Academic and Social Experience of International Students in Norway

A cross-sectional survey

Maryam Rostami

Master of Philosophy in Higher Education

30 credits

Department of Education, Faculty of Educational Sciences

University of Oslo

June 2023

Abstract

Academic and social adjustment are key to student success, particularly international students. Given that international students are so diverse, it is critical to understand the relationships between the background characteristics students bring to their academic lives and their adjustment to academic life. This thesis considers the Norwegian context by analyzing survey responses from international students at two smaller but public universities: the University of Agder and the University of Stavanger. Using quantitative analysis and multiple regressions, this thesis investigates the predictive relationship of age, gender, level of education, location, department, interaction with faculty, and time spent in Norway on academic and social adjustment through the Rosenberg Self-Esteem Scale (1965), emotional regulation through the College Adjustment Questionnaire (O'Donnell et al., 2018).

The findings of this study show that, among demographic characteristics, only time spent in Norway had a statistically significant relationship with academic and social adjustment. Moreover, this study found a significant negative relationship between international students' interaction with faculty and their adjustment to university life.

This thesis aims at providing a better understanding of what factors contribute to international students' academic and social adjustment. I highlight the importance of quality support for international students to adjust to a new educational environment, particularly the importance of considering students' experience with faculty and their adjustment to university to enhance student learning in higher education.

Keywords: academic adjustment, social adjustment, international students, interaction with faculty

Acknowledgement

I would like to express my gratitude to my main supervisor, Mari Elken, who guided me throughout this project. Without her wise guidance, excellent feedback skills, and advice, this thesis would not have been completed.

I would like to also thank my co-supervisor, Rebecca Knoph, who was there for the entire data collection and analysis process. I am extremely grateful for her patience, encouragement, knowledge, and invaluable guidance throughout the process.

Thank you both for always being there to answer my questions.

Most importantly, I am deeply grateful for my husband, Morteza, who has been a constant support to me throughout the completion of this project.

I am forever grateful for everyone's time, patience, and belief that this project would be completed.

Table of Contents

1 INTRODUCTION

Higher education has become more mobile and international in the last few decades, and the number of students who study abroad is increasing rapidly. Higher education development from elite to mass and universal education in many countries has made higher education accessible for students with a greater variety of backgrounds (Trow, 1970). In addition, globalization and worldwide migration have increased the need for higher education that is inclusive of students with different backgrounds (Banks and Banks, 2013). As a result, the share of immigrant and international students in Norway pursuing higher education has increased, along with different forms of migration, including international student mobility (SSB, 2019). The Organization for Economic Co-operation and Development (OECD) reports that the number of students studying in higher education institutions outside their home countries increased from 2.1 million in 2000, to more than 6.1 million in 2018, including both degree-seeking students and exchange students (Wiers-Jenssen, 2022).

International students are invaluable for Norway as they not only contribute to future recruitment but also play an important role in quality enhancement of higher education and are thus considered a resource for potential employees (DIKU, 2019b). Norway experienced a noticeable increase in international students because of political initiatives developed to support the internationalization of higher education. According to Weirs-Jennsen (2020), the number of international students registered in Norwegian higher education institutions has increased from just over 5,000 in 2000 to more than 23,000 in 2018. In Norway, exchange students and degree-seeking students are the two main groups of international students. The first group is those coming to Norway to complete a full degree, while the latter come to Norway for one or two semesters as part of a degree program affiliated with their home country. Until recently, all public universities and colleges in Norway were tuition-free for all students regardless of country of origin, and students are still only permitted to work part-time in addition to their studies. Because of these two reasons, Norway has been an attractive study destination for international students (OECD, 2019), especially those obtaining a master's degree, as these programs are available in English. Among all international students in Norway, at the bachelor's level, only 24% are degree students, while at the master's level, 83% are degree students (DIKU, 2019). However, the Norwegian government has introduced tuition fees for students who come from countries outside the EEA to take a full degree in Norway. This means that exchange students are excluded. This decision is taken in spite of the fact that there was an

agreement on continuing the policies on enhancing internationalization at home and attracting new students from different parts of the world (Meld. St. 7 (2020–2021).

This decision applies to those students who apply for taking a full degree in Norway and exchange students are excluded. This can lead to a reduction in the number of international students in Norway, like Sweden that experienced a 60% decline in the number of international students in the first year of adopting tuition fees for students from countries outside the European Economic Area (EEA) and Switzerland (Nilsson and Westin,2022), and consequently will affect the internationalization of education.

International students are a component of internationalization across campuses and significantly influence prestige, general reputation, and cultural enhancement (Beine et al., 2014; Forbes-Mewett, 2016). Furthermore, international students can become ambassadors of the host countries if they go to another country or return to their home countries (Pandit, 2007).

International students are of particular interest because—whether they relocate for educational or personal purposes—they are especially vulnerable while adapting to the new environment (Forbes-Mewett, 2020). International students' vulnerability is in relation to being away from traditional family support, adapting to a different culture, study pressures and loneliness, and psychological well-being/mental health (Forbes-Mewett, 2019; 2020). Also, international students usually cope with challenges and stress while trying to be interculturally adjusted. This stressful process contributes to a higher risk of vulnerable mental and emotional states for international students (Gan and Forbes-Mewett, 2019), mainly because many first-year students experience transitioning to higher education as challenging and lack feelings of belonging to an educational institution (Tinto, 1993). Vincent Tinto is an essential contributor to research that looks at students' experiences in higher education and has acknowledged that new students must be socially and academically integrated at the educational institution (Tinto 1993). According to Tinto's research, becoming socially and academically integrated means that students become part of the educational institution through social interaction within the academic environment.

How international students experience the academic and social environment in the Norwegian higher education system can be important when many new students arrive each year. This thesis considers academic and social integration and how international students can be understood as integrated, as the starting point, before detailing Tinto's (1993) foundational theory of student integration. Then, previous empirical studies applying this theory in relation to students' experiences and social interaction at educational institutions are reviewed. Finally, the research

overview provides arguments for examining how international students experience the academic and social environment and how well they are integrated at Norwegian universities.

1.1 The Research Problem

As the number of international students at Norwegian universities has risen in the last decade (Sin, Antonowicz, and Wiers-Jenssen 2019), it is important to investigate different dimensions of their experience and find out about the adjustment process to the new environment with other social, cultural, and academic characteristics. Understanding the international student experience is especially crucial as such students benefit both the host and home countries and academic institutions.

International students from different academic and personal backgrounds come to Norway to study at higher education institutions. However, adjusting to a new educational and social environment has challenges and problems that can lead to homesickness, stress, anxiety, and depression for international students (Tochkov et al., 2010). Therefore, supporting international students to transition and adjust to Norwegian higher education is important. For this purpose, it is crucial to address the main factors that can contribute to facilitating the student experience.

This study examines international students' experiences with academic and social adjustment to the Norwegian higher education system. Considering the rapid increase in international student enrollment at many universities and the lack of academic and social integration knowledge, it is significant to look at international students' experience. Moreover, considering the introduction of tuition fees for some international students, there might be new expectations about what institutions do to assist students' academic and social integration.

This thesis examines the international students' experience in universities which aim to develop internationalization initiatives and looks forward to attracting more international students.

1.2 Research Aims and Questions

With the increasing number of incoming students to Norway (Sin, Antonowicz, and Wiers-Jenssen 2019), higher education institutions must understand the students' experiences. Documentation of students' experiences can provide both higher education institutions and students with valuable perspectives, which will enhance the quality of higher education in the broadest sense. Moreover, this line of research has important implications for higher education institutions to strengthen internationalization by identifying what supports international students need while integrating into a new educational environment and for internationalization policy in higher education. Finally, including international students' voices gives policymakers

and educators a deeper understanding of international students' lived experiences in Norwegian universities to inform policy decisions.

This thesis assesses three dimensions of adjustment (Academic, Social, and Emotional/Psychological) of international university students in Norway. The relationship between international students' academic and social adjustment and their background characteristics such as age, gender, level of education, university, faculty or field of study, time being in Norway, and their interaction with faculty is assessed in this study. This study contributes to understanding the impact of higher education institutions' environment on the adaptation process of international students. This study aims to focus on both the international student's experience of their student life, as well as gaining an understanding of the academic and social environment in which students participate. Gaining insight into the international students' academic and social experience can provide valuable information for both international students and academics to improve the academic experiences of international students and facilitate the student's academic and social adjustment at Norwegian higher education institutions.

This study addresses the research aims via quantitative analysis of questionnaire data to measure the relationship between focused variables and answer the following research questions:

RQ1. Is there a relationship between students' background characteristics (e.g., age, gender, level of study, time being in Norway, and field of study) and adjustment to the university?

RQ2. Is there a relationship between students' interaction with faculty and adjustment to the university?

1.3 Definition of Terms and Concepts

1.3.1 International students

In this study, international students are undergraduate or graduate students enrolled in a Norwegian university but not Norwegian citizens during data collection. International students consist of two main groups: first group is full degree students who enrolled in higher education institutions to take their entire degree in Norway, and second group is exchange students registered at a university in their home country who come to Norway to take one or two semesters as a part of their degree in another country. This thesis focuses only on international full degree students, The top three fields of study for international students are (1) Natural

Science, (2) Arts and Humanities, and (3) Business and Economics. Eighty-three percent of international degree students are enrolled in master programs, The number of women is more than men in both exchange (61%) and full-degree students (51%) (Wiers-Jenssen, 2022).

1.3.2 Academic adjustment

Tinto (1987) defines academic integration as students' academic and intellectual performance, intellectual growth level, and connection with the academic setting. Baker and Siryk (1999) explained that academic adjustment is students' success in coping with the different educational characteristics demanded by the educational environment, including various aspects of motivation, application, and performance.

1.3.3 Social Adjustment

A student's social adjustment is broadly defined as the student "fitting in" to the social community of the academic environment and refers to student involvement in extracurricular activities, participation in student groups and university events, and interaction with peers and faculty (Tinto 1987, 1975). Baker and Siryk (1999) also define social adjustment as students' success in coping with social characteristics demanded by the institution inherent in social activities, interaction with others, and social environment.

1.4 Thesis Outline

This thesis is structured into seven chapters. Chapter one introduces the main topic, background information, and the research questions this study addresses. Chapter two reviews relevant empirical studies about academic adjustment and social adjustment. Chapter three presents the theoretical framework and the resulting conceptualizations of students' academic and social adjustment. Chapter four describes the overall methodology, including the research design, population and sampling, questionnaire design, data collection and analysis, ethical issues, and statistical hypotheses. Chapter five summarizes the study's main findings regarding relationships between background variables and adjustment. Chapter six discusses the practical implications, conceptual contributions, methodological contributions, limitations, and future directions. Finally, chapter five presents the conclusion, which will summarize the contents and main findings of this study.

2 LITERATURE REVIEW

According to Altbach & Knight (2007), higher education institutions develop their investment in internationalization by setting up English-taught programs, internationalizing curricula, and facilitating international students' accommodation in the new environment. Therefore, higher education institutions should pay more attention to supporting international students. Specifically, it is crucial to investigate how international students' individual characteristics correlate to their academic and social experiences in the academic environment.

Norway has experienced rapid growth in inward student mobility due to the implementation of internationalization policies. The ability to attend high-quality public higher education institutions at no or little cost, in English, and in a peaceful society makes Norway an attractive educational institution for international students, as evidenced by the 23,725 students in 2019 alone (Wiers-Jenssen, 2022). International students are seen as significant contributors to internationalizing campuses and enhancing the quality of higher education (Wiers-Jenssen, 2019). The following literature review covers empirical studies on students' academic and social adjustment. Afterward, literature on individual characteristics, specifically age, gender, and interaction with faculty that play an important role in student's academic and social adjustment process, are presented. Finally, this section will review studies on students' adjustment in the Norwegian academic context. The studies chosen for the literature review section are based on the relevancy to this study and focus on international students' adjustment to higher education institutions. This review of literature provides a comprehensive overview of the existing research on the topic, based on a thorough and systematic search strategy.

The search for literature began with the identification of key search terms and phrases, which were used to search a range of electronic databases, including google scholar and Oria. The search was further refined through the use of inclusion and exclusion criteria, to ensure that only relevant studies were included in the review.

2.1 Empirical Studies on Student Adjustment in the Academic Context

Research on student adjustment is broad and encompassed many areas of study. In the context of higher education institutions, student adjustment has been studied through its relation to study performance, academic success, and other various areas. The following section will discuss the academic adjustment impact on students' academic outcomes and the relationship between background characteristics and academic adjustment.

2.1.1 Academic adjustment

As study programs have become increasingly mobile and international (Brooks & Waters, 2010), students' integration into higher education institutions have gained more attention (Severiens & Schmidt, 2009). International students' integration has been a key interest of many studies in higher education as they play an important role in internationalization at home and the quality of education. Beelen (2014) acknowledges that, from the perspective of 'Internationalization at Home, the interaction between international and domestic students benefits both sides. This kind of focus has also received emphasis from agencies such as Diku also states that international classrooms can enhance learning outcomes and intercultural skills for both international and domestic students. Moreover, it helps students build international networks and social capital, which can be valuable for their future lives and careers (Diku, 2019).

A major study by Chrysikos et al. (2017) argues that students' social and academic experiences mainly determine their integration into higher education. In particular, students who could integrate better into the educational environment were more likely to complete their studies. Chrysikos et al. (2017) used Tinto's (1993) student integration theory as the main theory for their study, collected data using two questionnaires, and measured the social and academic integration of 991 first-year undergraduate students at the UK institution. This study considers students' Integration within the academic and social communities as an indicator of their persistence in university. Also, they found that students' interaction with university staff and faculty positively influenced retention and is one of the most important contributors to students' connection to the university and supports integration into the academic and social communities.

Ramsay, Jones, and Barker (2006) conducted research adopting a qualitative case study approach identifying ten international students studying in undergraduate and graduate programs. This study found that international students face different challenges while adapting to the new educational system. The findings of this study showed that international students—especially first-year students—experienced more problems than typical, mainly related to transitions, such as difficulty with academic work, social isolation, and support needs (Ramsay, Jones & Barker, 2006).

Much research regarding the presence of international students in higher education institutions has focused on the motivations of international students to study outside their countries, the

challenges and difficulties they face in their experience of studying abroad, their adjustment process to new cultures and academic systems, and their strategies for succeeding in their academic and personal life. Wu et al. (2015) provided a set of challenges international students face in the US and argued that universities should be prepared to meet international students' academic, social, and cultural needs. They adopted a qualitative case study approach and interviewed ten graduate and undergraduate students from different countries. The findings of their study revealed that international students faced academic challenges such as communication difficulties with professors, classmates, and university staff and consequently faced problems when engaging in different social activities and this led to social isolation of the international students. This study acknowledges that students use resources from the university to overcome these challenges. Therefore, it is crucial for universities, faculty, and staff to have a good understanding of student's challenges and needs to provide supportive services for them.

Previous research on international student integration has reported different factors linked to the student's academic integration. However, several previous studies show findings consistent with Tinto's model. For example, Bers & Smith's (1991) results show that social integration is an essential factor that positively influences students' academic integration. Furthermore, Mannan (2007) adopted Tinto's model and identified academic and social integration as two complementary components. According to Mannan's study, the level of students' integration into an academic environment can affect their academic outcomes.

However, Rienties, Beausaert, Grohnert, Niemantsverdriet, and Kommers (2012) conducted a cross-institutional comparison at five business schools in the Netherlands and argued that academic or social integration does not have a direct influence on students' academic achievement. Their study results indicated that international students' academic success is multi-faceted. Although the social integration level of international students with non-Western backgrounds was lower than other international students, they had similar study performance. This shows a negative relationship between students' social adjustment and study performance. Li (2017) also investigated the challenges and coping strategies of academic integration from Chinese students' perceptive. They found that regardless of the host country, Chinese students faced similar challenges and found that there is not necessarily a link between students' social integration and their academic achievement and adjustment.Several researchers consider social and academic integration as two separate forms of integration. Wilcox, Winn, and Fyvie-Gauld (2005) differentiated between social and academic integration and defined integration as social

8

relationships students develop at the educational institution. Wilcox, Winn, and Fyvie-Gauld (2005) conducted interviews with 34 first-year students and found that those students who had become socially integrated and made close friends received direct emotional support and buffering support in stressful situations from them. This study identified social integration as more important than academic integration and suggested that academic integration is related to educational institutions' staff. Therefore, academic staff support is important for students to build self-confidence within the academic environment.

Now that academic adjustment and its relation to background characteristics and social adjustment have been discussed (Winn and Fyvie-Gauld, 2005; Li, 2017, Rienties, Beausaert, Grohnert, Niemantsverdriet, and Kommers, 2012), the following will go further into students social adjustment.

2.1.2 Social Adjustment

Universities play a key role in developing meaningful intercultural interactions between international and domestic students (Vaccarino et al., 2021). De Wit (2013) highlights that "21st-century realities have magnified the importance of the global context globalization". Globalization brings the world closer, makes us more interconnected, and leads to growth in the interdependence of different groups. Hence, diversity is a reality, and it is essential to be interculturally competent to be able to have effective interactions with culturally diverse individuals. However, it is not enough to bring a mix of international students to make a university more internationalized and create spontaneous and meaningful intercultural interactions between international and domestic students or develop valuable intercultural communication skills and global perspectives from different backgrounds on a university campus (Leask, 2009). Welch (2002) points out that the main requirement for internationalizing universities is "genuine mutuality and reciprocal cultural relations within university internationalization activities is required" (p. 439), which can be achieved by integrating international and domestic students.

Volet and Ang (2012) state that one of the major aims of internationalizing higher education is to develop students' intercultural adaptability. The presence of international students on university campuses makes the learning environment a unique social forum that helps the students to achieve this goal. They examined the perception of 40 business students about working in multicultural groups while completing assignments and explored the effect of the formation of mixed cultural groups on students' academic achievements. This study argues that the presence of culturally diverse groups on international campuses provides both domestic and

international students with a unique opportunity to learn about each other's cultures and value systems. Their findings show that the social integration of international students has educational benefits and should not be underestimated.

Social integration of international students is a significant component of internationalization in higher education institutions. However, internationalization does not happen through simply recruiting international students and creating a culturally diverse student body to increase exposure to students from other countries. For this purpose, it is necessary to facilitate social interactions and intercultural friendships through well-planned interventions by higher education institutions (Spencer-Oatey & Dauber, 2015; Vaccarino et al., 2021).

Tinto (1975) defines social integration as the degree of harmony in the relationship between the individual and their social environments, such as students' informal affiliations with their peers, faculty, and staff, and engagement in extracurricular activities. A rich social life has a positive influence on students' social integration as well as their academic performance (Rienties et al., 2012).

In a review conducted by Zhang and Goodson (2011), sixty-four studies focused on predictors of international student adjustment were summarized. They reported stress, social support, English proficiency, region/country of origin, length of residence in the destination country, acculturation, social interaction with native people (American), self-efficacy, gender, and personality as the main predictors of international students' psychosocial adjustment.

To sum up, previous research shows that universities have a critical role in creating an environment to develop intercultural competence, understanding, and interactions between international and domestic students. In this process, the social integration of international students is one of the important elements and it is significant for universities to facilitate social interactions and intercultural friendships. The presence of international students on university campuses can provide valuable educational opportunities for both domestic and international students to learn about each other's cultures. Also, can positively influence their academic performance and psychosocial adjustment.

2.1.3 Student-Faculty Interaction

Prior research has demonstrated that student-faculty interaction plays an important role in students' experience in college (Kim & Sax, 2014; Mayhew et al., 2016). Pascarella and Terenzini (2005) state that the concept of student-faculty interactions is broadly assumed as the students' collective experiences with faculty in and out of the classroom and captures different

experiences, including interactions related to advising and discussions about research or critical topics or informal social activities. Previous research dominantly divided Interactions between students and faculty into two main domains: formal or in-class interactions and informal or out-of-class interactions. Both domains show positive relationships with student outcomes; however, out-of-class interactions have demonstrated a stronger influence on student retention (Terenzini & Pascarella (1980), Kim & Lundberg (2016).

Glass, Kociolek, Wongtrirat, Lynch, & Cong (2015) focused on educational experiences that positively influence international students learning and development. They identified student-faculty interaction as the most frequently mentioned high-impact experience among international students. Further, they acknowledged that the relationship between students and faculty significantly impacts international graduate students' experience. In this study, they took a qualitative approach to identify the motivational dynamics of international students' interactions with professors and their impact on students' academic goal pursuits. This study's findings highlight that international students are more adjusted to academic cultures when they are more socialized by professors. This study affirms the generally positive influence of professors on international students' academic and social adjustment.

Kim and Sax (2017) examined the effect of interaction between students and staff on students' educational experiences. The researchers found that interaction between students and staff positively impacts students' educational situation and increases their motivation and engagement in education. In addition, this study identified staff as important socializing agents, significantly influencing students' academic achievements and cognitive and personal development.

A study by Webber, Krylow, and Zhang (2013) examined the relationship between the frequency of students' involvement and students' academic outcomes and satisfaction with their college experience. This study found that interaction with faculty positively influences students' academic outcomes. The authors claim that when institutions create an environment where students can have an open dialogue with faculty and staff, students' collaborative learning techniques, academic knowledge, and personal and social skills will be developed. According to their findings, those students who were more involved in academic and social activities showed better learning outcomes as well as higher satisfaction with their college experience.

In sum, previous studies show that interaction between faculty and students influences students' experience in the academic environment, enhances learning outcomes, increases students' engagement in education, develops social skills, and improves their academic and social adjustment.

2.1.4 Background Characteristics and Adjustment

Many researchers assert the importance of demographic characteristics on students' adjustment. Jones (2013) investigated the effects of race and gender on the academic adjustment of first-time African American college students by conducting a mixed-method approach. Jones used four quantitative instruments for this research, including the Student Adjustment to College Questionnaire (SACQ), the Multidimensional Inventory of Black Identity, and the Personal Attributes Questionnaire. Additionally, Jones conducted focus group qualitative analyses for one male and one female. Jones (2013) found that gender identity is a major contributor to the students' overall interactions on campus and is a powerful construct in predicting educational attainment. Melendez (2016) found similar results when investigating the relationship between three independent variables, including race/ethnicity, gender, athletic participation, and academic adjustment; social adjustment; personal-emotional adjustment and institutional attachment. Participants were 162 college students from a large nonresidential college campus on the East coast of the United States, of which 102 were female (63%), and 60 were male (37%). Findings revealed a significant correlation between gender, academic adjustment, and institution attachment. Female students reported higher scores on the academic adjustment subscales of the SACQ than male students, but no significant findings were revealed for the social adjustment.

Another study that looks at adjustment difficulties experienced by international students was conducted by Shabeeb (1993). This study investigated adjustment challenges that Saudi Arabian students encounter in the US. This study was conducted quantitatively and employed the Michigan International Students Problem Inventory in six colleges and universities in eastern Washington. This study identified the difference between students' adjustment problems based on demographic characteristics such as gender, age, level of study, length of stay, and academic major. The findings of this study revealed that age, gender, level of study, and field of study have a significant relationship with Saudi Arabian students' adjustment. Shabeeb (1993) reported that students who stayed longer in the US faced more challenges than those with shorter stays. In addition, younger male students reported fewer academic adjustment problems. Also, the level and field of study were significantly related to international students'

adjustment, as undergraduate students encountered more problems than graduate students. Students in arts and humanities fields showed more difficulty adjusting than those who majored in science-related fields.

Enochs and Roland (2006) conducted a study to see how social adjustment is affected by gender in first-year students. They utilized the overall adjustment level and social adjustment scale to compare overall, and social adjustment levels based on gender. Their study reconfirmed differences in the adjustment level based on gender and that males were found to have significantly higher overall adjustment levels than females in the college environment.

Similarly, Calaguas (2011) also investigated the differences in adjustment difficulties between males and females and the relationship between adjustment difficulties and age. They analyzed data collected from 470 first-year college students who participated in the survey and concluded that there is a significant relationship between adjustment difficulties and gender. Furthermore, males showed a lower level of adjustment than females, and there was a significant relationship between academic adjustment difficulties and age. They state this can be because as people get older, they are expected to be more responsible and do better, especially at the tertiary level.

Another study relevant to demographic characteristics and adjustment to the academic environment was conducted by Toews and Yazedjian (2007). They investigated the impact of personal and interpersonal factors, including age, gender, parental education level, and college major, on college adjustment among first-year students. They found that personal and interpersonal factors are moderate predictors of overall adjustment among all groups and that predictors of college adjustment differ based on race and gender.

When discussing background characteristics and students' adjustment, Stuart (2000) investigated locus of control, psychological adjustment, and overall adjustment to college among international students in respect to age and gender. He surveyed 75 international students on the student adjustment to collage questionnaire and a demographic questionnaire. He found no difference between males and females, nor younger and older students, with regard to overall adjustment to college.

Another study with relevance to the relationship between background characteristics and student adjustment was conducted by Mustaffa and Ilias (2013). They investigated a group of demographic factors that could affect the process of international students' adjustment at the University of Utara Malaysia. This study reported that the level of education is one of the background characteristics that contribute significantly to the sociocultural adjustment of

international students. In this study, Mustaffa and Ilias (2013) found that master's and PhD students had an easier time adjusting than undergraduate students, as evidenced by the statistically significant relationship between the students' level of education and cross-cultural adjustment.

Another study that looks at international students' adjustment was done by Wang (2003) to investigate relationships between international graduate students' resilience characteristics and background factors and their adjustment problems. To identify the background characteristics that significantly predict students' adjustment, in this study, 289 international students enrolled in two American universities responded to the Personal Resilience Questionnaire and the Michigan International Student Problem Inventory. The findings of this study revealed that background characteristics, including gender, major field of study, and level of education, are not significant factors in predicting international students' adjustment problem areas.

In sum, previous research on background characteristics and students adjustment to higher education environment show that background characteristics can have different influence on students adjustment in different contexts. Some studies showed background characteristics have a significant relationship with student's adjustment. However, other studies identified age, gender, level of study, and field of study are not significant factors in predicting international students' adjustment challenges.

2.1.5 International Students in Norway

Within the Scandinavian context, Jensen et al. (2018) examined Danish and Norwegian first-year students' experiences in mathematics and science subjects and investigated how they understood their experiences by applying Expectancy-Value Theory and Tinto's theory. Jensen et al. (2018) defined social integration as the point where students are integrated into the informal social environment, how students relate to each other, and their experience fitting into the study program's social culture. Conversely, academic integration is defined as how interesting courses for the students are, how students mastering the academic challenges, how students' perceived match between themselves, and the pace and requirements and identified with the norms and cultures of the educational institution.

In their study examining international students' academic and social integration in Norway, Hauge and Pedersen (2018) found that the level of academic and social interactions between Norwegian students and international students is relatively low. In this study, they cited student surveys and government reports, including the three white papers that mention academic and

social integration of international students as a concern (e.g., p. 51-52 in St.meld. nr 14. 2008-2009; p. 65 in Meld. St. 16 2016-2017). According to Hauge and Pedersen's (2018) findings, less than 20% of Norwegian students participate in activities with international students, and international students are not well integrated. The authors claim that international students are considered a resource in improving internationalization at Norwegian higher education institutions. Still, they are underused, and there is much room for improvement in international students' integration.

In conclusion, the studies by Jensen et al. (2018) and Hauge and Pedersen (2018) shed light on the importance of academic and social integration of international students in the Scandinavian context. Jensen et al.'s study focused on both social and academic integration in first-year students' experiences and their overall success in their study programs. On the other hand, Hauge and Pedersen's study highlighted the low levels of academic and social interactions between Norwegian students and international students. According to their findings there is a need for more efforts towards improving the integration of international students in Norwegian higher education institutions.

3 THEORETICAL FRAMEWORK FOR UNDERSTANDING STUDENTS' ACADEMIC AND SOCIAL EXPERIENCE

Thus far, this thesis has presented a literature review on students' academic and social adjustment to the academic environment. Since the study aims to look at the relationships of age, gender, interaction with faculty, and students' academic and social experience, this chapter will focus on previous research in these areas. In this thesis, two different theoretical approaches are combined to develop a comprehensive theoretical framework to examine the international students' experiences during their studies: Tinto's (1993) Academic and Social Integration theory, and Astin's (1984) Theory of Involvement. The two approaches complement each other in our attempts to understand the factors contributing to students' adjustment to the academic environment, as they highlight different aspects of students' integration into higher education and their consideration about how to proceed. To get a better understanding of the effect of interaction with faculty on student's adjustment to the academic environment, and a better conceptualization of the theoretical framework of this study, Astin's (1984) Theory of involvement will be presented in this section. At the end, a brief conclusion along with the way that these theories are related to the research aims will be presented.

3.1 Tinto's (1993) Theory of Student Attrition

A key theory guiding student integration research is a well-known model proposed by Tinto (1975, 1993) that has built on Spady's (1970, 1971) work to explore the dropout process of students. Academic and social integration of students into college or university is the core concept of this longitudinal model and explains the complex interactions of factors that affect students' academic integration. According to Tinto's revised Student Integration Model (1997), students bring background characteristics and individual attributes such as family and community backgrounds, educational experiences and achievements, skills, and value orientations when they enter higher education institutions. These individual characteristics create students' educational expectations and commitments. It suggests that the decision to drop out results from a low level of academic integration into higher education and a higher level of commitment to the HEI; and the goal of completing college comes from a high degree of student integration into the institution.

FIGURE 1

Tinto's revised model of student attrition
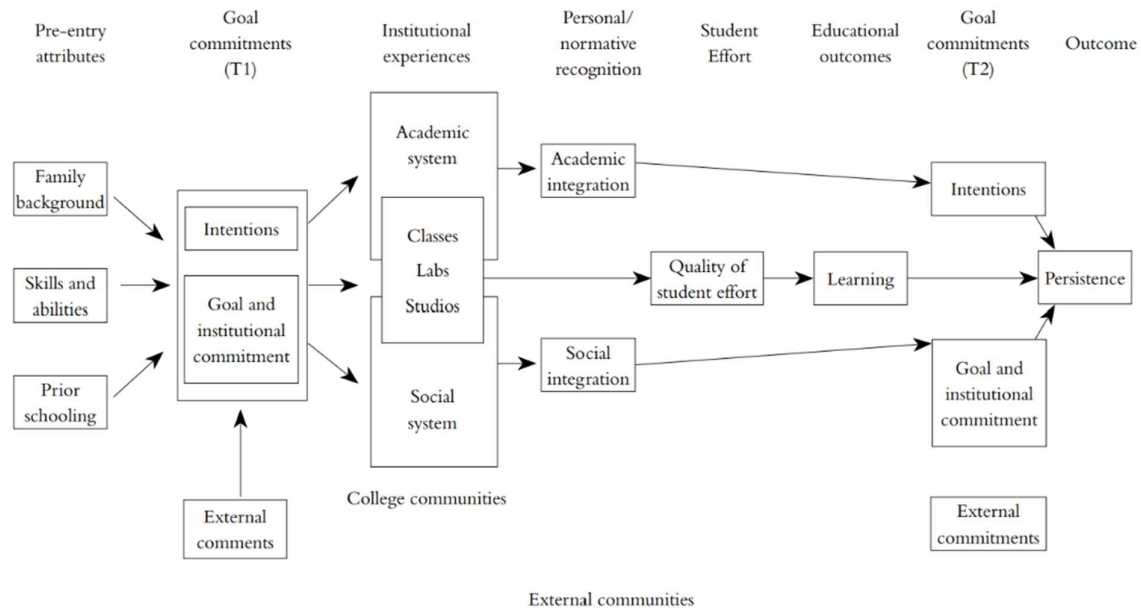
Source: McCubbin (2003, p. 11)

Overall, Tinto's theory provides a framework for understanding how different aspects of the students' experience affect students' college retention and success. Tinto stressed the importance of student-faculty interaction as a significant factor in student retention, referring to its positive influence on increasing social and academic integration. To define student-faculty interaction, according to Pascarella & Terenzini (1977), all in-person contact between students and professors/instructors outside of scheduled class time is considered student-faculty interaction.

3.2 Astin's Theory of Involvement

Astin's (1984) *Theory of Involvement* adds to Tinto's theory. The core concept of this theory is that students' involvement is directly linked to how much of the students' physical and psychological energy and efforts are used in the academic experience. (Astin, 1984).

Pascarella and Trenzini (2005) noted that Tinto's and Astin's (1984) theories are similar in their fundamental dynamics to present an explicit, longitudinal, and interactional model. The only difference is that Tinto (1975, 1987, 1993) focuses specifically on the process of students withdrawing from college. However, Astin emphasized the importance of quality of involvement and, in contrast to other theories, considers students as active participants

responsible for their involvement in education. Furthermore, he asserted that more interaction with faculty and peers leads to students' more academic and social involvement.

According to Astin's theory, student involvement is defined by the amount of physical and psychological energy utilized for academic experience and students' behaviors. Astin (1984) argues that students' mental and physical engagement in interactions with faculty directly influences students' adjustment. Different interactions such as course or career-related conversations, socializing interactions, and personal matter conversations are among the most often distinguished interactions. Astin (1984) highlights that both academic and social aspects of students' experience at academic environment are important since both aspects affect their learning outcomes. He argues that students with a higher level of involvement usually devote more time and energy to activities on campus with academics and have more interaction with faculty.

Astin (1984) recognized student-faculty interaction as one of the involvement forms that play an important role in college adjustment. Academic involvement has a positive relationship with students' adjustment, but it should be at a certain level. Those students who spend most of their time just on academic tasks and stay away from social activities become isolated from other students and consequently cannot develop their social adjustment (Tinto, 1975, Astin, 1984).

Astin refers to students' background and family characteristics, attributes, and experiences as "input" and argues that these inputs influence the outcomes directly and through students' engagement with the institutional environment. For example, Astin (1984) argues that students who are more involved in the academic and social aspects of the college experience (i.e., spending more time and energy on campus interacting with faculty members and in extra-curricular activities) see greater learning outcomes.

Tinto's model distinguishes between academic and social integration. Academic integration is mainly determined by a student's academic performance and level of intellectual development. Academic integration takes place when students socialize with the academic context of the study program and focuses on the subject matter addressed, the types of teaching activities, students' identification with the standards of the academic system as well as the degree of student's compliance with the instructions and requirements of the academic system (Tinto, 1975). In terms of social integration, the quality of students' interactions with faculty and their peer-group interactions are the primary components. However, Tinto suggests students' interactions with faculty may also enhance academic integration.

Academic adjustment and integration are considered two complementary perspectives and are often used interchangeably. However, as there are unclear theoretical groundings and insufficient definitions for academic adjustment and integration, a multitude of interpretations have been suggested for these two concepts, and the overlap of "academic integration" and "academic adjustment" has been obscured (Willems et al., 2021).

Tinto's concept of academic integration is described as a "sense of belonging" throughout the transition to higher education by Wolf-Wendel et al. (2009), and Hausmann et al. (2007) defined it as a sense of acceptance and fitting the higher education institution community and being a valued member of it. This aligns with an important idea expressed by Braxton (2000), who defines social and academic integration as the psychological result of interactions with the institutional systems (p. 63). So, theoretically, we can make a difference between academic adjustment and integration. According to Baker and Siryk (1984), academic adjustment is a process wherein students modify the attitudes and behaviors that enable them to acquire the academic requirements they encounter during the first semester of their higher education. According to Tinto's theory, the academic adjustment process leads to a state of being at a certain point in time. This psychological outcome, called academic integration, is based on how students perceive and feel their experience in the new higher education environment (Wolf-Wendel et al., 2009). Based on this argument, academic adjustment and integration are considered two perspectives that complement each other, comprising components such as students' perception of fit with the new HE sphere, feeling supported and prepared (integration), and the active process of adapting to the new behaviors and attitudes required for adjusting to the new HE environment (Willems et al., 2021).

The two approaches complement each other in this study to understand different aspects of the academic experience of international students and integration into the new higher education environment.

3.3 Hypotheses Following the Theoretical Framework

The first hypothesis derived from the theoretical framework is that there would be a correlation between students' background characteristics (i.e., gender, age), which exist in students before entering the higher education institution, with academic and social adjustment. According to Tinto's student integration theory (1975, 1993), individual personal characteristics affect students' adjustment to the academic environment. Therefore, students from different age ranges would show different academic and social adjustment levels. Furthermore, Tinto (1975) consider students' age and sex as two factors that appear to be related to the student's academic

and social adjustment. Considering the discussed models, in this thesis, the relation between students' social and academic adjustment levels and students' background characteristics, including age, gender, education level, the field of study, and time spent in Norway, were examined.

The second hypothesis derived from the theoretical framework is that there would be a positive correlation between the level of interaction with faculty and students' social and academic adjustment to higher education institutions. According to Astin's theory of involvement, the more interaction between students and faculty on campus, the better students' social and academic adjustment to the higher education institution. Developed from the theoretical framework, which is based on Tinto's student integration model and Astin's involvement theory, the hypothesis is that the more student interacts with faculty, the better social and academic integration will have with the academic environment at the higher education institution.

4 METHODOLOGY

This study uses a quantitative approach to give objective insight into international students' academic and social experiences. A quantitative approach facilitates the statistical aggregation of collected data and presents broad, generalizable, brief, and clear findings (Patton, 2002).

Specifically, this study applied multiple simple regressions to explore the relationship between students' background characteristics and academic and social experience in Norwegian universities. The following chapter presents the methodological approach and discusses the research design, sampling method, questionnaire design, hypotheses, data collection, and analysis, followed by information on reliability and validity and potential limitations.

4.1 Research Design

The current thesis employs a cross-sectional design to collect data at a specific point in time via a self-completion online survey. According to Bryman (2012), The cross-sectional survey approach makes it possible for the researcher to use more than one case, describe the nature of existing conditions, identify the possible correlation between the focused variables, the strength of correlation, pattern of association, and the significance level. The characteristics of a quantitative cross-sectional study mentioned above are required and consistent when exploring the academic and social experience of international students while adapting to a new educational environment.

4.2 Participants

This study's population is international students currently enrolled in two public universities in Norway, university of Agder and university of Stavanger, to take a full degree at either the bachelor's or master's level. The two universities chosen for this research are young universities located in southern part of Norway. While students on short exchange programs are important, their motivation and adjustment process likely look different; hence they are excluded. This thesis aims to look directly at one specific group of students, international students in public universities in Norway. One of the benefits of choosing only the Norwegian public university context is that students generally do not pay tuition fees, so we can highlight relationships that exist outside of socioeconomic factors. International students in private Norwegian universities are omitted since they pay tuition fees, and this possibly affects their experiences.

Out of necessity, the current study used convenience sampling--a non-probability sampling technique commonly employed in quantitative social research due to accessibility and convenience but limiting the ability to generalize findings beyond the current sample (Bryman,

2012). The researcher contacted the international student office at five Norwegian public universities: the Arctic University of Norway (UiT), the Norwegian University of Science and Technology (NTNU), the University of Agder (UiA), the University of Bergen (UiB), and the University of Oslo (UiO). Universities have very restrictive policies regarding student survey research, so only UiA and UiS agreed to participate. International students at both universities received the survey via email on November 4th, followed by a reminder email on November 11th. The survey was open for voluntary participation between November 4th and 15th.

4.3 Measures

 Following Sikt[1]'s regulations (see Appendix D), the first part of the questionnaire presented respondents with general information about the research, an explanation of how the data will be handled and stored, and a consent letter requiring individuals' electronic consent to move forward. After, participants completed a demographic questionnaire regarding their age, gender, field of study, level of study (degree), and time spent in Norway. Then, students received a portion of two validated questionnaires related to their experience at the university and with faulty, as explained below. Data was collected through Nettskjema, a secure and private questionnaire platform.

4.3.1 Demographic Characteristics

After consent was given, students were asked to answer the following: gender (female, male, other, prefer not to say), age (18-24 years old, 25-30 years old, 31-35 years old, 36 or older), level of education (bachelor's, master's, other), Time spent in Norway (less than six months, 6-12 month, more than 1 year, more than 2 years), and faculty enrolled in (see Appendix B). These were used as the components for students' background characteristics (Table 3,4).

4.3.2 Academic and Social Experience

As students' academic and social experience has received a considerable amount of academic attention throughout the years, there are several scales for measuring different dimensions of student experience. Among the existing scales, this study uses "The College Adjustment Questionnaire (CAQ) by O'Donnell et al. (2018), which is short, accessible, user-friendly, reliable and representative of the variables being under investigation. The CAQ consists of 14 self-rating responses scored on a 5-point Likert scale from, 'Very Inaccurate' to 'Very

---

[1]Sikt, Strukturendring i kunnskapssektoren
NSD, Norsk Senter for Forskningsdata
From 1 January 2022 NSD is a part of Sikt- The knowledge sector's service provider

Accurate' that examines how students adjust to their university environment (O'Donnell et al., 2018), for example, "I am succeeding academically" and "I am satisfied with my social relationships." O'Donnell and colleagues (2018) report the overall reliability of the CAQ as 0.82. Indiana University granted the license to use the CAQ for this research (see Appendix A).

4.3.3 Reliability

Reliability is concerned with the instruments' consistency and determines whether the measure produces the same outcome when done again. Reliability includes three areas: stability, internal reliability, and inter-observer reliability (Bryman, 2012). Stability is not applicable to this study because to determine stability, the measure should be repeated over time through the test-retest method (Bryman, 2012). Due to the limited time to conduct this quantitative study, conducting a test-retest method was extremely difficult. The second area is internal reliability which can be tested by Cronbach's alpha (Bryman, 2012). For this study, Cronbach's alpha was used to assess the internal reliability of the scales. According to Bryman (2012), Cronbach's alpha coefficient ranges from 0 (no internal reliability) to 1 (perfect internal reliability). Computing Cronbach's alpha determines the correlation of items in the scale and the researcher can identify and remove those items that have little correlation with the total scale. The higher coefficient, the more reliable the scale is. 0.8 is most employed as the acceptable level. The reliability tests of all the scales used in this study are presented in chapter five. Lastly, inter-observer consistency addresses the issue of subjective judgment which might be involved in recording the data by the researcher (Bryman, 2012). Since this study is a cross-sectional survey design and uses an online self-completion questionnaire as the research instrument, there is little chance of subjective judgment to record and analyze statistical data.

Additionally, using a self-report survey for collecting data can have the risk of bias among the respondents. First, there is a possibility of misinterpretation of questions by respondents. Moreover, self-reports are subject to bias in terms of introspective ability and interpretation of questions. All respondents may not be able to assess themselves accurately or interpret the questions correctly and in the same way as others. The questions may have different meanings to different respondents. Another limitation of self-reports is that respondents can be biased and answer the way they think the researcher wants them to or make them more socially acceptable responses instead of being honest.

The CAQ includes three functional subscales: Educational Functioning, Relational Functioning, and Psychological Functioning. Educational Functioning assesses things like class performance and therefore is a valid measure of Academic Adjustment. Relational Functioning assesses social life, connectedness, and interpersonal relationships, as a measure of Social Adjustment. Psychological Functioning assesses individual feelings about the college experience, for example handling stress, and therefore discusses Emotional Adjustment. Five items on this scale are reverse coded, including items 2, 8, 9, 11, and 13. Question 13 belongs to the academic adjustment subscale, questions 2 and 9 are from the social adjustment subscale, and questions 8 and 11 are in the psychological adjustment subscale. O'Donnell and colleagues (2018) report the individual subscale reliabilities as 0.89, 0.84, and 0.78 respectively.

4.3.4 Validity

Validity is concerned with the consistency of measures and whether an indicator really measures the concept it claims it's measuring. There are different ways to establish validity in social research (Bryman, 2012). In this study, construct validity, content validity, and external validity will be addressed. According to Bryman (2012), to measure construct validity in the present study, it is required to determine whether the Likert scales that measure dimensions of student's academic and social adjustment are actually measuring what they were supposed to measure. This study used a Likert scale, which is a multiple indicator to measure a concept by a multiple-item measure and through developing hypotheses based on the existing theories and previous research conducted in the relevant field of students' academic and social adjustment to higher education institutions (Bryman, 2012). The CAQ and CSEQ have been used in empirical studies (see chapter 2) that addressed similar topics. Content validity shows the degree to which indicators or tests evaluate all aspects of a concept (de Vaus, 2014). As this study aims to look at the relationship between age, gender, interaction with faculty and students' academic and social experience each scale adequately represents each of the aims. Interaction with faculty is measured by the "Experiences with Faculty" section of (CSEQ), different dimensions of academic and social adjustment by (CAQ).

External validity is also very significant in quantitative research especially with cross sectional and case studies (Bryman, 2012). External validity mainly concerns about how a study can be generalizable to outside of the current context of the study. As this study employed a convenience sampling strategy, there is not much external validity for this study and the findings cannot be generalized to a wider population of international students. Secondly, the ecological validity that according to Bryman (2012) addresses how well the findings are

applicable to the people's every day, natural social setting. The ecological validity of this study may be poor because of using a self-completion questionnaire as the research instrument. The issue with the questionnaire that acquires data from participants is that it is not possible to find out the difference between the participants' behavior in the experiment setting and their real-life (Bryman, 2012).

4.3.5 Student-Faculty Interaction

The second instrument used in this study is "College Students Experiences Questionnaire" (CSEQ) developed by Pace and Kuh (1989). The (CSEQ) is a self-reporting instrument which consists of 85 items and collects information about the student's background, college activities, the college environment, and estimate of gains. In this thesis, only the "Experiences with Faculty" section was used to assess the frequencies of different types of Student-faculty interactions. This section of the (CSEQ) made up of 10 items that were measured through a 4-point Likert scale, from "Very often "to "Never". None of the questions were reverse-coded in this section. The license use of the CSEQ for this research has been granted by Indiana University (see Appendix B).

4.4. Instrument

International Students' Academic and Social Experience Questionnaire (ISASEQ) is the scale used for this thesis. The reliability of the ISASEQ was determined by measuring internal consistency. The result of this analysis is shown in Table 1. The Cronbach's Alpha scores for all the adjustment sub-scales and the overall reliability of the scale are presented. It indicates high internal consistency for the instrument as a whole and within its' sub-scales separately.

Table 1

ISASEQ Reliability

Scale	Chronbach's Alpha	Number of Items
Overall CAQ Reliability	0.89	14
Educational Functioning	0.83	5
Relational Functioning	0.90	5
Psychological Funcitoning	0.81	4
Overall ISASEQ Relaibiity	0.87	30
CSEQ	0.80	10

4.4 Ethical Considerations

For conducting a social study that involves human subjects, it is essential to consider ethical issues. Prior to collecting data, an approval letter was obtained from the Sikt to ensure that ethical considerations are followed. The questionnaire was designed in the authorized data collection platform, Nettskjema. Using the quantitative approach helped the researcher to keep an objective distance from the topic, which is especially important due to my own experiences as an international student in Norway.

First, voluntary participation and informed consent should be considered (de Vaus, 2014). For this study, the decision to complete the online questionnaire was by each individual who received the invitation link, without any force or reward. The survey invitation was sent via email and participants had the choice to click and complete it. An information-consent letter was at the beginning of the questionnaire and participants had to consent (see Appendix I) electronically before they proceed forward. Detailed information about the aim of the study, the questionnaire, responsible parties, and how the data will be used and stored were presented on the front page of the online survey. At the end of the questionnaire, to make sure that each participant submitted in their own willingness, a submit button was added that participants had to click on it to complete the questionnaire.

Other ethical issue that should be taken into consideration are no harm to participants, participants' privacy, Anonymity (de Vaus, 2014). It is important to note that this study obtained an approval letter from the Norsk Senter for Forskningsdata (NSD) (see Appendix D). This ensured that no harm comes to the participants during this study. Regarding anonymity, all personal identifiers is removed, and participants' identity could not be traced back. Besides, data was collected through Nettskjema which is an authorized online service for data collection (Nettskjema.no, 2022). Privacy of participants is guaranteed as Nettskjema automatically coded each participants' submission. Therefore, participants' identity was not recognizable. All the collected data was deleted at the end of project.

4.6 Data Collection and Analysis

Data was collected during the fall semester of 2022 through an online questionnaire. The survey was sent through international office to 298 international students at UiA and 1557 international students at UiS. Survey invitations were open for participants specifically from November 4th, 2022 – November 15th, 2022. The questionnaire was constructed in Nettskjema where the data

was collected. Table 2 shows the target population and respondents. Overall response rate in the sample presented here is 7 %, which is relatively low.

Table 2

Number of international students who answered the ISASEQ questionnaire in UiA and UiS, total target population in both universities (in parentheses), and response rates.

	UiA respondents (total population)	UiS respondents (total population)	Total UiA + UiS respondents (total population)
	298(14096)	1557(12000)	1855(26096)
	36	94	130
Response rate (%)	12%	6%	7%

4.6.1 Data Preparation and Cleaning

Raw data from Nettskjema was not amenable for statistical analysis and required extensive cleaning. After importing the data from Nettskjema, Stata MP17 was used for analysis. Given the small cell sizes across many university faculties, I categorized faculties into overarching fields by combining the Faculty of Arts and Education, Faculty of Fine Arts, Faculty of Humanities and Education into the field *Humanities, Education, and Arts*. Similarly, Faculty of Engineering and Science, Faculty of Science and Technology became Science and Technology and School of Business and Law, UiS Business School became Business as a field. Consequently, five fields were compared.

Then, the reversed items flipped before calculating the average of the scales, and the average of each subscale was created as a new variable to be used for conducting regressions. Furthermore, items 2,8,9,1,13 in the CAQ scale were reversed items, thus their values flipped before calculating the average of the scale.

Data was checked for missing values and three missing values founded and removed before calculating the average of the scales.

Finally, averages were calculated for the CAQ and its' three subscales including academic adjustment, social adjustment and psychological adjustment and the average for CSEQ, and the data was ready for some actual statistics.

4.6.2 Statistical Analysis

To answer research question 1 descriptive statistics analysis (mean, standard deviation) has been used and the relationship between each of the focused background characteristics and adjustment sub-scales has been analyzed using simple regressions.

For research question 2, the relationship between the student's interaction with faculty (independent variable) and students' adjustment (dependent variable) has been analyzed using regression analysis. Multiple regressions were conducted to determine the participants' academic and social adjustment level and to find out if the relationship between each of the independent variables (age, gender, time being in Norway, level of education, faculty, and interaction with faculty) and the academic and social adjustment dimensions is statistically significant or not (see Appendix G).

5. RESULTS

This chapter covers the main findings of the collected quantitative data in three main sections. First, the description of demographic characteristics of the data will be presented. Then, the reliability of the survey scales is presented. The last section focuses on the hypothesis test on each of the hypotheses and the results of correlation and group differences. The correlation analysis presented in this section aimed to reveal the relationships between the three adjustment factors, educational, functional, and psychological adjustments, and the international students' interaction with faculty. A Stata regression output is used to show the relationship between the subscales of CAQ, and independent variables, age, gender, degree, time in Norway, faculty, and interaction with faculty.

5.1 Descriptive Statistics

To provide a description of the participants' demographic information related to the research, descriptive statistics analysis is presented in this section. The collected data had a total of 130 participants.

In this research, five background characteristics were investigated: gender, age, level of education (degree), field of study, and time being in Norway. In the following section, the demographic characteristics of the respondents are presented.

5.1.1 Background Characteristics

Table 3 and Table 4 show the descriptive statistics related to participants' gender. As presented in the table, although the number of female respondents is more than the male respondents, the difference is not large. Out of 130 respondents, 55 individuals (42%) listed themselves as male and 73 individual (55.7%) identified their gender as female, 1(0.8%) responded other and 2 (1.5%) responded prefer not to say. This is similar to the gender differences we see in Norwegian universities at large, where 60% of the students' population is female and 40% is male (Statistics Norway [SSB], 2021a). Also, close to the gender differences in international students in Norway where 55% of the students' population is female and 45% is male.

Participants' age is categorized into four groups. Nearly 35 % of the participants (n=45) were at the age of 18-24. The majority of the participants (39.7%, n=52) were at the age of 25 to 30 years old. Almost 16% (n =21) of the participants were at the age of 31 to 35 years old, and nearly 10% (n =13) at the age of 36 years or older. This is also close to the trend in Norwegian universities at large where we see 22% at age of over 30 years old. (Statistics Norway [SSB], 2021b) .

According to Table 4, a total number of 113 full degree students participated and the respondents include 25 bachelor's students and 95 master's degree students, counting for approximately19% bachelor's students and 72.5 % master's students. The majority of the respondents (56.5 %, n=74) have been in Norway for less than six months. Nearly 7% (n=9) of them have been in Norway for six to twelve months, more than 22% (n=29) of them for more than one year, and 14.5% (n= 19) for more than two years.

Table 3

Participant Demographics, University of Agder

	University of Agder				
	Engineering and Science	Fine Arts	Humanities and Education	School of Business and Law	Social Sciences
All Students	5	2	19	3	11
Gender					
Female	2	1	15	1	8
Male	3	1	4	2	3
Age					
18-24	1	2	10	0	5
25-30	4	0	7	2	2
31-35	0	0	0	1	3
36+	0	0	2	0	1
Degree Level					
Bachelor	1	2	13	0	2
Master	4	0	6	3	9
Time in Norway					
Less than 6 months	5	1	10	3	8
6-12 Months	0	0	0	0	1
More than 1 Year	0	1	5	0	2
More than 2 Years	0	0	4	0	0

Table 4

Participant Demographics, University of Stavanger

	University of Stavanger				Total
	Business School	Science and Technology	Arts and Education	Health Sciences	
All Students	26	37	4	6	113
Gender					
Female	17	14	3	3	64
Male	9	23	1	3	49
Age					
18-24	5	12	0	0	35
25-30	12	17	1	2	47
31-35	8	5	0	1	18
36+	1	3	3	3	13
Degree Level					
Bachelor	2	1	1	0	22
Master	24	36	3	6	91
Time in Norway					
Less than 6 months	11	17	1	4	60
6-12 Months	1	3	1	1	7
More than 1 Year	8	10	1	0	28
More than 2 Years	6	7	1	0	18

The International Students' Academic and Social Experience Questionnaire (ISASEQ) in the current study consisted of 4 subscales, made up of 30 items. As it is presented in Table 5 the sub-scales in the current study consisted of Educational Functioning (Cronbach's Alpha = 0.83), Relational Functioning (Cronbach's Alpha =0.90), and Psychological Functioning (Cronbach's Alpha = 0.81), Experience with faculty (Cronbach's Alpha =0.80). The sub-scales has Excellent reliability. The overall reliability of the scale is also excellent (Cronbach's Alpha = 0.87).

Table 5

Descriptive Statistics on the CAQ

Item	N	Mean	SD
Overall CAQ	113	3,16	0.30
Educational Functioning Subscale	113	3,63	0.85
(1) I am succeeding academically.	113	3,62	1,04
(5) I am doing well in my classes	113	3,33	1,01
(7) I am happy with the grades I am earning in my classes	113	3,53	1,12
(12) I am meeting my academic goals.	113	3,75	1,11
(13) I have performed poorly in my classes since starting college. *	113	2,24	1,10
Relaional Functioning Subscale	113	3,03	1,11
(2) I don't have as much of a social life as I would like.*	113	2,80	1,35
(4) I am happy with my social life.	113	3,18	1,25
(9) I have had a hard time making friends since coming to college. *	113	2,92	1,44
(10) I am as socially engaged as I would like to be.	113	3,02	1,33
(14) I am satisfied with my social relationships.	113	3,23	1,18
Psychological Functioning Subscale	113	3,31	1,06
(3) I feel that I am doing well emotionally since coming to college.	113	3,13	1,31
(6) I am happy with how things have been going in college.	113	3,59	1,05
(8) I feel that I am emotionally falling apart in college. *	113	3,25	1,36
(11) I have felt the need to seek emotional counseling since coming to college.*	113	3,26	1,52

Note: Items on a 5 point scale from 1= Very Inaccurate about me to 5= Very Accurate about me

5.1.2 Academic Adjustment

Academic adjustment is measured by the educational functioning subscale which has 5 questions and one of the questions is reverse coded. Table 4 shows that the overall mean for academic adjustment sub-scale is over 3. Since the mean is over 3, it is above neutral for the educational sub-scale. The scoring for the sub-scales is like a closer score to 5 (which implies very accurate about me) indicates a better adjustment level. The question CAQ13, which is reversed coded in this sub-scale, "I have performed poorly in my classes since starting college.*." has the highest mean among the questions in this sub-scale. The mean for this question is 3.75 (SD=1.11). The lowest mean in this sub-scale is for the Q7, "I am happy with the grades I am earning in my classes." M=3.33, SD=1.12.

5.1.3 Social adjustment

For the social adjustment sub-scale, which has five questions, a mean closer to 5 shows better adjustment and a mean closer to 1 shows less adjustment. According to Table 5 the overall mean for this sub-scale is 3.03, that is slightly over the natural mean score. The highest mean is related to the question CAQ14 in this sub-scale "I don't have as much of a social life as I

would like.*." which is 3.23. The lowest mean is related to the CAQ2 in this sub scale in this sub-scale, which is a reversed coded question, "I am satisfied with my social relationships." M=2.80. The social adjustment sub-scale's mean shows that, in general, the level of social adjustment among international students is slightly over the mid-point.

5.1.4. Psychological adjustment

The last sub-scale in this questionnaire examined international student's' psychological adjustment and consists of four questions. The overall mean for this subscale is 3.31.

According to Table 5, the lowest mean belongs to the CAQ3, "I feel that I am doing well emotionally since coming to college." Which is 3.11, and the CAQ6 in this sub-scale "I am happy with how things have been going in college." has the highest mean 3.59. Table 5 presents the summary of mean score for each adjustment sub-scales.

Academic adjustment (3.63), social adjustment (3.03), psychological adjustment (3.31) and shows a positive level of adjustment according to the mean scores for each question. However, there is no response at the extreme ends of the five-point Likert scale. Moreover, from the analysis of the means for each sub-scales it can be concluded that the social adjustment has the lowest mean among all of the adjustment sub-scales examined in this study (M=3.03, SD=1.11). and the highest mean belongs to the academic adjustment (M=3.63, SD=0.85). It indicated that international students participated in this study, are more academically adjusted to the educational environment compared to socially or psychologically.

5.1.5 Interaction with Faculty

Interaction with faculty is measured by CSEQ which consists of 10 questions. The overall mean for this subscale is 3.24. Table 6 shows that the overall mean for the CSEQ sub-scale is 3.24. Since the mean is over 3, it is above neutral for the CSEQ sub-scale. The scoring for the sub-scales is like a closer score to 4 (which implies very often) indicates a higher level of interaction. The question CSEQ10, in this sub-scale, "worked with a faculty member on a research project" has the highest mean among the questions in this sub-scale. The mean for this question is 3.56 (SD=0.74). The lowest mean in this sub-scale is for the CSEQ9, "Worked harder than you thought you could to meet an instructor's expectations and standards." M=2.86, SD=0.94.

Table 6

Descriptive Statistics on the CSEQ

Item	N	Mean	SD
Overall CSEQ	113	3.24	0.47
(1) Asked your instructor for information related to a course you were taking	113	2.98	0.66
(2) Discussed your academic program or course selection with a faculty member	113	3.29	0.79
(3) Discussed ideas for a term paper or other class project with a faculty member	113	3.18	0.80
(4) Discussed your career plans and ambitions with a faculty member	113	3.51	0.66
(5) Worked harder as a result of feedback from an instructor	113	2.92	0.94
(6) Socialized with a faculty member outside of class	113	3.53	076
(7) Participated with other students in a discussion with one or more faculty members outside of class	113	3.23	0.82
(8) Asked your instructor for comments and criticisms about your academic performance	113	3.38	0.71
(9) Worked harder than you thought you could to meet an instructor's expectations and standards	113	2.86	094
(10) worked with a faculty member on a research project	113	3.56	0.74

Note: Items on a 4 point scale from 1= Very Often to 4= Never

5.2. Is there a relationship between students' background characteristics (e.g., age, gender, level of study, time being in Norway, and field of study) and adjustment to the university?

As age, gender, time in Norway, university, faculty, and degree can have an influence on student's adjustment, it is important to look at whether they have significance in this study. Thus, the following will look at the background variables in relation to academic and social adjustment.

5.2.1 Statistical Assumptions

Normality test is used to see whether the data are normally distributed or not. The two well-known tests of normality, namely, the Kolmogorov–Smirnov test and the Shapiro–Wilk test are most widely used methods for assessment of the normality of data. The Shapiro-Wilk is recommended as the best tool for testing the normality of data as it provides better power than the Kolmogorov–Smirnov test (Ghasemi & Zahediasl, 2012). Hence this study uses Shapiro-Wilk tests for normality test. The Shapiro-Wilk test is based on the correlation between the data and the corresponding normal scores and if the p value of the test is lower than 0.05, the data is not normally distributed (Ghasemi & Zahediasl, 2012).

Before conducting the correlation tests, a normality test was used to determine if data is normally distributed. A Shapiro-Wilk test was conducted for the CAQ and CSEQ. As $p = 0.26$ (CAQ) and $p = .0.005$ (CSEQ), the CAQ and CSEQ data is normally distributed.

5.2.2 Relationship between Background Characteristics and CAQ

To determine if CAQ can be predicted based on age, gender, level of education. Time being in Norway, faculty, and university, a multiple regression was conducted. The result showed that the background characteristics were not able to statistically significantly predict the CAQ ($p = 0.66$, R2=0.03) .

In order to determine if lack of significance was due to multicollinearity, we next assessed individual relationships between each variable and the CAQ.

5.2.3 Relationship between CAQ and Age

A simple regression test determined that participant age alone was not able to predict average scores on the CAQ ($p = 0.62$, R2 $= 0.00$, see Table 7). Additionally, participant age alone was unable to predict average scores on any of the three CAQ subscales: Educational Functioning, Relational Functioning, nor Psychological Functioning ($p = 0.70$, 0.68, and 0.22, respectively; Table 8).

Table 7

CAQ Scores by Age

| | | | | Overall CAQ | | |
| | Descriptive Statistics | | | Simple Regression | | |
Age Group	N	Mean	SD	b	t	p
All Students	113	3,16	0,30			
18-24	35	3,17	0,26	*Reference Group*		
25-30	47	3,12	0,33	-0,04	-0,73	0,47
31-35	18	3,23	0,23	0,05	0,62	0,54
36+	13	3,19	0,34	0,01	0,17	0,87
Overall Model Fit						
p				0,62		
R^2				0,00		

Table 8

CAQ Subscales Scores by Age

	Academic Adjustment			Social Adjustment			Psychological Adjustment		
	Simple Regression			Simple Regression			Simple Regression		
Age Group	*b*	*t*	*p*	*b*	*t*	*p*	*b*	*t*	*p*
All Students									
18-24	*Reference Group*			*Reference Group*			*Reference Group*		
25-30	0,07	0,41	0,68	0,01	0,06	0,95	0,08	0,38	0,71
31-35	0,15	0,63	0,53	0.14	0,43	0,67	0,29	0,96	0,90
36+	0,31	1,14	0,26	0,40	1,12	0,26	0,67	1,97	0,05
Overall Model Fit									
p	0,70			0,68			0,22		
R2	-0,01			-0,01			0,01		

5.2.3 Relationship between CAQ and Gender

Among 116 participants, 64 respondents choose their gender as "female", 49 responded as "male" and 3 chose "Other" as their gender. Before conducting the regression test, those 3 participants who chose their gender as "Other" were removed from the data set. A simple regression test determined that participant gender alone was not able to predict average scores on the CAQ (p = 0.36, R^2 = 0.00, see Table 9).

Table 9

CAQ Scores by Gender

	Overall CAQ					
	Descriptive Statistics			Simple Regression		
Gender	**N**	**Mean**	**SD**	**b**	**t**	**p**
All Students	113	3,16	0,30			
Female	64	3,14	0,27	*Reference Group*		
Male	49	3,19	0,33	-0,02	-0,4	0,68
Overall Model Fit						
p				0,68		
R^2				0,001		

Additionally, participant gender alone was unable to predict average scores on any of the three CAQ subscales: Educational Functioning, Relational Functioning, nor Psychological Functioning (p = 0.25, 0.87, and 0.14, respectively; Table 10).

Table 10

CAQ Subscale Scores by Gender

Gender	Academic Adjustment Simple Regression			Social Adjustment Simple Regression			Psychological Adjustment Simple Regression		
	b	*t*	*p*	*b*	*t*	*p*	*b*	*t*	*p*
All Students									
Female	*Reference Group*			*Reference Group*			*Reference Group*		
Male	-0,09	-0,55	0,58	0,58	2,54	0,01	0,096	0,43	0,66
Overall Model Fit									
p	0,58			0,01			0,66		
R2	0,002			0,05			0,001		

5.2.4 Relationship between CAQ and Field of study

A simple regression test determined that participant field of study alone was not able to predict average scores on the CAQ ($p = 0.86$, $R2 = 0.01$, see Table 11). Additionally, participant field of study alone was unable to predict average scores on any of the three CAQ subscales: Educational Functioning, Relational Functioning, nor Psychological Functioning ($p = 0.95$, 0.08, and 0.76, respectively; Table 12).

Table 11

CAQ Scores by Field of Study

Field of Study	Overall CAQ Descriptive Statistics			Simple Regression		
	N	**Mean**	**SD**	**b**	**t**	**p**
All Students	113	3,16	0,30			
Business	29	3,12	0,29	*Reference Group*		
Health Sciences	6	3,14	0,34	0,01	0,13	0,9
Humanities and Education	25	3,16	0,29	0,04	0,48	0,63
Science and Technology	42	3,2	0,29	0,07	1,06	0,29
Social Sciences	11	3,13	0.36	0,01	0,1	0,92
Overall Model Fit						
p				0,86		
R^2				0,01		

Table 12

CAQ Subscales Scores by Field of Study

Field of Study	Academic Adjustment Simple Regression			Social Adjustment Simple Regression			Psychological Adjustment Simple Regression		
	b	t	p	b	t	p	b	t	p
All Students									
Business	*Reference Group*			*Reference Group*			*Reference Group*		
Health Sciences	-0,21	-0,55	0,581	0,13	0,27	0,788	0,17	0,36	0,722
Humanities and Education	-0,01	-0,08	0,937	-0,73	-2,47	0,015	-0,16	-0,57	0,569
Science and Technology	-0,03	-0,14	0,885	-0,08	-0,31	0,757	0,08	0,34	0,732
Social Sciences	-0,19	-0,62	0,535	-0,12	-0,32	0,747	-0,21	-0,56	0,579
Overall Model Fit									
p	0,95			0,09			0,83		
R2	0,006			0,035			0,013		

5.2.5 Relationship between CAQ and Faculty

A simple regression test determined that participant faculty alone was not able to predict average scores on the CAQ (p = 0.83, R2 = 0.03, see Table 13). Additionally, participant's faculty alone was unable to predict average scores on any of the three CAQ subscales: Educational Functioning, Relational Functioning, nor Psychological Functioning (p = 0.50, 0.19, and 0.66, respectively; Table 14).

Table 13

CAQ Scores by Faculty

	Overall CAQ					
	Descriptive Statistics			Simple Regression		
Faculty	N	Mean	SD	b	t	p
All Students	113	3,16	0,30			
Arts and Education	4	3,26	0,13	*Reference Group*		
Engineering and Science	5	3,31	0,23	0,04	0,22	0,82
Fine Arts	2	3,35	0,10	0,08	0,34	0,73
Health Sciences	6	3,14	0,34	-0,12	-0,63	0,53
Humanities and Education	19	3,12	0,32	-0,14	-0,85	0,39
Science and Technology	37	3,18	0,30	-0,07	-0,49	0,62
Social Sciences	11	3,13	0,36	-0,13	-0,73	0,46
Business and Law	3	3,26	0,10	-0,00	-0,03	0,98
UiS Business School	26	3,10	0,30	-0,15	-0,96	0,34
Overall Model Fit						
p				0,83		
R^2				0,03		

Table 14

CAQ Subscales Scores by Faculty

Faculty	Academic Adjustment Simple Regression			Social Adjustment Simple Regression			Psychological Adjustment Simple Regression		
	b	t	p	b	t	p	b	t	p
All Students									
Arts and Education	*Reference Group*			*Reference Group*			*Reference Group*		
Engineering and Science	0,02	-0,55	0,581	0,48	0,27	0,788	-0,18	-0,26	0,79
Fine Arts	-0,3	-0,08	0,937	-1,1	-2,47	0,015	-1,31	-1,41	0,16
Health Sciences	-0,83	-0,14	0,885	0,16	-0,31	0,757	-0,43	-0,63	0,52
Humanities and Education	-0,80	-0,62	0,535	-0,81	-0,32	0,747	-0,88	-1,50	0,13
Science and Technology	-0,73			-0,11			-0,56	-1,00	0,31
Social Sciences	-0,80			-0,09			-0,82	-1,31	0,19
Business and Law	-0,7			-4,97e			-0,02	-0,03	0,98
UiS Business School	-0,60			0,03			-0,67	-1,17	0,24
Overall Model Fit									
p	0,502			0,19			0,66		
R2	0,06			0,09			0,05		

5.2.6 Relationship between CAQ and University

A simple regression test determined that participant university alone was not able to predict average scores on the CAQ (p = 0.68, R2 = 0.00, see Table 15). Additionally, participant university alone was unable to predict average scores on Educational Functioning, and Psychological Functioning (p = 0.58, 0.66;). However, participant university alone was able to predict average scores on relational functioning(p=0.01)(Table 16).

Consequently, we do not reject the null hypothesis one in the context of university. The regression results also showed no statistically significant relationship between international students' university and other adjustment subscales.

Table 15

CAQ Scores by University

	Overall CAQ					
	Descriptive Statistics			Simple Regression		
University	**N**	**Mean**	**SD**	**b**	**t**	**p**
All Students	113	3,16	0,30			
Agder	31	3,18	0,28	*Reference Group*		
Stavanger	82	3,15	0,31	-0,02	-0,4	0,68
Overall Model Fit						
p				0,68		
R^2				0,001		

Table 16

CAQ Subscales Scores by University

	Academic Adjustment			Social Adjustment			Psychological Adjustment		
	Simple Regression			Simple Regression			Simple Regression		
University	*b*	*t*	*p*	*b*	*t*	*p*	*b*	*t*	*p*
All Students									
Agder	*Reference Group*			*Reference Group*			*Reference Group*		
Stavanger	-0,09	-0,55	0,58	0,58	2,54	0,01	0,09	0,43	0,66
Overall Model Fit									
p	0,58			0,01			0,66		
R2	0,002			0,05			0,001		

5.2.7 Relationship between CAQ and Degree Program

A simple regression test determined that participant degree program alone was not able to predict average scores on the CAQ ($p = 0.95$, R2 = 0.00, see Table 17). Additionally, participant degree program alone was unable to predict average scores on any of the three CAQ subscales: Educational Functioning, Relational Functioning, nor Psychological Functioning ($p = 0.91$, 0.50, and 0.98, respectively; Table 18)

Table 17

CAQ Scores by level of education (Degree)

	Overall CAQ					
	Descriptive Statistics			Simple Regression		
Degree	N	Mean	SD	b	t	p
All Students	113	3,16	0,30			
Bachelor	22	3,16	0,33		*Reference Group*	
Master	91	3,17	0,30	0,00	0,06	0,95
Overall Model Fit						
p				0,95		
R^2				0,00		

Table 18

CAQ Subscales Scores by level of education (Degree)

	Academic Adjustment			Social Adjustment			Psychological Adjustment		
	Simple Regression			Simple Regression			Simple Regression		
Degree	b	t	p	b	t	p	b	t	p
All Students									
Bachelor		*Reference Group*			*Reference Group*			*Reference Group*	
Master	-0,02	-0,11	0,916	0,17	0,68	0,5	0,006	0,03	0,98
Overall Model Fit									
p	0,91			0,5			0,98		
R2	0,00			0,004			0		

5.2.8. Relationship between CAQ and Time Spent in Norway

To determine if significant differences in academic and social adjustment exist between students who spent a long time in Norway or been in Norway for a short time, a simple regression was conducted to predict average scores on the CAQ. "6-12 months" was used as the reference group in our model. There was a significant difference between mean scores for students who has been in Norway for 6-12 months and those students who spent more than 2years in Norway(p=0.03). Consequently, we cannot reject null hypothesis one in terms of time being in Norway. However, there was no significant difference between mean scores for students that spent less than 6 months, more than 1 year and those who have been in Norway for 6-12months (p=0.15, and p=0.80 respectively).

The overall model was therefore significant (p = 0.02) and accounts for 8.5% variance in CAQ scores (R2 = 0.083). Also, there was no significant difference between mean scores for students who have been in Norway for 6-12months (mean = 3.30) and students who have been in

Norway for less than 6months (mean=3.13), students who have been in Norway more than 1 year(mean=3.27), students who spent more than 2 years in Norway (mean=3.02).

Another post-hoc analysis by subscale also showed a significant relationship between Time being in Norway and average scores on the social adjustment subscale (p=0.03).

However no significant relationship between Time being in Norway and average scores on the academic, and psychological adjustment subscales individually (p = 0.76, and 0.32 respectively). The descriptive data of the relationships between CAQ and Time being in Norway are presented in Table 19,20.

Table 19

CAQ Scores by Time being in Norway

| | Overall CAQ | | | | | |
| | Descriptive Statistics | | | Simple Regression | | |
Time	N	Mean	SD	b	t	p
All Students	113	3,22	0,83			
6-12 Months	7	3,3	0,18		*Reference Group*	
Less than 6 months	60	3,13	0,27	-0,16	-1,42	0,16
More than 1 year	28	3,27	0,27	-0,03	-0,25	0,81
More than 2 years	18	3,02	0,38	-0,27	-2,13	0,04
Overall Model Fit						
p				0,02		
R^2				0,08		

Table 20

CAQ Subscales Scores by Time being in Norway

| | Academic Adjustment | | | Social Adjustment | | | Psychological Adjustment | | |
| | Simple Regression | | | Simple Regression | | | Simple Regression | | |
Time	b	t	p	b	t	p	b	t	p
All Students									
6-12 Months	*Reference Group*			*Reference Group*			*Reference Group*		
Less than 6 months	0,13	0,41	0,68	0,47	1,09	0,278	0,09	0,23	0,82
More than 1 year	0,58	1,66	0,1	-0,05	-0,12	0,902	0,07	0,16	0,875
More than 2 years	-0,06	-0,17	0,86	-0,19	-0,4	0,689	-0,27	0,57	0,57
Overall Model Fit									
p	0,04			0,052			0,63		
R2	0,07			0,06			0,01		

5.3 Is there a relationship between students' interaction with faculty and adjustment to the university?

Test H2: Correlation Between Academic and Social adjustment and Interaction with faculty.

H2: There is no relationship between student-faculty interaction and students' academic and social adjustment.

A simple regression indicated that student scores on interaction with faculty was able to predict scores on academic adjustment ($p = .004$). However, the slope was negative ($b = -0.16$), indicating that as students reported more interaction with faculty, they felt *less* adjusted. Still, the amount of explained variance is quite small ($R2 = 7.08\%$). Figure 1 shows a scatterplot of individual scores on the Interaction with Faculty and CAQ, along with the estimated regression line in red. Consequently, interaction with faculty has a significant effect on students' adjustment. Accordingly, students' interaction with faculty and their adjustment to the university are negatively correlated. Therefore, we can reject the null hypothesis two.

Moreover, the regression models for the three subscales of CAQ showed that there is a significant correlation between students' interaction with faculty and academic adjustment subscale. The p value for this regression was 0.01. However, the relationship between the interaction with faculty and social adjustment subscale ($p=0.15$), and psychological adjustment ($p=0.053$) was not statistically significant.

FIGURE 2

Scatterplot for CSEQ and CAQ
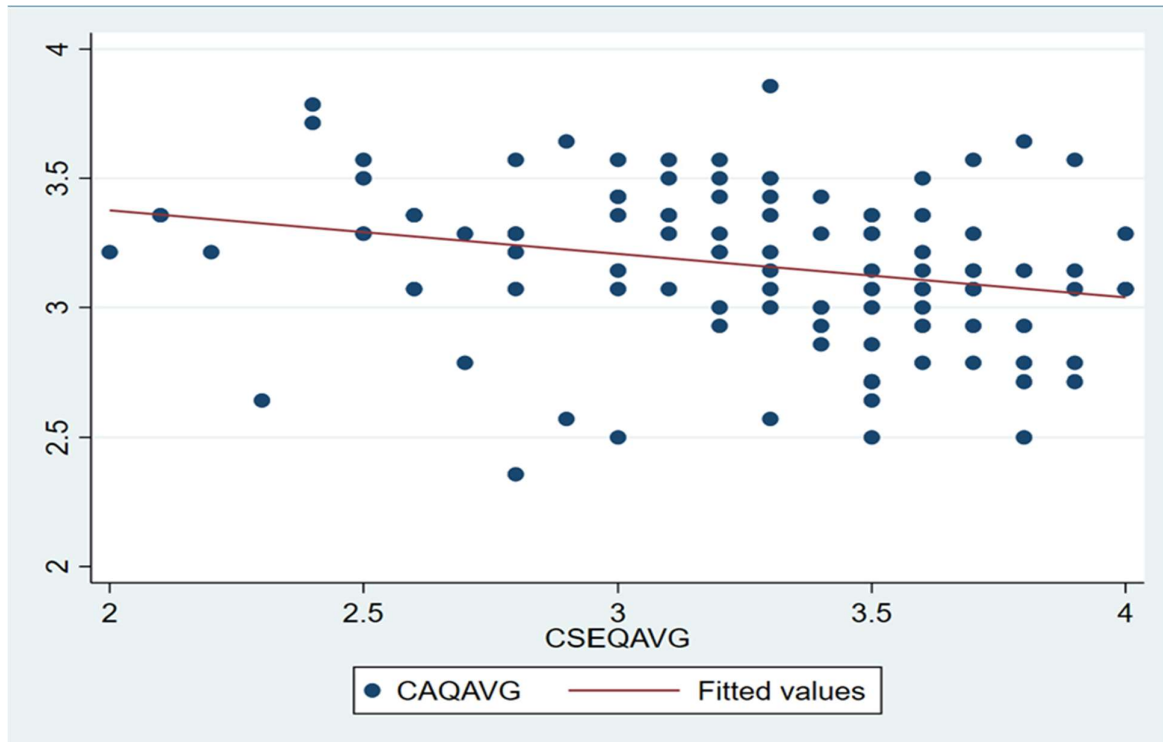
Note: The red line indicates the fitted regression line.

FIGURE 3

Scatterplot for CSEQ and Academic adjustment
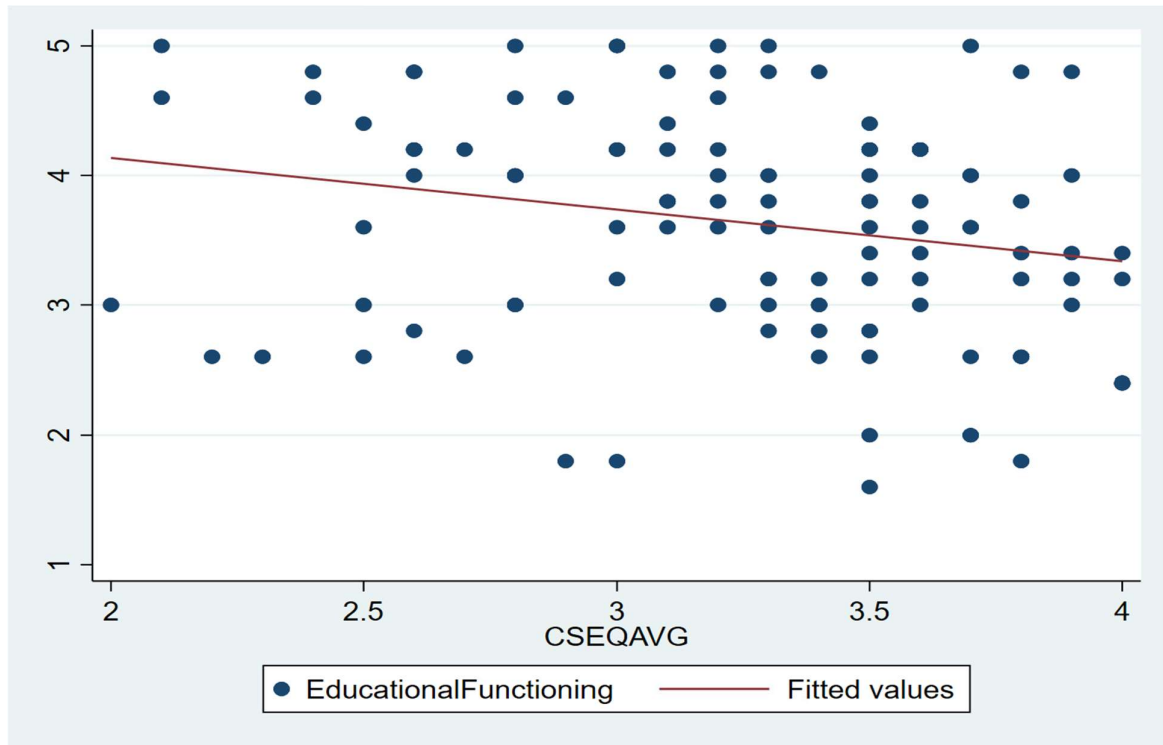
Note: The red line indicates the fitted regression line

The descriptive statistics showed that overall, students scored above the neutral point on the Likert scale, indicating overall levels of adjustment. The simple regressions of demographic variables on the CAQ found a statistically significant relationship between only one of the demographic variables, time being in Norway, and the CAQ.

Post-hoc simple regressions of demographics variables on CAQ subscales also found a significant relationship between academic adjustment subscale and time being in Norway. However, no other significant relationship founded between the CAQ subscales and age, gender, degree, university and faculty.

The final simple regression of interaction with faculty found that interaction was able to predict CAQ and the academic adjustment subscale, but not the social and psychological adjustment subscales.

After statistical analysis of the collected data and by testing the null hypothesis of relationship between variables, it is discovered that male adjustment to the higher education environment was slightly higher than female. However, it was not statistically significant. Moreover, there

is a correlation between international students 'adjustment and the time they lived in Norway. At the same time, it is inferred that international students who have more interaction with faculty showed less adjustment to the university. Finally, there is no significant difference in international students' age, degree, faculty/ field of study, university, and their adjustment.

6 DISCUSSION

This chapter presents a more in-depth analysis of the results presented in Chapter 5. This study examined the relationship between international students' social and academic adjustment and background characteristics and interaction with faculty. The results also indicated some important relationships between student-faculty interaction and students' adjustment. This chapter also provides a discussion, practical implications, limitations, theoretical reflection, and further research.

The data presented in the previous chapter was to investigate if there is a statistically significant relationship between international student's adjustment to university, background characteristics including age, gender, degree, time being in Norway, faculty or field of study, and their interaction with faculty. Among all the focused variables explored in this study, only time being in Norway and interaction with faculty were found to have a statistically significant relationship with students' adjustment to university.

According to the analysis of the descriptive statistics for research questions, the mean score for three subscales of CAQ (academic adjustment, social adjustment, psychological adjustment) was higher than the neutral point (3) in the 5-point Likert scale. The highest mean score belongs to the academic adjustment subscale which indicates a higher level of academic adjustment of international students. On the other hand, the social adjustment subscale showed the lowest mean score which indicated a lower level of international students' social adjustment compared to other adjustment sub-scales examined in this study. The findings of the regression models revealed that one of the focused background characteristics examined in this study has a significant relationship with international students' adjustment (and the adjustment sub-scales) to university. There is a positive relationship between time being in Norway and students adjustment to university. In other words, in this study, by increasing the time being in Norway, the international students' adjustment to university increases. However, no significant relationship found between international students' adjustment and other focused background characteristics including age, gender, degree, faculty, and university. Therefore, a clear pattern to show how is the relationship between these background characteristics of international students and their academic and social adjustment to the university was not found. Additionally, International students' interaction with faculty was found to have a statistically significant relationship with adjustment to university. According to the results of the regressions students' interaction with faculty significantly predicted students' adjustment to university. The results

of the regression indicated that 7.08% of the variance in CAQ can be predicted from the frequency of students' interaction with faculty. However, it was also found that the interaction with faculty has a negative correlation with the students' adjustment. In other words, as the test results showed that an increase in interaction with faculty leads to lower students' adjustment.

6.1 Empirical Contribution

This thesis has presented two research questions that addressed the relationships between students' background characteristics such as age, gender, faculty or field of study, level of education, time being in Norway, as well as interaction with faculty and students' academic and social experience. This includes the use of The College Adjustment Questionnaire (CAQ) by O'Donnell et al. (2018), and The Collage Student Experience Questionnaire (CSEQ) by Pace (1998). This study applied a survey design and collected information from international students who enrolled in two public universities in Norway in the academic year 2022-23.

The theoretical framework presented in chapter three is framed by two main theories that have similar underlying dynamics. Tinto's (1993) Theory of Students attrition and Astin's (1984) Theory of Involvement. Tinto indicated how different aspects of the students' experience affects students' retention and success at college. Tinto stressed the importance of student-faculty interaction as a significant factor in student retention referring to its' positive influence on increasing social and academic integration.

Astin (1984) presents a model that explains students' background and family characteristics, interaction with faculty as involvement activities and refers to these factors as "input". Astin argues that students more involvement in academic and social aspects of the college experience i.e., spending more time and energy on campus interacting with academics and faculty members and participating in the extra-curricular activities and student organizations brings about more learning outcomes for students.

This study examined the relationship between international students' interaction with faculty and their academic and social adjustment. The findings of this study revealed that international students' adjustment to university is related to their interaction with faculty.

Moreover, the relationship between a few background characteristics including age, gender, university, level of education, faculty, and international students' academic and social adjustment to the university was investigated. However, no statistically significant relationship was found between the focused background characteristics and students' adjustment to university.

The findings in regard to each research question indicated that: RQ1. This study was unable to find a statistically significant relationship between international student's background characteristics and their academic and social adjustment. Research question 1 was exploring the relationship between age, gender, university, level of education, faculty and students' adjustment to university. The CAQ was used to answer this question, and find out the relationship between the focused background characteristic and three subscales: educational functioning, social functioning, and psychological functioning. Moreover, this study found a significant relationship between international students' interaction with faculty and their adjustment to university, however, this was in the opposite direction than the researcher would predict given previous literature.

This study contributes to the understanding of the academic and social experience of international students and the factors that can influence their adjustment process into the new educational environment. This study looked at a phenomenon that could be researched further in order to benefit students' academic and social experience, simultaneously benefiting student academic outcomes and social well-being. The section below elaborates on the findings summarized above.

6.1.1 RQ1: Students' Adjustment and Demographic Characteristics

In previous research, student adjustment has been shown to have a relationship with age, and gender. Jones (2013) found that gender identity is a major contributor to the students' overall interactions on campus and is a powerful construct in predicting educational attainment. Melendez (2016) revealed that there is a significant correlation between gender and academic adjustment. And indicated that female students have a higher level of academic adjustment than male students. A study by Enochs and Roland (2006) reconfirmed as other studies have, that there were differences in the adjustment level based on gender, and males were found to have a significantly higher overall adjustment level than females to the college environment. Calaguas (2011), and Shabeeb (1993) also found differences in adjustment difficulties between males and females. Despite previous research finding this relationship, this thesis, similar to Stuart's (2000) study, found no significant relationship between students' adjustment and gender.

In regard to age, Calaguas (2011) found that age could be related to adjustment difficulties and concluded that there was a significant relationship between students' academic adjustment difficulties and age. The findings of the present study were in contrast with Calaguas (2011) and Shabeeb (1993). The present study found no significant differences between students'

adjustment based on age. These findings, on the other hand, are similar to Stuart's (2000) research in that showed no difference between age categories on overall adjustment to college.

In regard to faculty or field of study, Shabeeb's (1993) study showed that the problems that international students face while adjusting to a new educational environment vary based on their field of study. His study found that students enrolled in arts and humanities fields were more likely to experience difficulties adjusting to university in the U.S. This is contradictory to the results of this study that indicated no statistically significant relationship between international students' faculty (field of study) with their adjustment to university. However, this finding is similar to wang's (2003) study that showed there is no significant statistical relationship between the background factors including the field of study, and students' adjustment process.

Students' level of education was also found not to have any significant difference between students' academic and social adjustment. This variable was considered because previous research suggested that being either an undergraduate or graduate student affects how easily a student can adjust to the educational environment. In terms of the level of education, the findings of the present study is contradictory to the findings of Shabeeb(1993), Mustaffa and Ilias (2013) that reported the level of education as a significant factor that plays a vital role in international students' cross-cultural adjustment to university. The present study found no significant differences between students' adjustments based on their level of education.

6.2.2 RQ2. Students' Adjustment and Interaction with Faculty

The results of the regression tests showed that 4.5% of the variance in international student adjustment can be accounted for their interaction with faculty. According to these results, students' interaction with faculty negatively affected students' adjustment to the university. This means that there is a negative correlation between the frequency of international students' interaction with faculty and their adjustment to the university. In other words, a lower level of interaction with faculty leads to a better students' adjustment to university. In previous research, interaction with faculty has been identified to have a relationship to students' adjustment. Glass, Kociolek, Wongtrirat, Lynch, & Cong (2015); (Kim & Sax, 2014; Mayhew et al., 2016). Similar to previous research finding this relationship, this study found a significant relationship between students' interaction with faculty and their adjustment to university but in a different way. Previous research showed that more interaction with faculty leads to more students' adjustment, while according to the findings of the current study, students who scored higher in their interaction with faculty, showed lower levels of adjustment. This finding could be explained by

the sampling method that was chosen. Convenience sampling does not guarantee that the sample is distributed evenly, resulting in this study's sample having a far larger percentage of students being in Norway for less than 6 months.

Moreover, the findings of this study showed that there is a significant correlation between students' interaction with faculty and academic adjustment. However, no significant relationship was found between the students' interaction with faculty and social and emotional adjustment.

6.4 Limitations

As with any other research study, there were several limitations of the present study that need to be discussed. Regarding methodology, convenience sampling, which is a non-probabilistic approach, was utilized for recruiting participants. A request for conducting the survey was sent to the five public universities in Norway with the most international students, but only UiA and UiS agreed to forward the survey to their international students. This sampling strategy not only limited the population's representation of the sample but also affected the data quality. Besides, due to the reasons mentioned in chapter four, the sample size for this study was not big enough to make the conclusion generalizable. Out of the 2,000 international students between UiA and UiS, 130 responded to our survey (Response rate = 7%). Given the small response rate, our sample may not be representative of all UiA and UiS international students. Further, small sample sizes can lead to more false negatives as achieving significant p-values becomes more difficult. The rule of thumb is 30 participants per condition, but I was far from achieving this goal (Table 2). Using a larger sample size could have provided more information about students' experience at universities. Additionally, the study's population was all international degree students studying at public Norwegian higher education institutions. While the online survey of this study was initially designed to be distributed to all the international degree students in Norway (approximately 25,000 students), due to the universities' regulations for forwarding information to students from the international offices, the population was limited to a sample of 1856 students in two public universities (UiA and UiS). As a result, a total of only 130 international students participated in the survey. This study could not include the total population of international students enrolled in Norwegian universities. Therefore, is not representative of the whole population of international students in Norway.

Furthermore, the survey was conducted in English. Since English was not the native language for many of the participants, they may not understand the survey questions or interpret questions

in the same way. Another possible limitation of the study is that data was collected solely through the self-reported online survey. Employing a wider variety of data sources and collection methods such as mixed-methods research design and triangulation techniques, which was extremely difficult due to the fact that there is limited time for conducting a master's thesis, could have increased the quality of the generated data and provided some more in-depth insights into understanding the academic and social experience of international students in Norway.

Besides, the theoretical framework for this study was formed based on two theories that focused on specific dimensions of student adjustment and attrition to university. However, other theoretical models of university transition focused on other variables such as self-esteem or expectations about higher education that can have a significant effect on students' adaptation could be considered to provide a more detailed picture of student's adjustment.

In addition, the analytical framework used in this study describes only some parts of the big picture. The social and academic integration of students happens in a diverse and complicated context where the students' backgrounds and environments are more complexly interrelated than what was described in the analytical framework.

Another limitation of this study is that the survey was conducted in November. This means that the students were in their first or the third semester. According to the data, most of the participants were at their first semester. Therefore, this study is not representative of the whole experience of students in University and it is predictable that most of the international students dealing with the same challenges, and this could affect their adjustment.

7 CONCLUSION

The importance of students' experience, and the adjustment process is agreed upon, yet the complexity of various dimensions of students' experience requires more studies in the area to gain a better understanding of how higher education institutions can improve their student's academic and social adjustment. In addition, international students are in a more vulnerable position compared to other students in higher education institutions, and review studies have shown that students' academic and social adjustment process at the postgraduate level is under-researched.

This thesis set out to look at the relationship between international students' experience with academic and social adjustment. An analytical cross-sectional design was used to address the research aims, and the results of the analyzed quantitative data collected through an online survey using found that international students' adjustment and their interaction with faculty have a significant relationship. Students with more interaction with faculty showed a lower level of adjustment to university compared to other students. Therefore, the relationship between international students' adjustment and their interaction with faculty was negative. In addition, this study could find a significant relationship between one of the students' demographic characteristics and their adjustment experience. Students who lived in Norway for more than 2 years showed higher levels of social adjustment than those students who spent a short time in Norway. Accordingly, time being in Norway had a significant relationship with students' adjustment.

This thesis contributes to the academic world in the understanding of the academic and social experience of international students and the factors that can influence their adjustment process into the new educational environment. This study looked at a phenomenon that could be researched further in order to benefit students' academic and social experience, simultaneously benefiting student academic outcomes and social well-being.

7.1 Practical Implications

An important implication from these study results is for universities to help international students to have a quality and positive experience at the university, with high levels of academic and social adjustment. The present study highlights the importance of background characteristics on students' academic and social adjustment. The finding of the current study showed that international students' academic and social adjustment to universities has a significant relationship with students' interaction with faculty. This will be notable for

universities specifically international office and admission units to consider these factors when planning for international students' academic and social affairs at university.

Furthermore, universities similar to the focused universities in this study are recommended to expand their adjustment plans to facilitate international students' involvement in social activities in higher education institutions. Allocation of resources for extracurricular activities and planning such activities specifically for international students may encourage them to actively participate in those programs.

7.2 Theoretical and Methodological Contributions

This study has constructed a new scale to address international students' academic and social experiences at higher education institutions. This scale addressed students' educational, relational, and psychological adjustment as well as experience with faculty. The scale had excellent internal reliability that found significant relationships that could contribute to the literature in the field of students' experience, social and academic adjustment.

The conclusion of this study supported only one of the theories used to structure the theoretical framework. Tinto's theory of Student Attrition (1987) was an important part of the theoretical framework structured for this study and the conclusion supported this theory. Tinto (1987) stated that students enter higher education institutions with different background characteristics, skills, and dispositions that affect their academic and social experiences at the institution. It provided a clear insight into the way a student's adjustment to an educational environment can alter based on background characteristics. The findings of this study did not indicate that background characteristics have a direct influence on students' academic and social experience at higher education institutions. Perhaps, Tinto's theory would have been better suited if the study was conducted in a period of time closer to the time it developed.

If time allowed, this study could have considered students' academic and social adjustment with another scale as well. This could have provided insight into the adjustment challenges an international student face when entering a new educational environment and compare the adjustment level at a time close to their graduation with that as well.

Astin's (1984) theory of involvement was used for students' interaction with faculty and the thesis author has reflected on this after conducting the analysis and discussed previously. Similar to Astin's theory, the findings of this study indicated that interaction with faculty affects students' adjustment to the institutional environment. However, in contrast to Astin's theory the relationship between interaction with faculty and international students' adjustment was

negative. This might be because of the focused population. This theoretical model could have been better suited if the population was not specifically international students or if the research was conducted in a country with a different education system.

This study examined the relationship between age, gender, interaction with faculty, and three adjustment subscales at university. It was found that none of the focused background characteristics had a significant relationship with a specific adjustment sub-scale and overall adjustment to university. It was also indicated that international students' adjustment is correlated with none of the personal-emotional, educational, and social adjustment sub-scales of CAQ.

7.3 Future Research

As mentioned earlier, for the current study only a quantitative method was used. To further study this issue, a qualitative or mixed method approach might be utilized with a larger population to investigate students' adjustment process to the academic environment and gain a more detailed understanding of the relationships between each factor and the academic and social experience of the students. Also, for further research, a study can employ a longitudinal design, to measure students' adjustment twice in one year to find out if there have been any changes in students' adjustment.

Moreover, this study focused on the effect of students' interaction with faculty on their academic and social experience. Future research with participants from different universities is recommended to look closer at university and faculty differences. Also, including other countries with similar educational systems could provide the opportunity to make a comparison between universities. Besides, further research can be conducted considering more recruitment time.

Future studies are needed to examine the generalizability of the employed model in this study to a different population and context. It would also be interesting to investigate different types of student-faculty interaction to find out which type of interaction could be more effective on students' adjustment. The present study only looked at the frequency of interactions between students and faculty. Including questions about different types of interaction such as in-person meetings or digital meetings, individual or group meetings, and electronic communications, perhaps would have provided better insight into this relationship.

The results showed that interaction with faculty has a significant relationship with students' educational adjustment. However, the results have not explained how and to what extent this

factor may affect students' academic and social experiences. Future studies may investigate which type of interaction i.e. face to face meetings or online meetings, individual or group meetings, between students and faculty may affect international students' academic or social experiences.

Further studies in this area could help to find out which strategies can help higher education institutions to enhance the academic and social adjustment process of international students and to minimize the challenges international students face while adjusting to a new educational environment.

REFERENCES

Altbach, P. G., & Knight, J. (2007). The Internationalization of Higher Education: Motivations and Realities. Journal of Studies in International Education, 11(3–4), 290–305. https://doi.org/10.1177/102831530730354

Awadh, M. (2019). *The Relationship Between the Quality of Academic Advising and the Perception of Academic Outcomes of First-year Saudi College Students* (Doctoral dissertation, Edgewood College).

A world of opportunities - international student mobility in higher education Meld. St. 7 (2020–2021).

Beine, M., Noël, R., and Ragot, L. (2014). Determinants of the international mobility of students. Econ. Educ. Rev. 41, 40–54. doi: 10.1016/j.econedurev.2014.03.003

Brooks, R., & Waters, J. (2010). Social networks and educational mobility: The experiences of UK students. Globalisation, Societies and Education, 8(1), 143-157.

Bridgeman, B., & Wendler, C. (1991). Gender differences in predictors of college mathematics performance and in college mathematics course grades. Journal of Educational Psychology, 83(2), 275.

Beelen, J. (2014). The other side of mobility: The impact of incoming students on home students. In B. Streitwieser (Ed.), Internationalisation of higher education and global mobility, 287-299.

Bryman, A. (2012). Social research methods (4th ed., pp. xli, 766). Oxford University Press.

Chrysikos, A., Ahmed, E., & Ward, R. (2017). Analysis of Tinto's student integration theory in first year undergraduate computing students of a UK higher education institution. International Journal of Comparative Education and Development, 19(2/3), 97–121. https://doi.org/10.1108/IJCED-10-2016-0019

Calaguas, G. M. (2011). Sex differences and the relation of age in adjustment difficulties among college freshmen. Journal of Advances in Developmental Research, 2(2), 221-226.

De Wit, H. (2013). Internationalisation of higher education, an introduction on the why, how and what. In H. De Wit (Ed.), An introduction to higher education internationalisation (pp. 13–46). CHEI) Universit`a Cattolica del Sacro Cuore.

De Vaus, D. A. (2014). Surveys in social research (6th ed). Routledge.

Enochs, W. K., & Roland, C. B. (2006). Social adjustment of college freshmen: The importance of gender and living environment. College Student Journal, 40(1).

Forbes-Mewett, H. (2016). "Foreward," in Exploring the Social and Academic Experiences of International Students in Higher Education Institutions, eds K. Bista and C. Foster (Hershey, PA: IGI Global).

Forbes-Mewett, H. (2020). Vulnerability and resilience in a mobile world: The case of international students. Journal of International Students, 10(3), ix-xi.

Ghasemi, A., & Zahediasl, S. (2012). Normality Tests for Statistical Analysis: A Guide for Non-Statisticians. *International Journal of Endocrinology and Metabolism*, *10*(2), 486–489. https://doi.org/10.5812/ijem.3505

Glass, C., Kociolek, E., Wongtrirat, R., Lynch, J., & Cong, S. (2015). Uneven experiences: The impact of student-faculty interactions on international students' sense of belonging. Journal of International Students, 5(4), 353–367.

Hauge, Magnus Strand, and Lars Fredrik Pedersen (2018). Academic and Social Integration of International students in Norway. www.nokut.no/globalassets/studiebarometeret/2018/studiebarometeret_-5-2018.pdf.

Jensen, F., Henriksen, E. K., Holmegaard, H. T., Madsen, L. M., & Ulriksen, L. (2018). Balancing Cost and Value: Scandinavian Students' First Year Experiences of Encountering Science and Technology Higher Education. *Nordina: Nordic studies in science education*, *14*(1), 3-21.

Jones, R. (2013). The Vulnerable Ones: The Intersections of Race and Gender on Academic Adjustment of First Time In College (FTIC) African American Students (Doctoral dissertation).

Kim, Y. K., & Lundberg, C. A. (2016). A Structural Model of the Relationship between Student-Faculty Interaction and Cognitive Skills Development among College Students. Research in Higher Education, 57(3), 288-309.

Keels, M. (2013). Getting them enrolled is only half the battle: College success as a function of race or ethnicity, gender, and class. American Journal of Orthopsychiatry, 83(2pt3), 310-322.

Leask, B. (2009). Using formal and informal curricula to improve interactions between home and international students. Journal of Studies in International Education, 13 (2), 205–221.

McCubbin, I. (2003). An examination of criticisms made of Tinto's 1975 student integration model of attrition. Glasgow: University of Glasgow.

Melendez, M. C. (2016). Adjustment to college in an urban commuter setting: The impact of gender, race/ethnicity, and athletic participation. Journal of College Student Retention: Research, Theory & Practice, 18(1), 31-48.

Mesidor, J. K., & Sly, K. F. (2016). Factors that contribute to the adjustment of international students. Journal of international students, 6(1), 262-282.

Patton, M. Q. (2002). Qualitative Research & Evaluation Methods (Third Edition). California: Sage.

Pandit, K. (2007). The importance of international students on our campuses. Yearbook Assoc. Pacific Coast Geograph. 69, 156–159. doi: 10.1353/pcg.2007.0012

Mustaffa, C. S., & Ilias, M. (2013). Relationship between Students Adjustment Factors and Cross Cultural Adjustment: A Survey at the Northern University of Malaysia. Intercultural communication studies, 22(1).

Meld. St. 16 2016-2017. Kultur for kvalitet i høyere utdanning. https://www.regjeringen.no/no/dokumenter/meld.-st.-16-20162017/id2536007/. Modood, T. (2007/2013). Multiculturalism: A Civic Idea. Oxford: Polity Press.

Meld. St. 7 2014-2015. Langtidsplan for forskning og høyere utdanning 2015-2024 - https://www.regjeringen.no/no/dokumenter/Meld-St-7-20142015/id2005541/

Meld. St. 16 2016-2017. Kultur for kvalitet i høyere utdanning. https://www.regjeringen.no/no/dokumenter/meld.-st.-16-20162017/id2536007/

Nilsson, Per A., and Lars Westin. "Ten years after. Reflections on the introduction of tuition fees for some international students in Swedish post-secondary education." *Education Inquiry* (2022): 1-21.

Severiens, S. E., & Schmidt, H. G. (2009). Academic and social integration and study progress in problem based learning. Higher Education, 58(1), 59-69.

St.meld. nr 14. 2008-2009. Internasjonalisering av utdanning. https://www.regjeringen.no/no/dokumenter/stmeld-nr-14-2008-2009-/id545749/

Norwegian Agency for International Cooperation and Quality Enhancement in Higher Education (2019). International Students in Norway; Contributors to Quality in Higher Education https://diku.no/en/reports/international-students-in-norway-contributors-to-quality-in-higher-education.

OECD (2019), Education at a Glance 2019: OECD Indicators, OECD Publishing, Paris, https://doi.org/10.1787/f8d7880d-en

O'Donnell, M. B., Shirley, L. A., Park, S. S., Nolen, J. P., Gibbons, A. M., & Rosén, L. A. (2018). The college adjustment questionnaire: A measure of students' educational, relational, and psychological adjustment to the college environment. Journal of College Student Development, 59(1), 116-121. DOI: https://doi.org/10.1353/csd.2018.0009

Parliament, E., For Internal Policies of the Union, D.-G., Egron-Polak, E., Howard, L., Wit, H., & Hunter, F. (2016). Internationalisation of Higher Education. European Parliament, 10.2861/6854.

Pace, C. R., & Kuh, G. D. (1998). College Student Experiences Questionnaire, Fourth Edition. Bloomington, IN: Indiana University Center for Postsecondary Research and Planning.

Pascarella, E. T. (1980). Student-faculty informal contact and college outcomes. Review of Educational Research, 50 (4), 545-595.

Pascarella, E. T., & Terenzini, P. T. (1978). Student-faculty informal relationships and freshman year educational outcomes. Journal of Educational Research, 71 (4), 183-189.

Pascarella, E.T., & Terenzini, P.T. (1991). How college affects students: Findings and insights from twenty years of research. Vol. 1. San Francisco, CA: Jossey-Bass.

Pascarella, E. T., & Terenzini, P. T. (2005). How college affects students: A third decade of research. Vol. 2. San Francisco, CA: Jossey-Bass.

Rienties, B., Beausaert, S., Grohnert, T., Niemantsverdriet, S., & Kommers, P. (2012). Understanding academic performance of international students: The role of ethnicity, academic and social integration. Higher education, 63(6), 685-700.

Spencer-Oatey, H. & Dauber (2015) How internationalised is your university? From structural indicators to an agenda for integration. GlobalPAD Working papers. http://www.warwick.ac.uk/globalpadinterculturalMay2021.

Shabeeb, S. S. (1996). Saudi and Arabian Gulf students' adjustment problems in Eastern Washington. Gonzaga University.

Stuart, M. C. (2000). An investigation of locus of control, psychological adjustment, and adjustment to college among international students from the Caribbean, enrolled at a private, historically black university. Howard University.

Statistisk sentralbyrå (2019). Studenter i Høyere Utdanning. Retrieved from https://www.ssb.no/utdanning/statistikker/utuvh

Statistics Norway (2021a). Table 09817: 05576: Students in tertiary education in Norway, by sex, contents and year [Statistics]. https:// https://www.ssb.no/en/statbank/table/05576/tableViewLayout1/

Statistics Norway (2021b). Table 06129: Resident students in higher education in Norway , by age, contents, year and sex [Statistics]. https:// https://www.ssb.no/en/statbank/table/06129/tableViewLayout1/

Tinto, V. (1987). Leaving college: Rethinking the causes and cures of student attrition. Chicago, IL: University of Chicago Press.

Tinto, V. (1975). Dropout from higher education: A theoretical synthesis of recent research. Review of Educational Research, 45, 89–125.

Toews, M. L., & Yazedjian, A. (2007). College adjustment among freshmen: Predictors for White and Hispanic males and females. College Student Journal, 41(4), 891-901.

Tochkov, k., Levine, L., & Sanaka, A. (2010). Variation in the perception of cross-cultural adjustment by Asian-Indian students in the United Sates. College Student Journal, 44(3), 677-689.

Terenzini, P. T., & Pascarella, E. T. (1980). Toward the validation of Tinto's model of college student attrition: A review of recent studies. Research in Higher Education, 12(3), 271-282.

Tinto, V. (1975). Dropout from higher education: A theoretical synthesis of recent research. Review of educational research, 45(1), 89-125.

Vaccarino, F., Feekery, A., & Matanimeke, V. (2021). Birds of a feather end up flocking together when studying abroad. Can a university bridge the cultural differences that challenge friendships between Pacific Island students and New Zealand students? International Journal of Intercultural Relations, 81, 204-213.

Volet, S., & Ang, G. (2012). Culturally mixed groups on international campuses: An opportunity for inter-cultural learning. Higher Education Research & Development, 31(1), 21–37.

Webber, K. L., Krylow, R. B., & Zhang, Q. (2013). Does involvement really matter? indicators of college student success and satisfaction. Journal of College Student Development, 54(6), 591-611

Welch, A. (2002). Going global? Internationalising Australian universities in a time of global crisis. Comparative Education Review, 46(4), 433–471.

Wilcox, P., Winn, S., & Fyvie-Gauld, M. J. S. i. h. e. (2005). 'It was nothing to do with the university, it was just the people': the role of social support in the first-year experience of higher education. 30(6), 707-722.

Wiers-Jenssen, J. (2022). International Students in Norway: Satisfaction, Coping and Social Networks. Journal of Studies in International Education, 0(0). https://doi.org/10.1177/10283153221082720

Wang, J. (2003). A Study of the Adjustment of International Graduate Students at American Universities, Including Both Resilience Characteristics and Traditional Background Factors. Retrieved from http://purl.flvc.org/fsu/fd/FSU_migr_etd-1270

Zhang, J., & Goodson, P. (2011). Predictors of international students' psychosocial adjustment to life in the United States: A systematic review. International Journal of Intercultural Relations 35(2), 139-162.

Appendices
Appendix A

College adjustment questionnaire (CAQ)

The College Adjustment Questionnaire (CAQ)

Listed below are some statements that describe how college students might be feeling about their experience with college. **Please use the rating scale below to indicate how accurately each statement describes you** *at this point in time.* Please read each statement carefully, and then circle the number that corresponds to how accurately the statement describes you.

Response Options
1: Very Inaccurate
2: Moderately Inaccurate
3: Neither Inaccurate nor Accurate
4: Moderately Accurate
5: Very Accurate

	Very Inaccurate			Very Accurate	
1. I am succeeding academically.	1	2	3	4	5
2. I don't have as much of a social life as I would like.*	1	2	3	4	5
3. I feel that I am doing well emotionally since coming to college.	1	2	3	4	5
4. I am happy with my social life.	1	2	3	4	5
5. I am doing well in my classes.	1	2	3	4	5
6. I am happy with how things have been going in college.	1	2	3	4	5
7. I am happy with the grades I am earning in my classes.	1	2	3	4	5
8. I feel that I am emotionally falling apart in college.*	1	2	3	4	5
9. I have had a hard time making friends since coming to college. *	1	2	3	4	5
10. I am as socially engaged as I would like to be.	1	2	3	4	5
11. I have felt the need to seek emotional counseling since coming to college.*	1	2	3	4	5
12. I am meeting my academic goals.	1	2	3	4	5
13. I have performed poorly in my classes since starting college.*	1	2	3	4	5
14. I am satisfied with my social relationships.	1	2	3	4	5

For researchers, factors and items are listed below:
Educational Functioning: 1, 5, 7, 12, 13*
Relational Functioning: 2*, 4, 9*, 10, 14
Psychological Functioning: 3, 6, 8*, 11*
* indicates the item is reverse-scored.

This questionnaire is intended for free use in research and clinical applications. Please contact Lee A. Rosén (Lee.Rosen@colostate.edu) prior to any other noncommercial use. This questionnaire may not be used for commercial purposes.

O'Donnell, M. B., Maples, L. A., Park, S. S., Nolen, J. P., Gibbons, A. M., & Rosén, L. A. (2018). The college adjustment questionnaire: A measure of students' educational, relational, and psychological adjustment to the college environment. *Journal of College Student Development, 59*(1), 116-121. DOI: https://doi.org/10.1353/csd.2018.0009

Collage Students Experience Questionnaire (CSEQ) (Pace and Kuh. 1989. p. 4)

	Never	Occasionally	Often	Very Often

Experiences with Faculty

Asked your instructor for information related to a course you were taking (grades, make-up work, assignments, etc.). ○ ○ ○ ○

Discussed your academic program or course selection with a faculty member. ○ ○ ○ ○

Discussed ideas for a term paper or other class project with a faculty member. ○ ○ ○ ○

Discussed your career plans and ambitions with a faculty member. ○ ○ ○ ○

Worked harder as a result of feedback from an instructor. ○ ○ ○ ○

Socialized with a faculty member outside of class (had a snack or soft drink, etc.). ○ ○ ○ ○

Participated with other students in a discussion with one or more faculty members outside of class. ○ ○ ○ ○

Asked your instructor for comments and criticisms about your academic performance. ○ ○ ○ ○

Worked harder than you thought you could to meet an instructor's expectations and standards. ○ ○ ○ ○

Worked with a faculty member on a research project. ○ ○ ○ ○

Appendix C

Demographic Questions

Mandatory fields are marked with a star *

Please choose one of the answers for each question that is most applicable to you.

What university are you currently attending?

- ○ University of Agder
- ○ University of Stavanger

What is your gender?

- ○ Male
- ○ Female
- ○ Other
- ○ Prefer not to say

What is your age?

- ○ 18-24
- ○ 25-30
- ○ 31-35
- ○ 36 or older

3. What degree are you taking?

- ○ Bachelor
- ○ Master
- ○ Exchange
- ○ Other

What discipline are you currently in?

Select ...   ⌄

How long have you been in Norway?

- ○ Less than 6 months
- ○ 6 -12 months
- ○ More than 1 year
- ○ More than 2 years

Appendix D

Norsk Senter For Forskningsdata (NSD) Approval Letter

Sikt

Notification form / Academic and Social Experience of International Students in Nor... / Assessment

Assessment of processing of personal data

Reference number	Assessment type	Date
199828	Standard	09.01.2023

Project title
Academic and Social Experience of International Students in Norwegian Higher Education institutions

Data controller (institution responsible for the project)
Universitetet i Oslo / Det utdanningsvitenskapelige fakultet / Institutt for pedagogikk

Project leader
Mari Elken

Student
Maryam Rostami

Project period
01.04.2022 – 02.05.2023

Categories of personal data
General
Special

Legal basis
Consent (General Data Protection Regulation art. 6 nr. 1 a)
Explicit consent (General Data Protection Regulation art. 9 nr. 2 a)

The processing of personal data is lawful, so long as it is carried out as stated in the notification form. The legal basis is valid until 02.05.2023.

Notification Form

Comment
Data Protection Services has assessed the change to the duration of the project.

The period for processing personal data has been extended until 02.05.2023. If the duration of processing personal data is further extended, then it may be necessary to inform your participants.

We will follow up the progress of the project at the new planned end date to determine whether the processing of personal data has been concluded.

Contact person: Line Raknes Hjellvik

Good luck with the rest of the project!

Appendix E

Item Usage Agreement Proposal (College Student Experiences Questionnaire Assessment Program)

Item Usage Agreement
College Student Experiences Questionnaire Assessment Program

The College Student Experiences Questionnaire Assessment Program is part of the Indiana University Center for Postsecondary Research. The CSEQ Assessment Program is home to the College Student Experiences Questionnaire (CSEQ) and the College Student Expectations Questionnaire (CSXQ).

These are copyrighted survey instruments, and the copyrights are owned by The Trustees of Indiana University. Any use of survey items contained within the CSEQ or CSXQ is prohibited without prior written permission from Indiana University. When fully executed, this Agreement constitutes written permission from the University, on behalf of the CSEQ Assessment Program, for the party named below to use an item or items from the College Student Experiences Questionnaire or College Student Expectations Questionnaire in accordance with the terms of this Agreement.

In consideration of the mutual promises below, the parties hereby agree as follows:

1) The University hereby grants [**Maryam Rostami**] ("Licensee") a nonexclusive, worldwide, irrevocable license to use, reproduce, distribute, publicly display and perform, and create derivatives from, in all media now known or hereafter developed, the item(s) listed in the proposal attached as Exhibit A, solely for the purpose of including such item(s) in the survey activity described in Exhibit A, which is incorporated by reference into this Agreement. This license does not include any right to sublicense others. This license only covers the survey instrument, time frame, population, and other terms described in Exhibit A. Any different or repeated use of the item(s) shall require an additional license.

2) In exchange for the license granted in section 1, Licensee agrees:
   a) To provide to the CSEQ Assessment Program frequency distributions and means on the licensed item(s).
   b) In all publications or presentations of data obtained through the licensed item(s), to include the following citation: "Items xx and xx used with permission from the CSEQ Assessment Program, Indiana University, Copyright 1998, The Trustees of Indiana University."
   c) To provide to the CSEQ Assessment Program a copy of any derivatives of, or alterations to, the item(s) that Licensee makes for the purpose of Licensee's survey ("modified items"), for the CSEQ Assessment Program's own nonprofit, educational purposes, which shall include the use of the modified items in the CSEQ, CSXQ or any other survey instruments, reports, or other educational or professional materials that it may develop or use in the future. Licensee hereby grants the University a nonexclusive, worldwide, irrevocable, royalty-free license to use, reproduce, distribute, create derivatives from, and publicly display and perform the modified items, in any media now known or hereafter developed.
   d) To provide to the CSEQ Assessment Program for its own nonprofit, educational purposes, a copy of all reports, presentations, analyses, or other materials in which the item(s) licensed under this Agreement, or modified items, and any responses to licensed or modified items, are presented, discussed, or analyzed. The CSEQ Assessment Program shall not make public any data it obtains under this subsection in a manner that identifies specific institutions or individuals, except with the consent of the Licensee.

The undersigned hereby consent to the terms of this Agreement and confirm that they have all necessary authority to enter into this Agreement.

For Licensee:

Maryam Rostami   October 6th, 2022

Name: [Maryam Rostami]   Date
Title: [Student]
Institution: [University of Oslo]

For The Trustees of Indiana University:

Robert M. Gonyea   October 11, 2022
Director, CSEQ Assessment Program   Date
Indiana University Bloomington

CSEQ Assessment Program • Center for Postsecondary Research
Indiana University School of Education • 201 N. Rose Ave. • Bloomington, IN 47405-1006
Phone: (812) 856-5825 • cseq@indiana.edu • cseq.iub.edu

CSEQ

Item Usage Agreement Proposal
College Student Experiences Questionnaire
Assessment Program

Researcher information:

Last Name, First Name: Maryam Rostami
Title: Student
Institution: University of Oslo

Address: Sloyfen 24	City: Kristiansand	State/Province: Agder
ZIP or Postal Code: 4628	Country: Norway	

Phone: 98626732   Email: maryamrostami1215@gmail.com   Date: 04.10.2022

Please answer the following questions:

1. From which survey are you interested in adapting items?   *CSEQ, 4th Edition*

2. Briefly state the objective of your study: This research aims to assess the university adjustment dimensions specifically (Academic, Social, emotional/psychological) of international students enrolled in English taught programms at University of Agder. The relationship between international students' campus adjustment and their age, gender and academic interaction is the objective of this study.

3. Identify the specific item(s) to be used:

   - Background Information
   - College activities

4. List your expected start and end dates for survey administration.

   15.10.2022   to   30.11.2022

5. If you are a student, provide the name, title, institution and contact information of your faculty advisor or thesis chair.

   - Student: Maryam Rostami   Phone: (+47) 98626732
     Email:maryamrostami1215@gmail.com

CSEQ Assessment Program • Center for Postsecondary Research
Indiana University School of Education • 201 N. Rose Ave. • Bloomington, IN 47405-1006
Phone: (812) 856-5825 • cseq@indiana.edu • cseq.iub.edu

   - Supervisor: Mari Elken   Phone: (+47) 960 94 033   Email: mari.elken@nifu.no
   - Co- supervisor: Rebbeca Knoph Phone: (+47) 22857802
     Email:rebecca.knoph@iped.uio.no

Questionnaire Consent Form

Hi everyone!

Are you an international student in Norway and interested in participating in a study about academic life as an international student? We ask that you take this quick survey for my master's thesis about the academic and social experiences of international students.

It takes only 10 minutes.

Here's important information about the research project and what your participation will involve.

The Academic and Social Experience of International Students in Norwegian Higher Education Institutions.
Purpose:

You are invited to participate in a research project where the main purpose is to understand the process of international students' academic and social adjustment and investigates the relationship between background characteristics, interaction with faculty, and international students' experience. The research project will be done for a master's thesis project in higher education at the University of Oslo.

Responsible:

The University of Oslo is the institution responsible for the project.

Participants:

This project is recruiting participants who are international degree students studying in Norway.

Participation:
If you choose to take part in the project, it will involve you filling in this online questionnaire. It will take approx. **10 minutes.** This includes questions about your social and academic experience at university. Your answers will be recorded electronically.

Participation is voluntary
Participation in the project is voluntary. If you chose to participate, **you can withdraw your consent at any time** without giving a reason. All information about you will then be made anonymous. There will be no negative consequences for you if you chose not to participate or later decide to withdraw.

Storage and Use of Personal Data:

We will only use your personal data for the purpose specified in this information letter. **We will process your personal data confidentially** and in accordance with data protection legislation (the General Data Protection Regulation and Personal Data Act).

- In connection with the institution responsible for the project, the researcher and the supervisor will have access to the personal data.
- The possibility of identification due to background variables is small and all personal information will be deleted once the project is finished.
- Participants will NOT be recognizable in publications.

The project is scheduled to end on 30th December 2022. All personal data, including any digital recordings, will be deleted at the end of the project.

Your Rights:

So long as you can be identified in the collected data, you have the right to:

- access the personal data that is being processed about you
- request that your personal data be deleted
- request that incorrect personal data about you be corrected/rectified
- receive a copy of your personal data (data portability), and
- send a complaint to the Data Protection Officer or The Norwegian Data Protection Authority regarding the processing of your personal data

Our Rights:

We will process your personal data based on your consent.

Based on an agreement with the *University of Oslo*, Data Protection Services has assessed that the processing of personal data in this project is in accordance with data protection legislation.

Find Out More:

If you have questions about the project or want to exercise your rights, contact:

- The student researcher: **Maryam Rostami**,
    - e-mail: maryaro@uio.no
    - telephone: 986 26 732
- The University of Olso via Main Supervisor **Mari Elken**
    - e-mail: mari.elken@nifu.no
    - telephone: 960 94 033
- Our Data Protection Officer: **Roger Markgraf-Bye**
- Data Protection Services
    - e-mail: personverntjenester@sikt.no

- telephone: 53 21 15 00

Yours sincerely,

Project Leaders

Supervisor: Mari Elken

Co-supervisor: Rebecca Knoph

Student: Maryam Rostami

Consent Form

I have received and understood information about the project "The Academic and Social Experience of International Students in Norway "and have been given the opportunity to ask questions. I give consent:.

- To voluntarily participate in the questionnaire.
- For my personal data to be processed until the end date of the project, approx. 30th December 2022

You have to select at least one option.

☐
I consent

A script of the Stata log

Wednesday March 22 16:27:33 2023   Page 1

stata
Statistics/Data analysis

```
      name:  <unnamed>
       log:  \\hume.uio.no\student-u54\maryaro\pc\Desktop\stata_log.smcl
  log type:  smcl
 opened on:  22 Mar 2023, 16:24:25

 1 .
   end of do-file

 2 . do "C:\Users\local_maryaro\Temp\STD5f59c_000000.tmp"

 3 . use "\\hume.uio.no\student-u54\maryaro\pc\Desktop\Thesis_Data.dta"

 4 .
   end of do-file

 5 . do "C:\Users\local_maryaro\Temp\STD5f59c_000000.tmp"

 6 . replace Gender="Other" if Gender=="Prefer not to say"
   (0 real changes made)

 7 . replace Faculty="Faculty of Health Sciences" if Faculty=="Faculty of Health sciences
 > "
   (0 real changes made)

 8 . replace Faculty="Faculty of Science and Technology" if Faculty=="Faculty science and
 >  technology"
   (0 real changes made)

 9 . replace Faculty="Faculty of Business" if Faculty=="UiS Business School"
   (0 real changes made)

10. replace Faculty="Faculty of Business" if Faculty=="School of Business and Law"
   (0 real changes made)

11. replace Faculty="Faculty of Humanities and Education" if Faculty=="Faculty of Arts a
 > nd Education"
   (0 real changes made)

12. replace Faculty="Faculty of Humanities and Education" if Faculty=="Faculty of Fine A
 > rts"
   (0 real changes made)

13. replace Faculty="Faculty of Science and Technology" if Faculty=="Faculty of Engineer
 > ing and Science"
   (0 real changes made)

14.
   end of do-file

15. do "C:\Users\local_maryaro\Temp\STD5f59c_000000.tmp"

16. drop if Gender=="Other"
   (0 observations deleted)

17. drop if missing(CAQ1)
   (0 observations deleted)

18. drop if missing(CAQ2)
   (0 observations deleted)
```

```
19. drop if missing(CAQ3)
    (0 observations deleted)

20. drop if missing(CAQ4)
    (0 observations deleted)

21. drop if missing(CAQ5)
    (0 observations deleted)

22. drop if missing(CAQ6)
    (0 observations deleted)

23. drop if missing(CAQ7)
    (0 observations deleted)

24. drop if missing(CAQ8)
    (0 observations deleted)

25. drop if missing(CAQ9)
    (0 observations deleted)

26. drop if missing(CAQ10)
    (0 observations deleted)

27. drop if missing(CAQ11)
    (0 observations deleted)

28. drop if missing(CAQ12)
    (0 observations deleted)

29. drop if missing(CAQ13)
    (0 observations deleted)

30. drop if missing(CAQ14)
    (0 observations deleted)

31. drop if missing(CSEQ1)
    (0 observations deleted)

32. drop if missing(CSEQ2)
    (0 observations deleted)

33. drop if missing(CSEQ3)
    (0 observations deleted)

34. drop if missing(CSEQ4)
    (0 observations deleted)

35. drop if missing(CSEQ5)
    (0 observations deleted)

36. drop if missing(CSEQ6)
    (0 observations deleted)

37. drop if missing(CSEQ7)
    (0 observations deleted)

38. drop if missing(CSEQ8)
    (0 observations deleted)
```

```
39. drop if missing(CSEQ9)
    (0 observations deleted)

40. drop if missing(CSEQ10)
    (0 observations deleted)

41.
    end of do-file

42. do "C:\Users\local_maryaro\Temp\STD5f59c_000000.tmp"

43. gen CAQ2R=6-CAQ2
    variable CAQ2R already defined
    r(110);

    end of do-file

    r(110);

44. do "C:\Users\local_maryaro\Temp\STD5f59c_000000.tmp"

45. egen CAQAVG2=rowmean(CAQ1 CAQ2R CAQ3 CAQ4 CAQ5 CAQ6 CAQ7 CAQ8R CAQ9R CAQ10 CAQ11R CA
  > Q12 CAQ13R CAQ14)
    variable CAQAVG2 already defined
    r(110);

    end of do-file

    r(110);

46. do "C:\Users\local_maryaro\Temp\STD5f59c_000000.tmp"

47. encode Gender, gen(Gender2)
    variable Gender2 already defined
    r(110);

    end of do-file

    r(110);

48. do "C:\Users\local_maryaro\Temp\STD5f59c_000000.tmp"

49. codebook CAQ1 CAQ2R CAQ3 CAQ4 CAQ5 CAQ6 CAQ7 CAQ8R CAQ9R CAQ10 CAQ11R CAQ12 CAQ13R C
  > AQ14
```

CAQ1			CAQ1

Type: Numeric (**byte**)

Range: [1,5]	Units: 1
Unique values: 5	Missing .: 0/113

Tabulation: Freq.	Value
5	1
9	2
27	3
52	4
20	5

CAQ2R			(unlabeled)

Type: Numeric (**float**)

Range: [1,5]	Units: 1
Unique values: 5	Missing .: 0/113

74

```
Tabulation: Freq.  Value
              24   1
              30   2
              17   3
              28   4
              14   5
```

CAQ3   **CAQ3**

Type: Numeric (**byte**)

            Range: [1,5]   Units: 1
    Unique values: 5   Missing .: 0/113

```
Tabulation: Freq.  Value
              17   1
              22   2
              21   3
              35   4
              18   5
```

CAQ4   **CAQ4**

Type: Numeric (**byte**)

            Range: [1,5]   Units: 1
    Unique values: 5   Missing .: 0/113

```
Tabulation: Freq.  Value
              14   1
              22   2
              22   3
              39   4
              16   5
```

CAQ5   **CAQ5**

Type: Numeric (**byte**)

            Range: [1,5]   Units: 1
    Unique values: 5   Missing .: 0/113

```
Tabulation: Freq.  Value
               4   1
              13   2
              27   3
              46   4
              23   5
```

CAQ6   **CAQ6**

Type: Numeric (**byte**)

            Range: [1,5]   Units: 1
    Unique values: 5   Missing .: 0/113

```
Tabulation: Freq.  Value
               3   1
              18   2
              23   3
              47   4
              22   5
```

CAQ7   **CAQ7**

                    Type: Numeric (**byte**)

              Range: [**1,5**]   Units: **1**
        Unique values: **5**   Missing .: **0/113**

           Tabulation: Freq. Value
                        10   1
                        12   2
                        37   3
                        38   4
                        16   5

CAQ8R   **(unlabeled)**

                    Type: Numeric (**float**)

              Range: [**1,5**]   Units: **1**
        Unique values: **5**   Missing .: **0/113**

           Tabulation: Freq. Value
                        14   1
                        23   2
                        24   3
                        24   4
                        28   5

CAQ9R   **(unlabeled)**

                    Type: Numeric (**float**)

              Range: [**1,5**]   Units: **1**
        Unique values: **5**   Missing .: **0/113**

           Tabulation: Freq. Value
                        24   1
                        29   2
                        12   3
                        28   4
                        20   5

CAQ10   **CAQ10**

                    Type: Numeric (**byte**)

              Range: [**1,5**]   Units: **1**
        Unique values: **5**   Missing .: **0/113**

           Tabulation: Freq. Value
                        18   1
                        28   2
                        17   3
                        33   4
                        17   5

CAQ11R   **(unlabeled)**

                    Type: Numeric (**float**)

76

```
              Range: [1,5]                        Units: 1
      Unique values: 5              Missing .: 0/113

         Tabulation: Freq.  Value
                        18  1
                        27  2
                        13  3
                        17  4
                        38  5
```

CAQ12   **CAQ12**

```
               Type: Numeric (byte)

              Range: [1,5]                        Units: 1
      Unique values: 5              Missing .: 0/113

         Tabulation: Freq.  Value
                         6  1
                        16  2
                        26  3
                        42  4
                        23  5
```

CAQ13R   **(unlabeled)**

```
               Type: Numeric (float)

              Range: [1,5]                        Units: 1
      Unique values: 5              Missing .: 0/113

         Tabulation: Freq.  Value
                         2  1
                        16  2
                        27  3
                        31  4
                        37  5
```

CAQ14   **CAQ14**

```
               Type: Numeric (byte)

              Range: [1,5]                        Units: 1
      Unique values: 5              Missing .: 0/113

         Tabulation: Freq.  Value
                        11  1
                        21  2
                        25  3
                        42  4
                        14  5
```

50. sum CAQ1 CAQ2R CAQ3 CAQ4 CAQ5 CAQ6 CAQ7 CAQ8R CAQ9R CAQ10 CAQ11R CAQ12 CAQ13R CAQ14

Variable	Obs	Mean	Std. dev.	Min	Max
CAQ1	113	3.646018	1.008184	1	5
CAQ2R	113	2.80531	1.35527	1	5
CAQ3	113	3.132743	1.319527	1	5
CAQ4	113	3.185841	1.257468	1	5
CAQ5	113	3.628319	1.045353	1	5
CAQ6	113	3.59292	1.057601	1	5
CAQ7	113	3.336283	1.1229	1	5
CAQ8R	113	3.256637	1.36132	1	5
CAQ9R	113	2.920354	1.440124	1	5

77

CAQ10	113	3.026549	1.339377	1	5
CAQ11R	113	3.265487	1.523727	1	5
CAQ12	113	3.530973	1.126553	1	5
CAQ13R	113	3.752212	1.114282	1	5
CAQ14	113	3.238938	1.182267	1	5

51. codebook CSEQ1 CSEQ2 CSEQ3 CSEQ4 CSEQ5 CSEQ6 CSEQ7 CSEQ8 CSEQ9 CSEQ10

CSEQ1   **CSEQ1**

Type: Numeric (**byte**)

Range: [1,4]   Units: 1
Unique values: 4   Missing .: 0/113

Tabulation: Freq. Value
3 1
17 2
72 3
21 4

CSEQ2   **CSEQ2**

Type: Numeric (**byte**)

Range: [1,4]   Units: 1
Unique values: 4   Missing .: 0/113

Tabulation: Freq. Value
5 1
9 2
47 3
52 4

CSEQ3   **CSEQ3**

Type: Numeric (**byte**)

Range: [1,4]   Units: 1
Unique values: 4   Missing .: 0/113

Tabulation: Freq. Value
5 1
13 2
51 3
44 4

CSEQ4   **CSEQ4**

Type: Numeric (**byte**)

Range: [1,4]   Units: 1
Unique values: 4   Missing .: 0/113

Tabulation: Freq. Value
1 1
8 2
36 3
68 4

78

CSEQ5   **CSEQ5**

                        Type: Numeric (**byte**)

            Range: [**1,4**]   Units: **1**
Unique values: **4**   Missing .: **0/113**

            Tabulation: Freq. Value
                          7   1
                         34   2
                         33   3
                         39   4

CSEQ6   **CSEQ6**

                        Type: Numeric (**byte**)

            Range: [**1,4**]   Units: **1**
Unique values: **4**   Missing .: **0/113**

            Tabulation: Freq. Value
                          3   1
                         10   2
                         23   3
                         77   4

CSEQ7   **CSEQ7**

                        Type: Numeric (**byte**)

            Range: [**1,4**]   Units: **1**
Unique values: **4**   Missing .: **0/113**

            Tabulation: Freq. Value
                          4   1
                         16   2
                         42   3
                         51   4

CSEQ8   **CSEQ8**

                        Type: Numeric (**byte**)

            Range: [**1,4**]   Units: **1**
Unique values: **4**   Missing .: **0/113**

            Tabulation: Freq. Value
                          2   1
                          9   2
                         46   3
                         56   4

CSEQ9   **CSEQ9**

                        Type: Numeric (**byte**)

            Range: [**1,4**]   Units: **1**
Unique values: **4**   Missing .: **0/113**

79

```
                Tabulation: Freq.  Value
                            9   1
                           32   2
                           37   3
                           35   4
```

CSEQ10   **CSEQ10**

```
                    Type: Numeric (byte)

                   Range: [1,4]                        Units: 1
           Unique values: 4                       Missing .: 0/113

                Tabulation: Freq.  Value
                            3   1
                            8   2
                           24   3
                           78   4
```

52. sum CSEQ1 CSEQ2 CSEQ3 CSEQ4 CSEQ5 CSEQ6 CSEQ7 CSEQ8 CSEQ9 CSEQ10

Variable	Obs	Mean	Std. dev.	Min	Max
CSEQ1	113	2.982301	.6679165	1	4
CSEQ2	113	3.292035	.7982281	1	4
CSEQ3	113	3.185841	.8078706	1	4
CSEQ4	113	3.513274	.6696887	1	4
CSEQ5	113	2.920354	.9462482	1	4
CSEQ6	113	3.539823	.7680611	1	4
CSEQ7	113	3.238938	.8267226	1	4
CSEQ8	113	3.380531	.7111181	1	4
CSEQ9	113	2.867257	.9496656	1	4
CSEQ10	113	3.566372	.7425355	1	4

53. codebook Age

Age   **Age**

```
                    Type: String (str11)

           Unique values: 4                      Missing "": 0/113

                Tabulation: Freq.  Value
                           35   "18-24"
                           47   "25-30"
                           18   "31-35"
                           13   "36 or older"

              Warning: Variable has embedded blanks.
```

54. codebook Gender

Gender   **Gender**

```
                    Type: String (str17), but longest is str6

           Unique values: 2                      Missing "": 0/113

                Tabulation: Freq.  Value
                           64   "Female"
                           49   "Male"
```

55.
  end of do-file

56. do "C:\Users\local_maryaro\Temp\STD5f59c_000000.tmp"

57. sum(CAQ1 CAQ5 CAQ7 CAQ12 CAQ13R)

Variable	Obs	Mean	Std. dev.	Min	Max
CAQ1	113	3.646018	1.008184	1	5
CAQ5	113	3.628319	1.045353	1	5
CAQ7	113	3.336283	1.1229	1	5
CAQ12	113	3.530973	1.126553	1	5
CAQ13R	113	3.752212	1.114282	1	5

58. sum(CAQ2R CAQ4 CAQ9R CAQ10 CAQ14)

Variable	Obs	Mean	Std. dev.	Min	Max
CAQ2R	113	2.80531	1.35527	1	5
CAQ4	113	3.185841	1.257468	1	5
CAQ9R	113	2.920354	1.440124	1	5
CAQ10	113	3.026549	1.339377	1	5
CAQ14	113	3.238938	1.182267	1	5

59. sum(CAQ3 CAQ6 CAQ8R CAQ11R)

Variable	Obs	Mean	Std. dev.	Min	Max
CAQ3	113	3.132743	1.319527	1	5
CAQ6	113	3.59292	1.057601	1	5
CAQ8R	113	3.256637	1.36132	1	5
CAQ11R	113	3.265487	1.523727	1	5

60. sum CAQAVG

Variable	Obs	Mean	Std. dev.	Min	Max
CAQAVG	113	3.165613	.3024839	2.357143	3.857143

61. sum edu

Variable	Obs	Mean	Std. dev.	Min	Max
edu	113	3.637168	.8571334	1.6	5

62. sum relational

Variable	Obs	Mean	Std. dev.	Min	Max
relational	113	3.035398	1.114909	1	5

63. sum psy

Variable	Obs	Mean	Std. dev.	Min	Max
psy	113	3.311947	1.063566	1	5

64.
  end of do-file

81

```
65. do "C:\Users\local_maryaro\Temp\STD5f59c_000000.tmp"

66. tab Faculty2, sum(CAQAVG)
```

| | Summary of CAQAVG | | |
Faculty	Mean	Std. dev.	Freq.
Faculty o	3.2678571	.1352121	4
Faculty o	3.3142857	.23473824	5
Faculty o	3.3571429	.10101525	2
Faculty o	3.5714286	0	1
Faculty o	3.0571429	.3047247	5
Faculty o	3.1240602	.32458076	19
Faculty o	3.210084	.28076954	34
Faculty o	3.1363636	.36204429	11
Faculty s	2.952381	.5265082	3
School of	3.2619048	.10910895	3
UiS Busin	3.1098901	.30985893	26
Total	3.1656131	.30248387	113

```
67. tab Gender2 Faculty2
```

					Faculty		
Gender > o	Faculty o	Faculty o	Faculty o	Faculty o	Faculty o	Faculty o	Faculty
	Faculty o	Faculty s	School of	Total			
Female > 12	3	2	1	1	1	2	15
	8	2	1	64			
Male > 22	1	3	1	1	0	3	4
	3	1	2	49			
Total > 34	4	5	2	1	1	5	19
	11	3	3	113			

| | Faculty | |
Gender	UiS Busin	Total
Female	17	64
Male	9	49
Total	26	113

```
68. tab Age2 Faculty2
```

					Faculty		
Age > y o	Faculty o	Faculty o	Faculty o	Faculty o	Faculty o	Faculty o	Facult
	Faculty o	Faculty s	School of	Total			
18-24 > 12	0	1	2	0	0	10	
	5	0	0	35			
25-30 > 14	1	4	0	0	2	7	
	2	3	2	47			
31-35 > 5	0	0	0	0	1	0	
	3	0	1	18			
36 or older > 3	3	0	0	1	2	2	
	1	0	0	13			
Total > 34	4	5	2	1	1	5	19
	11	3	3	113			

Age	Faculty UiS Busin	Total
18-24	5	35
25-30	12	47
31-35	8	18
36 or older	1	13
Total	26	113

69. tab Degree2 Faculty2

Degree	Faculty o	Faculty o	Faculty o	Faculty o	Faculty o	Faculty o	Faculty
> o Faculty o	Faculty s	School of	Total				
Bachelor	1	1	2	0	0	13	
> 1	2	0	0	22			
Master	3	4	0	1	5	6	
> 33	9	3	3	91			
Total	4	5	2	1	5	19	
> 34	11	3	3	113			

Degree	Faculty UiS Busin	Total
Bachelor	2	22
Master	24	91
Total	26	113

70.
 end of do-file

71. do "C:\Users\local_maryaro\Temp\STD5f59c_000000.tmp"

72. swilk CAQAVG

Shapiro-Wilk W test for normal data

Variable	Obs	W	V	z	Prob>z
CAQAVG	113	0.98556	1.321	0.621	0.26727

73. sktest CAQAVG

Skewness and kurtosis tests for normality

Variable	Obs	Pr(skewness)	Pr(kurtosis)	Joint test Adj chi2(2)	Prob>chi2
CAQAVG	113	0.0920	0.9410	2.91	0.2333

74. histogram CAQAVG
 (bin=10, start=2.3571429, width=.15)

75. qnorm CAQAVG

83

76. swilk CSEQAVG

                 Shapiro-Wilk W test for normal data

       Variable | Obs   W   V   z   Prob>z
      -------------+---
        CSEQAVG | 113   0.96613   3.098   2.525   0.00578

77. histogram CSEQAVG
   (bin=10, start=2, width=.2)

78.
   end of do-file

79. do "C:\Users\local_maryaro\Temp\STD5f59c_000000.tmp"

80. alpha CAQ1 CAQ2R CAQ3 CAQ4 CAQ5 CAQ6 CAQ7 CAQ8R CAQ9R CAQ10 CAQ11R CAQ12 CAQ13R CAQ1
   > 4,std

   Test scale = mean(standardized items)

   Average interitem correlation: 0.3864
   Number of items in the scale: 14
   Scale reliability coefficient: 0.8981

81. alpha CSEQ1 CSEQ2 CSEQ3 CSEQ4 CSEQ5 CSEQ6 CSEQ7 CSEQ8 CSEQ9 CSEQ10,std

   Test scale = mean(standardized items)

   Average interitem correlation: 0.2979
   Number of items in the scale: 10
   Scale reliability coefficient: 0.8093

82.
   end of do-file

83. do "C:\Users\local_maryaro\Temp\STD5f59c_000000.tmp"

84. alpha CAQ1 CAQ5 CAQ7 CAQ12 CAQ13R

   Test scale = mean(unstandardized items)

   Average interitem covariance: .5946745
   Number of items in the scale: 5
   Scale reliability coefficient: 0.8364

85. alpha CAQ2R CAQ4 CAQ9R CAQ10 CAQ14

   Test scale = mean(unstandardized items)

   Average interitem covariance: 1.119595
   Number of items in the scale: 5
   Scale reliability coefficient: 0.9007

86. alpha CAQ3 CAQ6 CAQ8R CAQ11R

   Test scale = mean(unstandardized items)

   Average interitem covariance: .9220133
   Number of items in the scale: 4
   Scale reliability coefficient: 0.8151

87.
  end of do-file

88. do "C:\Users\local_maryaro\Temp\STD5f59c_000000.tmp"

89. regress CAQAVG i.Age2 i. Gender2 i.Faculty2 i.University2 i. Degree2 i.Time2 CSEQAVG

Source	SS	df	MS			
Model	2.58139451	20	.129069725	Number of obs	=	113
Residual	7.6662125	92	.083328397	F(20, 92)	=	1.55
				Prob > F	=	0.0839
				R-squared	=	0.2519
				Adj R-squared	=	0.0893
Total	10.247607	112	.091496491	Root MSE	=	.28867

CAQAVG > con > f. interval]	Coefficient	Std. err.	t	P>|t|	[95%
Age2					
25-30	-.0801899	.0719925	-1.11	0.268	-.223
> 1732					
> .0627935					
31-35	.0182249	.0953853	0.19	0.849	-.171
> 2185					
> .2076683					
36 or older	-.1246016	.116028	-1.07	0.286	-.355
> 0433					
> .1058401					
Gender2					
Male	.0569901	.0625348	0.91	0.365	-.067
> 2094					
> .1811896					
Faculty2					
Faculty of Engineering and Science	.2822909	.3260608	0.87	0.389	-.36
> 5294					
> .9298759					
Faculty of Fine Arts	.2643065	.3688095	0.72	0.475	-.46
> 8181					
> .9967939					
Faculty of Health Sciences	.2077948	.3317297	0.63	0.533	-.451
> 0491					
> .8666387					
Faculty of Health sciences	-.2067057	.2045086	-1.01	0.315	-.612
> 8773					
> .199466					
Faculty of Humanities and Education	.2134554	.3071911	0.69	0.489	-.396
> 6527					
> .8235635					
Faculty of Science and Technology	-.0571199	.1752229	-0.33	0.745	-.405
> 1278					
> .2908879					
Faculty of Social Sciences	-.0522083	.1953556	-0.27	0.790	-.440
> 2013					
> .3357847					
Faculty science and technology	-.3270145	.2397431	-1.36	0.176	-.80
> 3165					
> .1491361					
School of Business and Law	.259002	.3430832	0.75	0.452	-.422
> 3907					
> .9403948					
UiS Business School	-.1182257	.1779329	-0.66	0.508	-.471
> 6157					
> .2351644					
University2					
University of Stavanger	.2161344	.2418907	0.89	0.374	-.264
> 2813					

85

```
>          .6965502

                                Degree2 |
                                 Master |   .0871748    .0964949     0.90   0.369    -.104
> 4723          .2788219

                                  Time2 |
                    Less than 6 months |  -.1365686     .126408    -1.08   0.283    -.387
> 6259          .1144886
                         More than 1 year |   .0300529    .136257     0.22   0.826    -.240
> 5652           .300671
                        More than 2 years |  -.2637913   .1407448    -1.87   0.064    -.543
> 3227          .0157401

                                CSEQAVG |  -.1863702    .064591    -2.89   0.005    -.314
> 6536         -.0580869
                                  _cons |    3.67671   .3636473    10.11   0.000     2.95
> 4475          4.398945
```

90.
end of do-file

91. do "C:\Users\local_maryaro\Temp\STD5f59c_000000.tmp"

92. regress edu i.Age2 i. Gender2 i.Faculty2 i.University2 i. Degree2 i.Time2 CSEQAVG

Source	SS	df	MS			
Model	17.6391007	20	.881955037	Number of obs	=	113
				F(20, 92)	=	1.26
				Prob > F	=	0.2302
Residual	64.644795	92	.702660816	R-squared	=	0.2144
				Adj R-squared	=	0.0436
Total	82.2838958	112	.734677641	Root MSE	=	.83825

```
                                        |
                                    edu | Coefficient  Std. err.     t    P>|t|    [95%
> con
>     f. interval]
                                        |

                                  Age2 |
                                 25-30 |  -.1004934   .2090565    -0.48   0.632    -.515
> 6977          .314711
                                 31-35 |   .0470353   .2769859     0.17   0.866    -.503
> 0826         .5971532
                             36 or older |  -.022721   .3369297    -0.07   0.946    -.691
> 8924         .6464505

                               Gender2 |
                                  Male |   .2229876   .1815925     1.23   0.223    -.137
> 6709         .5836461

                               Faculty2 |
       Faculty of Engineering and Science |  -.147835   .9468365    -0.16   0.876    -2.02
> 8334         1.732664
                         Faculty of Fine Arts |  -.6266887  1.070973    -0.59   0.560    -2.75
> 3733         1.500356
                       Faculty of Health Sciences |   .3627073   .9632982     0.38   0.707    -1.55
```

86

```
> 0486
>           2.275901
      Faculty of Health sciences |   -1.105114    .5938652    -1.86   0.066    -2.28
> 4582
>           .0743531
Faculty of Humanities and Education |   -.7422399    .8920414    -0.83   0.408    -2.51
> 3911
>           1.029431
  Faculty of Science and Technology |   -.7183776    .5088236    -1.41   0.161    -1.72
> 8945
>           .2921901
      Faculty of Social Sciences |   -.6994341    .5672861    -1.23   0.221    -1.82
> 6113
>           .427245
    Faculty science and technology |   -.5829311    .6961816    -0.84   0.405    -1.96
> 5608
>           .7997456
      School of Business and Law |   -.7999322    .996267     -0.80   0.424    -2.77
> 8604
>           1.17874
            UiS Business School |   -.4849491    .5166929    -0.94   0.350    -1.51
> 1146
>           .5412477

                                   |
                        University2 |
      University of Stavanger |   -.1972794    .7024177    -0.28   0.779    -1.59
> 2342
>           1.197783

                           Degree2 |
                            Master |   .082575     .280208     0.29   0.769    -.473
> 9422
>           .6390922

                             Time2 |
           Less than 6 months |   .1697387    .3670718    0.46   0.645    -.559
> 2976
>           .8987751
                 More than 1 year |   .5461612    .3956718    1.38   0.171    -.239
> 6772
>           1.332
                 More than 2 years |   -.1213459    .4087039    -0.30   0.767    -.933
> 0672
>           .6903753

                           CSEQAVG |   -.3565594    .1875636    -1.90   0.060    -.72
> 9077
>           .0159581
                             _cons |   5.226923    1.055982    4.95   0.000    3.12
> 9651
>           7.324195
```

93.
 end of do-file

94. do "C:\Users\local_maryaro\Temp\STD5f59c_000000.tmp"

95. regress relation i.Age2 i. Gender2 i.Faculty2 i.University2 i. Degree2 i.Time2 CSEQA
 > VG

```
      Source |       SS         df       MS          Number of obs   =        113
                                                     F(20, 92)       =       1.41
       Model |   32.5962002     20  1.62981001       Prob > F        =     0.1397
    Residual |   106.622205     92  1.15893701       R-squared       =     0.2341
                                                     Adj R-squared   =     0.0676
       Total |   139.218405    112  1.24302147       Root MSE        =     1.0765
```

relational > con > f. interval]	Coefficient	Std. err.	t	P>|t|	[95%
Age2					
25-30 > 3179 > .4761528	-.0570826	.2684855	-0.21	0.832	-.590
31-35 > 0968 > .7909053	.0844042	.3557253	0.24	0.813	-.622
36 or older > 5386 > 1.215258	.3558596	.4327094	0.82	0.413	-.503
Gender2					
Male > 9625 > .3004047	-.1627789	.2332142	-0.70	0.487	-.625
Faculty2					
Faculty of Engineering and Science > 6455 > 4.079499	1.664427	1.215996	1.37	0.174	-.750
Faculty of Fine Arts > 7411 > 2.695996	-.0357077	1.37542	-0.03	0.979	-2.76
Faculty of Health Sciences > 0194 > 3.473928	1.016867	1.237137	0.82	0.413	-1.44
Faculty of Health sciences > 6816 > 1.561354	.046597	.7626844	0.06	0.951	-1.4
Faculty of Humanities and Education > 0958 > 2.739658	.4643502	1.145624	0.41	0.686	-1.81
Faculty of Science and Technology > 5132 > 1.540556	.2427119	.653468	0.37	0.711	-1.05
Faculty of Social Sciences > 6102 > 1.707823	.2608609	.7285497	0.36	0.721	-1.18
Faculty science and technology > 8991 > 2.252476	.4767423	.8940866	0.53	0.595	-1.29
School of Business and Law > 9604 > 3.882703	1.341549	1.279478	1.05	0.297	-1.19
UiS Business School > 8973 > 1.721935	.4040186	.6635743	0.61	0.544	-.913
University2					
University of Stavanger > 3457 > 2.999822	1.208182	.9020955	1.34	0.184	-.58
Degree2					
Master > 9798 > .3096407	-.4050789	.3598633	-1.13	0.263	-1.11
Time2					
Less than 6 months > 1531 > 1.681031	.74475	.4714201	1.58	0.118	-.19
More than 1 year > 5583 > 1.255902	.2466719	.5081502	0.49	0.629	-.762

```
              More than 2 years |   .0930979   .5248871     0.18   0.860     -.949
> 3731
>          1.135569

                        CSEQAVG |  -.2805575   .2408827    -1.16   0.247     -.758
> 9714
>          .1978564
                          _cons |   2.563059   1.356169     1.89   0.062     -.130
> 4095
>          5.256527                |
```

96. regress psy i.Age2 i. Gender2 i.Faculty2 i.University2 i. Degree2 i.Time2 CSEQAVG

Source	SS	df	MS			
Model	17.7212624	20	.886063121			
Residual	108.970109	92	1.18445771			
Total	126.691372	112	1.13117296			

Number of obs = 113
F(20, 92) = 0.75
Prob > F = 0.7662
R-squared = 0.1399
Adj R-squared = -0.0471
Root MSE = 1.0883

```
> con
>     f. interval]
```

psy	Coefficient	Std. err.	t	P>|t|	[95%

```
                           Age2 |
                          25-30 |  -.0664403   .2714255    -0.24   0.807     -.605
> 5148
>          .4726342
                          31-35 |   .1729766   .3596206     0.48   0.632      -.54
> 1261
>          .8872141
                    36 or older |   .4384898   .4374478     1.00   0.319     -.430
> 3192
>          1.307299

                        Gender2 |
                           Male |   .2335163   .235768      0.99   0.325     -.234
> 7394
>          .701772

                        Faculty2 |
    Faculty of Engineering and Science |  -.3170676   1.229311    -0.26   0.797    -2.75
> 8586
>          2.124451
               Faculty of Fine Arts |  -1.72547   1.390482    -1.24   0.218    -4.48
> 7087
>          1.036147
           Faculty of Health Sciences |   .5479887   1.250684     0.44   0.662    -1.93
> 5978
>          3.031956
           Faculty of Health sciences |  -.5119314   .7710362    -0.66   0.508    -2.04
> 3276
>          1.019413
    Faculty of Humanities and Education |  -.9293844   1.158169    -0.80   0.424    -3.22
> 9608
>          1.370839
     Faculty of Science and Technology |  -.1842847   .6606238    -0.28   0.781    -1.49
> 6341
>          1.127771
            Faculty of Social Sciences |  -.5329237   .7365276    -0.72   0.471    -1.99
> 5731
>          .9298837
      Faculty science and technology |  -.0951989   .9038773    -0.11   0.916    -1.89
> 0377
>          1.699979
           School of Business and Law |  -.0434123   1.293489    -0.03   0.973    -2.61
> 2393
```

89

```
>              2.525568
                      UiS Business School |   -.206704    .6708408    -0.31   0.759    -1.53
> 9052
>              1.125644

                                University2
                  University of Stavanger |  -.3472467    .9119738    -0.38   0.704    -2.15
> 8505
>              1.464012

                                   Degree2
                                    Master |   -.392451     .363804    -1.08   0.284    -1.11
> 4997
>              .3300951

                                     Time2
                        Less than 6 months |    .206962    .4765824     0.43   0.665    -.739
> 5717
>              1.153496
                         More than 1 year |   .1231057    .5137147     0.24   0.811    -.897
> 1761
>              1.143387
                        More than 2 years |  -.1703161    .5306348    -0.32   0.749    -1.22
> 4203
>              .8835704

                                   CSEQAVG |   -.307177    .2435205    -1.26   0.210    -.790
> 8298
>              .1764757
                                     _cons |   4.990209    1.371019     3.64   0.000     2.26
> 7246
>              7.713172
```

97.
  end of do-file

98. do "C:\Users\local_maryaro\Temp\STD5f59c_000000.tmp"

99. bysort Age2: tabstat CAQAVG, stat(count mean sd)

-> Age2 = 18-24

Variable	N	Mean	SD
CAQAVG	35	3.17551	.2674537

-> Age2 = 25-30

Variable	N	Mean	SD
CAQAVG	47	3.12614	.3387214

-> Age2 = 31-35

Variable	N	Mean	SD
CAQAVG	18	3.230159	.2344255

-> Age2 = 36 or older

90

edu	Coefficient	Std. err.	t	P>|t|	[95% conf. interval]	
Age2						
25-30	.0784194	.1927449	0.41	0.685	-.3035947	.4604335
31-35	.1571428	.2503955	0.63	0.532	-.339133	.6534186
36 or older	.3186813	.2803973	1.14	0.258	-.2370571	.8744196
_cons	3.542857	.1459234	24.28	0.000	3.253642	3.832073

103 regress relation i.Age2

Source	SS	df	MS			
Model	1.8973531	3	.632451033	Number of obs	=	113
Residual	137.321052	109	1.25982616	F(3, 109)	=	0.50
				Prob > F	=	0.6817
				R-squared	=	0.0136
				Adj R-squared	=	-0.0135
Total	139.218405	112	1.24302147	Root MSE	=	1.1224

relational	Coefficient	Std. err.	t	P>|t|	[95% conf. interval]	
Age2						
25-30	.0144681	.250599	0.06	0.954	-.4822109	.5111471
31-35	.14	.325554	0.43	0.668	-.5052373	.7852374
36 or older	.4092308	.364561	1.12	0.264	-.3133173	1.131779
_cons	2.96	.1897236	15.60	0.000	2.583974	3.336026

104 regress psy i.Age2

Source	SS	df	MS			
Model	4.92916946	3	1.64305649	Number of obs	=	113
Residual	121.762202	109	1.11708442	F(3, 109)	=	1.47
				Prob > F	=	0.2265
				R-squared	=	0.0389
				Adj R-squared	=	0.0125
Total	126.691372	112	1.13117296	Root MSE	=	1.0569

psy	Coefficient	Std. err.	t	P>|t|	[95% conf. interval]	
Age2						
25-30	.0893617	.2359755	0.38	0.706	-.3783341	.5570575
31-35	.2944444	.3065566	0.96	0.339	-.3131408	.9020296
36 or older	.6769231	.3432874	1.97	0.051	-.0034615	1.357308
_cons	3.15	.1786524	17.63	0.000	2.795917	3.504083

105
 end of do-file

106 do "C:\Users\local_maryaro\Temp\STD5f59c_000000.tmp"

107 bysort Gender2: tabstat CAQAVG, stat(count mean sd)

-> Gender2 = Female

Variable	N	Mean	SD
CAQAVG	64	3.142857	.2750269

-> Gender2 = Male

91

Variable		N	Mean	SD
CAQAVG		49	3.195335	.3355925

108 bysort Gender2: tabstat CSEQAVG, stat(count mean sd)

-> Gender2 = Female

Variable		N	Mean	SD
CSEQAVG		64	3.259375	.4624705

-> Gender2 = Male

Variable		N	Mean	SD
CSEQAVG		49	3.234694	.5023076

109 regress CAQAVG i.Gender2

Source	SS	df	MS		Number of obs	=	113
					F(1, 111)	=	0.83
Model	.076428332	1	.076428332		Prob > F	=	0.3631
Residual	10.1711787	111	.09163224		R-squared	=	0.0075
					Adj R-squared	=	-0.0015
Total	10.247607	112	.091496491		Root MSE	=	.30271

CAQAVG	Coefficient	Std. err.	t	P>|t|	[95% conf. interval]	
Gender2						
Male	.0524781	.0574613	0.91	0.363	-.0613852	.1663415
_cons	3.142857	.0378385	83.06	0.000	3.067878	3.217837

110 regress edu i.Gender2

Source	SS	df	MS		Number of obs	=	113
					F(1, 111)	=	1.32
Model	.966393623	1	.966393623		Prob > F	=	0.2532
Residual	81.3175022	111	.73259011		R-squared	=	0.0117
					Adj R-squared	=	0.0028
Total	82.2838958	112	.734677641		Root MSE	=	.85591

edu	Coefficient	Std. err.	t	P>|t|	[95% conf. interval]	
Gender2						
Male	.1866071	.1624732	1.15	0.253	-.1353444	.5085586
_cons	3.55625	.1069893	33.24	0.000	3.344243	3.768257

111 regress relation i.Gender2

Source	SS	df	MS		Number of obs	=	113
					F(1, 111)	=	0.03
Model	.031468322	1	.031468322		Prob > F	=	0.8744
Residual	139.186937	111	1.25393637		R-squared	=	0.0002
					Adj R-squared	=	-0.0088
Total	139.218405	112	1.24302147		Root MSE	=	1.1198

relational	Coefficient	Std. err.	t	P>|t|	[95% conf. interval]	
Gender2						
Male	-.0336735	.2125636	-0.16	0.874	-.4548825	.3875355
_cons	3.05	.1399741	21.79	0.000	2.772632	3.327368

112 regress psy i.Gender2

Source	SS	df	MS			
Model	2.43150641	1	2.43150641			
Residual	124.259865	111	1.11945825			
Total	126.691372	112	1.13117296			

Number of obs	=	113
F(1, 111)	=	2.17
Prob > F	=	0.1434
R-squared	=	0.0192
Adj R-squared	=	0.0104
Root MSE	=	1.058

psy	Coefficient	Std. err.	t	P>|t|	[95% conf. interval]	
Gender2						
Male	.2959981	.2008423	1.47	0.143	-.1019843	.6939805
_cons	3.183594	.1322556	24.07	0.000	2.921521	3.445667

113
  end of do-file

114 do "C:\Users\local_maryaro\Temp\STD5f59c_000000.tmp"

115 bysort Faculty2: tabstat CAQAVG, stat(count mean sd)

-> Faculty2 = Faculty of Arts and Education

Variable	N	Mean	SD
CAQAVG	4	3.267857	.1352121

-> Faculty2 = Faculty of Engineering and Science

Variable	N	Mean	SD
CAQAVG	5	3.314286	.2347382

-> Faculty2 = Faculty of Fine Arts

Variable	N	Mean	SD
CAQAVG	2	3.357143	.1010153

-> Faculty2 = Faculty of Health Sciences

Variable	N	Mean	SD
CAQAVG	1	3.571429	.

-> Faculty2 = Faculty of Health sciences

Variable	N	Mean	SD
CAQAVG	5	3.057143	.3047247

93

-> Faculty2 = Faculty of Humanities and Education

Variable	N	Mean	SD
CAQAVG	19	3.12406	.3245808

-> Faculty2 = Faculty of Science and Technology

Variable	N	Mean	SD
CAQAVG	34	3.210084	.2807695

-> Faculty2 = Faculty of Social Sciences

Variable	N	Mean	SD
CAQAVG	11	3.136364	.3620443

-> Faculty2 = Faculty science and technology

Variable	N	Mean	SD
CAQAVG	3	2.952381	.5265082

-> Faculty2 = School of Business and Law

Variable	N	Mean	SD
CAQAVG	3	3.261905	.1091089

-> Faculty2 = UiS Business School

Variable	N	Mean	SD
CAQAVG	26	3.10989	.3098589

116 bysort Faculty2: tabstat CSEQAVG, stat(count mean sd)

-> Faculty2 = Faculty of Arts and Education

Variable	N	Mean	SD
CSEQAVG	4	2.675	.7588368

-> Faculty2 = Faculty of Engineering and Science

Variable	N	Mean	SD
CSEQAVG	5	2.94	.585662

-> Faculty2 = Faculty of Fine Arts

94

Variable	N	Mean	SD
CSEQAVG	2	3	.2828427

-> Faculty2 = Faculty of Health Sciences

Variable	N	Mean	SD
CSEQAVG	1	2.8	.

-> Faculty2 = Faculty of Health sciences

Variable	N	Mean	SD
CSEQAVG	5	3.02	.4438468

-> Faculty2 = Faculty of Humanities and Education

Variable	N	Mean	SD
CSEQAVG	19	3.452632	.3255225

-> Faculty2 = Faculty of Science and Technology

Variable	N	Mean	SD
CSEQAVG	34	3.208824	.5253384

-> Faculty2 = Faculty of Social Sciences

Variable	N	Mean	SD
CSEQAVG	11	3.418182	.4490394

-> Faculty2 = Faculty science and technology

Variable	N	Mean	SD
CSEQAVG	3	3.066667	.6429101

-> Faculty2 = School of Business and Law

Variable	N	Mean	SD
CSEQAVG	3	3.3	.7211103

-> Faculty2 = UiS Business School

Variable	N	Mean	SD
CSEQAVG	26	3.323077	.3432873

117 regress CAQAVG i.Faculty2

Source	SS	df	MS			
Model	.803624731	10	.080362473	Number of obs	=	113
Residual	9.44398228	102	.092588062	F(10, 102)	=	0.87
				Prob > F	=	0.5655
				R-squared	=	0.0784
				Adj R-squared	=	-0.0119
Total	10.247607	112	.091496491	Root MSE	=	.30428

CAQAVG > con > f. interval]	Coefficient	Std. err.	t	P>|t|	[95%
Faculty2					
Faculty of Engineering and Science > 4408 > .4512979	.0464286	.2041192	0.23	0.821	-.358
Faculty of Fine Arts > 3984 > .6119698	.0892857	.2635167	0.34	0.735	-.433
Faculty of Health Sciences > 2109 > .9783537	.3035714	.3401986	0.89	0.374	-.371
Faculty of Health sciences > 5837 > .1941551	-.2107143	.2041192	-1.03	0.304	-.615
Faculty of Humanities and Education > 8182 > .1882242	-.143797	.167392	-0.86	0.392	-.475
Faculty of Science and Technology > 8027 > .2612565	-.0577731	.1608421	-0.36	0.720	-.376
Faculty of Social Sciences > 8871 > .2209	-.1314935	.1776629	-0.74	0.461	-.483
Faculty science and technology > 4402 > .1454879	-.3154762	.2323999	-1.36	0.178	-.776
School of Business and Law > 9164 > .4550117	-.0059524	.2323999	-0.03	0.980	-.466
UiS Business School > 2122 > .1661879	-.157967	.1634261	-0.97	0.336	-.48
_cons > 6085 > 3.569629	3.267857	.1521414	21.48	0.000	2.96

118 regress edu i.Faculty2

Source	SS	df	MS			
Model	8.35549589	10	.835549589	Number of obs	=	113
Residual	73.9283999	102	.724788234	F(10, 102)	=	1.15
				Prob > F	=	0.3315
				R-squared	=	0.1015
				Adj R-squared	=	0.0135
Total	82.2838958	112	.734677641	Root MSE	=	.85134

```
                              edu │ Coefficient  Std. err.      t    P>|t|     [95%
>  con
>     f. interval]
──────────────────────────────────┼─────────────────────────────────────────────
                         Faculty2  │
 Faculty of Engineering and Science│   .0200001   .5710996    0.04   0.972    -1.11
> 2773
>            1.152773              
             Faculty of Fine Arts  │        -.3   .7372864   -0.41   0.685    -1.76
> 2404
>            1.162404              
         Faculty of Health Sciences│         .7   .9518326    0.74   0.464    -1.18
> 7955
>            2.587955              
         Faculty of Health sciences│      -1.14   .5710996   -2.00   0.049    -2.27
> 2773
>           -.0072267              
Faculty of Humanities and Education│  -.8052631   .4683416   -1.72   0.089    -1.73
> 4216
>            .1236901              
 Faculty of Science and Technology │  -.7529411    .450016   -1.67   0.097    -1.64
> 5546
>            .1396634              
        Faculty of Social Sciences │  -.8090909   .4970784   -1.63   0.107    -1.79
> 5043
>            .1768617              
     Faculty science and technology│  -.5666665   .6502255   -0.87   0.386    -1.85
> 6386
>            .7230526              
          School of Business and Law│        -.7   .6502255   -1.08   0.284    -1.98
> 9719
>            .5897191              
                UiS Business School │  -.6076923   .4572456   -1.33   0.187    -1.51
> 4637
>            .2992522              
                                   │
                             _cons │        4.3   .4256725   10.10   0.000     3.45
> 5681
>            5.144319              
──────────────────────────────────┴─────────────────────────────────────────────
```

119 regress relation i.Faculty2

```
      Source │       SS           df       MS      Number of obs   =       113
─────────────┼──────────────────────────────       F(10, 102)      =      1.20
       Model │  14.6458037        10  1.46458037   Prob > F        =    0.3005
    Residual │  124.572601       102  1.22130001   R-squared       =    0.1052
─────────────┼──────────────────────────────       Adj R-squared   =    0.0175
       Total │  139.218405       112  1.24302147   Root MSE        =    1.1051
```

```
                        relational │ Coefficient  Std. err.      t    P>|t|     [95%
>  con
>     f. interval]
──────────────────────────────────┼─────────────────────────────────────────────
                         Faculty2  │
 Faculty of Engineering and Science│        .48    .74134    0.65   0.519    -.990
> 4444
>            1.950444              
             Faculty of Fine Arts  │       -1.1   .9570658   -1.15   0.253    -2.99
> 8336
>            .7983355              
         Faculty of Health Sciences│   .9999998   1.235567    0.81   0.420    -1.45
> 0741
>            3.45074               
         Faculty of Health sciences│   -1.79e-08    .74134   -0.00   1.000    -1.47
```

```
> 0444
>          1.470444
Faculty of Humanities and Education  |   -.8105263    .6079506    -1.33    0.185    -2.01
> 6393
>           .3953408
  Faculty of Science and Technology  |   -.1176471    .5841623    -0.20    0.841     -1.2
> 7633
>          1.041036
          Faculty of Social Sciences  |   -.0909091    .6452537    -0.14    0.888    -1.37
> 0767
>          1.188948
     Faculty science and technology  |   -.1333333    .8440527    -0.16    0.875    -1.80
> 7508
>          1.540841
         School of Business and Law  |   -4.97e-08    .8440527    -0.00    1.000    -1.67
> 4175
>          1.674175
                 UiS Business School  |    .0384615     .593547     0.06    0.948    -1.13
> 8836
>          1.215759

                               _cons |         3.2    .5525622     5.79    0.000     2.10
> 3995
>          4.296005
```

120 regress psy i.Faculty2

Source	SS	df	MS			
Model	7.93924913	10	.793924913			
Residual	118.752123	102	1.1642365			
Total	126.691372	112	1.13117296			

Number of obs	= 113
F(10, 102)	= 0.68
Prob > F	= 0.7390
R-squared	= 0.0627
Adj R-squared	= -0.0292
Root MSE	= 1.079

```
                                 psy | Coefficient  Std. err.      t    P>|t|     [95%
> con
>      f. interval]

                            Faculty2 |
  Faculty of Engineering and Science |     -.1875    .7238138    -0.26    0.796    -1.62
> 3181
>          1.248181
                  Faculty of Fine Arts |    -1.3125    .9344396    -1.40    0.163    -3.16
> 5957
>           .5409565
             Faculty of Health Sciences |     .5625    1.206356     0.47    0.642    -1.83
> 0302
>          2.955302
             Faculty of Health sciences |    -.6375    .7238138    -0.88    0.381    -2.07
> 3181
>           .7981812
Faculty of Humanities and Education  |   -.8848684    .5935779    -1.49    0.139    -2.06
> 2227
>           .2924905
  Faculty of Science and Technology  |   -.5551471     .570352    -0.97    0.333    -1.68
> 6437
>           .5761434
          Faculty of Social Sciences  |   -.8238636    .6299991    -1.31    0.194    -2.07
> 3464
>           .4257365
     Faculty science and technology  |    -.6875    .8240983    -0.83    0.406    -2.32
> 2095
>           .947095
         School of Business and Law  |   -.0208333    .8240983    -0.03    0.980    -1.65
> 5428
>          1.613762
                 UiS Business School  |   -.6778846    .5795148    -1.17    0.245     -1.8
```

98

```
> 2735
>           .4715803
                                   _cons |      3.9375    .539499     7.30   0.000      2.86
> 7406
>           5.007594

          _____
121
  end of do-file

122 do "C:\Users\local_maryaro\Temp\STD5f59c_000000.tmp"

123 bysort University2: tabstat CAQAVG, stat(count mean sd)
```

```
-> University2 = University of Agder

   Variable |        N       Mean        SD
   ---------+---------------------------------
     CAQAVG |       31   3.184332   .2825866
```

```
-> University2 = University of Stavanger

   Variable |        N       Mean        SD
   ---------+---------------------------------
     CAQAVG |       82   3.158537   .3110513
```

```
124 bysort University2: tabstat CSEQAVG, stat(count mean sd)
```

```
-> University2 = University of Agder

   Variable |        N       Mean        SD
   ---------+---------------------------------
    CSEQAVG |       31   3.309677    .447478
```

```
-> University2 = University of Stavanger

   Variable |        N       Mean        SD
   ---------+---------------------------------
    CSEQAVG |       82    3.22561   .4898503
```

```
125 regress CAQAVG i.University2

      Source |       SS           df       MS      Number of obs   =       113
-------------+----------------------------------   F(1, 111)       =      0.16
       Model |  .014968397         1  .014968397   Prob > F        =    0.6878
    Residual |  10.2326386       111  .092185933   R-squared       =    0.0015
-------------+----------------------------------   Adj R-squared   =   -0.0075
       Total |  10.247607        112  .091496491   Root MSE        =    .30362

   ____
        CAQAVG | Coefficient  Std. err.      t    P>|t|     [95% conf. inter
> val]
   ____
     University2 |
University of Stavanger |  -.0257952   .0640153    -0.40   0.688    -.1526458      .101
> 0554
          _cons |   3.184332    .054532    58.39   0.000     3.076273     3.29
> 2391
   ____
```

99

```
129
  end of do-file

130 do "C:\Users\local_maryaro\Temp\STD5f59c_000000.tmp"

131 bysort Degree2: tabstat CAQAVG, stat(count mean sd)
```

-> Degree2 = Bachelor

Variable	N	Mean	SD
CAQAVG	22	3.162338	.3307836

-> Degree2 = Master

Variable	N	Mean	SD
CAQAVG	91	3.166405	.2972006

```
132 bysort Degree2: tabstat CSEQAVG, stat(count mean sd)
```

-> Degree2 = Bachelor

Variable	N	Mean	SD
CSEQAVG	22	3.25	.4677708

-> Degree2 = Master

Variable	N	Mean	SD
CSEQAVG	91	3.248352	.4831293

```
133 regress CAQAVG i.Degree2
```

Source	SS	df	MS		
				Number of obs =	113
				F(1, 111) =	0.00
Model	.000293097	1	.000293097	Prob > F =	0.9552
Residual	10.2473139	111	.092318143	R-squared =	0.0000
				Adj R-squared =	-0.0090
Total	10.247607	112	.091496491	Root MSE =	.30384

CAQAVG	Coefficient	Std. err.	t	P>|t|	[95% conf. interval]	
Degree2						
Master	.0040674	.0721856	0.06	0.955	-.1389733	.147108
_cons	3.162338	.0647787	48.82	0.000	3.033974	3.290701

```
134 regress edu i.Degree2
```

Source	SS	df	MS		
				Number of obs =	113
				F(1, 111) =	0.01
Model	.008249454	1	.008249454	Prob > F =	0.9162
Residual	82.2756463	111	.741222039	R-squared =	0.0001
				Adj R-squared =	-0.0089
Total	82.2838958	112	.734677641	Root MSE =	.86094

100

edu	Coefficient	Std. err.	t	P>|t|	[95% conf. interval]	
Degree2						
Master	-.0215784	.2045415	-0.11	0.916	-.426891	.3837341
_cons	3.654545	.1835536	19.91	0.000	3.290822	4.018269

135 regress relation i.Degree2

Source	SS	df	MS		Number of obs	=	113
					F(1, 111)	=	0.46
Model	.570335016	1	.570335016		Prob > F	=	0.5006
Residual	138.64807	111	1.24908171		R-squared	=	0.0041
					Adj R-squared	=	-0.0049
Total	139.218405	112	1.24302147		Root MSE	=	1.1176

relational	Coefficient	Std. err.	t	P>|t|	[95% conf. interval]	
Degree2						
Master	.1794206	.2655233	0.68	0.501	-.3467316	.7055727
_cons	2.890909	.2382781	12.13	0.000	2.418745	3.363073

136 regress psy i.Degree2

Source	SS	df	MS		Number of obs	=	113
					F(1, 111)	=	0.00
Model	.000718585	1	.000718585		Prob > F	=	0.9800
Residual	126.690653	111	1.14135724		R-squared	=	0.0000
					Adj R-squared	=	-0.0090
Total	126.691372	112	1.13117296		Root MSE	=	1.0683

psy	Coefficient	Std. err.	t	P>|t|	[95% conf. interval]	
Degree2						
Master	.0063686	.2538154	0.03	0.980	-.4965835	.5093208
_cons	3.306818	.2277715	14.52	0.000	2.855474	3.758163

137
 end of do-file

138 do "C:\Users\local_maryaro\Temp\STD5f59c_000000.tmp"

139 bysort Time2: tabstat CAQAVG, stat(count mean sd)

-> Time2 = 6 -12 months

Variable	N	Mean	SD
CAQAVG	7	3.306122	.1831057

-> Time2 = Less than 6 months

Variable	N	Mean	SD
CAQAVG	60	3.139286	.2797269

-> Time2 = More than 1 year

101

Variable	N	Mean	SD
CAQAVG	28	3.27551	.2795055

-> Time2 = More than 2 years

Variable	N	Mean	SD
CAQAVG	18	3.027778	.3804487

140 bysort Time2: tabstat CSEQAVG, stat(count mean sd)

-> Time2 = 6 -12 months

Variable	N	Mean	SD
CSEQAVG	7	3.028571	.6550173

-> Time2 = Less than 6 months

Variable	N	Mean	SD
CSEQAVG	60	3.318333	.4393723

-> Time2 = More than 1 year

Variable	N	Mean	SD
CSEQAVG	28	3.235714	.5129539

-> Time2 = More than 2 years

Variable	N	Mean	SD
CSEQAVG	18	3.122222	.4608886

141 regress CAQAVG i.Time2

Source	SS	df	MS
Model	.859928841	3	.286642947
Residual	9.38767817	109	.086125488
Total	10.247607	112	.091496491

Number of obs	= 113
F(3, 109)	= 3.33
Prob > F	= 0.0223
R-squared	= 0.0839
Adj R-squared	= 0.0587
Root MSE	= .29347

CAQAVG	Coefficient	Std. err.	t	P>|t|	[95% conf. interval]	
Time2						
Less than 6 months	-.1668367	.1172138	-1.42	0.157	-.3991506	.0654771
More than 1 year	-.0306122	.1240143	-0.25	0.805	-.2764046	.2151801
More than 2 years	-.2783447	.1307226	-2.13	0.035	-.5374326	-.0192568
_cons	3.306122	.1109218	29.81	0.000	3.086279	3.525966

102

142 regress edu i.Time2

Source	SS	df	MS			
Model	5.90198928	3	1.96732976			
Residual	76.3819065	109	.700751436			
Total	82.2838958	112	.734677641			

				Number of obs	=	113
				F(3, 109)	=	2.81
				Prob > F	=	0.0430
				R-squared	=	0.0717
				Adj R-squared	=	0.0462
				Root MSE	=	.83711

edu	Coefficient	Std. err.	t	P>|t|	[95% conf. interval]	
Time2						
Less than 6 months	.1380952	.3343449	0.41	0.680	-.5245656	.800756
More than 1 year	.5857143	.3537431	1.66	0.101	-.1153931	1.286822
More than 2 years	-.0619048	.372878	-0.17	0.868	-.8009368	.6771272
_cons	3.428571	.3163975	10.84	0.000	2.801482	4.055661

143 regress relation i.Time2

Source	SS	df	MS			
Model	9.4676453	3	3.15588177			
Residual	129.75076	109	1.19037394			
Total	139.218405	112	1.24302147			

				Number of obs	=	113
				F(3, 109)	=	2.65
				Prob > F	=	0.0524
				R-squared	=	0.0680
				Adj R-squared	=	0.0424
				Root MSE	=	1.091

relational	Coefficient	Std. err.	t	P>|t|	[95% conf. interval]	
Time2						
Less than 6 months	.4747619	.4357671	1.09	0.278	-.3889143	1.338438
More than 1 year	-.0571429	.4610496	-0.12	0.902	-.9709283	.8566425
More than 2 years	-.1952381	.485989	-0.40	0.689	-1.158452	.7679763
_cons	2.828571	.4123753	6.86	0.000	2.011257	3.645886

144 regress psy i.Time2

Source	SS	df	MS			
Model	1.96686771	3	.655622571			
Residual	124.724504	109	1.1442615			
Total	126.691372	112	1.13117296			

				Number of obs	=	113
				F(3, 109)	=	0.57
				Prob > F	=	0.6340
				R-squared	=	0.0155
				Adj R-squared	=	-0.0116
				Root MSE	=	1.0697

psy	Coefficient	Std. err.	t	P>|t|	[95% conf. interval]	
Time2						
Less than 6 months	.097619	.4272434	0.23	0.820	-.7491636	.9444016
More than 1 year	.0714286	.4520314	0.16	0.875	-.824483	.9673402
More than 2 years	-.2718254	.476483	-0.57	0.570	-1.216199	.6725483
_cons	3.285714	.4043092	8.13	0.000	2.484387	4.087042

103

```
145
  end of do-file

146 do "C:\Users\local_maryaro\Temp\STD5f59c_000000.tmp"

147 tabstat CSEQAVG, stat(count mean sd)
```

Variable	N	Mean	SD
CSEQAVG	113	3.248673	.4781129

```
148 regress CAQAVG CSEQAVG
```

Source	SS	df	MS
Model	.725857421	1	.725857421
Residual	9.52174959	111	.085781528
Total	10.247607	112	.091496491

Number of obs	= 113
F(1, 111)	= 8.46
Prob > F	= 0.0044
R-squared	= 0.0708
Adj R-squared	= 0.0625
Root MSE	= .29288

CAQAVG	Coefficient	Std. err.	t	P>|t|	[95% conf. interval]	
CSEQAVG	-.1683783	.0578838	-2.91	0.004	-.283079	-.0536776
_cons	3.712619	.1900534	19.53	0.000	3.336016	4.089223

```
149 regress edu CSEQAVG
```

Source	SS	df	MS
Model	4.06722318	1	4.06722318
Residual	78.2166726	111	.704654708
Total	82.2838958	112	.734677641

Number of obs	= 113
F(1, 111)	= 5.77
Prob > F	= 0.0179
R-squared	= 0.0494
Adj R-squared	= 0.0409
Root MSE	= .83944

edu	Coefficient	Std. err.	t	P>|t|	[95% conf. interval]	
CSEQAVG	-.3985745	.1659009	-2.40	0.018	-.7273182	-.0698308
_cons	4.932006	.544712	9.05	0.000	3.852623	6.011389

```
150 regress relation CSEQAVG
```

Source	SS	df	MS
Model	2.47153946	1	2.47153946
Residual	136.746865	111	1.23195374
Total	139.218405	112	1.24302147

Number of obs	= 113
F(1, 111)	= 2.01
Prob > F	= 0.1595
R-squared	= 0.0178
Adj R-squared	= 0.0089
Root MSE	= 1.1099

relational	Coefficient	Std. err.	t	P>|t|	[95% conf. interval]	
CSEQAVG	-.3107022	.2193601	-1.42	0.159	-.7453789	.1239746
_cons	4.044768	.7202379	5.62	0.000	2.617568	5.471967

151 regress psy CSEQAVG

Source	SS	df	MS			
Model	4.21707457	1	4.21707457			
Residual	122.474297	111	1.10337205			
Total	126.691372	112	1.13117296			

		Number of obs	=	113
		F(1, 111)	=	3.82
		Prob > F	=	0.0531
		R-squared	=	0.0333
		Adj R-squared	=	0.0246
		Root MSE	=	1.0504

psy	Coefficient	Std. err.	t	P>|t|	[95% conf. interval]	
CSEQAVG	-.4058506	.2075972	-1.95	0.053	-.8172183	.0055172
_cons	4.630422	.681616	6.79	0.000	3.279755	5.98109

152
  end of do-file

153 do "C:\Users\local_maryaro\Temp\STD5f59c_000000.tmp"

154 twoway scatter CAQAVG CSEQAVG || lfit CAQAVG CSEQAVG

155
  end of do-file

156 do "C:\Users\local_maryaro\Temp\STD5f59c_000000.tmp"

157 codebook Age if CSEQAVG<3.1

Age   **Age**

                    Type: String (**str11**)

    Unique values: **4**   Missing "": 0/35

        Tabulation: Freq. Value
                       6 "18-24"
                      17 "25-30"
                       5 "31-35"
                       7 "36 or older"

          Warning: Variable has embedded blanks.

158 codebook Age if CSEQAVG>2.4

Age   **Age**

                    Type: String (**str11**)

    Unique values: **4**   Missing "": 0/106

        Tabulation: Freq. Value
                      33 "18-24"
                      45 "25-30"
                      17 "31-35"
                      11 "36 or older"

          Warning: Variable has embedded blanks.

159 codebook Gender if CSEQAVG<3.1

Gender   **Gender**

                        Type: String (**str17**), but longest is str6

            Unique values: **2**   Missing "": **0/35**

                Tabulation: Freq.   Value
                              19   **"Female"**
                              16   **"Male"**

160
  end of do-file

161 do "C:\Users\local_maryaro\Temp\STD5f59c_000000.tmp"

162 log close
        name: **<unnamed>**
         log: **\\hume.uio.no\student-u54\maryaro\pc\Desktop\stata_log.smcl**
    log type: **smcl**
   closed on: **22 Mar 2023, 16:27:25**