students tend to be "temporary" due to the fact that Erasmus or bilateral students usually stay in host country for at most two semesters. The influx of new Erasmus and bilateral students and outflux of the old buddies (returned to their own country) may give rise to the potential loss of existing friendships and the structural instability of the international students' friendship network, although the overall network size may remain stable (i.e. international students tended to still nominate them as friends) on the surface.

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Separate relationships may keep the status quo of friendship—which would otherwise develop into a higher level of strong emotional attachment. Yuan took pity on the fact that her neighbour friends (Erasmus and bilateral students) had left Norway who otherwise would have become confidants for her and she also mentioned still keeping in touch with them on Facebook but not as often as before.

If they (one German female and one Canadian female) are here for a longer time, we can be real friends. But they left. So we have no time to do it. I just know that we know each other in a very limited time. I am missing her (the Canadian female) right now. She is traveling around Europe right now. She was in Prague yesterday. I contact her on face book. I am not very active member in face book. So it is not so frequent. But I really like talking to her. We contact with each other (the German female) by face book now only once a week with the inside mails from face book. And she will probably come here to visit me some day and she has invited me to her hometown. She is cool and I loved her.

Due to some shared courses with Erasmus and bilateral students (including Norwegian language course), both first and second year students reported a few foregone friends. Foregone friends here refer to the friends who returned to their home country or went to other countries after the completion of specific courses in Norway (usually last for one semester. Skype MSN and Facebook are common communication tools for the ongoing contacts between ego and his forgone friends. For example, Hong (first year) contacted her two close compatriot friends who were studying with the Erasmus program in Finland via Facebook. Jennie (second year) depicted her ongoing friendship with one Italian female who left Norway at the end of first academic semester via MSN and sometimes Skype.

She was in the Erasmus exchange program and we hanged out for 6 months. And then she left. We kept in contact by MSN and she kept in contact more than me. But I am very lazy to answer the messages or every thing. And she is very persistent with every thing. I get my message from her at least twice a week. Ask me how I am and tell me how was she. But it was mostly e-mails or messages on the MSN. And I called her in Easter in Skype and once a while I feel like talking to her, I just talked to her. It is not very often.

One interesting theme is that online contact might sometimes lead to the temporary face to face reunion of ego and his friends. In other words, ego and his friends may invite each other to a short-time visit of their current residence places to renew the friendship bond via online communication tools. However, based on the limited data, it is unclear that to what extent this short-term visit can make up for the long-term face to face separation.

However, she visited me last summer. And she is visiting me this summer. She is coming together with another Italian girl. I know that. (Jennie, second year)

The second identified factor is *the nature of being a sojourn student*. Some second year students reported that some of their cohort friends had already returned home after finishing their whole degree study in Norway at the time of the interview, which reflects the temporary staying nature of international student's sojourn life in a foreign country. John's narrating of parted experience with his good friend gives a glimpse at the severing and weakening of friendship which can not endure the major change.

I talked with him two days ago. This is the second time since he left. I think he left August last year. So I only talked to him twice (since he left).

...time in between us, and then we "parted our ways". I can meet him and at the end of the stay I go my own way and he goes his own way. But of course we have known each other for a while. We have to talk together and share some ideas, and talk about different things. You know we don't get to know each other as it comes to. For example, at the end of day, whether you come back to china or I will go back to Cameron, or where you are, you understand. I mean it is an expression. I mean (I use this expression) to show that you meet someone and then you go your own and they go their own ways. So you parted ways. We are close. But now he is gone. Now he is working. He has a position in his own school. Now it has been a while. He left last year. I hardly talk to him once. "

Another situation is that international students tend to report some senior students in the graduate program as friends. They had graduated one-year earlier or had embarked in the field work in a third country (not host or home) by the time of interview. For example, Zheng (second year) recalled two Chinese females who were degree students and they departed Norway after the completion of their studies.

We used to make dinner and chat. Now they have graduated and went back to china. They are working in china now. However, I still keep in touch with them by MSN and telephone twice and three times a month. I used to keep in contact with them more frequently.

Zheng also felt that his friendship with his three previous Norwegian neighbours—from three different residences places where he used to live—was not as active as before after they embarked on their respective *fieldwork*.

A B C is in different flat. Now I contact them seldom. Now we just greet each other in some special festivals and days, because most of them have gone to field and start to work now. So they are busy. Last year, I contacted them more frequently.”

Similarly, Yuan (second year) mentioned that one of her good friends had returned China after attaining a degree.

Now Msn she called me from china once two weeks. I have her room key, mailbox, and help her to check the mailbox.

The third factor is the *domestic change and employment change of the good friends*. In the data, *domestic change* refers to the change related to the status of relationship.

We used to be very close but she has a Norwegian boy friend right now. So we don't contact each other so often (once a month). (Yuan, second year)

*Employment change* means the embarking on a post-schooling full time job. John (second year) perceives the reduced odds for him to see and talk to his friend after his friend moved out (they used to be neighbours) for the sake of work.

He moved to hospital coz he finished his study and now he is working and he has a family. Now we hang out once every month. Sometimes, even after two months. We used to stay together more often in the corridor.

The fourth factor is *the ego's own occupational status change*. As mentioned before, two female second year students (Jennie and Anne) had the previous working experience in Norway prior to their studies. However, after they embark on their study, they felt alienated from their former clients who are their good friends..

When I just came here, I worked in an organization for the taking care of the children. I got to know that Norwegian family during my work there. And I still keep in contact with that family for four years. I am goanna meet them next week and for dinner. It is a long time since I talked to them. We talked about news and life. We contact each other very seldom now. Unfortunately, I am very busy and they are very busy too. It is lack of time. I used to hang out with them more often because I worked for them, lived in their house and saw them every day. Now I moved out from their family to my student village.

Well after I came to Norway and she needed help, I came through a Romanian foundation as a volunteer to offer guidance, help and fathering for father in difficult situation. She was at that time in the difficult situation. The father of the child is a drug addict. That is how I met her. We are still friends after four years. I came two years in Norway and I worked with her and some other people. However we hang out not very often now, Coz I am busy with my study.

The fifth factor is the crisis of relation itself. Only one student mentioned that the quarrel and misunderstanding plays a deteriorating role in her good friendship.

Sometimes we have different opinions about the same thing because I am quite direct and when I want to express something, maybe in my eyes what she is doing right now is wrong, and then I want to tell her. But in her politics, she thinks I am doing something to avoid her doing something. I don't care about that so much now. Because I am not sure how long the friendship lasts. Maybe I think it is kind of optimistic. Maybe if we are friends, we can be tolerant towards each other. But what I say something is kind of good for her. But this kind of words is avoided by my friends.

In the *relationships with decreased frequency of contact* category, the data highlighted the fact that the *exogenous change* of the good friendships plays a much more intensive and extensive role. This role weakens and severs the frequency of contact in existing friendships more than the *endogenous* problems. As a matter of fact, only one student reported that the crisis arising from within the relationship directly influences the frequency of contact of relation. However, this study by no means suggests that personal factors do not play any role in all the stages of friendship development. What should be brought to the forefront is that shared personal interests are in fact the essential factors which facilitate the formation of good friendship.

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This prevalence of *exogenous changes* over *endogenous changes* may point out the reality of the degree student's unique situation in Norway. The social settings in the host country produce a relatively large amount of *exogenous changes* on the student's ties. Being an international student in Norway, is equivalent to engaging in a turbulent social world: old co-national buddies return to their home country after attaining their degree; old friends begin to live a certain life style different from ego (working, writing thesis). The *exogenous* dramatic changes of the ties yield uncertain and unpredictable probability for the future interaction between ego and his good friends, which severely curbs the friendship growth. In a more detailed way, the longer ego stays in a foreign country, the more "unstable" friendships ego will have since international students have a higher tendency to meet the population who always come and go. The alter's returning to hometown, employment in a post-school job, engaging in field work might all exert negative impact on good friendship maintenance. Thus, one unique feature of the international student's friendship network is that many members of the international student's friendship network are highly "unstable." Sometimes, the instability is even foreseen (Erasmus). Being an international degree student in Norway involves experiencing the substantial "instability" in their newly-developed friendship network.

Moreover, taking a close look at the aforementioned four types of *exogenous changes*, the majority of them (except *domestic change*) are anticipated to happen at the *intermission* between two academic semesters. The end of the old semester and the inception of new semester are probably the two substantial dividing lines to predict the international student's friendship network's "stability." The nature of these *exogenous changes* is strongly connected to the completion of one academic semester (*the nature of being a sojourn student, the nature of being an Erasmus student, ego's own occupational status change, employment change of the good friends*) and the commencement of another new semester (*fieldwork*). Thus, it can be inferred that the international student's friendship network may undergo the turnover or change between every two consecutive semesters.

In the meanwhile, second year students, in a comparison with first year cohort (as table 4 in appendix revealed), have a large number of relations with *decreased frequency of contact*. Generally speaking, the majority of their ties (good friendships) are with *decreased frequency of contact*. The first year cohort's good friendship network also exhibits a slightly unstable structure. However, all the first year cohort's unstable friends without any exception

are Erasmus students (type one). In contrast, the *exogenous* condition changes of second year student's unstable friendships are more diverse, encompassing nearly every type of changes listed before. This implies that international students might befriend Erasmus students throughout the entire two years on every new semester basis.

One reason for the higher instability in the second year student's network may be their longer stay in Norway. As diagram F shows, second year students undergo two more *intermissions* than the first year cohort. These two additional *intermissions* may generate a fairly large number of "unstable" ties in their friendship network.

To sum up, second year students tend to have many more "unstable" friendships than first year students. *This was probably due to the uncertain environment of the friendships during the intermissions of two consecutive semesters.*

## 6.2.2 Propinquity and Tie Strength

### A. From good friends to close friends :high propinquity and sufficient tie strength

The first scenario, inferred from the data is that the good friends with high *propinquity* and strong *tie strength* have a better chance of enduring the *exogenous changes*. In other words, these friendships may keep on developing and deepening into close friendships even under the conditions of *exogenous changes*. The high *propinquity* here is equivalent to the strong tendency of co-existing at the same time and place. Among all the *normative contexts*, the residence place is a most salient setting regarding the temporal-spatial proximity. The living proximity through sharing the common areas in the residence place contributes strongly to the high frequency of mutual engaging behaviours. For example, Yuan's close Norwegian friend has been sharing the same kitchen and corridor with Yuan for nearly one year and a half. Interactions in the common area, such as a kitchen, form a relatively large proportion of the every day interaction time due to the condition of living in the same residence complex.<sup>12</sup> This intensive verbal or non-verbal exchange for a long period of time may

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<sup>12</sup> Yuan did not specifically mention it. However, since I asked all the respondents to rate the length of time they had known all their friends, it can be speculated that Yuan's friend had been sharing the kitchen with her for one year and a half.

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create the precondition for the maintenance of personality disclosure to each other after the initial good friendships are formed.

Mary and her supervisor were deliberately choosing to live together in the same hall in a student village. Here she describes the strong emotional bond with her supervisor when they become geographically approximate to each other:

We did a lot of things together. We can say we prepare dinner together we knocked on the door of each other and we have the same courses and we share the same information with each other. And we take care of each other everything. We are like sisters and we live close to each other. And if there is anything, we can do for each other. Every day every time study together hangs out together.

In the same fashion, Anne, who was sharing the private apartment with three other Ukrainian females, describes her experience:

I see them every day, from morning to evening. In any surrounding environment, they are very important to me.

Therefore, even if a focal person's friend may change their life course, the high *propinquity* in the residence place may still lead to the high frequency of seeing and meeting each other, thus heightening the strength of friendships as long as they still dwell in the same residence complex. Since this change is not pervasive and prominent, and comes about in a largely unnoticed way, focal persons tend not to place an emphasis on it when describing the characteristics of their close friendship(s). By comparison, in John's case (as mentioned in section 6.2.1), after finding a job, his good friend moved out from the student village to an assigned dorm. The frequency of seeing each other decreased greatly from every day to merely once every two months. The primary interaction spot between John and his friend had disappeared after his friend's relocation. John's high awareness and strong concern of this reduced interaction pattern—reflected in his oral account—may imply that this life event change, in some way, plays a significant role in the weakening of the friendship.

On the other hand, if the *strength of the ties* suffices to endure the change, the good friendships also have high probability of continuing to develop. As Verbrugge (1983,p.7) concluded in his study, for their close friends, people try to get around time impediments and set aside other leisure interests in order to see them. That is the same situation with some of

the cases in this study. For example, after Kabili close friend relocated to another residential area (they used to live in the same student village), the intimacy between them is still in full effect. They carry on meeting each other nearly every other day. Therefore, the high *tie strength* between them can offset the reduced *propinquity* by the deliberate efforts of sparing personal time for each other. That is probably the reason why Kabili did not mention any big change of the interaction pattern related to her close friend's relocation. However, based on the current data base, it is still undetermined what delineates the adequate *strength* of the ties to endure the *exogenous changes*. As described in the operational definition of friends, there is a strong emotional bond between international students and their close friends.

However, when the good friends are on the way to close friends, it is still unclear what constitutes the very critical point of the *tie strength* that enable the tie to endure the *exogenous changes*. Nevertheless, according to the data, length of relationship seems to play a role. Second year student's close friendships all last a long duration. Anne even has a childhood friend in her friendship network. Therefore, the longer ego knows his friends, the more personal information they have derived from each other. As a result, ego tends to have more emotionally-attached relations with them than with the newly-developed tie. Moreover, there are no alternative relations immediately available in the surrounding environment to offset the high cost of "break-up" with old friends. Based on this cost-benefit choice, ego always intends to not only avoid the withering of some old friendships but also maintain these old friendships. This speculation—based on the cost of losing a longer-known relation—can also partially explain why international students tend to make full use of their *pre-context* connections.

### ***B. From good friends to the relations with decreased frequency of contact: low propinquity and insufficient tie strength***

Conversely, good friends without high *propinquity* and without adequate *tie strength* may easily fall into "unstable" relations.

Firstly, if the tie is strong enough, international students would rather like to see their good friendship growing and invest extra time and efforts to offset the decreased frequency of face to face contact. Otherwise, international students might devote these time and efforts to other friends and let the unstable friendships wither.

Secondly, among all the unstable relations, failure to keep the high *propinquity* is actually a major cause for the friendship decaying. Actually, all the four types of *exogenous changes* are intricately related to the decreased propinquity for ego and alter to meet. When the *tie strength* is insufficient to make up for the *decreased frequency of contact*, the two friends' friendships will be probably on the downhill.

### 6.2.3 Preferences

The data suggests that *family members or potential family members* are always salient in the international student's close friendship network. They provide immediate emotional support for international students, which other close or good friendships might not compensate for. In this situation, international students are apt to prioritize the time spent with their kin or kin to be. Hence, the relationship status may have a huge impact on the student's friendship network development tendency. Two African students (one from each year, Andreas and John) were co-habiting with their wife/fiancée in a family apartment at the time of interview. Andreas admitted that social withdrawal from exploring new friends might be caused by the high amount of emotional closeness between him and his wife—who accompanied him to Norway—and the co-habiting family life style. His energy is mainly focused on his marriage instead of making new individual friends outside the family.

We are using a family apartment. So we are quite secluded from others. We all stay in our own. The important thing is that most of the time you are moving alone with your wife. So you spend less time with others. I am always in "family time". All of my friends except my wife are less close.

John (second year) met his current fiancée during his study in Norway via a party organized by an ethnical organization. After they established an intimate dating relationships, John's friendship network size kept status quo until the time of the interview. John regards the lack of time as the main reason to cease enlarging his friendship network.

Because you are quite busy. Self-financing students need to put up things together. I also need to divide time between part-time job, study and my girl friend.

That is the same case with Jennie and Jack (second year students). Jennie spent most of her leisure time with her Norwegian boyfriend. After Jack established a dating relationship with his current girlfriend, his friendship network exhibited a highly static structure and no good friends had been added until the time of interview.

It can be speculated from aforementioned cases that co-habiting with the life partner or changing from the status of singleness to being in a relationship will inhibit the friendship network from expanding, which is also confirmed in the Kalmijn's (2003) finding that when people start dating and start living together with their partner, people have fewer contacts with others.

Secondly, *pre-context connections* seem to prevail over the new connection (pro-study) with regards to the amount of the international students' devoted time and energy. In other words, those who already pre-established the connections have a higher tendency to maintain and deepen the existing connections after commencing their study due to their reduced need to develop another new tie from scratch. They are most likely to prioritize the activities with their pre-established connections in their social life calendar. As a result, the majority of the pre-existing connections have been successfully developed into good friendships or even close friendships in Norway.

#### 6.2.4 Summary

Table 9 summarizes the factors underlying the process of tie maintenance and deepening in the context of first year and second year cohort. *Propinquity, tie strength, and preferences* seem to influence both first and second year cohort's tie maintenance and deepening process. However, the second year cohort has undergone two more *intermissions* than first year cohort. In other words, the frequency of contact of good friendships among second year cohort is more likely to decrease than that of first year cohort since *intermission* is always accompanied by the *exogenous changes* of friendships. Accordingly, the *tie strength* and *propinquity* play a more conspicuous role in second year cohort's friendship maintenance and deepening process than first year cohort's.

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## 6.3 Summary

In the above, we gain insight into the underlying factors of the process of tie formation and the process of tie maintenance and deepening. However, these two primary processes are by no means irrelevant and parallel. They seem to compete with each other for the time and efforts of the ego's overall friendship network system. Especially, the international students need to balance these two underlying processes in accordance with their other commitments such as studying or working. In accordance with all the factors identified above, the basic sequential development of the international student's first year friendship network probably can be articulated as follows:

During the first year, the tie formation process basically takes precedence over the process of tie maintaining and deepening due to the *first year syndrome* to make new ties. The number of good friends may rise sharply. With more and more friendships accumulated in their friendship network, first year international students have less and less inclination to develop new ties due to the time constraint and perceived sufficient social support (*motives* and *preferences*). Especially by the very end of the first year, close friendships may already come into existence among some first year students (as table 3 indicated) and all the students have a repertoire of more or less new good friends (see table 3 too), a few unstable friends caused by the high mobility of Erasmus students at the *intermission* between first semester and second semester, as well as established wide social life circles (*normative contexts*).

During the second year, the international student's friendship network takes an outlook of the core/peripheral structure, which is also affirmed by other social network studies on other study populations such as domestic graduate students, or widows (e.g. ,Cummings & Higgins,2006). Cummins and Higgins (2006) argue that networks take on a core/periphery structure (polarization) such that the core is composed of few strong ties while weaker ties in the periphery come and go. During the first year, international students make great efforts to construct a large number of good friendships and (nearly at the end of first year) have a repertoire of good friendships. However, the next two consecutive *intermissions* directly cause disturbance of international student's friendship network. The good friendships inherited from first year—which withstands the test of *exogenous changes*—may naturally grow into close friendships or will become one's close friendships. In contrast, those good

friendships in peril may at best keep the status quo or run the risk of withering and even dissolution (See diagram E).

Therefore, during the second year, the process of maintaining and deepening basically prevails over the process of formation due to the commitment to their job and school. Second year international students tend to prioritize developing the intensity of the ties: maintaining the close friendship (if there is) and further deepening the existing good friendships deriving from the first year instead of blindly expanding the size of friendship networks. The time competing from external factors (e.g., increased commitment to the study or work) might be one of the causes. Besides, the curriculum structure (*second year environment*) also plays a role. And accordingly, those ties with high *propinquity* and sufficient *tie strength*, which manage to endure the change, may grow into close friendships during the second year, especially for those who did not manage to establish any close friendships in the first year. Therefore, the close friendships (strong ties) which occupy the core layer of the friendship will persist till the end of journey while majority of good friends are more or less weak ties which easily come and go at the *exogenous changes*' peril.

Furthermore, if every external factor keeps constant, these weak ties with *decreased frequency of contact* may wither, and even dissolve into acquaintances over time. In contrast, the minority of good friends, which is fortuitous enough (with high *propinquity* and sufficient *tie strength*) to withstand the test of time, will blossom out into the close friendships. Over time, this polarizing process can gradually distance the newly-developed good friends from the hard-core members of the network. The more time this polarizing process lasts, the more intimate relations ego tends to keep with their close friends and as a result, the more there is distance between the emotional intensity and the newly-developed friends and the hardcore members. Thus, it might be difficult for the second year students to establish new close friendship totally from scratch during the second year.

One question still remains why there is no significant difference in terms of the size of friendship network between the first and second year cohort. One possible explanation would be that the second year students devoted only a slight amount of time and energy to the new ties formation due to the *environmental factors* and personal *preferences*. As a result, there is only a subtle difference of sizes between the first year cohort's network and the second year cohort's, which is difficult to be fully manifested in a small-sample size qualitative research

study. The pattern associated with the change would be more visible if a bigger sample size is employed in this study.

Another reason is that the second year students might forget to recall all the names of friends in response to the elicitation question. According to Brewer (2009, p.29), forgetting is a pervasive, non-trivial phenomenon in the recall-based elicitation of personal and social networks pertaining to a broad variety of social relations. Since second year students have been staying in Norway for almost two years, they have high tendency to remember the frequently and recently seen friends. In this situation, the unstable relations—especially with less than once a month contact frequency—are less likely to be recalled, which would underestimate the size of the second year student's overall network. In contrast, it is easy for the first year cohort to identify all the relevant persons in their friendship network since they have lived in Norway for less than one year and have undergone only two *intermissions* during their stay.

The third thought would be total dissolution of the ties. It might be possible that during the polarizing process some of the "unstable" friends degenerate into utter strangers, who ego no longer even included as acquaintances. Since these strangers are beyond the parameters of this study, they are unfortunately overlooked in the ego's name eliciting.

## 7. Conclusions and Implications

### 7.1 Conclusions

The purpose of the thesis is to trace out the the friendship network development process in Norway and identify the main factors contributing to this development. Data was collected by use of a quasi-longitudinal design and by use of the role-model and the affective approach. Twelve master-degree international students (six from each year) from three educational programs were interviewed. During the interview session, respondents were asked to recall all their friends and give their own definition of “friends” and “close friends.” In the data analysis session, the operational definition of good friends and close friends was employed to avoid the misuse of different terms and make the international student’s friendship network comparable. The overall study aims to answer three research questions:

RQ1: What are the main theoretical assumptions regarding the phenomenon of social network in general and international students’ social/personal network in particular?

RQ2: What factors may impact the developmental process of the friendship network associated with international students?

RQ3: Overall, how can the tendency of change associated with international students’ personal friendship network be interpreted?

In research question one, *egocentric* and *total network* approaches are distinguished. *Relational components* and *structural characteristics* are summarized from previous literature. The international student’s friendship network is viewed as the *egocentric (personal)* network in the study due to the fact that international students tend to have different interpretations of the term ” friends.” There are three hypotheses which derived from previous studies. Firstly, there is a broad range of *varied phenomena* within the formation of local friendships among different demographic groups of international students. Secondly, a small number of international students have close local friend(s). International students, generally speaking, prefer co-national close friends to international and local close

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friends. Thirdly, international ties are least salient in the international student's friendship network.

As to question two, all the factors identified in this study can be further categorized into two clusters: environmental determinants and personal determinants. It can be found that the international student's friendship network is an ego-oriented dynamic network. International students have *motives* and *preferences* to initialize, develop, maintain and deepen through certain ties. They also base their choice of tie formation and tie deepening on cost-benefit calculation. The similar model and conclusion can be found in other social network studies (e.g., Zeggelink, 1994; Van de bunt et al., 1999). Zeggelink (1994) proposed an actor-oriented statistical model. The dynamics of the network structure is directly modeled on the basis of individual choices with regard to friendship relationships (Zeggelink, p.303). On the same fashion, Van de bunt and his colleagues (1999) also argue that the structure of a friendship network is a result of simultaneously acting individuals who continuously have the opportunity to choose to initiate, establish, maintain, and dissolve relationships. However, this study also proves that the environmental determinants provide the opportunities (e.g., high *propinquity*) and constraints (e.g., *second year environment*) of one's friendships to stimulate ego's response. Good friendships with high enforced *propinquity* from the residence place are more likely to heighten into close friendships than those without. *The second year environment* tends to restrict the international student's capacity to make new friends. The international student's friendship network development is not only shaped by personal determinants, but by the transaction of both personal determinants and environmental determinants. The network developmental process is a highly complicated process where there are no single cause and effect relations. There are always multi-factors inherent in the process and interaction with each other to finally determine an outcome.

As to question three, by classifying international student's friendships into two categories: good friendships and close friendships, the study shows that the network development does not follow a simple pattern of node's adding. The investigations of the international student's friendship network development suggest that the first year cohort's friendship network development is characterized by an exponential increase of friends. Thus I will term the first year as a "network developing year." The second year is characterized by the polarizing process, which I will term as the "network maintaining and refining year." It should be

highlighted here that students also benefit greatly from the *pre-context* social capital. So, *pre-context* can be termed as “the inception of the friendship network.” Thus, the overall friendship network developmental process can be demarcated by three periods occurring in temporal succession: the initialization, the development, and the maintenance and refining of friendship network. Moreover, one unique feature of the international student’s friendship network in Norway is its unstable structure, driven overwhelmingly by the *exogenous changes* of the friendships. The relations with *decreased frequency of contact* are found in both the first and second year student’s friendship network. Besides, the major “turnover” of friends in the international student’s friendship network appears to happen at the *intermissions* between two semesters.

Overall, despite the preliminary nature of the study, this study does contribute to the body of knowledge regarding international student’s friendship network development in Norway. Based on the limited data base, it can be inferred that the differences of the number of local ties within one’s friendship network composition might be caused mainly by the personal determinants since there was a wide spectrum of the individual’s demographic (local) compositions of friendship network. However, as to the size of the overall friendship network (including both inner and outer layer), all the international students’ dynamics of the friendship network more or less converged on a three-period trajectory. This might imply that all the international students’ friendship networks, regardless of the focal person’s demographic background, was subject to the influence of environmental determinants. Especially, the international students tended to share the same curriculum structure in their second year and respond to the second year environment in a similar manner.

To a large extent, this study addresses the research gap on international students in non Anglo-Saxon countries. Some findings (*three hypotheses*) from the Anglo-Saxon countries are replicated in this study, which may imply that the difficulties of developing close friendships with locals (*hypothesis one*) is a universal phenomenon all over the world. Besides, the out-group ties are least salient amongst almost all international students, which also corroborates previous findings from Anglo-Saxon countries (*hypothesis two*). *Hypothesis one* is also confirmed by the fact that there was a wide spectrum of the individual’s demographic (local) compositions of friendship network. Interestingly, international students in the sampling tend to place more emphasis on cultural difference

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than the pure language barrier, which is different from the literature in Anglo-Saxon countries where both factors are equally important. As mentioned in previous chapter, in Anglo-Saxon countries, the language barrier (English proficiency) itself is probably a prevalent problem for most international students. The local student's accent, slang and fast speaking pace all inhibit internationals from developing friendships with locals. In a slightly different situation, no international students in this study mentioned English and local language proficiency as the hindrance of friendship formation with Norwegians. This is probably to the fact that Norwegians have an impeccable grasp of the English language. Instead, the knowledge of the culture and the difficulties of communicating via a second language were highlighted by African and Asian students. In other words, the international student's inexperience of navigating in an inter-cultural environment, limited knowledge of host culture and unwillingness to speak second language add to the difficulties of developing local ties instead of the language itself. Moreover, the Erasmus student's high mobility is a hallmark of Norwegian higher education. It is somehow supported in the data that the Erasmus student's role in the stability of degree student's friendship network is essential among both the first year and second year cohort.

## 7.2 Implications

### 7.2.1 Implications for future studies

This study has theoretical implications for the future study that would design a more elaborate model to examine the process of tie maintaining and deepening. It might be interesting to see how far the friendships can last after the decreased frequency of contact caused by the exogenous change and how far the sojourner's friendship network will dissipate after ego return to the home country. Since most of the literature dealing with the international student's friendship network narrowly focus on the process of tie formation, more future research should be conducted as to the maintenance and deepening of international student's existing ties. Another methodological implication is that it might be more helpful to interview international students at the intervals between two semesters instead of two months before the end of the semester. The reason is that the major "turnover"

of the international student's friendship network happens usually at the *intermissions* between two semesters.

Taking into account the difficulties of doing a quasi-longitudinal research, the single elicitation of the data becomes a major limitation to interpreting the data in this study. Even though two different sample groups from each year are somehow comparable, they are actually much more diverse than anticipated. Pre-context friends, wives, and partners all added to the individual level diversity, and add more difficulties to the generalization of the data. Especially Europeans and Americans, they tend to form a link with locals before commencing their study, which make it hard to estimate how difficult for them to develop friendships with locals from scratch. For future research, it would be much more pragmatic to control the sampling's variables regarding the marital status and pre-context friends. For example, how can the developmental process of the single international student's friendship network without any pre-connection in Norway be described?

Besides, it might also be interesting to compare the findings with another similar study in another Anglo-Saxon country. How does the international student's friendship network change in Anglo-Saxon countries? Since ties with decreased frequency of contact have seldom been exposed in the literature of the international student's friendship network, this finding is novel and needs to be reinvestigated in the Anglo-Saxon contexts. Does the international student's friendship network around the world display a similar "unstable" structure or are the findings in the study only applied to a Norwegian context?

### **7.2.2 Implications for the international student office**

Since international students (especially second year) have a large number of ties with decreased frequency of contact, it is empirically proved how hard it is for degree students to meet (potential) friends who continually share the same student's life as focal persons (two year's overlapping length of study in the university) throughout the entire two years . My advice for the international student office is that it might be beneficial to arrange all the master degree students (including Norwegians) in the same residence hall to create a mixed-race living environment where students are not only neighbours but also classmates.

Students, by sharing the same scholastic schedule and the same kitchen, have high propinquity to meet each other, which facilitates the tie formation and deepening. Besides, it

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might also be beneficial to encourage the Norwegian freshmen (especially from other cities than Oslo) to share the same kitchen with international students since they tend to face the same situation as the international students (lack of friends), desire for friends and have adequate time for the new tie exploration.

In addition, international student office should design more social programs catering to the needs of master-degree student groups: For example, a master-degree student group social programme should be created, since they are scheduled to stay in Norway for at least two years, the aim of the programs should target the increased interaction between degree-students and Norwegian students or degree-students and other cohort degree students instead of degree-students and Erasmus/bilateral students. However, the reality is that majority of the students participating in the social programs of international student office is Erasmus/bilateral international students (there are nearly no Norwegians and only a small number of degree students). While it is beneficial to the Erasmus/bilateral international student body, it might not be pragmatic for the degree-students who are seeking for long-term friendships with locals and with other cohort degree students.

### **7.2.3 Implications for international degree students**

International degree students might learn from this study that pre-context is significant to their sojourn stay in Norway in terms of friendship development. Therefore, international students are encouraged to establish social connections in the host country prior to their home departure. In addition, international students should realize that the first year is a network building year. They should grasp the optimal opportunities during the first year to expand their friendships. Thirdly, international students should attempt to find commonalities with their local friends instead of blindly focusing on the socio-cultural barriers. Last but not least, in terms of selecting friends, the degree students should have a full awareness of future probability for the interaction between them and their friends. This study by no means suggests that degree students should not befriend Erasmus. However, degree students can be more rational and strategic in their friendship choices.

## References

- Abe, J., Talbot, D. and Geelhoed, R.J. 1998. Effects of a peer program on international student adjustment. *Journal of College Students Development*. 39(6), pp539-547.
- Adams, R. G., Blieszner, R., and de Vries, B. (2000). Definitions of friendship in the third age: age, gender, and study location effects. *Journal of Aging Studies* 14(1): 117 – 33.
- Adams, R. G., & Blieszner, R. (1994). An integrative conceptual framework for friendship research. *Journal of Social and Personal Relationships*, 11, 163-184.
- Adams, R. & R. Torr (1998) Factors underlying the structure of older adult friendship networks, *Social Networks* **20** , pp. 51–61.
- Al-Sharideh, K. A., & Goe, W. R. (1998). Ethnic communities within the university: An examination of factors influencing the personal adjustment of international students. *Research in Higher Education*, 39(6), 699–725.
- Altbach, P.G. (1991) Impact and adjustment: foreign students in a comparative perspective, *Higher Education*, 21, pp. 305–323.
- Altman, I & Taylor, D A (1973). *Social Penetration: The development of interpersonal relationships*. Holt, Rinehart & Winston: New York.
- Anderson, J. G., & Jay, S. J. (1985). Computers and clinical judgement: The role of physician networks. *Social Networks*, 14, 137-161.
- Aries, E. & F. Johnson. (1983). Close friendship in adulthood: Conversational content between same-sex friends. *A Journal of Research* (9). 12, 1183-1196.
- Barabasi, A. L. (2002). *Linked: The New Science of Networks*. Cambridge, MA: Perseus Publishing.

---

Barbour R.S (2001) Checklists for improving rigour in qualitative research: a case of the tail wagging the dog? *British Medical Journal*;322:1115– 1117.

Barabasi A.L. and Z.N. Oltvai (2004) Network biology: understanding the cell's functional organization, *Nature Reviews Genetics*. 5, pp. 101–113.

Barnes, J. A. (1954). Class and committees in a Norwegian island parish. *Human Relations* , 7, 39-58.

Berscheid, E. (1985). Interpersonal attraction. In G. Lindzey & E. Aronson (Eds.), *Handbook of social psychology* (Vol. 2). New York: Random House.

Berry, J.W.,and Annis, R. C. (1974). Acculturative stress: The role of ecology, culture, and differentiation. *Journal of Cross-Cultural Psychology*, 5, 382-406.

Berry, J.W., Kim, U., Minde, T.,&Mok, D. (1987). Comparative studies of acculturative stress.*International Migration Review*, 21, 491-511.

Berry, J.W.,Wintrob, R., Sindell, P. S.,&Mawhinney, T. A. (1982). Psychological adaptation to culture change among the James Bay Cree. *Naturaliste Canadien*, 109, 965-975.

Bowling A. (1991a). *Measuring health: A review of quality of life measurement scales*. New York : Open University Press.

Bowling, A. (1991b) Social support and social networks: their relationship to the successful and unsuccessful survival of elderly people in the community. An analysis of concepts and a review of the evidence. *Family Practice*. 8, pp. 68–83.

Borgatti S.P., Mehra A, Brass D.J. (2009). Network analysis in the social sciences. *Science* 323: 892-895.

Bott, E. (1955). Urban families: Conjugal roles and social networks. *Human Relations* , 8, 345-384.

- Bochner, S., Hutnik, N., & Furnham, A. (1985). The friendship patterns of overseas and host students in an Oxford student residence. *Journal of Social Psychology*, 125, 689-694.
- Bochner, S., McLeod, B. M., & Lin, A. (1977). Friendship patterns of overseas students: A functional model. *International Journal of Psychology*, 12, 277-297.
- Bryman, A., ( 2004) *Social Research Methods*. Oxford University Press, UK.
- Brewer, D.D., 2000. Forgetting in the recall-based elicitation of personal and social networks. *Social Networks* 22, 29–44.
- Burt, R. S. 2000. Decay functions. *Social Networks*, 22(1): 1–28.
- Carney, M. 2004b. "The globalization and regeneration of Asian business networks". Paper presented at the *Asia Pacific Journal of Management Special Issue Conference on Asian Business Networks*, Shanghai, December.
- Carr, J. L., Koyama, M., & Thiagarajan, M. (2003). A woman's support group for Asian international students. *Journal of American College Health*, 52(3), 131–134.
- Church A.T (1982). Sojourner adjustment. *Psychological Bulletin* 91 (1982), pp. 540–572.
- Crow G.(2004). Social networks and social exclusion: an overview of the debate In C.Phillipson & G. Allan & D.Morgan(Ed.), *Social networks and social exclusion: Sociological and policy research* (p.11). Aldershot.
- Cummings, J. N. and M. C. Higgins (2006). "Relational instability at the network core:Support dynamics in developmental networks." *Social Networks* 28(1): 38-55.
- Daroesman, S., Looi, K., & Butler, D. (2005). Survey of final year international students on their experience of The University of Melbourne. Melbourne: University Planning Office, The University of Melbourne.

---

De Rynck, F., & Voets, J. (2006). Democracy in area-based policy networks: The case of Ghent. *American Review of Public Administration*, 36, 58-78.

Diani, M. and McAdam, D. (eds) (2003) *Social Movements and Networks: Relational Approaches to Collective Action*. Oxford: Oxford University Press.

Donà, G., & Berry, J. W. (1994). Acculturation attitudes and acculturative stress of Central American refugees. *International Journal of Psychology*, 29, 57-70.

Dunstan, P. and Drew, J. 2001. "Internationalising student experience: An Australian perspective". Paper presented at the *13th Annual European Association of International Education conference*, Tampere, Finland. 3-5th December 2001.

Eisner, E. W. (1991). *The enlightened eye: Qualitative inquiry and the enhancement of educational practice*. New York, NY: Macmillan Publishing Company.

Fehr, B. (1996). *Friendship processes*. Thousand Oaks, CA: Sage.

C.S. Fischer(1982). , *To Dwell Among Friends*, University of Chicago Press, Chicago

Furnham, A. & Alibhai, N. (1985). The friendship networks of foreign students: A replication and extension of the functional model. *International journal of psychology*, 20(6), 709-722.

Garton, L., Haythornthwaite, C., & Wellman, B. (1997). Studying online social networks. *Journal of Computer Mediated Communication*, 3(1).

Grossetti, M. (2005) Where do social relations come from?: A study of personal networks in the Toulouse area of France, *Social Networks*, 27: 289-300.

Granovetter, M. (1973). "The Strength of Weak Ties", *American Journal of Sociology*, Vol. 78, Issue 6, May 1973, pp. 1360-1380.

Granovetter, M. (1985). Economic Action and Social structure: The problem of Embeddedness. *American Journal of Sociology*, 91, 481-510.

Gudykunst, W. B. (1983). Uncertainty reduction and predictability of behavior in low and high-context cultures. *Communication Quarterly*, 31, 49-55.

Gudykunst, W. B. (1985). An exploratory comparison of close intracultural and intercultural friendships. *Communication Quarterly*, 33, 4, 270-283.

Hays, R.B. 1988. Friendships. In S. Duck (Ed.), *Handbook of personal relationships* (pp. 391-408). Chichester: Wiley.

Harrington,A.M. (2003). Navigating the University System: The Effects of Chinese and Indian Graduate Students' Social Networks on Academic Progression, a Dissertation submitted to the Faculty of the Virginia Polytechnic Institute and State University.

Hartup, W. (1983). Peer relations. In P. Mussen & E. Hetherington (Eds.), *Manual of child psychology* (4th ed.). New York: Wiley.

Hechanova-Alampay, R., Beehr, T., Christiansen, N., & Van Horn, R. (2002).Adjustment and strain among domestic and international student sojourners: A longitudinal study. *School Psychology International*, 23(4), 458-474.

Hoepfl M.C. (1997).Choosing Qualitative Research: A Primer for Technology Education Researchers. *Journal of Technology Education*, 9(1), 1-13.

Hu H., & Perucci, R. (1995). Satisfaction with social and educational experiences among international graduate students. *Research in Higher Education*, 36, 491-508.

Huang Y.J. (2008) Conceptualizations of Friendship between Chinese International Students and U.S. Nationals A Thesis in Communication Studies. Faculty of Texas Tech University.

International Organization For Migration Student Mobility(IOM). 2008. World Migration Report 2008, Retrieved March 14 2009,from

---

[http://www.iom.int/jahia/webdav/site/myjahiasite/shared/shared/mainsite/published\\_docs/studies\\_and\\_reports/WMR2008/Ch4\\_WMR08.pdf](http://www.iom.int/jahia/webdav/site/myjahiasite/shared/shared/mainsite/published_docs/studies_and_reports/WMR2008/Ch4_WMR08.pdf)

James, R., & Devlin, M. (2001). Evaluation of the international student experience 2000. Melbourne: Centre for the Study of Higher Education, the University of Melbourne.

Kashima, E.S., & Loh, E. (2006). International students' acculturation: Effects of international, conational, and local ties and need for closure. *International Journal of Intercultural Relations*, 30, 471-485.

Kalmijn M. Shared friendship networks and the life course: An analysis of survey data on married and cohabiting couples. *Social Networks*. 2003;25(3):231–249.

Katsara, R. 2004. The Need to Investigate Greek Students' Experience in British University: The Use of Ethnography in the Identification of Such a Need. *International Education Journal*. 5 (1), pp79-89.

Krebs, V. E. (2001a) Mapping networks of terrorist cells. *Connections*, 24(3), pp. 43 – 52.

Krebs, V.E. (2001b) Uncloaking Terrorist Networks, *First Monday*, volume 7, number 4 (April 17 2002),  
URL: [http://firstmonday.org/issues/issue7\\_4/krebs/index.html](http://firstmonday.org/issues/issue7_4/krebs/index.html)

Kudo, K., and Simkin, K.A.. (2003) 'Intercultural friendship formation: the case of Japanese students at an Australian university'. *Journal of Intercultural Studies* 24(2): 91-114.

Laumann, E. O., & Pappi, F., (1976). *Networks of Collective Action: A Perspective on Community Influence Systems*. New York: Academic Press.

Litwin H.(2001) Social network type and morale in old age. *Gerontologist* 2001;41:516–24.

Li, M., Baker, T., & Marshall, K. (2002). "Mismatched expectations: A Case study of Asian students in New Zealand". Paper presented at the *New Zealand Applied Business Education Conference*, School of Business, Christchurch College of Education.

Lloyd AL & May RM. (2002) How viruses spread among computers and people. *Science* 2002; 292:1316–1318.

Lunsford TR, & Lunsford BR (1995). The research sample, Part I: Sampling. *Journal of Prosthetics and Orthotics* 1995;7:105– 112.

Marsden, Peter V. and Karen E. Campbell. 1984. "Measuring Tie Strength." *Social Forces* 63:482-501.

Marin, A and Keith H. (2007). "Simplifying the Personal Network Name Generator: Alternatives to Traditional Multiple and Single Name Generators." *Field Methods* 19:163–193.

Martino, F., and Spoto, A. "Social Network Analysis: A brief theoretical review and further perspectives in the study of Information Technology," *Psychology Journal* (4:1) 2006,pp 53-86.

Maundeni, T. (2001). The role of social networks in the adjustment of African Students to British society: Students' perception. *Race Ethnicity and Education*, 4, 253-276.

Marshall M.N. (1996) Sampling for qualitative research. *Family Practice* ; **13**: 522–525.

Marsden, Peter V. (1990).Network Data and Measurement. *Annual Review of Sociology*, Volume 16 (1990), pp. 435-463.

---

McKenna, K. Y. A., & Bargh J. A. (2000). Plan 9 from cyberspace: The implications of the Internet for personality and social psychology. *Personality and Social Psychology Review*, 4, 57–75.

McPherson, Miller, Lynn Smith-Lovin, and James M. Cook. (2001). "Birds of a Feather: Homophily in Social Networks." *Annual Review of Sociology* 27:415-44.

Milroy, L and J. Milroy. 1992. Social network and social class: Toward an integrated sociolinguistic model. *Language in Society* 21: 1–26.

Milroy, J., and Milroy, L. (1993). "Mechanisms of change in urban dialects: The role of class, social network and gender," *International Journal of Applied Linguistics* 3, 57–77.

Mitchell, R., & Trickett, E. (1980). Social networks as mediators of social support: An analysis of the effects and determinants of social networks. *Community Mental Health Journal* , 16, 27-44.

Mitchell, J. C. (ed.) (1969) *Social Networks in Urban Situations*. Manchester: Manchester University Press.

Morgan, D. L., Neal, M. B., & Carder, P. 1996. The stability of core and peripheral networks over time. *Social Networks*, 19: 9-25.

Montgomery C., and McDowell L. (2008). Social Networks and the International Student Experience: An International Community of Practice? *Journal of Studies in International Education*, saga publication.

Neri F. and S. Ville (2006) The Social Capital Experience of International Students in Australia: The Wollongong Experience. Retrieved March 19 2009, from <http://ideas.repec.org/p/uow/depec1/wp06-19.html#provider>

- Pandit, K. and Alderman, D. 2004. Border Crossings in the Classroom: The international Student Interview as a Strategy for Promoting Intercultural Understanding. *Journal of Geography*. 103 (3), pp127-136.
- Phillipson, Chris (2001). The family and community life of older people: social networks and social support in three urban areas. *Ageing and Society*, 18(3), 259-289.
- Pool, I. de Sola and Kochen, M. (1978). Contacts and influence. *Social Networks*, 1, 5-51.
- Reagans, R., and B. McEvily. 2003. Network structure and knowledge transfer: the effects of cohesion and range. *Administrative Science Quarterly* 48(2):240-267.
- Rosenthal, D. A., Russell, J. and Thomson, G. 2006. Social connectedness among international students in an Australian university. *Social Indicator Research* 84: 71–82.
- Sandhu, D. S. (1995). An examination of the psychological needs of the international students: Implication for counseling and psychotherapy. *International Journal for the Advancement of Counseling*, 17, 229-239.
- Sánchez, J.S. 2004. Intergroup Perception of International Students. *Academic Exchange Quarterly*. 8 (1), pp309-313.
- Sam, D.L. (2001) Satisfaction with life among international students: an exploratory study, *Social Indicators Research*, 53, pp. 315–337.
- Scott, P. (1998). ‘Massification, internationalisation and globalisation’, in Scott, P. (ed.), *The Meanings of Mass Higher Education*. Buckingham: OUP and SRHE, pp. 108–129.
- Shulman, N. (1976). Network analysis: A new addition to an old bag of tricks. *Acta Sociologica*, 19, 307–323.

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Simmel, G., 1950. *The Sociology of Georg Simmel* (KH Wolff, trans.). Free Press, New York, NY.

Smith, Kirsten P. and Nicholas A. Christakis (2008). "Social Networks and Health", *Annual Review of Sociology*, 34, 405-429.

Smart, D., Volet, S. and Ang, G. 2000. *Fostering social cohesion in universities: Bridging the cultural divide*. Canberra: Australian Education International Department of Education, Training and Youth Affairs.

Suttles, G. D. (1970). Friendship as a social institution. In G. J. McCall (Ed.), *Social relationships*. Chicago: Aldine, 1970. PP. 95–325.

The Foundation for Student Life in Oslo(SIO). Student housing. Retrieved March 19 2009, from

[http://www.sio.no/wps/portal/!ut/p/kcxml/04\\_Sj9SPykssy0xPLMnMz0vM0Y\\_QjzKLN4r3DATJgFjuJvqRyCIG8Y5wAVP\\_NxU\\_aDUPKBUpDIQKsBYPyonNT0xuVI\\_WN9bP0C\\_IDc0otzb0REAaaFHKw!!/delta/base64xml/L0lJSk03dWIDU11BIS9JTGpBQU15QUJFUKVSRUlrLzRGR2dkWW5LSjBGUm9YZnJDRUEhLzdfMF9QMy82Mw!!?WCM\\_PORTLET=PC\\_7\\_0\\_P3\\_WCM&WCM\\_GLOBAL\\_CONTEXT=/wps/wcm/connect/SiO/Housing+Units/Looking+for+a+place+to+stay](http://www.sio.no/wps/portal/!ut/p/kcxml/04_Sj9SPykssy0xPLMnMz0vM0Y_QjzKLN4r3DATJgFjuJvqRyCIG8Y5wAVP_NxU_aDUPKBUpDIQKsBYPyonNT0xuVI_WN9bP0C_IDc0otzb0REAaaFHKw!!/delta/base64xml/L0lJSk03dWIDU11BIS9JTGpBQU15QUJFUKVSRUlrLzRGR2dkWW5LSjBGUm9YZnJDRUEhLzdfMF9QMy82Mw!!?WCM_PORTLET=PC_7_0_P3_WCM&WCM_GLOBAL_CONTEXT=/wps/wcm/connect/SiO/Housing+Units/Looking+for+a+place+to+stay)

The Norwegian Centre for International Cooperation in Higher Education(SIU). 2007. Study in Norway: living in Norway . Retrieved March 14 2009, from <http://www.studyinnorway.no/sn/Country-specific-information/US-Students/Living-in-Norway>

The Norwegian Centre for International Cooperation in Higher Education(SIU). 2007. Study in Norway. Retrieved march 14 2009, from <http://www.siu.no/index.php/no/Konferanser-og-publikasjoner/Publikasjoner/Study-in-Norway-Guide-til-hoeyere-utdanning-i-Norge-spansk-utgave>

*The Bergen Summit*. 2005. The Bologna Process from a Norwegian Perspective, Retrieved March 14

2009, from [http://www.bologna.gov.tr/documents/files/041014Fact\\_Sheet\\_Bologna-Process.pdf](http://www.bologna.gov.tr/documents/files/041014Fact_Sheet_Bologna-Process.pdf)

Toyokawa, T., & Toyokawa, N. (2002). Extracurricular activities and the adjustment of Asian international students: A study of Japanese students. *International Journal of Intercultural Relations*, 26, 363-379.

Trice, A.G. 2004. Mixing it up: International graduate students' social interactions with American students. *Journal of College Student Development* 45, no. 6: 671–87.

UKCOSA. 2006. The experiences of international students in UK further education colleges. New horizons; report of the UKCOSA survey. London: UKCOSA. The Council for International Education. Retrieved March 19 2009, from: [http://www.ukcisa.org.uk/files/pdf/new\\_horizons\\_report.pdf](http://www.ukcisa.org.uk/files/pdf/new_horizons_report.pdf)

Van Teijlingen ER& Hundley V. (2001) The importance of pilot studies. Social Research Update. Retrieved March 14 2009, from [www.soc.surrey.ac.uk/sru/SRU35.html](http://www.soc.surrey.ac.uk/sru/SRU35.html)

van Tilburg, T. G. (1995). Delineation of the social network and differences in network size. In C. P. M. Knipscheer, J. de Jong Gierveld, T.G. van Tilburg & P. A. Dykstra (Eds.), *Living arrangements and social networks of older adults* (pp. 83-96). Amsterdam: VU University Press.

Van Duijn M A J, Huisman M, Stokman F N, Wasseur F W, Zeggelink E P H (2003) "Evolution of sociology freshmen into a friendship network". *Journal of Mathematical Sociology* 27, 153-191.

van Sonderen, E. B, Brilman E, and van den Heuval, c . (1990): Personal network delineation: a comparison of the exchange, affective and role-relation approach. In C.P.M. Knipscheer and T.C. Antonucci (Eds.): *Network Research: Substantive Issues and Methodological Questions*. Amsterdam: Swets & Zeitlinger, 101-120.

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Van de Bunt, G.G., M.A.J. van Duijn, and T.A.B. Snijders. 1999. Friendship networks through time: An actor-oriented statistical network model. *Computational and Mathematical Organization Theory*, 5, 167-192.

Verbrugge LM. 1983. A research note on adult friendship contact: a dyadic perspective. *Social Forces* 62:78–83

Volet, S., & Karabenick, S. A. (2006). Help seeking in cultural context. In S. A. Karabenick & R. S. Newman (Eds.), *Academic Help Seeking: Goals, Groups, and Contexts*. Mahwah, NJ: Lawrence Erlbaum Associates.

C. Ward, S. Bochner, and A. Furnham's (2001) *The psychology of culture shock* (2nd ed.), Hove, UK: Routledge.

Ward, C. (2002, November). Expectations and experiences of international students in New Zealand. Paper presented at *the ATLAANZ Conference*.

Wasserman and Faust. 1994. Chapter 3 in Wasserman and Faust, *Social Network Analysis*. Cambridge University Press.

Wellman, B. The community question: The intimate networks of East Yorkers. Unpublished manuscript, Center for Urban and Community studies, and the Department of Sociology, University of Toronto, Toronto, Canada, April, 1978.

Wright, P. H. Toward a theory of friendship based on a conception of self. *Human Communication Research* 1978, 4 196–207.

Yang, B., Teraoka, M., Eichenfield, G. A., & Audas, M. C. (1994). Meaningful relationships between Asian international and U.S. college students: A descriptive study. *College Student Journal*, 28, 108-115.

Yeh, C. J., & Inose, M. (2003). International students' reported English fluency, social support satisfaction, and social connectedness as predictors of acculturative stress. *Counseling Psychology Quarterly*, 16, 15-28.

Ying, Y. (2003). Academic achievement and quality of overseas study among Taiwanese students in the United States. *College Student Journal*, 37(3), 470-481.

Zeggelink Evelien P.H. (1994). Dynamics of Structure: An Individual Oriented Approach. *Social Networks* 16 pp. 295-333.

Zimmerer, K.S. 2003: Geographies of seed networks for food plants (potato, ulluco) and approaches to agrobiodiversity conservation in the Andean countries . *Society and Natural Resources* 16, 583-601.

X. Zheng, D. Sang and L. Wang. (2004). Acculturation and subjective well-being of Chinese students in Australia, *Journal of happiness studies*, 5, pp. 57–72.

# Appendix

## Table 1: Characteristics of Social Networks

### I. Structural Characteristics of Networks

A. Size or Range: The number of individuals with whom the focal person has direct contact. Different criteria have been used to define membership. Tolsdorf (1976) specified that the "Individual in question and the focal person must know each other by name, they must

have an ongoing personal relationship, and they must have some contact at least once a year." (p. 408). Other researchers have asked individuals to specify the most "important" members of their network (Llamas, 1976), or the individuals to whom they feel "closest"

(Wellman, 1978).

B. Network Density: The extent to which members of an individual's social network contact each other independently of the focal person (Mitchell, 1969). It is computed as the number of actual ties among network members divided by the total number of possible ties.

Some researchers have suggested that rather than looking at the average density across the entire network, one should look for dense clusters within specific network sectors (i.e., family sector, co-worker sector, etc.).

C. Degree of Connection: Related to network density, the average number of relationships that each member has with other members of the network.

### II. Characteristics of Component Linkages (relational)

A. Intensity: The strength of the tie. It has been measured in terms of the number of reciprocal functions or services which characterize the tie (Shuhnan, 1976), and the individual's rating of the strength of the feelings or thoughts toward each member of the network

(Llamas, 1976)

B. Durability: The degree of stability of the individual's links with others in his or her network. This has implications in terms of the length of time the focal person has known persons in his or her network (Shulman, 1976), and the individual's rating of the degree to which each of his or her relationships is changing (Llamas, 1976; Henderson et al., 1978).

C. Multidimensionality (or Multiplexity): The number of functions served by a relationship. If a relationship serves only one function, it is unidimensional, and if it serves more than one function, it is multidimensional. The proportion of multidimensional relationships is

then calculated. One unresolved issue is the manner in which one categorizes and codes relationships according to content function. Sokolovsky et al. (1978) have argued for content categories based on observational analysis of the specific social settings involved, while others have used more general a priori categories (e.g., advice, support, feedback).

D. Directedness and Reciprocity: The degree to which affective and instrumental aid is both given and received by the focal person. This has been measured by asking focal persons to rate the degree of assistance, support, and so on that they give and receive in each relationship. (Tolsdorf, 1976; Llamas, 1976). A ratio is then calculated. Again, researchers differ in the types of functions that they see as most salient.

E. Relationship Density: The concept that tries to examine the extent to which the focal person's relationships serve a variety of functions. Given that one has defined relationships as potentially serving x number of functions (e.g., support, advice, feedback, etc.), relationship

density is calculated by dividing the average number of functions per relationship by x.

F. Dispersion: The ease with which the focal person can make contact with members of his

or her network. Typically, this is measured in terms of geographical proximity.

G. Frequency: The frequency with which the focal person makes contact with members of his

or her network. Contact has been variously defined to include contact by phone and letter as well as face-to-face contact.

H. Homogeneity: Although seldom used, a concept that refers to the extent to which members of a network share common social attributes (e.g., religious affiliation, socioeconomic status, etc.).

*II1. Normative Context of the Relationship*

*A. Primary Kin*

*B. Secondary Kin or Extended Family*

*C. Friend*

*D. Neighbor*

*E. Work Acquaintance*

From Mitchell and Trickett (1980)'s "Task Force Report: Social Networks as Mediators of Social Support"

**Table 2: Three Hypotheses from Literature Review**

1) There is a broad range of *varied phenomena* within formation of local friendships among different demographic groups of international students.

2) A small number of international students have close local friend(s). International students, generally speaking, prefer co-national close friends to international and local close friends.

3) International ties are least salient in international student's close friendship network.

Table 3: The size of the international student's friendship network

first year	good friends	close friends	overall size
Hong	7	no	7
Linda	7	no	7
Mary	8	1	9
Andreas	1	1	2
Camara	5	no	5
Kabili	2	1	3
second year	good friends	close friends	overall size
Anne	1	4	5
Zheng	4	3	7
Yuan	9	3	12
John	3	2	5
Jack	?	4	more than 4
Jennie	7	1	8

**Table 4: The relations with decreased frequency of contact and the relations with stable frequency of contact**

First year	The total number of Good friends	The relations with decreased frequency of contact	The relations with stable frequency of contact
Hong	7	2	5
Linda	7	0	7
Mary	8	2	6
Andreas	1	0	1
Camara	5	0	5
Kabili	2	0	2
second year			
Anne	1	1	0
Zheng	4	4	0
Yuan	9	8	1
John	3	2	1
Jack	?	?	0
Jennie	7	2	5

Jack didn't specify the number of the relations with decreased frequency of contact he had had. However, he was highly aware of the cost-effectiveness of personal investment in the friendship development. For him, he would rather spend more time with his old good friendships than exploring new ties with Erasmus students.

Table 5: Local ties in the international student's friendship network

	<b>The first group</b>	<b>The second group</b>	<b>The third group</b>
<b>Component</b>	<b>All the Africans and One Asian student</b>	<b>Two Asian students</b>	<b>All the Europeans and American</b>
<b>Characteristics</b>	<b>They purely focused on the socio-cultural barriers of communications with locals</b>	<b>They have a certain degree of awareness of the difficulties of local friendship development. At the mean time, they, however, also place the equal emphasis on individual hobbies and interests of their potential friends.</b>	<b>They are not aware of the socio-cultural barriers</b>
<b>Resultant size of local ties</b>	<b>none</b>	<b>A considerable number</b>	<b>A fairly large number</b>
<b>Normative context</b>	<b>They tend not to choose any Norwegian ties in their friendship network even if there are no other alternative ties - which compete for the friendship choice - such as co-national and in-group ties</b>	<b>They prefer co-national and in-group ties to Norwegian ties in every social setting. However, when there are no available "same race" friends, it is highly likely for them to select Norwegians as friends</b>	<b>They tend to take the proactive approach to establish the ties prior-study.</b>

Table 6: The profile of interviewees

<i>First year</i>	<i>Nationality</i>	<i>Gender</i>	<i>Age</i>	<i>Relationship status</i>	<i>Length of stay</i>	<i>Prior-study</i>
Hong	China	female	24	single	nearly 9 MS	no
Linda	America	female	24	relationship	nearly 9 MS	no
Mary	Georgia	female	23	relationship	nearly 9 MS	no
Camara	Zambia	female	30s	married	nearly 9 MS	no
Andreas	Zimbabwe	male	42	married(here)	nearly 3 YS	yes
Kabili	Nigeria	female	24	single	nearly 9 MS	no

<i>Second year</i>	<i>Nationality</i>	<i>Gender</i>	<i>Age</i>	<i>Relationship status</i>	<i>Length of stay</i>	<i>Prior-study</i>
Anne	Ukraine	female	27	relationship(here)	nearly 4 YS	yes
Zheng	China	male	25	single	nearly 1 Y and 9 MS	no
Jack	Romania	male	28	relationship(here)	nearly 2 YS	yes
John	Cameroon	male	35	relationship(here)	nearly 2 YS and 9 MS	no
Yuan	China	female	24	single	nearly 1 Y and 9 MS	no
Jennie	Romania	female	32	relationship(here)	nearly 4 YS	yes

”(here)” means that the spouse or the dating partner was in Norway at the time of interview. Linda , Mary, Camara and Andreas had been in a relationship before they came to Norway. Andreas’s wife accompaied Andreas throughout his three-year study in Norway. Anne, Jack, and John developed romantic relationships while studying in the current program. Jennie had been in a relationship after she came to Norway but before she commenced her current study programs.

”MS”, ”Y”, and ”YS” denotes months, year and years. John had been in Norway for nearly 2 year and 9 months because he wrote his thesis for an extended period of time.

”Prior study” refers to the prior-study experience of staying in Norway. Andreas had already finished one master program in Norway before he started the current programme at the educational faculty. Anne, Jack and Jennie all had had working and living experience in Norway before they started their current programmes.

Table 7: Summary of the first year cohort's and the second year cohort's friendship network

	First year cohort	Second year cohort
<b>Normative contexts</b>	<b>No patterned difference</b>	
<b>Structural characteristics</b>	<b>No patterned difference in terms of size and density of the whole network and good friendship segment. However, second year students have a larger and denser close friendship network than first year cohort.</b>	
<b>Relational components</b>	<b>No patterned differences except that second year students have more good friendships with decreased frequency of contact and accordingly less good friendships with stable frequency of contact than first year cohort.</b>	

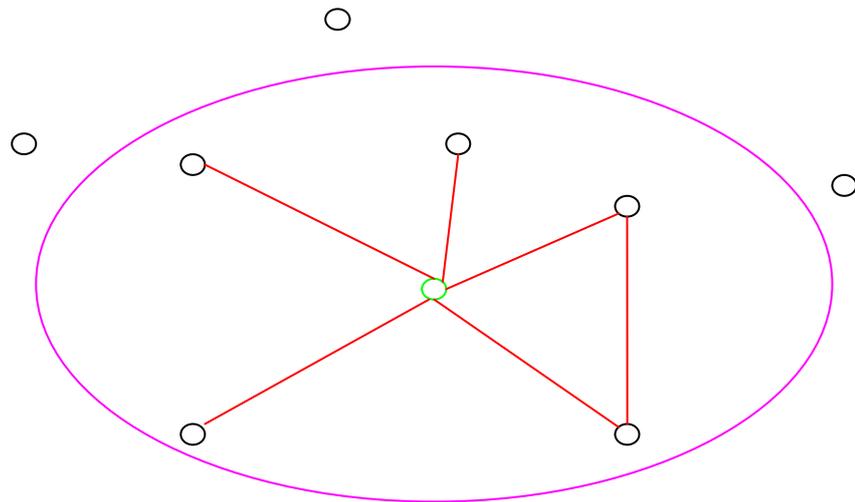
Table 8: Tie formation

	<b>First year</b>	<b>Second year</b>
<b>Similarities</b>	<b>Pre-context, Normative contexts, The interplay</b>	
<b>differences</b>	<b>First year syndrome</b>	<b>Second year environment Motives(less motivated)</b>

Table 9: Tie maintenance and Deepening

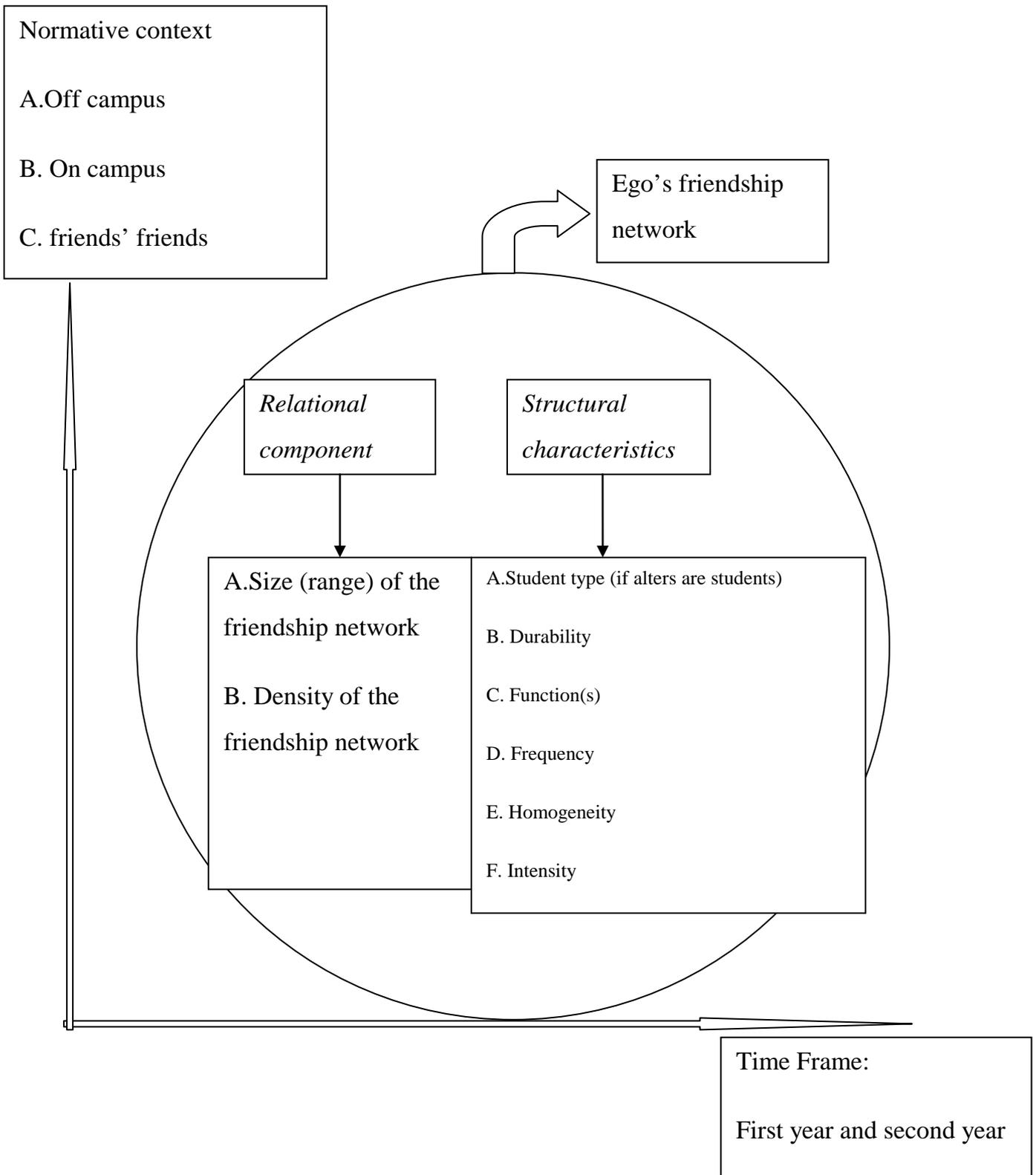
	First year cohort	Second year cohort
<b>similarities</b>	<b>Preferences, Propinquity and Tie Strength</b>	
<b>difference</b>		<b>More <i>intermissions</i>; Tie Strength and Propinquity play a more conspicuous role.</b>

Diagram A: An example of ego network



<b>Central node: Ego/Focal person</b>
<b>Other nodes: Alter (Ego's Friends)</b>
<b>Line: Connection/tie/relation/function</b>
<b>Eclipse: Ego network</b>

Diagram B: The functional model



## Diagram C: Three categories of normative contexts

**A. Off campus: accommodation (student's village and residence place), part-time job, church, social organization;**

**B. On campus: class, volunteer organization and social organization;**

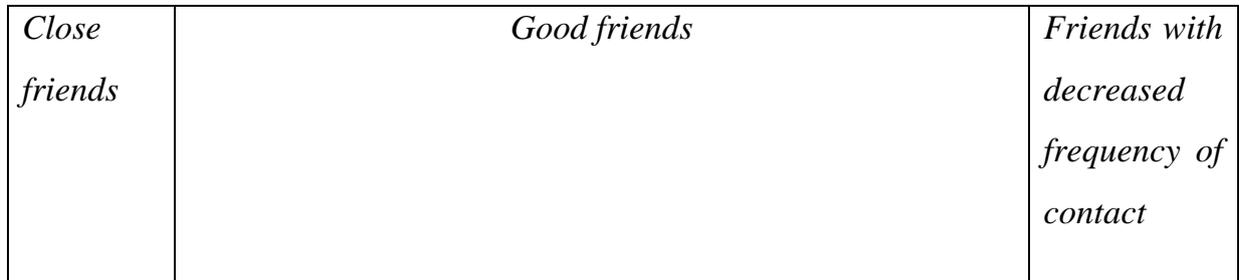
**C. Friends of friends**

Diagram D: The Curriculum structure of three programmes at the Faculty of Education at the University of Oslo

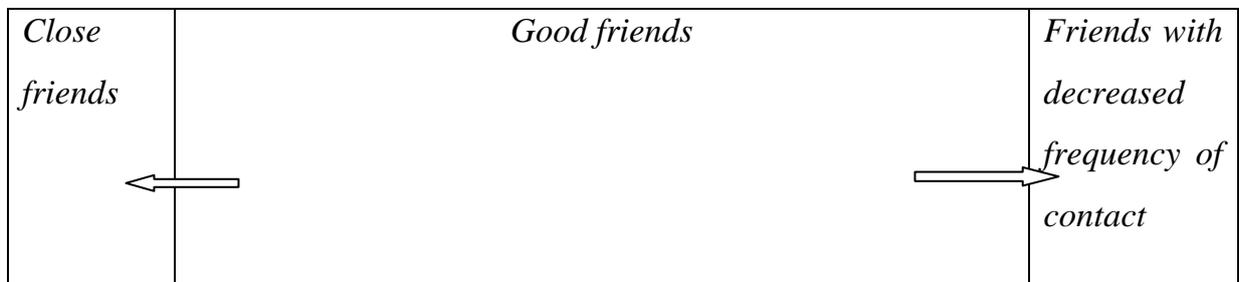
	<i>Comparative and International Education</i>	<i>Special Needs Education</i>	<i>Higher Education</i>
<b>Semester 1</b>	<b>Share courses with Erasmus students</b>	<b>Share courses with Erasmus students</b>	<b>Share courses with Erasmus students</b>
<b>Semester 2</b>	<b>Take program courses</b>	<b>Take program courses</b>	<b>Take program courses</b>
<b>Semester 3</b>	<b>Field work and Thesis writing</b>	<b>Field work</b>	<b>Take program courses</b>
<b>Semester 4</b>	<b>Field work and Thesis writing</b>	<b>Thesis writing</b>	<b>Field work and Thesis writing</b>

## Diagram E: Second year's polarizing process

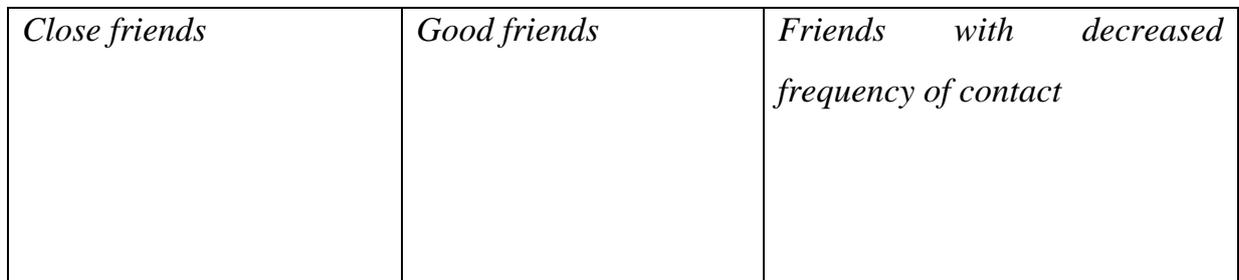
One's friendship network at the beginning of second year



The process of polarizing during the second year

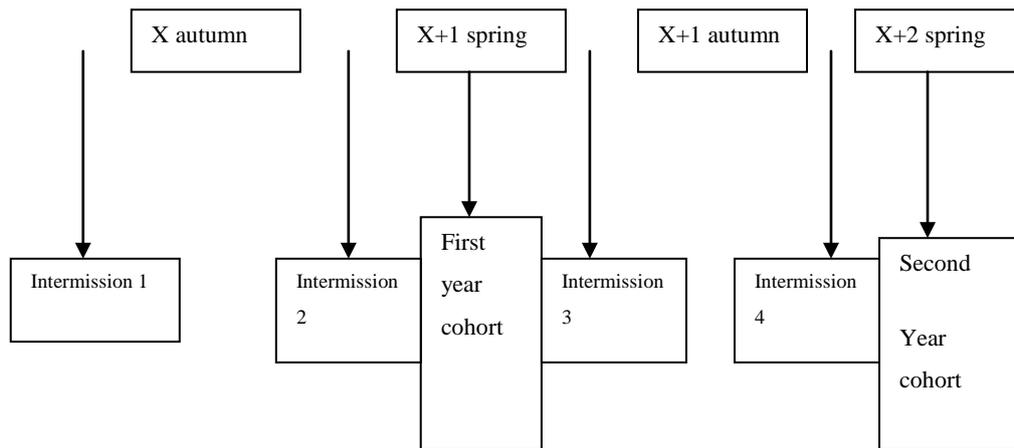


One's friendship network at the end of second year



At the beginning of second year, the good friends constitute a large proportion of the overall friendship network. After the polarizing process, the good friends' proportion amongst the overall friendship network decreased dramatically.

## Diagram F: Explanation for the main cause for the relations with decreased frequency of contact



Every international student has four academic semesters (from x autumn to x+2 spring) in their master degree study program.

The “*intermission 1*” denotes the change related to the commencing of the academic program study. The “*intermission 2*” denotes the change related to the intervals between the student’s first academic semester and second academic semester. Since the interview was conducted two months before the end of the spring semester, the first year cohort underwent two intermissions (*intermission 1* and *intermission 2*) and second year cohort underwent four intermissions (*intermission 1* to *intermission 4*)

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## Interview Consent Form

(Complete all sections of this form and give one to each consenting interview participant to sign and date)

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I, \_\_\_\_\_(participant's name), understand that I am being asked to participate in an interview that forms part of \_\_\_\_\_ (student's name) required thesis in the higher education program. It is my understanding that this interview will cover the following subjects or topics:

International students' friendship network

I have been given some general information about this project and the types of questions I can expect to answer. I understand that the interview will be conducted at a place and time that is convenient to me, and that it will take approximately \_\_1\_\_ hours of my time.

I understand that my participation in this project is completely voluntary and that I am free to decline to participate, without consequence, at any time prior to or at any point during the interview. I understand that, with my permission, this interview may be audio (or video) recorded and that any information I provide during the interview will be kept confidential, used only for the purposes of completing this assignment, and will not be used in any way that can identify me. All interview notes, tapes, or records will be kept in a secured environment and all raw data such as tapes, transcripts, notes, and electronic files will be destroyed within three months of the completion of the course assignment.

I understand that the results from this interview will be used exclusively in the below-named student's oslo University thesis and none of the information I provide will be published, in any form, in any journals or conference proceedings.

I also understand that there are no risks involved in participating in this activity, beyond those risks experienced in everyday life.

I have read the information above. By signing below and returning this form, I am consenting to participate in this project via either a telephone or face-to-face interview as designed by the below-named oslo University student.

Participant name (please print): \_\_\_\_\_

Signature: \_\_\_\_\_

Date: \_\_\_\_\_

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## Interview questions

### *1) Background information*

What is your age?

Which country and more specific which part of that country do you come from?

What is your marital status?

Which study program are you in now?

How long have you been in Norway?

Did you attend some Norwegian language class? Did you try to learn Norwegian?

### *2) Ask the respondent to recall all the normative contexts they have in Norway.*

Recall all the social settings you are part of on one typical week day.

How do you enjoy your weekend?

Did you have a part time job?

Did you go to church very often?

Did you attend other social settings?

### *3) Name generator: Use both the role-model approach and the affective approach to help respondents to elicit their friends' names.*

#### *A. The role-model approach*

Who do you think are your friends from all the social settings you just recalled ? Tell me the gender and the country of origin of your friends.

Why do you think they are your friends?

*B. The affective approach ( Participants are further asked to place their friends' names on a map. The map consists of two concentric rings with "you" written at the central ring. Names*

*placed in the inner ring means strong ties to the respondents and names placed in the outer ring means weak ties to the respondents.)*

Why do you place some of them on the inner ring?

Why do you place some of them on the outer ring?

*4) Name interpreter: A series of follow up questions were asked to assess other characteristics of the respondent's friendship network.*

How often do you hang out with your friends?

What do you usually do when you hang out with your friends?

Tell me some interesting experiences between you and your friends.

Is your friend a student? Which type of student is your friend?

How do you get to know your friends?

Rate the friends according to the length of time you know them.

Do your friends interact with each other regardless of you ?

*5) other questions*

Are you satisfied with your current friendship network? Why?

Which year, do you think, you make more new friends, first year or second year? (this question is only for the second year cohort)