

University of Twente
School of Management and Governance

Thesis for Bachelor of Science in European Studies

Student Satisfaction at the University of Twente



A comparative case study on student satisfaction of
German and Dutch bachelor students in Twente

Author: Mandy Kruger
21 September 2009, Enschede
Supervisor: Dr. Harry F. de Boer
Co-reader: Prof. Dr. Johan J. Vossensteyn

Contents

Acknowledgements	iv
Abstract	v
I.) Introduction	1
Relevance of the research	1
Research goal and research questions	2
II.) Theoretical framework	4
Consumer Theory and customer satisfaction	4
Influences on customer and student satisfaction	6
Expectations	6
Disconfirmation Theory	8
Review of student satisfaction research	10
Chapter conclusion	11
III.) Methods and Procedures	12
Data Collection	12
Target population, sampling frame and research sample	12
Measures	15
Data analysis	18
Chapter conclusion	19
IV.) Results	20
General outcomes	20
Differences between German and Dutch students	23
Differences between male and female students	25

<u>Differences between Psychology, Communication Science, European Studies and Public Administration students</u>	26
<u>Chapter conclusion</u>	27
V.) <u>Conclusions and discussion</u>	29
<u>Conclusions</u>	29
<u>Discussion</u>	30
<u>Limitations and recommendations</u>	33
<u>References</u>	vi
<u>Glossary</u>	xi
<u>Appendix</u>	xii
<u>Survey</u>	xii
<u>Item-Inventory</u>	xvii
<u>Tables</u>	xvii
<u>Graphs</u>	xxvi
<u>Open question answers</u>	xxxii
<u>Interesting observations and thoughts</u>	xxxvii

Acknowledgments

I would like to thank the two faculties: the 'School of Management and Governance' and the 'Faculty of Behavioral Science' for supporting my study. Their input enriched my research and without their administrative help the realization of the conducted survey might not have been feasible within the given time frame. Especially the Bureaus of Education Administration were of great assistance.

From their special point of view the Student Union's management contributed valuable ideas and thoughts which supplemented my study well and at the same time enhanced its scope. Many thanks for this.

My special gratitude is dedicated to my (former) boss Els Gellevij, survey specialist at the university's office for education (OD). As her student assistant I have been helping with creating and analyzing course evaluations for two years now. Els familiarized me not only with all the software necessary to make my own web-based survey, but also with many methodological issues of constructing and evaluating questionnaires. It is questionable whether I would have dared a bachelor thesis of the current format without this background knowledge.

Last but not least, I want to express my thankfulness for the excellent guidance of my supervisor Harry de Boer. It was grace to his energetic mind that, when leaving his office, I could not wait starting to work on what we had just discussed. At times it even seemed that Harry was more enthusiastic than me about my own research. According to him data analysis is fun. And indeed, my résumé of this bachelor thesis: Statistics does not hurt. Au contraire, doing your own empirical research and playing around with data in SPSS can be fun.

Abstract

It is the purpose of our study to find out how happy UT bachelor students are with 'being a student in Twente' and how this student satisfaction differs between German and Dutch students.

Student satisfaction is understood as a special form of customer satisfaction and comprised of five different categories: curriculum, teachers, facilities, student life and support services. To assess student satisfaction a three-dimensional model is used, which includes expectations, perceptions and importance. According to the Expectation-Disconfirmation Model, a disconfirmation score results from subtracting students' expectation of a service from their perception of the service's quality. Moreover, the dimension of importance is added to this disconfirmation model to differentiate services of lower and higher significance.

A web-based survey is conducted among four different bachelor study programs to collect the necessary data, which are analyzed statistically.

Our study found that overall bachelor students indicate receiving adequate service in the categories teachers, facilities, student life and support services. Only the curriculum stands out as a dissatisfying factor influencing students' satisfaction negatively. This can be explained by the exceptionally high expectations students hold of the curriculum prior to beginning their program.

German and Dutch students form a quite homogeneous group in terms of student satisfaction. Only two major differences are found in their level of satisfaction. First, Dutch students are dissatisfied by the PC's, printers and copy machines available to them while German students deem this technical equipment as being adequate. Second, the flexibility of the curriculum represents a dissatisfying factor for German students.

Key words: student satisfaction, customer satisfaction, expectations, perceptions, importance, disconfirmation theory

I.) Introduction

Being close to the border of Germany, the University of Twente (UT) attracts many German students. However, not only geographic location but also the absence of a special restricted admission, more personal rapport between students and lecturers and an attractive campus seem to be reasons to keep more and more Germans coming every year. Especially the study programs Communication Science, European Studies and Psychology rejoice in up to 80 percent of all enrollments being German, while even a sizable 12 percent of all bachelor students at the UT hold a German nationality (OSIRIS, 2008).

For the University as a service supplier the student body's heterogeneity resulting from such a large foreign minority could possibly pose a challenge. Ideally the institution, which is partially dependent on enrollments and tuition fees, seeks to comply with the needs and wishes of its customers, i.e. the students. However, due to different cultural backgrounds German and Dutch students possibly have a different level of satisfaction concerning the university or their college experience in general. Because of the high number of Germans amongst the bachelor students at the UT it seems logical that research, which is focusing on German students' satisfaction, could help the university improve their service towards this group of students.

Relevance of the research

At the moment no comparison of student satisfaction on the basis of nationality exists at the UT, although several researches on the satisfaction of students in general are regularly conducted. One of them includes all students at the UT and is carried out by the company Newcom. However, the data have not been analyzed for different nationalities. Secondly, a student barometer exists, measuring the satisfaction of international students. Yet, this study is less applicable for foreign student completing their entire program at the UT, as it is the case for most Germans studying here. Thirdly, some faculties have developed their own studies to measure their students' satisfaction. But also these data are not evaluated for different nationalities and commonly focus on the categories curriculum, teachers and facilities.

Our research presents a follow up as well as a deepening of these already existing studies. First of all, it analyzes the possibly different satisfaction levels of

German and Dutch students which have not been analyzed before. Secondly, our research applies a broader concept of student satisfaction, which includes five different categories: curriculum, teachers, facilities, student life and support services. Therefore our research has a great relevance for the university and the separate faculties involved. Also the Student Union (the university's umbrella organization responsible for representing students' interests concerning study, sports, culture and social societies) could most likely make good use of the outcomes.

Thirdly, our research is a considerable deepening of the existing studies at the UT because of its unique three-dimensional approach to the concept satisfaction. While the mentioned studies assess satisfaction by measuring university performance, our research adds two more dimensions: expectations and importance. Following the lines of the disconfirmation theory our study assesses an expectancy-disconfirmation by subtracting students' initial expectations before coming to the UT from the level of quality they perceive after starting their study here. Additionally, importance is incorporated to differentiate students' indicated level of disconfirmation.

The outcomes will not only give the university the possibility to improve negatively perceived parts of the college experience. In addition, it provides the opportunity to actively manage and guide students' expectations (for example by means of advertisement or via the recruitment teams) and therefore influence their satisfaction.

Research goal and research questions

The goal of our research is to find out how the student satisfaction differs between German and Dutch bachelor students at the University of Twente. In other words, how happy are they 'being a student at the UT'? The focus lies on the five different categories of student satisfaction: curriculum, teachers, facilities, student life and support services. The central research question is formulated as follows:

How does the student satisfaction differ between German and Dutch bachelor students at the University of Twente?

To answer this central research question four sub-questions need to be answered. These sub-questions are:

- (1.) What do we mean by student satisfaction?*
- (2.) How can student satisfaction be measured?*
- (3.) What are the student satisfaction levels of bachelor students at the UT?*
- (4.) For which items and how much does student satisfaction differ between German and Dutch bachelor students at the UT?*

The subsequent chapter (II) is an analysis of existing literature concerning student satisfaction, which answers sub-question (1). Chapter III depicts the employed operationalization and methods of analysis. It introduces the survey used for our data collection and also provides an answer to sub-question (2). Sub-questions (3) and (4) are empirical questions and thematized in chapter IV. This chapter presents the student satisfaction of bachelor students; at first in general; secondly, of Germans and Dutch students; and additionally of women and men as well as of students from different study programs. The chapter presents the statistical outcomes of our quantities data analysis. Chapter V presents the final conclusions of our research and answers the central research question. Moreover, a discussion is included, mentioning possible reasons for specific levels of student satisfaction. Finally, limitations of our research are elaborated.

II.) Theoretical framework

This section is a review of literature relevant for the subject of student satisfaction and provides an answer to our first sub-question: 'What do we mean by student satisfaction?' It aims at creating a theoretical outline to conduct our analysis. Firstly, the consumer theory and an approach of a definition for customer satisfaction are illustrating the fundamental assumptions on which the elaborations are built. The second part elaborates on influential factors for customer satisfaction and specifies these for student satisfaction. Thirdly, the significance of expectations in satisfaction research is depicted while a short excursus comments on the equalization of the dimensions expectations and importance. Section four explains the disconfirmation theory which is based on the dimensions expectations and perceptions. It is one of the main tools in our study. Finally, a review of student satisfaction research exemplifies the great importance of possible research structures and leads towards a concluding notion about the satisfaction model employed in our study as well as to the answer to sub-question (1).

Consumer Theory and customer satisfaction

For our study the fundamentals of the *consumer theory* can be applied. According to the theory's basic assumptions students can be regarded as individual customers that have individual preferences, wishes and needs. They do not only decide *whether* they want to buy a certain service, namely secondary education, but also *where* they want to receive it. The university represents a service supplier that ideally provides reliable services and is responsive to its customers' needs. These services provided by a university extent far beyond the mere provision of academic teaching, embracing the realm of administration, personal support and housing as well as extracurricular and free-time activities.

Generally, the contribution of *customer satisfaction* studies to the field of research concerned with this topic area is pervasively limited by the discrepancies in the definition of customer satisfaction itself. In academic writing numerous versions can be found which differ considerably in their approaches. A major inconsistency in these definitions is whether satisfaction is regarded as a process or as an outcome (Yi, 1990). "More precisely, consumer satisfaction definitions have either emphasized an evaluation process or a response to an evaluation process." (Giese & Cote, 2000,

p. 1) According to Oliver (1993) satisfaction is “an ongoing process that is situation and experience specific”. It has therefore a dynamic nature. Oliver (1993) continues that satisfaction is a process of fulfillment, a process where the customer experiences a ‘prior expectation-state’ and a ‘post performance-state’. Nevertheless most academics favor the concept of satisfaction as a response to a process of evaluation and more specifically as a summary notion (Giese & Cote, 2000). Such approaches are for instance brought forward by Fornell (1992) and Day (1984). Whereas the first conceptualizes customer satisfaction as an overall evaluation, the latter sees it as an evaluative response. But also Oliver (1997) adjusted his definition and indicates that it is much more a fulfillment response to an evaluation process rather than a process of fulfillment as he stated earlier. “It [customer satisfaction] is a judgment that a product or service feature, or the product or service itself, provided (or is providing) a pleasurable level of consumption-related fulfillment, including levels of under- or overfulfillment” (Oliver, 1997, p.13).

Related to the discussion above, there is also a debate on antecedents and subordinate constructs. Academics disagree on the question whether satisfaction with for example a certain product causes respondents to indicate that they perceive the products’ quality as high or whether a product’s high quality creates customer satisfaction. Is customer satisfaction hence an antecedent of service quality (Bolton and Drew, 1991) or is customer satisfaction a subordinate construct of service quality (Parasuraman, Zeithaml & Berry, 1988)? In accordance with the concept of satisfaction being a response to a fulfillment process, also Oliver (1993) argues that service quality is an antecedent of customer satisfaction. This notion resembles a crucial assumption for the disconfirmation theory discussed below.

The issue presented is quite complex and a growing number of literature is focusing on service quality and customer satisfaction. Despite these discussions there is still a prevalent tendency to view the two concepts as equivalents. Yet the construct customer satisfaction is much more comprehensive than the conception of service quality. The latter is based merely on certain dimensions or characteristics of a service while customer satisfaction includes more factors, such as personal elements or the price (Parasuraman, Zeithaml & Berry, 1994).

Influences on customer and student satisfaction

Influences on *customer satisfaction* have been the subject of a number of studies. Amongst the most influential factors fall for example the attribute level of performance (Oliva, Oliver & MacMillan, 1992), the ease of obtaining information (Oliva et al., 1992), the organizational constraint on choice and the role of the intermediary in choice (Venkatesh, Smith & Rangaswamy, 2003). Also the prior experience with products or services (Bolton & Drew, 1991) and the search time before choosing the respective service (Andersen & Sullivan, 1993) have been proven to significantly influence satisfaction.

Students can be regarded as customers. Factors influencing student satisfaction can be divided into institutional factors and personal factors (Appleton-Knapp & Krentler, 2006, p. 255). Institutional factors related include the quality of instructions (Lado, Cardone-Riportella & Rivera-Torres, 2003; DeBourgh, 2003), the quality and promptness of the instructor's feedback as well as the clarity of his/her expectations (Fredericksen, Shea & Pickett, 2000), the teaching style of the instructor (Dana, Brown & Dodd, 2001), the research emphasis of the institute (Porter & Umbach, 2001) plus the size of classes (Krentler & Grundnitski, 2004).

Personal factors that have been found to be predictors of student satisfaction are age, gender, employment (Fredericksen et al., 2000), temperament and preferred learning style (Strokes, 2003; Brokaw, Kennedy & Merz, 2004), in addition to students' grade point average (Porter & Umbach, 2001). Also students' involvement in college, the length of attendance as well as the number of possible universities to choose from are valid variables (Horm, 2000). Moreover, students' expectations have been proven to influence students' satisfaction (Low, 2000, p.2; Appleton-Knapp & Krentler, 2006; Gudlaugsson, 2009).

Expectations

Expectations have been postulated to be a good predictor of satisfaction (Parasuraman, Zeithaml & Berry, 1988; Oliver, 1993). Zeithaml (1996) further stresses that a deep and comprehensive knowledge and understanding of expectations is most crucial for the organizers of services. Accordingly, our study suggests that service quality and hence customer satisfaction can not be analyzed without assessing expectations.

Service expectations can be categorized into two camps: desired services and adequate services (Zeithaml, 2003; Lovelock, 2001). The desired service expresses what the customer hopes to receive. However, he/she will accept some deviation from this desired outcome. The adequate service consequently represents services which are considered acceptable and satisfactory. They are the 'minimum tolerable expectations'. The realm between desired and adequate service quality expectations is called the zone of tolerance. Services that fall within this zone do not provoke much interest because everything is as is was expected. Therefore this area is also labeled the zone of apathy (Heskett, 1997).¹

Factors influencing customers' expectations are manifold and include personal needs, psychological state, options, short-term importance, the situation and the predictable performance (Zeithaml, 2003; Grönross, 2000; Palmer, 2001; Doole 2005). Consequently, even though receiving the same service users can feel quite differently about its quality, due to the varying tolerance towards the same level of performance. Apart from these personal indicators it was also investigated whether customers have the same expectations towards different service providers in the same branch (Woodruff, 1987). The outcomes indicate that this is not the case. According to Christensen (2004) it is therefore reasonable to assume that students' expectations towards university studies differ and that they are influenced by what the university promises and by what the students pay. These payments are meant to cover tuition fees but could possibly also including non-material costs, such as being confronted with a different culture and language.

Multiple ways to measure expectations exist. Some researchers ask participants to directly specify the nature of their expectations. Others prefer to let their informants indicate to what extent their expectations have been fulfilled and how they rate the performance of the service or product. They assess expectations more indirectly. Yet others question respondents about the level of importance in order to measure expectations (Zeithaml, 2003; Hays, 1998). Zeithaml adds the notion that importance is an effect assessment of corresponding expectations which is intended to justify the

¹ It has to be noticed that not all researchers apply a zone of apathy to their study which sometimes leads to exaggerated outcomes. Compare Franklin and Shemwell, 1995.

utilization of importance as a proxy variable.² Low (2000) further illustrates the meaningfulness of importance ratings for satisfaction: Through many student satisfaction surveys it has for instance become evident that students tend to be disappointed about the availability of parking and the quality of catering services. However, students also tend to accord these areas low importance in respect to their overall college experience and it can hence hardly be concluded that students are indeed deeply satisfied with these services where in effect they do not care much about them.

Although the study at hand recognizes the usefulness of importance ratings for satisfaction assessment, the approach of using it as a proxy for expectations is rejected. It is suggested that students' importance ratings and their expectations are different enough concepts to make two separate measurements worthwhile.

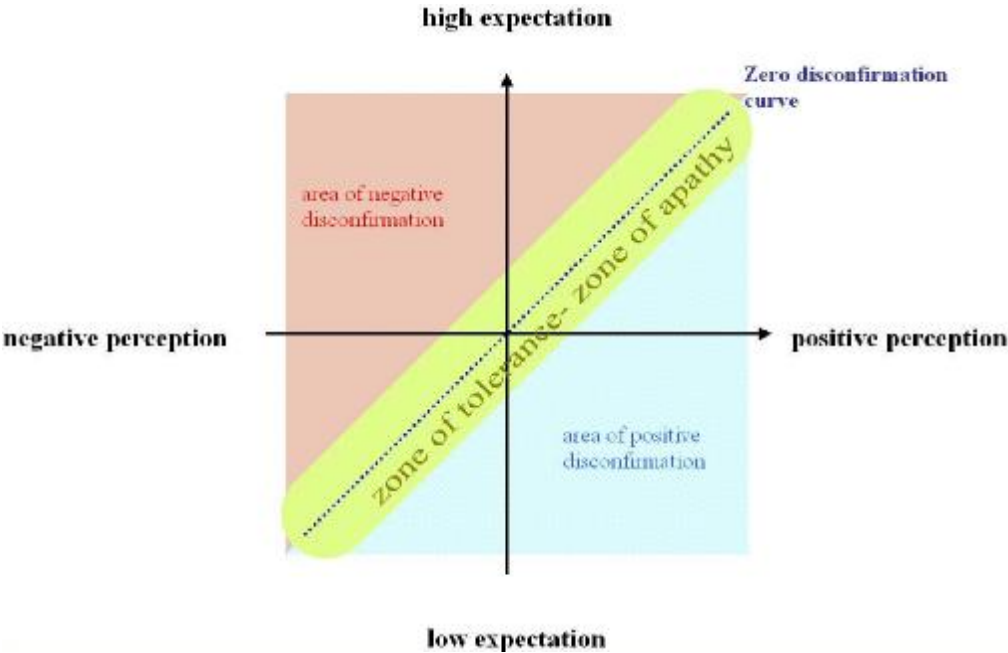
Disconfirmation Theory

Due to the dynamic nature of satisfaction, the Expectations-Disconfirmation approach has been the dominant model in customer satisfaction research. Its framework is build upon consumers' pre-consumption expectations and their post-consumption perception. A comparison of the two states is meant to evoke an attitude of satisfaction towards the product or service. Hence satisfaction is the differential between an individual's expectations about the outcome of a process before experiencing the process and the actual outcome as perceived by the individual after experiencing the process (Hom, 2000; Oliver, 1993; Parasuraman et al., 1988). Here also the predictive meaning of expectations becomes apparent, since they originate from a belief about the product.

In the model a negative disconfirmation occurs when the perception of a service falls short of the customer's expectations. Positive disconfirmation on the other hand is the result of a service perception that surpasses the customer's initial expectations. Thirdly, there is the possibility of simple confirmation or zero disconfirmation which occurs when the customer's perception of a service actually meets his/her expectations. Moreover, a zone of tolerance/apathy can be applied (compare Figure 1: Disconfirmation Model).

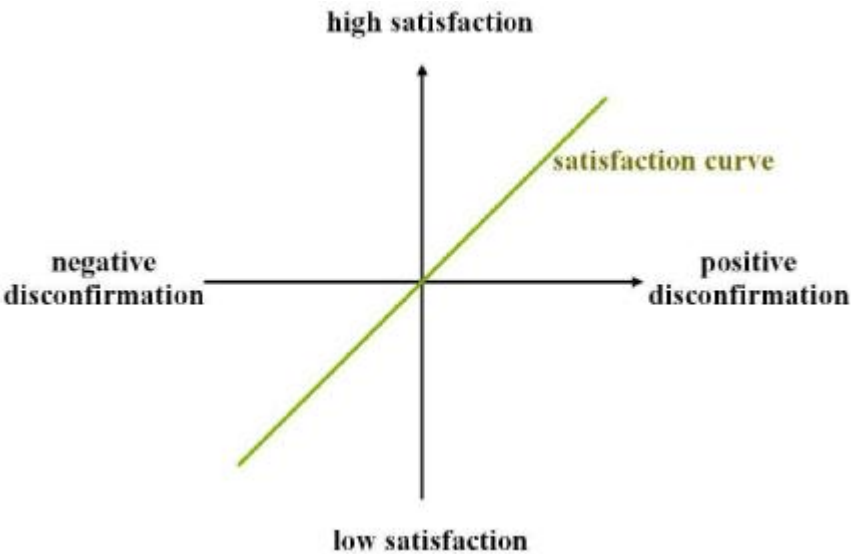
² Studies using this approach will be introduced later on in the chapter under the heading Review of student satisfaction research.

Figure 1: Disconfirmation Model



Satisfaction “has been shown to be a function of the positivity of disconfirmation” (Oliver, 1993, pp. 73-74). Consequently, satisfaction is said to be positively influenced by a positive disconfirmation (when the actual experience surpasses the expectations). Vice versa, satisfaction is supposedly negatively influenced by negative disconfirmation (when the actual experience falls short vis-à-vis the respective expectations). Simple confirmation/ zero disconfirmation on the other hand has little affect on customers’ satisfaction (Oliver, 1993; also compare Figure 2: Satisfaction curve).

Figure 2: Satisfaction curve



Review of student satisfaction research

A lot of research on student satisfaction is utilizing the simple *uni-dimensional Perceived Performance Model* for their satisfaction analysis. This approach is derived from the Expectation-Disconfirmation Model but it focuses less on expectancies of customers. It is more powerful when products or services are perceived in such a positive way that in the post-consumption response of the customer his/her initial expectations get depreciated. Considering the application of this model to a student satisfaction research the easy construction and analysis are clear advantages. An example of such an instrument is the College Student Satisfaction Questionnaire (CSSQ). It is an adaption from an employee's satisfaction inventory created by Betz, Klingensmith and Menne (1970) and focuses on the institutional performance only.

Other academics use *the two-dimensional Expectation-Disconfirmation model* as it is described in theory. Such surveys were for instance conducted by Franklin and Shemwell (1995) or Appleton-Knapp and Krentler (2006). The first two researchers based their study on the SERVQUAL which has been developed by Parasuraman and associates (1988). Consequently they administrated two separate research batteries, one for expectations and one for perceptions, each measuring the five identified dimensions: quality, reliability, responsiveness, assurance, empathy and tangibles. Appleton-Knapp and Krentler (2006) chose to ask participants directly to what extent their expectations have been fulfilled. Their item list is much smaller and concentrated on classes only.

There are also other *mixed forms of two-dimensional models*. In addition to the Perceived Performance Model some researchers for example also collect item's importance to achieve a two-dimensional representation (Polcyn, 1986).

As has been elaborated above, others collect importance ratings in order to measure expectations. Harvey (2001) for example designed the SSA: Student Satisfaction Approach. He is collecting the level of satisfaction and the importance rating, where the latter is meant to represent the informants' expectations. The two dimensions are then combined into a grid. However, it is not student satisfaction that is assessed by these two dimensions but rather university performance.

The Student Satisfaction Inventory (SSI) uses a comparable two-dimensional approach. This standard questionnaire is administered by the USA Group Noel-Levitz

(Low, 2000) and is quite popular in the United States. Its main body is a 73-item/70-item scale where the items represent students' expectations. Participants then indicate per item the importance they accord to it and their level of satisfaction. The importance rating is meant to reflect students' expectations while the satisfaction rating expresses the degree to which these expectations have been met. From these two values a performance gap is calculated by subtracting the satisfaction rating from the importance rating. The SSI appears to be a conventional version of the standard Expectation-Disconfirmation Model, but this is in effect not the case. First of all, it uses participants' importance rating as a proxy for their expectations. Apart from this students are asked to indicate their satisfaction. The real meaning of the so called performance gap is consequently more or less unclear.³

Chapter conclusion

The answer to sub-question (1): 'What do we mean by student satisfaction?' is provided by this chapter. Most importantly, students can be regarded as customers. This indicates that student satisfaction is a special form of customer satisfaction. Adopting Oliver's thoughts on satisfaction (1997), student satisfaction is a fulfillment response to an evaluation process where students compare their pre-consumption expectations and their post-consumption perception. Expectations highly influence student satisfaction. Additionally, the importance students accord to specific services is very significant to accurately assess their satisfaction.

In our study a three-dimensional approach to student satisfaction including expectations, perceptions and importance is used. According to the Expectation-Disconfirmation Model, a disconfirmation score is assessed by subtracting students' expectations from their perceptions. This score can either be negative (when perceptions fall short of expectations), positive (when perceptions surpass expectations), zero (when perceptions meet expectations) or close to zero (when perceptions do not meet expectations but the service is deemed adequate). Moreover, for our study the dimension of importance is added to this disconfirmation model. In this way services of lower and higher significance can be differentiated and student satisfaction is more accurately assessed.

³ Although the survey is titled Student Satisfaction Inventory, just like the SSA, it might not aim primarily at assessing students' satisfaction but rather analyzing universities performance. In this case satisfaction would be measured uni-dimensionally.

III.) Methods and Procedures

This chapter familiarizes the reader with the data collection used for our study and with the demographic characteristics of the target population, the sampling frame and the research sample. Moreover, the employed measures are presented. This is followed by a notion on statistical tools applied for the analysis of the data. Finally, this chapter answers sub-question (2): ‘How can student satisfaction be measured?’

Data collection

To answer the research questions a web-based survey has been employed.⁴ The questionnaire includes a total of 73 questions, of which 63 dealt directly with participants’ expectations, perceptions and importance rating⁵. In the second part of the survey respondents are asked for their gender, age, nationality, study program, years of attendance, study progress, why they chose the UT and whether they would recommend the university. Furthermore they are asked about factors negatively influencing their satisfaction and possible suggestions. Except for the questions about age and about suggestions all others are closed multiple choice questions⁶.

The survey is set up as an online poll using the application ‘Quaestio’. All students in the sampling frame received an email from their respective faculty’s education office inviting them to participate and providing a link to the survey. This email was sent at the beginning of June 2009. A reminder was sent around the end of June 2009 and the survey was closed again 2 weeks later. The survey was conducted in English only, in order to forecome possible ambiguities due to translation.

Target population, sampling frame and research sample

The *target group* of our study is made up by all German and Dutch bachelor students at the University of Twente. In the academic year 2008/2009 a total of 5492⁷ students

⁴ See also the enclosed survey in the appendix.

⁵ This first part of 63 questions was split into three respective blocks, each containing 21 questions. One question for every item of the item-inventory was included, correspondingly formulated to express expectations, perceptions and importance. See also the enclosed item-inventory in the appendix.

⁶ The questions for nationality, negative influence factors and reasons to study at the UT had an additional comment field for clarifications.

⁷ All statistical values concerning the target and population and the sampling frame were retrieved from OSIRIS, updated December 1st 2008.

are enrolled in one of the 21 bachelor programs offered at the university⁸. 12.1% of these students are German and 87.2% are Dutch⁹. A total of 36 students (less than 1 percent) have a different nationality and do not make part of neither the target group nor the sampling frame or the research sample¹⁰.

The *sampling frame* consists of all German and Dutch students from four different bachelor programs. These programs are Psychology, European Studies, Communication Science and Public Administration. Psychology and European Studies have by far the most German enrollments among all bachelor programs at the UT with 284 and 211 registrations respectively¹¹. Communication Science has another 79 German students which is the third highest score. The Dutch students of these three studies are split into 317 Psychology students, 39 European Studies students and 273 Communication Science Students. Accordingly, 47.3% of all psychology students are German (52.7% Dutch). 84.4% of all European studies students also hold a German nationality (15.6% Dutch) while 22.4% of all communication Science students are German (77.6% Dutch). Public Administration as the fourth program involved has only one German enrollment, but 164 Dutch ones¹². Altogether the sampling frame is comprised of 1368 bachelor students of which 42% are German and 58% are Dutch¹³. In total 40% of these 1368 students are male and 60% are female.

The sampling frame captures most of all German bachelor students but only a fraction of all Dutch ones. As a consequence the frame is not representative of the target population. Yet it allows analyzing the minority group of German bachelor students very well while still providing a large enough fraction of Dutch students to compare them to.

⁸ The focus lies on bachelor students since they are the great majority on the campus, compared to 3014 master students. Next to this it is expected that master students might feel quite differently about their college experience than bachelor students. This could possibly be due to shorter time of study, greater studiousness and less or even little consideration of extracurricular activities and social life.

⁹ See *Table 3: Target population, sampling frame and research sample* on page 15.

¹⁰ The 36 foreign students are excluded since their margin is too minimal as to be able to make statements about them.

¹¹ See also *Table 1: Distribution of the sample frame* in the appendix.

¹² Despite this distribution it is included in the sampling frame since technically European Studies is still a part of the Public Administration program. As a consequence there are several teachers and courses which both programs share. In this way Public Administration counter-balances the high German-ratio for European Studies.

¹³ Most of these 1368 bachelor students are enrolled for Psychology (601). Another 352 major in Communication Science, 250 in European Studies and 165 in Public Administration.

The *research sample* is comprised of 147 students who answered at least 71 of the 73 questions posed¹⁴. This indicates a rather low response rate of 10.1%. It would be possible that this represents a certain participation bias in the responses as it is often encountered in for example polls assessing voting behavior. However, concerning our study this is rather unlikely. Students who are highly satisfied have just as much inducement to fill in the survey as the ones who are highly dissatisfied. Moreover, the satisfaction with their college experience is a relevant issue for every student.¹⁵ The low participation ratio does not need to have a negative influence on the research's validity. Much more, it requires careful consideration when making generalizations.

Of all 147 respondents 60 are Dutch (of which 41.7% male and 58.3% female) and 87 German (of which 28.7% male and 71.3% female)¹⁶. Overall, 50 male and 97 female students participated. This distribution does not significantly differ from the sampling frame ($\chi^2=3.046$, $df=1$, $p=.081$).

On the other hand the distribution concerning study program and nationality do not represent the sampling frame. German students are overrepresented by a residual of 25.8 but since our research primarily aims at comparing the German students to Dutch ones this overrepresentation is less serious than if it would occur for example in the variable gender. Although Dutch students are underrepresented, their number is high enough to have a realistic comparison to the German students. Concerning the field of major, European Studies students are significantly overrepresented (residual= 20.8) while Communication Science students are not well represented (residual= -10.3)¹⁷. This uneven sample distribution concerning the study program and the nationality of participants does not need to have a negative influence on the research's validity. Just like the low response rate, it requires careful consideration when making generalizations.

¹⁴ Also they did not skip more than one question out of the 63 questions of the three blocks concerning expectations, perception and importance.

¹⁵ One reason for such a high rate of non-respondents can be presumed to be the large number of surveys from fellow students and also faculties which students receive in large amounts at the end of academic years. Some of them are also directly concerned with student satisfaction. The high number might have lead students to ignore this specific questionnaire. Furthermore, the survey was administered during the exam period which was directly followed by the summer vacation.

¹⁶ See also *Table 2: Distribution of the research sample* in the appendix.

¹⁷ Psychology majors are slightly underrepresented by a residual of -8.4 whereas Public administration students are underrepresented by a mere -2.1. Especially the ratio of German European Studies students is exceptionally high.

On average participants are 22.5 years old ($\sigma = 2.44$) ranging from 18 to 32 years. Most of the informants are second year students (28.6%) while 23.8% just finished their first and 23.1% just finished their third year at the UT. Another 13.6% already spent four years on campus and 10.9% experienced the university for five or even more years.

A majority of 58.5% are progressing in their study with a high speed having completed 76-100 percent of all possible courses. Yet 18.4% have achieved even more credits than are foreseen by their curriculum, whereas 17% finished between 51-75 percent. A total of 4.1% participants rounded up only one quarter up to half of all possible classes and only 3 students (2%) achieved less than 25 percent of all possible credits.

Table 3: Target population, sampling frame and research sample

	Nationality				Total
	Dutch		German		
	count	Row N %	count	Row N %	count
Target population	4789	87.2%	667	12.1%	5492
Sampling frame	793	58.0%	575	42.0%	1368
Research sample	60	40.1%	87	59.9%	147

Measures

For our analysis student satisfaction is understood as comprised of five different categories. These categories are ‘curriculum’, ‘teachers’, ‘facilities’, ‘student life’ and ‘support services’. All of these are measured using between three and five items per category¹⁸.

For calculating category means the sum of all respective dimension items are divided by the valid number of these particular dimension items. If a dimension is

¹⁸ Firstly, the category ‘curriculum’ is evaluated using the five items ‘quality of curriculum’, ‘flexibility of the curriculum’, ‘academic level of courses’, ‘stimulation of courses’ and ‘organization of the curriculum’. Secondly, the category ‘teachers’ is assessed by means of the following three items: ‘teaching abilities’, ‘availability of teachers’ and ‘personal attention of teachers’. Thirdly, there are four items comprise the category ‘facilities’. These are ‘appeal of the campus in general’, ‘standard of the library’, ‘quality and quantity of technical equipment’ and ‘quality and quantity of sport, cultural and social facilities’. Fourthly, ‘student life’ is measured using four items: ‘quality of housing’, ‘social networking’, ‘associations and clubs’ and ‘going out’. Fifthly, the last category ‘support services’ is made up of the five items ‘helpfulness of the housing assistance’, ‘helpfulness of the CSA’, ‘helpfulness of the student advisory service’, ‘helpfulness of the international office’ and ‘helpfulness of recruitment teams’. A detailed list and description of the items can be found in the item-inventory enclosed in the appendix. Moreover, the corresponding survey questions reformulated for measuring expectations, perceptions and importance are provided within the survey itself and are as well part of the appendix.

composed of five items no more than two of these were allowed to be missing values. Otherwise no dimension mean is calculated¹⁹. For example:

$$curriculum_i = \frac{\sum(quality_i, flexibility_i, academic.level_i, stimulation_i, organization_i)}{N_{valid}(quality_i, flexibility_i, academic.level_i, stimulation_i, organization_i)}$$

with the condition that $N_{valid} \geq 3$

The questionnaire includes *control variables* which can have a potential effect on the outcomes of the dependent variables. These control variables are concerned with different, more general individual aspects but also with rather study-related characteristics of participants. The most important variable is nationality. Next to this also age, gender and the number of years attending the UT provide more information about respondents in general. Moreover, factors such as the study program, the study progress, reasons for studying at the UT, willingness to recommend the UT to others and possible negative experiences characterize the individuals on a more study-related dimension.

To analyze the data five different scales are used. The first three are instruments of the three directly measured dimensions expectations, perception and importance. The other two scales disconfirmation and satisfaction are not directly measured but calculated from the three dimensions.

To assess *expectations* participants are asked “Before coming to the UT, to what extent did you expect that ...” for example “...the courses of your program would be interesting and stimulating?”. Respondents can give an answer on a 4-point Likert-type scale with 1= ‘not at all’, 2= ‘a little’, 3= ‘quite a bit’ and 4= ‘very much’. *Perceptions* are collected by providing the statement “So far my experience is that...” for example “...the courses of my program are interesting and stimulating”. Informants are able to indicate a response on a similar 4-point Likert-type scale ranging from 1= ‘strongly disagree’ to 4= ‘strongly agree’.²⁰ *Importance* is recorded through posing the question “How important is it to you that...” for example “...the courses of your program are interesting and stimulating.” Possible answers lie on a

¹⁹ Categories of four items require three valid values and categories of three items require two valid values.

²⁰ For the scales expectations and perceptions participants can also choose ‘don’t know’ to indicate that they either did not give a specific item much thought before coming to the UT or for showing that they don’t have experiences with a certain item. For the importance scale this option is not available since it is presumed that every participant could indicate a degree of importance. In our analysis ‘don’t knows’ are treated as missing values.

4-point Likert type scale ranging from 0= 'not at all important' up to 3= 'very important'.²¹

Internally the three scales are reasonably reliable, especially when considering the small number of items for each category²². Cronbach's Alpha for the five expectation categories ranges between .503 (curriculum) and .716 (student life)²³. Overall the categories also achieve realistic corrected item-total correlations indicating their reliability in relation to the superordinate construct student satisfaction ($r \geq .32$). The reliability of the perception categories is generally speaking better ($.56 \leq \alpha \leq .75$). The only exception is 'facilities' achieving an alpha of .32. All categories are included in the analysis, considering their satisfactory correlation of .40 and above. The alpha's for the importance categories are all above .64 with only facilities falling below this level ($\alpha = .42$). Yet the correlation of facilities with the other four categories is sufficient ($r = .67$) and all categories are incorporated in the study.

The *disconfirmation scale* is not measured directly but calculated by means of the scales expectation and perception, where the disconfirmation score of an item equals the difference of the respective perception and expectation score ($D_i = P_i - E_i$). As a result the scale ranges from -3= 'large negative disconfirmation' to 3= 'large positive disconfirmation'. Cronbach's Alpha for the categories of disconfirmation indicates that they are reliable instruments ($.54 \leq \alpha \leq .71$) while the disconfirmation categories in their collection also represent a good reflection of the scale disconfirmation ($.44 \leq r \leq .69$).

Just like the disconfirmation scale, the *satisfaction scale* is not measured directly but calculated. The satisfaction score of an item equals its disconfirmation multiplied by

²¹ Although all three scales have 4 attribute-levels, expectation and perception are accorded the values 1-4 while importance is accorded the values 0-3. In this way a satisfaction score of 0 is calculated for participants who indicated that a certain item is not important at all to them. It is suggested that services being of no interest what so ever for an informant also do not influence his/her satisfaction, regardless of whether the initial expectations are met or not.

²² See also *Table 4: Internal reliability of all five measurement scales* in the appendix.

²³ Commonly, an alpha bigger than .70 is considered proving that a scale measures one single uni-dimensional latent construct. Yet, for psychological constructs also smaller alphas can be regarded as sufficient, due to the broadness of concepts. Indeed, all dimension scales were set up to measure a wide range of content very comprehensively. This means that it is was chosen for as little items as possible but as many as were deemed necessary. This procedure was essential as to not fatigue participants too much in the light of the three-dimensional analysis of satisfaction. Already with the given very short scales of 3-5 items 30 potential informants decided to discontinue with the survey after having completed only one of the three blocks measuring expectations, perception and importance respectively. Other brief scales such as the Big Five scale (e.g. Rammstedt & John, 2006) solved this problem by proving reliability through a test-retest procedure, but also this is not feasible for the given survey.

the respective importance score and divided by 3 ($S_i = D_i * I_i / 3$)²⁴. The result is a scale ranging from -3= 'very dissatisfied' to 3= 'very satisfied'. Its categories are reliable ($.53 \leq \alpha \leq .68$) and amongst them shape a good portray of the superordinate score satisfaction ($.36 \leq r \leq .64$).

Data analysis

It is chosen to use parametric statistical tools even though the data is primarily ordinal. This can be justified by the interval-like character of the given data and the greater accuracy and powerfulness of parametric tests (Doering and Hubbard, 1979). Also the non-parametric distribution of the data should not represent a statistical problem for the robust t-tests employed.

Accordingly, an independent samples t-test is chosen for the comparison of means when using the grouping variables nationality and gender. At all times the outcome corresponds to the 2-tailed statistical result. For the grouping variable study program a one-way ANOVA is utilized. It is controlled for the homogeneity of variances using the Levene statistic as well as the Welch- and the Brown-Forsythe test. Accordingly, post hoc results are interpreted using Turkey-HSD as long as variances are equal and Games-Howell statistics if they are not. An alpha of .05 is applied in this study to determine significance.

Moreover, a factorial ANOVA analysis is performed to test for possible interactions of the independent variable-pairs nationality and gender, study and nationality, study and gender. As dependent variables the respective items showing significant differences are selected.

Assessment of correlations is done using Pearson's correlation coefficient. The adequate respective sample size of more than 136 can justify the usage, since normality should not be a concern for calculations with $N \geq 100$.

For descriptive purposes the five scales elaborated above are recoded into a 3 or 5 point Likert-type scale. More specifically expectations are categorized into 'no or low expectations', 'medium expectations' and 'high expectations'²⁵ and a similar

²⁴ The division by 3 serves the purpose of constructing a scale with a clear and managable range. Without this procedure the scale would run from -12 through 12.

²⁵ 'no or low expectations'= 1 through 2.49; 'medium expectations'= 2.5 through 3.49 and 'high expectations'= 3.50 through 4

programming applies to perceptions²⁶ and importance²⁷. Disconfirmation scores are converted into 'large negative disconfirmation', 'negative disconfirmation', 'zone of apathy', 'positive disconfirmation' and 'large positive confirmation'²⁸. The same pattern also holds for the satisfaction scale²⁹.

Chapter conclusion

This chapter provides an answers to sub-question (2): 'How can student satisfaction be measured?' It is chosen to conduct a survey in order to collect the data necessary for answering the central research question. The actual response rate is rather low with 10.1%. This however does not have to pose a problem for our study's validity but requires careful consideration when making generalizations. The same holds true for the overrepresentation of German and European studies students in our research sample.

To analyze the five different categories comprising student satisfaction; namely curriculum, teachers, facilities, student life and support services; 21 items are used. Between three and five items correspond to each category. Moreover five scales are used to assess student satisfaction. The scales expectations, perceptions and importance are directly measured by means of the survey while the scales disconfirmation and satisfaction are calculated from the first three scales. The collected data is statistically analyzed with help of parametric instruments such as independent sample t-tests, one-way ANOVA, factorial ANOVA and Pearson's coefficient.

²⁶ 'bad or low perception'= 1 through 2.49; 'positive perception'= 2.5 through 3.49 and 'very positive perception'= 3.50 through 4.

²⁷ 'not or little important'= 0 through 1.49; 'important'= 1.5 through 2.49 and 'very important'= 2.50 through 3.

²⁸ 'very negative disconfirmation'= -3 through -1.76; 'negative disconfirmation'= -1.75 through -.51; 'no disconfirmation'= -.50 through .50; 'positive disconfirmation'= .51 through 1.75 and 'very positive disconfirmation'=1.76 through 3.

²⁹ 'very dissatisfied'= -3 through -1.76; 'dissatisfied'= -1.75 through -.51; 'zone of apathy'= -.50 through .50; 'satisfied'= .51 through 1.75 and 'very satisfied'=1.76 through 3.

IV.) Results

This chapter presents the results of our empirical research on student satisfaction among bachelor students at the University of Twente. It is a statistical analysis of the quantitative data collected using the survey. The first part of this chapter answers sub-question (3): 'What are the student satisfaction levels of bachelor students at the UT?' by looking at student satisfaction at the UT in general. The second part is concerned with sub-question (4): 'For which items and how much does student satisfaction differ between German and Dutch bachelor students at the UT?'. Here, the satisfaction level of German and Dutch students is compared. Additionally, an assessment of possible differences in satisfaction level using the (supposedly) influential factors gender and study program follows. The outcomes are summarized in the chapter conclusion.

General outcomes

The category curriculum arouse by far the highest *expectations* in students' minds prior to starting their study ($\bar{x} = 3.46$). Especially the items stimulation of courses, academic level and organization of the curriculum stand out. From all 21 items they ranked amongst the four items evoking highest expectations.³⁰ The expectations with respect to facilities ($\bar{x} = 3.33$) and teachers ($\bar{x} = 3.29$) are more moderately than the ones with respect to curriculum. Yet, the two single items 'teaching abilities' and 'quality and quantity of sport, cultural and social facilities' are in the top five. The categories student life ($\bar{x} = 3.11$) and support services ($\bar{x} = 2.83$) form the bottom of the scale. While students have low expectations of the quality of housing, four (out of the five measured) service items rank among the five items creating the lowest expectations.

Table 5: Ranked expectation mean scores per category of student satisfaction

	Valid Number	Mean (scale 1-4)	Std. Deviation
#1: Curriculum	146	3.46	.44
#2: Facilities	138	3.33	.57
#3: Teachers	145	3.29	.61
#4: Student life	137	3.11	.66
#5: Support services	120	2.83	.65

³⁰ See also Table 6: The 5 items arousing highest and lowest expectations in the appendix. Consequently, respective tables for the dimensions perception, disconfirmation, importance and satisfaction can be found in the appendix as well.

Categories which are initially arousing lower expectations tend to achieve higher *perception* scores.³¹ Only the category support services does not follow this trend. While students report rather low expectations concerning their student life they perceive it as very good ($\bar{x} = 3.21$). Particularly the variance of clubs and the possibility for social networking achieve high perception scores. Teachers ($\bar{x} = 3.14$) are mostly valued for their availability and the university facilities ($\bar{x} = 3.11$) convince with the appeal of the campus and the available sport, cultural and social facilities. Its technical equipment on the other hand seems to be a source of irritation. The curriculum, arousing the highest expectations, leaves with its (lack of) flexibility and quality a rather negative impression ($\bar{x} = 2.87$). Support services are the least positively perceived which holds especially true for the (deficient) helpfulness of the recruitment teams and the housing assistance. However, no single item is perceived notably negative.

Table 7: Ranked perception mean scores per category of student satisfaction

	Valid Number	Mean (scale 1-4)	Std. Deviation
#1: Student life	138	3.21	.53
#2: Teachers	146	3.14	.45
#3: Facilities	145	3.11	.42
#4: Curriculum	147	2.87	.50
#5: Support services	96	2.86	.44

By trend the disappointment (negative *disconfirmation*) for students is bigger if they initially held high expectations. This results from the negative correlation of perception and expectations described above. While teachers ($\bar{x} = -.15$), facilities ($\bar{x} = -.23$) and the curriculum ($\bar{x} = -.59$) fail in living up to the expectations placed on them, the curriculum is the only seriously disappointing category: it falls outside the tolerance zone. Support services are perceived exactly the way it was expected ($\bar{x} = .00$)³². The student life is the only category surpassing the desired level of quality ($\bar{x} = .08$), but it is still inside the tolerance zone.

³¹ See also Table 15: Correlations among the dimensions in the appendix.

³² It has to be noticed that, while the perception lived up to expectations, both were exceptionally low.

Table 9: Ranked disconfirmation mean scores per category of student satisfaction

	Valid Number	Mean (scale -3 to 3)	Std. Deviation
#1: Student life	131	.08	.78
#2: Support services	88	.00	.76
#3: Teachers	144	-.15	.80
#4: Facilities	136	-.23	.69
#5: Curriculum	146	-.59	.62

The curriculum is rated the most important part of the college experience ($\bar{x} = 2.54$) and in its high *importance* closely followed by teachers ($\bar{x} = 2.40$).³³ Quite important are facilities ($\bar{x} = 2.08$) and the student life ($\bar{x} = 1.80$). Support services are of little weight ($\bar{x} = 1.38$) which is indicated by the fact that four out of the five measured service items range amongst the five least important factors. While the importance accorded to an item is positively correlated to the level of expectations students' hold, the two measures are clearly not the same. This is also indicated by their somewhat noisy relation ($r = .34$, $p < .01$, $N = 143$). Moreover, a similar positive relation holds for importance and perception. The curriculum, being the most important but yet one of the least positively perceived categories, sticks out as an exception of this rule.

Table 11: Ranked importance mean scores per category of student satisfaction

	Valid Number	Mean (scale 0-3)	Std. Deviation
#1: Curriculum	147	2.54	.44
#2: Teachers	147	2.40	.48
#3: Facilities	147	2.08	.49
#4: Student life	147	1.80	.66
#5: Support services	147	1.38	.59

Categories of students' satisfaction are ranked like the disconfirmation equivalents but differ in the respective scores for each category. Student life is the only category achieving a slightly positive satisfaction score ($\bar{x} = .01$) but together with support services ($\bar{x} = -.01$), teachers ($\bar{x} = -.11$) and facilities ($\bar{x} = -.17$) it lies within the zone of apathy. These services are therefore adequate and comply with students' respective expectations and importance ratings. A significantly dissatisfying part is the curriculum which falls outside the zone of apathy with an average score of $-.52$. Especially the stimulation of courses and their academic level, as well as the

³³ This is also supported by the answers given to question G of the survey: Why did you choose to study at the UT? which can be found in the appendix. 45.6% of all informants indicated that that the university offered the best curriculum. 55.1% said the nice campus was a decisive factor.

organization and quality of the curriculum are displeasing factors that influence students' satisfaction negatively.³⁴

Table 13: Ranked satisfaction mean scores per category of student satisfaction

	Valid Number	Mean (scale -3 to 3)	Std. Deviation
#1: Student life	133	.01	.49
#2: Support services	89	-.01	.41
#3: Teachers	145	-.11	.66
#4: Facilities	137	-.17	.50
#5: Curriculum	147	-.52	.55

The answer to sub question (3) is provided in this chapter: Overall participants indicate receiving adequate service which corresponds to their expectations and importance ratings.³⁵ Nevertheless, the curriculum stands out as a dissatisfying factor negatively influencing students' satisfaction. The negative satisfaction score of the category curriculum does not necessary imply that the curricula are of poor quality. The perception scores average at 2.87 (/4) which indicates moderate to good quality perception. The negative satisfaction score can be explained by the exceptionally high expectations students hold prior to beginning their program. These scores have an average of 3.46 (/4). Consequently, actively managing the expectations of students is very important for the university and the respective faculties in particular. Future research could focus on the cause of these high expectations.

Differences between German and Dutch students

German and Dutch bachelor students at the UT have very similar levels of student satisfaction. A number of small item differences can be reported but only the flexibility of the curriculum and the quality and quantity of technical equipment show significant differences in satisfaction levels.

³⁴ Indeed 25.9% of all informants also stated that the level of teaching negatively influenced their satisfaction with the college experience (Question I of the survey, enclosed in the appendix: To what extent have the following aspects negatively influenced your satisfaction with your college experience at the UT so far?). 23.1% pointed out the way of teaching to be an irritating factor. Also a considerable part of the additionally given open answers to this question I deal directly with the curriculum (see Open question answers in the appendix). Moreover, asked what would increase their satisfaction as regards studying at the UT (question J) a majority of all responses deal with the quality of the curriculum, its flexibility and the academic level of courses.

³⁵ This is sustained by the outcomes of question H of the survey: *Based on your experiences at the UT, would you recommend the university to other students thinking of applying here?* With 48% and 44% saying respectively that they would definitely or probably do so a great level of overall satisfaction is indicated. (outcomes captured in Graph 1, to be founding the appendix)

While most *expectations* of German and Dutch students lie within similar ranges, German participants held significantly higher expectations for the curriculum than their Dutch colleagues ($\bar{x}_d = .19$).³⁶ Especially the quality and flexibility of the curriculum arouse up-leveled expectations. Moreover, Germans also expect more from the housing assistance ($\bar{x}_d = .38$) and from the campus in general ($\bar{x}_d = .35$).³⁷

The *perception* of the college experience is less homogenous. Things which are more positively perceived by Germans are the stimulation of courses, the organization of the curriculum and the technical equipment ($.24 < \bar{x}_d < .37$).³⁸ On the other hand the German informants are more critical about the flexibility of the curriculum and the helpfulness of the CSA. Moreover, they perceive the whole area of student life less positively than their Dutch classmates ($\bar{x}_d = .28$). This becomes apparent when comparing the views on associations and clubs as well as on possibilities for going out ($\bar{x}_d = .45$).

Whereas Dutch students see their expectations slightly surpassed for the general appeal of the campus as well as for the possibilities for social networking and going out ($.05 < \bar{x} < .10$), Germans experience the opposite ($-.22 < \bar{x} < -.34$). Yet, both groups see their expectations adequately met. Concerning the flexibility of the curriculum only German students experience disappointment ($\bar{x} = -.78$) while Dutch feel significantly disappointed about the quality and quantity of technical equipment ($\bar{x} = -.87$).

German respondents place less *importance* than their Dutch colleagues on the academic level of course, but for them its flexibility and above all the helpfulness of the international office ($\bar{x}_d = .47$) are much more important.

The *satisfaction* level with the campus in general and the possibilities for going out are significantly lower among the German students. Nonetheless, both Germans and Dutch consider these items adequate compared with their initial expectations.

³⁶ See also *Table 16: Differences between German and Dutch students* in the appendix.

³⁷ These results are also supported by the answers given to question G of the survey: *Why did you choose to study at the UT?* While 40% of all Dutch informants indicated that the UT offered the best curriculum, nearly 50 percent of the Germans stated the same. Moreover, close to 60 percent of the German participants said that the campus was a relevant factor whereas only 48% of the Dutch students specified the same.

³⁸ Outcomes of question I of the survey *To what extent have the following aspects negatively influenced your satisfaction with your college experience at the UT so far?* reinforce this. Whereas correspondingly 22% and 18% of the German informants say that the level or way of teaching negatively influenced their satisfaction 32% Dutch students support each of the two statements.

The quality and quantity of technical equipment dissatisfies Dutch students ($\bar{x} = -.83$) while it falls within the zone of adequate services for Germans ($\bar{x} = -.33$). The opposite holds true for the flexibility of the curriculum. This item is performing sufficiently in Dutch students' view ($\bar{x} = -.11$) whereas it represents a factor of irritation for Germans ($\bar{x} = -.71$).

This chapter provides the answer to sub-question (4): Generally speaking, German and Dutch students form a quite homogeneous group with respect to student satisfaction. Smaller differences concerning expectations, perceptions and importance can be reported but only two major differences are found in the level of satisfaction. First, Dutch students are dissatisfied by the PC's, printers and copy machines available to them while German students deem these as being adequate ($\bar{x}_d = .51$). Dutch students experience this technical equipment to be of low quality. Second, the possibilities to choose the courses they are interested in represent a dissatisfying factor for German students ($\bar{x}_d = .60$). This can be explained by the higher expectations German participants hold concerning the curriculum. Moreover they experience the curriculum to have little flexibility while at the same time attaching high importance to it.

Differences between male and female students

Female and male students generally have the same satisfaction level. Despite this, some smaller item differences can be reported.

Concerning *expectations* of male and female students solely the category curriculum arouses higher expectations for female participants. Especially the stimulation of courses and the possibilities for social networking stand out.

No variations in *perception* can be found. Concerning *disconfirmation* men feel disappointed about the information provided by recruitment teams ($\bar{x} = -.50$). On the other hand women are disappointed about the standard of the library ($\bar{x} = -.53$). Additionally, the higher expectations of female students concerning the social networking are also more likely to not be met ($\bar{x}_d = .50$).

Concerning the *importance* of different parts of the college experience women attach more significance to the facilities ($\bar{x}_d = .24$) (especially the technical equipment

and the standard of the library) and support services ($\bar{x}_d=.23$). Furthermore, they also find the quality of the curriculum, the availability of teachers and the housing conditions to be more essential than it is the case for their male colleagues.

Coming to speak of resulting *satisfaction* levels, women are significantly less satisfied than men with the standard of the library ($\bar{x}_d=.28$) and with the possibilities for social networking ($\bar{x}_d=.28$) while men are less satisfied with the helpfulness of recruitment teams ($\bar{x}_d=.24$). Yet, in all three categories both men and women feel that the services provided adequately meet their expectations.

On the whole, men and women are equally satisfied with their college experience. Disappointment (negative disconfirmation) can be reported for female students concerning the standard of the library and for male students regarding the helpfulness of recruitment teams. Nonetheless, due to the relatively low importance of these items, their quality does not result in dissatisfaction. Also the possibilities for social networking, even though satisfying women less than men, are evaluated as being sufficient by both groups.³⁹

Differences between Psychology, Communication Science, European Studies and Public Administration students

Amongst all studies European Studies students place the highest *expectations* on the campus' appeal and the technical equipment which differ significantly from the ones for Communication Science students ($\bar{x}_d=.64$ and $.65$). Concerning the International Office European Studies students hold with quite high expectations which are also considerably higher than what their colleagues from Public Administration report ($\bar{x}_d=1.00$). European Studies and Psychology students have the highest expectations of the curriculum in general which indicate a mean difference of $.39$ and $.37$ with Public Administration⁴⁰.

³⁹ A factorial ANOVA was performed nationality and gender as the IV, and the respective items showing differences in the one way ANOVA as the DV. Note that all possible interactions were not significant, indicating that there is no interaction between the variables gender and nationality.

⁴⁰ This statement has to be viewed with caution since it might be flawed by the uneven distribution of Germans among the study programs. Public Administration has only one German student while many Germans attend Psychology and European Studies. In our study we have found that Germans in general have higher expectations of the category curriculum which could explain why European Studies and Psychology students have significantly higher scores concerning this category than their colleagues from Public Administration.

Both Psychology and Communication Science students *experience* the helpfulness of the housing assistance as quite positive while their colleagues from European Studies think significantly less positive of this service ($\bar{x}_d=.46$).

Whereas no differences can be reported for *disconfirmation*, Psychology students are the ones attaching the most importance to the quality of the curriculum ($\bar{x}_d=.36$ with European Studies and $.65$ with Public Administration). Moreover, they consider the curriculum more important than their colleagues from Public Administration ($\bar{x}_d=.49$). Additionally, latter also have one of the lowest importance scores for the quality and quantity of technical equipment (\bar{x}_d with Psychology= $.59$, \bar{x}_d with Communication Science= $.61$). Concerning the international office, European Studies students place little but still the most importance on their helpfulness (\bar{x}_d with Communication Science = $.83$).

Even though Psychology students have the highest satisfaction score for the helpfulness of the housing assistance which also lies significantly above the one for European Studies students ($\bar{x} = -.36$), all four groups specify receiving adequate service from this institution.

All in all, only some smaller item differences for the scales expectations and importance can be reported. ⁴¹ Across the four groups of students no significant differences in satisfaction levels are found.

Chapter conclusion

This chapter presents the outcomes of our statistical data analysis. The first part answers sub-question (3): 'What are the student satisfaction levels of bachelor students at the UT?' It shows that bachelor students at the UT feel that they receive adequate service which corresponds to their expectations and importance ratings. Only the category curriculum is a dissatisfying aspect influencing students' satisfaction negatively. The negative satisfaction score of the category curriculum can be explained by the exceptionally high expectations students hold of this category.

⁴¹ A factorial ANOVA was performed with first study and nationality and second study and gender as the IV, and the respective items showing differences in the one way ANOVA as the DV. Note that all possible interactions were not significant, indicating that there is no interaction between the variables study and nationality or study and gender.

The second part provides an answer to sub-question (4) : 'For which items and how much does student satisfaction differ between German and Dutch bachelor students at the UT?' The student satisfaction of German and Dutch students at the UT is more alike than was initially suggested. Only two items show significant difference in the level of satisfaction. The flexibility of the curriculum is dissatisfying German students ($\bar{x}_d=.60$). Dutch students on the other hand are dissatisfied by the PC's, printers and copy machines available to them ($\bar{x}_d=.51$).

Additionally, the comparison between male and female students does not show significant differences in satisfaction levels. The same holds true for the comparison between students from the four different study programs Psychology, European Studies, Communication Science and Public Administration. Consequently none of the three factors nationality, gender and study program is a good predictor for student satisfaction at the University of Twente.

V.) Conclusions and discussion

This last chapter presents the answers to our research questions and the conclusions of our study. Next, a discussion of the findings follows. It has to be noted that the mentioned explanations in the section *Discussion* are suggested by the author and should not be confused with statistical outcomes. Thirdly, limitations of our study are elaborated and recommendations for future research are given.

Conclusions

It is the purpose of our study to find out how satisfied UT bachelor students are with 'being a student in Twente'. The focus of our study lies on a comparison of German and Dutch students. Our central research question is formulated as follows: 'How does the student satisfaction differ between German and Dutch bachelor students at the University of Twente?'

Student satisfaction is understood as a special form of customer satisfaction. It is comprised of five different categories: curriculum, teachers, facilities, student life and support services. To assess student satisfaction a three-dimensional is used including expectations, perceptions and importance. According to the Expectation-Disconfirmation Model, a disconfirmation score results from subtracting students' expectation of a service from their perception of the service's quality. Moreover, the dimension of importance is added to this disconfirmation model to differentiate services of lower and higher significance and assess student satisfaction more accurately.

For our data collection a web-based survey is conducted among four different bachelor study programs. All students of the respective studies are contacted via e-mail. The questionnaire has a response rate of 10.1%. The data analysis makes use of five measurement scales: expectations, perceptions and importance are directly assessed by the survey while disconfirmation and satisfaction are calculated from the first three scales. With help of parametric instruments such as independent sample t-tests, one-way ANOVA, factorial ANOVA and Pearson's coefficient the data is statistically analyzed.

Our study found that overall bachelor students indicate receiving adequate service in the categories teachers, facilities, student life and support services. The quality of these services corresponds to students' expectations and importance

ratings. Nevertheless, the curriculum is a dissatisfying factor.⁴² The negative satisfaction score of the category curriculum does not necessary have to be a sign of curricula's poor quality. Indeed, the perception scores indicates moderate to good quality perception. The negative satisfaction score can be explained by the extraordinarily high expectations of the curriculum students hold before starting their program. Consequently, actively managing the expectations of students is a very important task for the university and the respective faculties in particular.

Coming to the answer of our central research question, German and Dutch students form a more homogeneous group in terms of student satisfaction than was initially suggested. Despite smaller differences concerning expectations, perceptions and importance only two main differences are observed in their actual satisfaction level. First, Dutch students are dissatisfied by the PC's, printers and copy machines available to them while German students deem these as being adequate. Dutch students experience this technical equipment to be of low quality. Second, the possibilities to choose the courses they are interested in represent a dissatisfying factor for German students. This can be explained by the higher expectations German students hold concerning the curriculum. Moreover they experience the curriculum to have little flexibility while at the same time attaching high importance to it.

Discussion

Our study found that the curriculum is the only category achieving a negative satisfaction score that is outside the zone of tolerance. Especially the stimulation of courses and their academic level and the organization and quality of the curriculum are displeasing factors influencing students' satisfaction negatively⁴³. Reason for this negative satisfaction score are primarily the extraordinary high expectations students have concerning the curriculum. Two notions could possibly explain these high expectations:

First, it is possible that students expect unattainable standards of the curriculum which rather correspond to an ideal conception than a realistic level of service. Second, it is feasible that students' expectations are based on either no or

⁴² Since the curriculum is highly study program dependent statements about this category have to be limited to the four analysed study programs: Psychology, European Studies, Communication Science and Public Administration..

⁴³ All of which are equally dissatisfying for German and Dutch students.

maybe even inaccurate information. This could be due to inadequate information supply by the university and/or recruitment teams⁴⁴. But also misleading mouth to mouth propaganda that was too 'colorful' or too little effort for information research could be explaining factors. Maybe students did not adequate use online information sources or information available directly from teachers, staff and other students on open days or taster-days and -lectures [meeloop dagen].

Remedies for this situation are two-fold: First, the university could engage in expectation management to make sure that prospective students have a good sense of what they can expect from the university and from their respective study in particular⁴⁵. Second, it is also possible to attempt rising the level of service and trying to incorporate students expressed wishes in the curriculum.

The flexibility of the curriculum represents a dissatisfying factor for German students. It is suggested that this is related the more positive perception German students have of the organization of the curriculum. As a matter of fact and in contrast to the procedures at the UT, it is very uncommon to receive a fixed and prescriptive class timetable at German universities. Rather there are some general guidelines and standards which have to be met. Apart from this it is up to the student him/herself to choose the courses he/she wants to attend. Also the level of course, the individual workload and the time-scheme of the entire study are responsibilities of the student.

Considering this (maybe even excessive) pool of possibilities it is not surprising that German participants indicate perceiving the organization of the curriculum at the University of Twente as quite good. Nevertheless, it also becomes apparent why German students are not satisfied with the flexibility of the curriculum. Additionally, it is suggested that not only the fact of originating from a country with a respectively different higher education culture influences this satisfaction level. Being a foreign/international student and attending a very broad and international study (European Studies) could also affect the satisfaction. An indication for this is that German students also place more importance of the helpfulness of the International

⁴⁴ As for the helpfulness of recruitment teams it is the fourth least positive perceived item with a perception score of 2.72. A majority of 70.5% thinks that the recruiting teams accurately portray the college experience at the UT during their promotion and another 6.4% agree even strongly with this statement. Yet an alarming 23.1% have negative experiences (9.0% of all 87 respondents even strongly disagree with this claim). Although the difference is insignificant for the given data set a higher percentage of Germans than Dutch indicated having received accurate information from recruitment teams.

⁴⁵ This notion is not meant to hold any connotations about the cause of prospective students' uninformedness if this is believed to be the case.

Office than their Dutch colleagues. Being flexible and having many opportunities to go abroad seems to be essential for them.

Other item differences also emphasize the international dimension of Germans' enrolments at the UT. Under these are for example the higher expectation scores for the helpfulness of the housing assistance which could be explained by the more limited alternative options German students have to find accommodation.

Moreover, Germans perceive the helpfulness of the CSA less positive than Dutch students. Three factors might explain this: First, while a generally larger and culture-related detestation of bureaucratic procedures is a potential rationalization, it is more likely that Germans encounter more bureaucratic problems than their Dutch classmates due to the international nature of their stay⁴⁶. Second, the staff of the CSA may encounter difficulties with the English language (applicable primarily for European Studies students but also for others when starting or even before starting the study program). Third and more probably, Germans need more and different documents in order to qualify for child support, study financing support and other benefits in Germany:

The CSA has standard enrollment proofs in German, but apart from this, problems can emerge. Not only that certain Dutch notations are not acceptable in the German bureaucracy (such as only using abbreviations of the first name in official documents) but often more information is obligatory (such as the home address and date and town of birth). The forms for German study financing benefits for example need to incorporate the current year of study (as in first-, second-, third-year), the exact name of the qualification to be awarded, the regular duration of the study and the studies inclusion of a practical training. A possible remedy might be to have more standard forms for often requested purposes that also comply with German bureaucratic standards.

Minor differences can be reported for the satisfaction with the campus in general and the possibilities for going out. While both groups indicated being adequately satisfied, Germans tend to be less content than their Dutch classmate. Generally speaking,

⁴⁶ Answers given to question I of the survey (*To what extent have the following aspects negatively influenced your satisfaction with your college experience at the UT so far?*) suggest that bureaucratic problems with timely getting the right information is not a meaningful factor since 26 percent of the German as well as of the Dutch participants indicated this.

Germans also have higher expectations and are more critical concerning the services received. Possibly this could be related to the vast pool of potential study programs they choose from. German students consider more possible studies and locations as their reference frame comprised both the German and Dutch higher education market. Consequently they might be more demanding since, generally speaking, the more options one has the less the tolerance (Zeithaml, 2003). As Christensen (2004) suggested, it is reasonable to assume that students' expectations are influenced by what the student pays. These payments do not only include tuition fees but possibly also non-material costs, such as being confronted with a different culture and language. Hence it is feasible to assume that Germans are more demanding, paying higher tuition fees and living costs than in Germany, and making the very deliberate decision to complete a full bachelor program abroad.

Limitations and recommendations

As it is discussed in the section *Measures* of the chapter *Methods and Procedures*, two of the corresponding Cronbach's alpha coefficients for the categories of the five scales are exceptionally low. Yet, all categories are incorporated in the analysis for two reasons: First, the length of the scales is kept small intentionally which however also affects the alpha coefficient. Secondly, these small scales are set up to capture a broad content and therefore lower alpha's have to be expected.

Unfortunately, due to the complexity of the three dimensional approach a test-retest procedure to ensure reliability is not feasible. The issue presents itself as a trade-off between internal validity and reliability where in our research it is chosen in favor of validity. The reliability of the categories in representing the overall college experience is more than adequate. This is indicated by the corrected inter-total correlations. Future research could possibly fall back on a two-dimensional model of satisfaction which would open up the opportunity of more narrow scale constructs or retests.

Internal validity is possibly flawed by three factors. First, the survey measures complex psychological constructs and participants could hold differing views on what these concepts mean. Moreover, the questionnaire is a self-report and could hence underlie a response bias when participants give false information (with or without intention). Nevertheless, these are common problems with survey research in social

and political science and remedies are scarce. Thirdly, a so called zone of tolerance/apathy is applied to research results in order to indicate which services fall for the participants beyond or within the range of adequacy. It has to be noted that due to cultural background or personal factors the tolerance level may vary for different individuals. Yet, omitting this zone might lead to exaggerated results as it is the case in other research (e.g. Franklin & Shemwell, 1995).

External validity is the biggest concern of our analysis. First of all, a voluntary/none-response bias could falsify outcomes. The low response rate might be an indicator for this. But, as it is argued in the section *Target population, sampling frame and research sample* there are numerous factors justifying the relative harmlessness of this threat. Under these are: the high number of similar surveys conducted at the same time, the survey being administrated at the end of the academic year, the fact that satisfaction with the college experience is an important issue for every student and the assumption that satisfied students have just the same inducement as dissatisfied ones to fill in the questionnaire. It would be advisable for subsequent research to conduct surveys at a different point of the year, even though the information provided by freshman would have to be considered for possible lack of experience.

The research sample fails to correctly represent the sampling frame, but the overrepresentation of Germans is in itself not harmful for the comparison between nationalities.

Although the sampling frame is chosen for other reasons than exactly representing the target population this could pose a problem after all. Most relevant outcomes of the analysis are related to the curriculum and its attributes. While categories like facilities, support services and student life can be assumed to be similar across bachelor programs, this is more than unlikely to be the case for the curriculum. Generalizations concerning this category and its items have hence to be adjusted and kept limited to the sampling frame. Future research could possibly enlarge the sampling frame and therefore enhance the generalizability of outcomes.

The collected data has not been analyzed to the fullest due to the nature of this thesis and the associated workload. Further research could investigate whether the age, study progress and years spend at the UT influence students' satisfaction. By

enlarging the research frame a more detailed comparison of satisfaction with the curriculums and teachers would be possible which could also complement or even substitute the satisfaction researches separately conducted by different study programs. Moreover future research could focus on students' expectations to help ameliorate expectation management at the university.

References

- Anderson, E.W. and Sullivan, M.W. (1993) "The antecedents and consequences of customer satisfaction for firms"; *Marketing Science*; Vol. 12; pp. 125-142
- Appleton-Knapp, S.L. and Krentler, K.A. (2006) "Student Expectations- Measuring Student Expectations and Their Effects on Satisfaction: The Importance of Managing"; *Journal of Marketing Education*; Vol. 28; No. 3; December 2006; pp. 254-264
- Bachelor satisfactie 2008 (August 2008); "*Onderzoek naar de tevredenheid van bachelorstudenten aan de UT*"; Newcom Research & Consultancy B.V.
- Betz, E. L., Klingensmith, J. E. and Menne, J. W. (1970) "The measurement and analysis of college student satisfaction"; *Measurement and Evaluation in Guidance*; Vol. 3; pp. 110-118
- Bolton, R. and Drew, J.H. (1991) "A multistage model for customers' assessments of service quality and value"; *Journal of Consumer Research*; Vol. 17; pp. 375-384
- Brokaw, A.J., Kennedy, W.A. and Merz, T.E. (2004) "Explaining student satisfaction"; *Journal of Business Education*; Vol. 5; pp. 10-20
- Christensen, S. (2004) "*The virtue of satisfied client: investigating student perceptions of service quality*"; in *Virtue of Marketing*. Academy of Marketing Conference 2004. Cheltenham: University of Cloucestershire
- Dana, S.W., Brown, F.W. and Dodd, N.G. (2001) "Student perception of teaching effectiveness: A preliminary study of the effects of professors' transformational and contingent reward leadership behaviors"; *Journal of Business Education*; Vol. 2; pp. 53-70

- Day, R. L. (1984) "Modeling Choices Among Alternative Responses to Dissatisfaction" *Advances in Consumer Research*; Vol. 11; Ed. W. D. Perreault, Atlanta, GA: Association for Consumer Research; pp. 496-499
- DeBourgh, G.A. (2003) "Predictors of student satisfaction in distance-delivered graduate nursing courses: What matters most?"; *Journal of Professional Nursing*; Vol. 19; pp. 149-163
- Doering, T.R. and Hubbard, R. (1979) "*Measurement and Statistics: The Ordinal-Interval Controversy and Geography*"; The Royal Geographical Society (with the Institute of British Geographers); p. 237
- Doole, I., Lowe, R. and Lancaster, P. (2005). "Understanding and Managing Customers". Essex: Pearson Education
- Fornell, C. (1992) "A National Customer Satisfaction Barometer: The Swedish Experience"; *Journal of Marketing*; Vol. 56 (January); pp. 6-21
- Franklin, K. K. and Shemwell, D.W. (1995) "*Disconfirmation Theory: An Approach to Student Satisfaction Assessment in Higher Education*"; Paper presented at the Annual Meeting of the Mid-South Educational Research Association Conference (Biloxi, MS, November 1995); available: www.eric.ed.gov/ERICWebPortal/recordDetail?accno=ED388199; retrieved on May 1st 2009
- Fredericksen, E., Shea, P. and Pickett, A. (2000) "*Factors influencing student and faculty satisfaction in the SUNY learning network*"; New York: State University of New York
- Giese, J.L. and Cote, J.A. (2000) Defining Consumer Satisfaction; *Academy of Marketing Science Review*; Vol. 2000; No. 1; available: <http://www.amsreview.org/articles/giese01-2000.pdf> ; retrieved on June 2nd 2009

- Grönross, C. (2000) “*Service Management and Marketing*”; West Sussex: John Wiley & Sons
- Gudlaugsson, T. (2009) “Service Quality and Universities”; *Institute of Business Research, Working paper Series*; Vol. 2000; No. 1
- Hayes, B.E. (1998) “*Measuring Customer Satisfaction- Survey Design, Use, and Statistical Analysis Methods*”; USA: American Society for Quality, Quality Press
- Harvey, L. (2001) “Student Feedback: A Report to the Higher Education Funding Council for England”; available: www.uce.ac.uk/crq/publications/studentfeedback.pdf; retrieved on August 23rd 2009
- Heskett, J.L., Sasser Jr, W.E. and Schlesinger, L.A. (1997) “*The Service Profit Chain: How Leading Companies Link Profit and Growth to Loyalty, Satisfaction and Value*”; New York : Free Press
- Hom, M.B.A.W. (2000) “An Overview of Customer Satisfaction Models”; RP Group Processings; pp. 100-110; available: <http://www.scribd.com/doc/16029351/An-Overview-of-Customer-Satisfaction-Models>; retrieved on August 23rd 2009
- Krentler, K.A. and Grundnitski, G.M. (2004) “Moving beyond satisfaction: Perceiving learning as an assessment measure”; *Journal of College Teaching & Learning*; Vol. 1; No. 10; pp. 7-16
- Lado, N., Cardone-Riportella, C. and Rivera-Torres, G.M. (2003) “Measurement and effects of teaching quality: An empirical model applied to masters programs”; *Journal of Business Education*; Vol. 4; pp. 28-40
- Lovelock, C. (2001) “*Services Marketing, People, Technology, Strategy*”; New Jersey: Prentice Hall

- Low, L. (2000) "Are College Students Satisfied? A National Analysis of Changing Expectations"; *The USA Group Foundation New Agenda Series*; Vol. 2; No. 1; Indianapolis, IN: USA Group Foundation; available: www.luminafoundation.org/publications/satisfaction.pdf; retrieved on May 28th 2009
- Oliva, T.A., Oliver, R.L. and MacMillan, I.C. (1992) "A catastrophe model for developing service satisfaction strategies"; *Journal of Marketing*; Vol. 56; pp. 83-95
- Oliver, R.L. (1993) "A conceptual model of service quality and service satisfaction: Compatible goals, different concepts"; *Advances in Services Marketing and Management*; Vol. 2; pp.65-85
- Oliver, R.L. (1997) "*Satisfaction: A Behavioral Perspective on the Consumer*"; New York: The McGraw-Hill Companies, Inc.
- OSIRIS onderwijsinformatiesysteem (updated December 1st 2008); "*Decembertelling*"; Twente University, Enschede; retrieved on June 25th 2009
- Palmer, A. (2001) "*Principles of Services Marketing*"; 3rd Edition; London: McGraw-Hill
- Parasuraman, A., Zeithaml, V.A. and Berry, L.L. (1988) "SERVQUAL: A multiple-item scale for measuring consumer perception of service quality"; *Journal of Retailing*; Vol. 64; No. 1; pp. 12-40
- Parasuraman, A., Zeithaml, V.A. and Berry, L.L. (1994) "Reassessment of Expectations as a Comparison Standard in Measuring Service Quality: Implications for Future Research"; *Journal of Marketing*; Vol. 58; pp. 111-124
- Polcyn, L. J. (1986) "A two-instrument approach to student satisfaction measurement"; *College and University*; Vol. 62; No.1; pp.18-24

- Porter, S.R. and Umbach, P.D. (2001) "Analyzing faculty workload data using multilevel modeling"; *Research in Higher Education*; Vol. 42; pp. 171-196
- Rammstedt, B. and John, O.P. (2006) "*Measuring personality in one minute or less: A 10-item short version of the Big Five Inventory in English and German*"; available: <http://www.sciencedirect.com>; retrieved on August 20th 2009
- Strokes, S.P. (2003) "*Temperament, learning styles, and demographic predictors of college student satisfaction in a digital learning environment*"; Paper presented at the annual meeting of the Mid-South Educational Research Association, Biloxi, MS; available: <http://eric.ed.gov/ERICWebPortal/contentdelivery/servlet/ERICServlet?accno=ED482454>; retrieved on June 2nd 2009
- Venkatesh, S., Smith, A. and Rangaswamy, A. (2003) "The relationship between customer satisfaction and loyalty in online and offline environments"; *International Journal of Research in Marketing*; Vol. 20; pp. 153-175
- Woodruff, R.B., Cadotte, E.R. and Jenkins, R.L. (1987) "Expectations and Norms in Models of Customer Satisfaction"; *Journal of Marketing Research*, Vol.24 (August); pp. 305-314
- Yi, Y. (1990) "A Critical Review of Consumer Satisfaction"; *Review of Marketing*; Ed. V. A. Zeithaml, Chicago: American Marketing Association; pp. 68-123
- Zeithaml, V.A.; Bitner, M.J. (1996) "*Services Marketing*"; New York: The McGraw-Hill Companies, Inc
- Zeithaml, V.A.; Bitner, M.J. (2003) "*Services Marketing, Integrating Customer Focus Across the Firm*"; New York: McGraw-Hill Higher Education

Glossary

Category	one of the five groups comprising student satisfaction: curriculum, teachers, facilities, student life and support services
Dimension	one of the three aspects used to assess student satisfaction: expectations, perceptions and importance
Disconfirmation Theory	two-dimensional model used to assess satisfaction. A disconfirmation score is calculated by subtracting expectations one held before experiencing a service from the actual perception one has after experiencing a service
Scale	measurement of one of the three dimensions: expectations, perceptions and importance; as well as a measurement of 'disconfirmation' and 'satisfaction' which are calculated using the three dimensions
Student satisfaction	comprised of five categories (see <u>category</u>) and assessed using a three dimensional model
Three-dimensional Model	model used in our study to asses student satisfaction, it is based on the Disconfirmation Theory and additionally introduces the dimension importance

Appendix

Survey

Student Satisfaction Survey

Thank you for joining us on this site!

This survey is part of a bachelor thesis and set up in cooperation with the University of Twente, the faculty MB, the faculty GW and the Student Union. The questionnaire has a limited number of questions about 'studying at the UT'. It concerns your expectations and experiences with respect to 'being a UT-student'. All your answers will be treated confidentially! Completing the questionnaire will take no longer than 10 minutes.

You can navigate through the questionnaire by using the white buttons in the menu on the left. Click on the 'Next ' button to start with the questionnaire. To go back to the previous screen while filling in, you can use the 'Previous ' button. Please be aware that it is crucial to click on 'End session' on the last screen of the survey. Otherwise all information entered will irrevocably be lost.

◆-----◆

On the following two pages you find some aspects that might have had an impact on your decision to study at the UT. Please tell us what your expectations were when you first came to the UT.

'In coming to the UT, to what extent did you expect that...':

(4 point Likert scale: 1 = 'not at all' 2='a little' 3='quite a bit' 4 = 'very much'+ don't know' as a separate category)

1. the courses of your program would be interesting and stimulating?
2. the teacher-student interaction would be personal?
3. there would be enough PC's, printers and copy machines available?
4. the curriculum would be logically structured and well organized?
5. the staff of the housing assistance would be available and provide useful advice?
6. the teachers would be available when you have questions?
7. the campus would be a great place to be?
8. you would be able to meet a lot of people and make new friends?
9. the library would have all materials you need for your study?
10. the staff of the Central Student Administration (CSA) would be available and would provide useful advice?
11. there would be good possibilities for going out and partying (on and off campus)?

12. the teachers would be able to disseminate their expert-knowledge well?
13. the study would challenge you personally and academically?
14. there would be enough adequate physical facilities for sport, culture and social networking (Sport Center, Agora Hall, Theater Café...)?
15. you would be able to choose the courses you are interested in? ('flexibility of the program')
16. your student advisor would be available and provide useful advice?
17. the educational curriculum would include everything needed for a future career in your field of specialization?
18. your housing conditions would be comfortable?
19. there would be a large variety of associations and clubs (sport, cultural and social groups)?
20. recruiting teams (Twente Academy/D-Team) would accurately portray the college experience at the UT during their promotion?
21. the staff of the International Office would be available and provide useful advice?

◆-----◆

In this section we would like you to tell us what your experiences with studying at the UT have been so far.

'So far my experience is that...':

(4 point Likert scale: 1='strongly disagree' 2='disagree' 3='agree' 4='strongly agree' + 'don't know' as separate category)

1. the library has all materials I need for my study.
2. I am able to meet a lot of people and make new friends.
3. the teacher-student interaction is personal.
4. there are enough PC's, printers and copy machines available.
5. the curriculum is logically structured and well organized.
6. the staff of the housing assistance is available and provides useful advice.
7. the courses of my program are interesting and stimulating.
8. the campus is a great place to be.
9. the teachers are available when I have questions.
10. the staff of the Central Student Administration (CSA) is available and provides useful advice.
11. recruiting teams (Twente Academy/D-Team) accurately portray the college experience at the UT during their promotion.

12. my housing conditions are comfortable.
13. there are good possibilities for going out and partying (on and off campus).
14. there are enough adequate physical facilities for sport, culture and social networking (Sport Center, Agora Hall, Theater Café...).
15. I am able to choose the courses I am interested in ('flexibility of the program').
16. my student advisor is available and provides useful advice.
17. the teachers are able to disseminate their expert-knowledge well.
18. the study challenges me personally and academically.
19. there is a large variety of associations and clubs (sport, cultural and social groups).
20. the educational curriculum includes everything needed for a future career in my field of specialization.
21. the staff of the International Office is available and provides useful advice.

◆-----◆
Please tell us how important the following aspects are to you.

How important is it to you that...:

(4 point Likert scale: 0='not important at all' 1='a little important' 2='important' 3='very important').

1. the campus is a great place to be?
2. the staff of the housing assistance is available and provides useful advice?
3. the teacher-student interaction is personal?
4. there are enough PC's, printers and copy machines available?
5. you are able to meet a lot of people and make new friends?
6. the curriculum is logically structured and well organized?
7. the library has all materials you need for your study?
8. the staff of the Central Student Administration (CSA) is available and provides useful advice?
9. the courses of your program are interesting and stimulating?
10. the teachers are available when you have questions?
11. the educational curriculum includes everything needed for a future career in your field of specialization?

12. there is a large variety of associations and clubs (sport, cultural and social groups)?
13. your housing conditions are comfortable?
14. there are enough adequate physical facilities for sport, culture and social networking (Sport Center, Agora Hall, Theater Café...)?
15. you are able to choose the courses you are interested in? ('flexibility of the program')
16. the staff of the International Office is available and provides useful advice?
17. recruiting teams (Twente Academy/D-Team) accurately portray the college experience at the UT during their promotion?
18. there are good possibilities for going out and partying (on and off campus)?
19. your student advisor is available and provides useful advice?
20. the teachers are able to disseminate their expert-knowledge well?
21. the study challenges you personally and academically?

◆-----◆

A. What is your nationality?

- Dutch
- German
- other, namely _____

B. Your Gender?

- male
- female

C. How old are you?

D. What study are you majoring in?

- Psychology
- Communication Science
- European Studies
- Public Administration

E. How many years have you been studying at the UT?

- 1 year
- 2 years
- 3 years
- 4 years
- more than 5 years

F. Of all the ECTS you **could** have gathered so far, how many did you **actually** gain?

- less than 25% (15 EC/year)
- 26%-50% (16-30 EC/year)
- 51%-75% (31-45 EC/year)
- 76%-100% (46-60 EC/year)
- more than 100% (more than 60 EC/year)

G. Why did you choose to study at the UT? (multiple answers possible)

- best curriculum for my field of study
- the university has a nice campus
- no numerus clausus/fixus
- closest university from my home town
- closest foreign university from my home town
- UT is known for its 'activism' ('Unternehmende/ Ondernemende UT')
- other _____

H. Based on your experiences at the UT, would you recommend the university to other students thinking of applying here?

- definitely
- probably
- rather not
- definitely not
- not sure

I. To what extent have the following aspects negatively influenced your satisfaction with your college experience at the UT so far? More than one answer possible.

- the level of teaching
- the way of teaching
- (bureaucratic) problems in timely getting the right information
- personal attention for the student
- initial difficulty with English language
- initial difficulty with Dutch language
- lack of personal social network
- housing/living facilities
- group size of the classes
- attitudes of fellow-students
- lack of internationalization
- other _____

J. Open question: What would increase your satisfaction as regards studying at the UT?

◆-----◆

Thank you very much for completing this questionnaire!

If you would like to receive a summary of the results please leave your email address here: _____

Item-Inventory

Educational Curriculum	1. Quality of the curriculum 2. Flexibility of the curriculum 3. Academic level of the courses 4. Stimulation of the courses 5. Organization of the curriculum	Does the curriculum include everything needed for a future career? Possibility to chose the courses of interest Personal and academic challenge of courses Are courses interesting and stimulating? Logical structure and good organization of the curriculum
Teachers	6. Teaching abilities 7. Availability of teachers 8. Personal attention of teachers	Capability of teachers to impart their expert-knowledge Teachers have time for their students. Is the lecturer-student rapport personal?
University Facilities	9. Appeal of the campus in general 10. Standard of the Library 11. Quality and quantity of technical equipment 12. Quality and quantity of sport, cultural and social facilities	Is the campus a great place to be? Availability of needed materials Quality and quantity of PC's, printers and copy machines includes e.g. outdoor fields, Sport Center, Agora hall, Theater Café
Student Life	13. Quality of housing 14. Social networking 15. Associations and clubs 16. Going out	Comfort of the accommodation Possibility to meet a lot of people and make new friends Variety of sport, cultural and social groups Possibilities to party on or off campus
Support Services	17. Helpfulness of Housing Assistance 18. Helpfulness of CSA 19. Helpfulness of Student Advisory Service 20. Helpfulness of International Office 21. Helpfulness of recruitment team	Availability and provision of good advice Availability and provision of good advice Availability and provision of good advice Availability and provision of good advice Accurate portray of college experience during recruitment

Tables

Table 1: Distribution of the sample frame

		Nationality				Total
		Dutch		German		
		count	Row N %	count	Row N %	count
Study program	Psychology	317	52.7%	284	47.3%	601
	Communication Science	273	77.6%	79	22.4%	352
	European Studies	39	15.6%	211	84.4%	250
	Public Administration	164	99.4%	1	.6%	165
Total		793	58.0%	575	42.0%	1368

Table 2: Distribution of the research sample

		Nationality									
		Dutch				Total	German				Total
		male		female			male		female		
		Count	Row N %	Count	Row N %	Count	Count	Row N %	Count	Row N %	Count
Study program	Psychology	7	33.3%	14	66.6%	21	6	17.1%	29	82.9%	35
	Communication Science	9	45.0%	11	55.0%	20	1	14.3%	6	85.7%	7
	European Studies			5	100%	5	17	38.6%	27	61.4%	44
	Public Administration	9	64.3%	5	35.7%	14	1	100%			1
Total		25	41.7%	35	58.3%	60	25	28.7%	62	71.3%	87

Table 4: Internal reliability of all life measurement scales

Reliability of expectation scale				
	Number of valid cases	Number of Items	Corrected Item-Total Correlation of dimension with other dimensions	Cronbach's Alpha
Curriculum	146	5	.328	.503
Teachers	145	3	.396	.614
Facilities	138	4	.658	.535
Student life	137	4	.353	.716
Support service	120	5	.632	.709

Reliability of perception scale				
	Number of valid cases	Number of Items	Corrected Item-Total Correlation of dimension with other dimensions	Cronbach's Alpha
Curriculum	147	5	.530	.703
Teachers	146	3	.461	.564
Facilities	145	4	.448	.324
Student life	138	4	.395	.678
Support service	96	5	.491	.749

Reliability of importance scale				
	Number of valid cases	Number of Items	Corrected Item-Total Correlation of dimension with other dimensions	Cronbach's Alpha
Curriculum	147	5	.453	.726
Teachers	147	3	.437	.624
Facilities	147	4	.666	.417
Student life	147	4	.282	.720
Support service	147	5	.475	.695

Reliability of disconfirmation scale				
	Number of valid cases	Number of Items	Corrected Item-Total Correlation of dimension with other dimensions	Cronbach's Alpha
Curriculum	146	5	.444	.677
Teachers	144	3	.438	.690
Facilities	136	4	.635	.543
Student life	131	4	.611	.716
Support service	88	5	.685	.670

Reliability of satisfaction scale				
	Number of valid cases	Number of Items	Corrected Item-Total Correlation of dimension with other dimensions	Cronbach's Alpha
Curriculum	147	5	.361	.688
Teachers	145	3	.423	.675
Facilities	137	4	.624	.524
Student life	133	4	.632	.637
Support service	89	5	.642	.543

Table 6: The 5 items arousing highest and lowest expectations

The 5 items arousing highest expectations				
	Valid Number	Mean (scale 1-4)	Std. Deviation	
#1: Item 4: Stimulation of courses	146	3.79	.48	
#2: Item 3: Academic level of courses	143	3.66	.59	
#3: Item 6: Teaching abilities	139	3.58	.55	
#4: Item 5: Organization of curriculum	141	3.53	.70	
#5: Item 12: Quality and quantity of sport, cultural and social facilities	142	3.44	.80	

The 5 items arousing lowest expectations				
	Valid Number	Mean (scale 1-4)	Std. Deviation	
#21: Item 18: Helpfulness of CSA	106	2.68	.89	
#20: Item 20: Helpfulness of International Office	93	2.70	1.00	
#19: Item 21: Helpfulness of recruitment teams	105	2.71	.95	
#18: Item 13: Quality of housing	128	2.84	.86	
#17: Item 17: Helpfulness of housing assistance	116	2.91	.92	

Table 8: The 5 most and least positively perceived items

The 5 items most positively perceived				
	Valid Number	Mean (scale 1-4)	Std. Deviation	
#1: Item 12: Quality and quantity of sport, cultural and social facilities	142	3.53	.54	
#2: Item 15: Associations and clubs	134	3.37	.66	
#3: Item 9: Appeal of the campus in general	144	3.30	.69	
#4: Item 14: Social networking	146	3.29	.70	
#5: Item 7: Availability of teachers	144	3.26	.60	

The 5 items least positively perceived

	Valid Number	Mean (scale 1-4)	Std. Deviation
#21: Item 2: Flexibility of curriculum	140	2.61	.77
#20: Item 1: Quality of curriculum	127	2.65	.74
#19: Item 11: Quality and quantity of technical equipment	142	2.67	.86
#18: Item 21: Helpfulness of recruitment teams	78	2.74	.71
#17: Item 17: Helpfulness of housing assistance	97	2.76	.69

Table 10: The 5 items with the most positive and most negative disconfirmation

The 5 items exceeding expectations the most

	Valid Number	Mean (scale -3 to 3)	Std. Deviation
#1: Item 13: Quality of housing	120	.32	.12
#2: Item 15: Associations and clubs	125	.30	.09
#3: Item 8: Helpfulness of CSA	82	.27	.93
#4: Item 12: Quality and quantity of sport, cultural and social facilities	138	.07	.88
#5: Item 7: Availability of teachers	139	.03	.97

The 5 items falling shortest of expectations

	Valid Number	Mean (scale -3 to 3)	Std. Deviation
#21: Item 4: Stimulation of Courses	145	-.72	.64
#20: Item 5: Organization of curriculum	140	-.65	.02
#19: Item 1: Quality of curriculum	122	-.64	.97
#18: Item 11: Quality and quantity of technical equipment	133	-.59	.31
#17: Item 3: Academic level of courses	142	-.56	.88

Table 12: The 5 most and least important items

The 5 items most important

	Valid Number	Mean (scale 0-3)	Std. Deviation
#1: Item 4: Stimulation of courses	146	2.75	.50
#2: Item 6: Teaching abilities	147	2.56	.56
#3: Item 1: Quality of curriculum	147	2.55	.64
#4: Item 5: Organization of curriculum	147	2.54	.59
#5: Item 7: Availability of teachers	147	2.53	.68

The 5 items least important

	Valid Number	Mean (scale 0-3)	Std. Deviation
#21: Item 21: Helpfulness of recruitment teams	146	1.03	.86
#20: Item 17: Helpfulness of housing assistance	147	1.09	.96
#19: Item 20: Helpfulness of International Office	147	1.21	.99
#18: Item 15: Associations and clubs	147	1.28	.90
#17: Item 18: Helpfulness of CSA	146	1.38	.85

Table 14: The 5 most and least satisfying items

The 5 items most satisfying

	Valid Number	Mean (scale -3 to 3)	Std. Deviation
#1: Item 13: Quality of housing	130	.18	.89
#2: Item 18: Helpfulness of CSA	100	.10	.51
#3: Item 15: Associations and clubs	137	.06	.50
#4: Item 8: Personal attention of teachers	139	.04	.98
#5: Item 12: Quality and quantity of sport, cultural and social facilities	141	.04	.53

The 5 items least satisfying

	Valid Number	Mean (scale -3 to 3)	Std. Deviation
#21: Item 4: Stimulation of courses	145	-.66	.62
#20: Item 5: Organization of curriculum	142	-.60	.90
#19: Item 1: Quality of curriculum	125	-.59	.90
#18: Item 11: Quality and quantity of technical equipment	135	-.53	1.08
#17: Item 3: Academic level of courses	143	-.50	.79

Table 15: Correlations among the dimensions

		1	2	3	4	5
1. Expectations	r	-	-.169*	.336**	-.815**	-.809**
	N		136	143	136	136
2. Perceptions	r		-	.306**	.709**	.693**
	N			140	136	137
3. Importance	r			-	-.048	-.063
	N				136	137
4. Disconfirmation	r				-	.991**
	N					136
5. Satisfaction	r					-
	N					

*. p< 0.05 (2-tailed).

** . p< 0.01 (2-tailed).

Table 16: Mean differences between German and Dutch students

	t-test for Equality of Means						
	t	df	p	MD (Dutch - German mean)	Std. Error Difference	95% Confidence Interval of the Difference	
						Lower	Upper
Expectations							
Item 1: Quality of curriculum	-2.179	135	.031	-.300	.138	-.573	-.028
Item 2: Flexibility of curriculum	-2.153	142	.033	-.324	.150	-.621	-.026
Item 9: Appeal of the campus in general	-2.249	104	.027	-.352	.157	-.663	-.042
Item 17: Helpfulness of housing assistance	-2.126	86	.036	-.376	.177	-.727	-.024
Category: Curriculum	-2.640	144	.009	-.189	.072	-.331	-.048
Perceptions							
Item 2: Flexibility of curriculum	3.107	133	.002	.387	.125	.141	.633
Item 4: Stimulation of the courses	-2.256	144	.026	-.241	.107	-.452	-.030
Item 5: Organization of the curriculum	-2.465	142	.015	-.276	.112	-.497	-.055
Item 11: Quality and quantity of technical equipment	-2.604	140	.010	-.373	.143	-.657	-.090
Item 15: Associations and clubs	2.023	132	.045	.231	.114	.005	.456
Item 16: Going out	3.535	135	.001	.450	.127	.198	.702
Item 18: Helpfulness of CSA	2.474	88	.015	.265	.107	.052	.479
Category: Student life	3.127	136	.002	.278	.089	.102	.454
Disconfirmation							
Item 2: Flexibility of the curriculum	4.446	128	.000	.690	.155	.383	.996
Item 9: Appeal of the campus in general	2.144	136	.034	.328	.153	.025	.631
Item 11: Quality and quantity of technical equipment	-2.084	131	.039	-.478	.229	-.932	-.024
Item 14: Social networking	2.175	142	.031	.349	.160	.032	.666
Item 16: Going out	2.113	129	.037	.393	.186	.025	.761
Importance							
Item 2: Flexibility of the curriculum	-2.317	145	.022	-.278	.120	-.514	-.041
Item 3: Academic level of courses	2.790	144	.006	.276	.099	.080	.471
Item 20: Helpfulness of International Office	-2.900	145	.004	-.469	.162	-.789	-.149
Satisfaction							
Item 2: Flexibility of the curriculum	4.540	133	.000	.604	.133	.341	.867
Item 9: Appeal of the campus in general	1.997	137	.048	.186	.093	.002	.370
Item 11: Quality and quantity of technical equipment	-2.725	133	.007	-.505	.185	-.872	-.138
Item 16: Going out	2.184	136	.031	.249	.114	.024	.475

Table 17: Means of German and Dutch students per item showing significant differences

	Nationality	N	Mean	Std. Deviation	Std. Error Mean
Expectations					
Item 1: Quality of curriculum	Dutch	56	3.11	.867	.116
	German	81	3.41	.738	.082
Item 2: Flexibility of curriculum	Dutch	59	2.86	.860	.112
	German	85	3.19	.906	.098
Item 9: Appeal of the campus in general	Dutch	59	3.14	1.008	.131
	German	82	3.49	.774	.085
Item 17: Helpfulness of housing assistance	Dutch	50	2.70	1.055	.149
	German	66	3.08	.771	.095
Category: Curriculum	Dutch	60	3.35	.476	.061
	German	86	3.54	.389	.042
Perceptions					
Item 2: Flexibility of curriculum	Dutch	56	2.84	.654	.087
	German	84	2.45	.813	.089
Item 4: Stimulation of the courses	Dutch	60	2.93	.756	.098
	German	86	3.17	.536	.058
Item 5: Organization of the curriculum	Dutch	58	2.72	.670	.088
	German	86	3.00	.651	.070
Item 11: Quality and quantity of technical equipment	Dutch	58	2.45	.841	.110
	German	84	2.82	.838	.091
Item 15: Associations and clubs	Dutch	55	3.51	.505	.068
	German	79	3.28	.733	.082
Item 16: Going out	Dutch	55	3.22	.712	.096
	German	82	2.77	.742	.082
Item 18: Helpfulness of CSA	Dutch	39	3.13	.409	.066
	German	51	2.86	.566	.079
Category: Student life	Dutch	55	3.38	.438	.059
	German	83	3.10	.554	.061
Disconfirmation					
Item 2: Flexibility of the curriculum	Dutch	55	-.09	.823	.111
	German	82	-.78	.982	.108
Item 9: Appeal of the campus in general	Dutch	58	.10	.765	.100
	German	80	-.23	.968	.108
Item 11: Quality and quantity of technical equipment	Dutch	54	-.87	1.428	.194
	German	79	-.39	1.203	.135
Item 14: Social networking	Dutch	59	.10	1.012	.132
	German	85	-.25	.898	.097
Item 16: Going out	Dutch	54	.06	.878	.119
	German	77	-.34	1.252	.143
Importance					
Item 2: Flexibility of the curriculum	Dutch	60	2.22	.804	.104
	German	87	2.49	.645	.069
Item 3: Academic level of courses	Dutch	60	2.67	.510	.066
	German	87	2.39	.688	.074
Item 20: Helpfulness of International Office	Dutch	60	.93	1.023	.132
	German	87	1.40	.921	.099
Satisfaction					
Item 2: Flexibility of the curriculum	Dutch	56	-.11	.691	.092
	German	82	-.71	.868	.096
Item 9: Appeal of the campus in general	Dutch	58	.02	.448	.059
	German	81	-.17	.650	.072
Item 11: Quality and quantity of technical equipment	Dutch	55	-.83	1.140	.154
	German	80	-.33	.999	.112
Item 16: Going out	Dutch	58	-.05	.518	.068
	German	82	-.30	.829	.092

Table 18: Mean differences between male and female students

	t-test for Equality of Means						
	t	df	p	MD (male - female mean)	Std. Error Difference	95% Confidence Interval of the Difference	
						Lower	Upper
Expectations							
Item 4: Stimulation of courses	-2.010	78	.048	-.182	.091	-.363	-.002
Item 14: Social networking	-3.216	77	.002	-.479	.149	-.776	-.182
Category: curriculum	-1.984	144	.049	-.149	.075	-.298	-.001
Disconfirmation							
Item 10: Standard of the library	2.143	121	.034	.398	.186	.030	.765
Item 14: Social networking	3.044	142	.003	.497	.163	.174	.819
Item 21: Helpfulness of recruitment teams	-2.829	68	.006	-.646	.228	-1.101	-.190
Importance							
Item 1: Quality of curriculum	-3.384	75	.001	-.431	.127	-.684	-.177
Item 7: Availability of teachers	-2.162	145	.032	-.219	.101	-.418	-.019
Item 10: Standard of the library	-3.215	145	.002	-.431	.134	-.695	-.166
Item 11: Quality and quantity of technical equipment	-3.406	145	.001	-.423	.124	-.668	-.177
Item 13: Housing conditions	-2.050	144	.042	-.318	.155	-.624	-.011
Category: Facilities	-2.938	145	.004	-.242	.082	-.405	-.079
Category: Support services	-2.307	145	.022	-.233	.101	-.432	-.033
Satisfaction							
Item 10: Standard of the library	2.125	91	.036	.283	.133	.018	.547
Item 14: Social networking	2.417	142	.017	.279	.116	.051	.508
Item 21: Helpfulness of recruitment teams	-2.669	103	.009	-.243	.091	-.424	-.062

Table 19: Means of male and female students per item showing significant differences

	Gender	N	Mean	Std. Deviation	Std. Error Mean
Expectations					
Item 4: Stimulation of courses	male	49	3.67	.555	.079
	female	97	3.86	.433	.044
Item 14: Social networking	male	50	3.10	.931	.132
	female	95	3.58	.678	.070
Category: Curriculum	male	50	3.37	.476	.067
	female	96	3.52	.406	.041
Disconfirmation					
Item 10: Standard of the library	male	38	-.13	.963	.156
	female	85	-.53	.946	.103
Item 14: Social networking	male	50	.22	.840	.119
	female	94	-.28	.977	.101
Item 21: Helpfulness of recruitment teams	male	22	-.50	1.012	.216
	female	48	.15	.825	.119
Importance					
Item 1 : Quality of curriculum	male	50	2.26	.803	.114
	female	97	2.69	.566	.057
Item 7: Availability of teachers	male	50	2.40	.571	.081
	female	97	2.62	.585	.059
Item 10: Standard of the library	male	50	1.92	.877	.124
	female	97	2.35	.708	.072
Item 11: Quality and quantity of technical equipment	male	50	2.00	.808	.114
	female	97	2.42	.659	.067
Item 13: Housing conditions	male	49	1.82	.905	.129
	female	97	2.13	.874	.089
Category: Facilities	male	50	1.92	.444	.063
	female	97	2.16	.488	.050
Category: Support services	male	50	1.22	.589	.083
	female	97	1.46	.574	.058
Satisfaction					
Item 10: Standard of the library	male	39	-.15	.635	.102
	female	87	-.44	.803	.086
Item 14: Social networking	male	50	.07	.617	.087
	female	94	-.21	.682	.070
Item 21: Helpfulness of recruitment teams	male	37	-.19	.553	.091
	female	68	.05	.376	.046

Table 20: Mean differences between Psychology, Communication Science, European Studies and Public Administration students

	One way ANOVA					
		Sum of Squares	df	MS	F	p
Expectations						
Item 9: General appeal of the campus	Between Groups	7.332	3	2.444	3.210	0.025
	Within Groups	104.327	137	0.762		
	Total	111.660	140			
Item 11: Quality and quantity of technical equipment	Between Groups	11.249	3	3.750	4.191	0.007
	Within Groups	116.310	130	0.895		
	Total	127.560	133			
Item 20: Helpfulness of the International Office	Between Groups	7.749	3	2.583	2.743	0.048
	Within Groups	83.820	89	0.942		
	Total	91.570	92			
Category: Curriculum	Between Groups	1.903	3	0.634	3.522	0.017
	Within Groups	25.577	142	0.180		
	Total	27.480	145			
Perceptions						
Item 17: Helpfulness of the housing assistance	Between Groups	7.305	3	2.435	5.922	0.001
	Within Groups	38.241	93	0.411		
	Total	45.546	96			
Importance						
Item 1: Quality of curriculum	Between Groups	6.560	3	2.187	5.051	0.002
	Within Groups	61.903	143	0.433		
	Total	68.463	146			
Item 11: Quality and quantity of technical equipment	Between Groups	4.758	3	1.586	3.032	0.031
	Within Groups	74.806	143	0.523		
	Total	79.565	146			
Item 20: Helpfulness of the International Office	Between Groups	12.752	3	4.251	4.686	0.004
	Within Groups	129.710	143	0.907		
	Total	142.463	146			
Category: Curriculum	Between Groups	3.136	3	1.045	5.883	0.001
	Within Groups	25.406	143	0.178		
	Total	28.541	146			
Satisfaction						
Item 17: Helpfulness of the housing assistance	Between Groups	3.255	3	1.085	3.763	0.013
	Within Groups	33.160	115	0.288		
	Total	36.415	118			

Tables 21- 25: Post Hoc specifications for differences between Psychology, Communication Science, European Studies and Public Administration students

Expectations

Dependent Variable	(I) Study	(J) Study	Mean Difference (I-J)	Std. Error	p	95% Confidence Interval	
						Lower Bound	Upper Bound
Item 9: General appeal of the campus	Psychology	Communication Science	.392	.234	.352	-.24	1.02
		European Studies	-.244	.158	.418	-.66	.17
		Public Administration	.219	.297	.882	-.62	1.05
	Communication Science	Psychology	-.392	.234	.352	-1.02	.24
		European Studies	-.636	.231	.043	-1.26	-.02
		Public Administration	-.173	.341	.957	-1.10	.76
	European Studies	Psychology	.244	.158	.418	-.17	.66
		Communication Science	.636	.231	.043	.02	1.26
		Public Administration	.462	.294	.418	-.37	1.29
	Public Administration	Psychology	-.219	.297	.882	-1.05	.62
		Communication Science	-.173	.341	.957	-.76	1.10
		European Studies	-.462	.294	.418	-1.29	.37
Item 11: Quality and quantity of technical equipment	Psychology	Communication Science	-.168	.201	.837	-.70	.37
		European Studies	.483	.191	.063	-.02	.98
		Public Administration	.606	.369	.384	-.45	1.66
	Communication Science	Psychology	-.168	.201	.837	-.37	.70
		European Studies	.651	.224	.025	.06	1.24
		Public Administration	.774	.387	.223	-.31	1.86
	European Studies	Psychology	-.483	.191	.063	-.98	.02
		Communication Science	-.651	.224	.025	-1.24	-.06
		Public Administration	-.123	.382	.988	-.96	1.20
	Public Administration	Psychology	-.606	.369	.384	-1.66	.45
		Communication Science	-.774	.387	.223	-1.86	.31
		European Studies	-.123	.382	.988	-1.20	.96
Item 20: Helpfulness of the International Office	Psychology	Communication Science	-.114	.339	.987	-.77	1.00
		European Studies	-.125	.230	.948	-.73	.48
		Public Administration	.850	.352	.081	-.07	1.77
	Communication Science	Psychology	-.114	.339	.987	-1.00	.77
		European Studies	-.239	.330	.888	-1.10	.63
		Public Administration	.736	.424	.311	-.37	1.85
	European Studies	Psychology	-.125	.230	.948	-.48	.73
		Communication Science	.239	.330	.888	-.63	1.10
		Public Administration	.975	.343	.028	.08	1.87
	Public Administration	Psychology	-.850	.352	.081	-1.77	.07
		Communication Science	-.736	.424	.311	-1.85	.37
		European Studies	-.975	.343	.028	-1.87	-.08
Category: Curriculum	Psychology	Communication Science	.06419	.09944	.917	-.1943	.3227
		European Studies	-.01741	.08348	.997	-.2344	.1996
		Public Administration	.37085	.12339	.016	.0501	.6916
	Communication Science	Psychology	-.06419	.09944	.917	-.3227	.1943
		European Studies	-.08160	.10210	.855	-.3470	.1838
		Public Administration	.30667	.13667	.117	-.0486	.6620
	European Studies	Psychology	.01741	.08348	.997	-.1996	.2344
		Communication Science	.08160	.10210	.855	-.1838	.3470
		Public Administration	.38826	.12554	.013	.0619	.7146
	Public Administration	Psychology	-.37085	.12339	.016	-.6916	-.0501
		Communication Science	-.30667	.13667	.117	-.6620	.0486
		European Studies	-.38826	.12554	.013	-.7146	-.0619

*. p< 0.05

Perceptions

Dependent Variable	(I) Study	(J) Study	Mean Difference (I-J)	Std. Error	p	95% Confidence Interval	
						Lower Bound	Upper Bound
Item 17: Helpfulness of the housing assistance	Psychology	Communication Science	.000	.130	1.000	-.35	.35
		European Studies	.457	.159	.027	.04	.88
		Public Administration	.778	.294	.096	-.12	1.68
	Communication Science	Psychology	.000	.130	1.000	-.35	.35
		European Studies	.457	.152	.021	.05	.86
		Public Administration	.778	.291	.094	-.12	1.67
	European Studies	Psychology	-.457	.159	.027	-.88	-.04
		Communication Science	-.457	.152	.021	-.86	-.05
		Public Administration	-.321	.305	.724	-.59	1.23
	Public Administration	Psychology	-.778	.294	.096	-1.68	.12
		Communication Science	-.778	.291	.094	-1.67	.12
		European Studies	-.321	.305	.724	-1.23	.59

*. p< 0.05

Importance

Dependent Variable	(I) Study	(J) Study	Mean Difference (I-J)	Std. Error	p	95% Confidence Interval	
						Lower Bound	Upper Bound
Item 1: Quality of curriculum	Psychology	Communication Science	.304	.155	.223	-.11	.72
		European Studies	.357	.122	.024	.04	.68
		Public Administration	.652	.222	.044	.02	1.29
	Communication Science	Psychology	-.304	.155	.223	-.72	.11
		European Studies	.053	.181	.991	-.43	.53
		Public Administration	-.348	.260	.546	-.36	1.06
	European Studies	Psychology	-.357	.122	.024	-.68	-.04
		Communication Science	-.053	.181	.991	-.53	.43
		Public Administration	.295	.241	.619	-.38	.97
	Public Administration	Psychology	-.652	.222	.044	-1.29	-.02
		Communication Science	-.348	.260	.546	-1.06	.36
		European Studies	-.295	.241	.619	-.97	.38
Item 11: Quality and quantity of technical equipment	Psychology	Communication Science	-.015	.169	1.000	-.46	.43
		European Studies	.168	.141	.634	-.20	.54
		Public Administration	.593	.210	.028	.05	1.14
	Communication Science	Psychology	.015	.169	1.000	-.43	.46
		European Studies	.183	.173	.717	-.27	.63
		Public Administration	.607	.233	.049	.00	1.21
	European Studies	Psychology	-.168	.141	.634	-.54	.20
		Communication Science	-.183	.173	.717	-.63	.27
		Public Administration	.424	.213	.197	-.13	.98
	Public Administration	Psychology	-.593	.210	.028	-1.14	-.05
		Communication Science	-.607	.233	.049	-1.21	.00
		European Studies	-.424	.213	.197	-.98	.13
Item 20: Helpfulness of the International Office	Psychology	Communication Science	-.384	.223	.316	-.82	.06
		European Studies	-.446	.186	.082	-.93	.04
		Public Administration	-.075	.277	.993	-.79	.64
	Communication Science	Psychology	-.384	.223	.316	-.82	.06
		European Studies	-.831	.228	.002	-1.42	-.24
		Public Administration	-.459	.307	.442	-1.26	.34
	European Studies	Psychology	.446	.186	.082	-.04	.93
		Communication Science	.831	.228	.002	.24	1.42
		Public Administration	.371	.281	.551	-.36	1.10
	Public Administration	Psychology	.075	.277	.993	-.64	.79
		Communication Science	.459	.307	.442	-.34	1.26
		European Studies	-.371	.281	.551	-1.10	.36
Category: Curriculum	Psychology	Communication Science	.14854	.08173	.279	-.0696	.3667
		European Studies	.20561	.08153	.064	-.0084	.4196
		Public Administration	.48929	.16027	.034	.0308	.9478
	Communication Science	Psychology	-.14854	.08173	.279	-.3667	.0696
		European Studies	.05707	.09977	.940	-.2058	.3199
		Public Administration	.34074	.17027	.221	-.1359	.8174
	European Studies	Psychology	-.20561	.08153	.064	-.4196	.0084
		Communication Science	-.05707	.09977	.940	-.3199	.2058
		Public Administration	.28367	.17018	.366	-.1924	.7597
	Public Administration	Psychology	-.48929	.16027	.034	-.9478	-.0308
		Communication Science	-.34074	.17027	.221	-.8174	.1359
		European Studies	-.28367	.17018	.366	-.7597	.1924

*. p< 0.05

Satisfaction

Dependent Variable	(I) Study	(J) Study	Mean Difference (I-J)	Std. Error	p	95% Confidence Interval	
						Lower Bound	Upper Bound
Item 17: Helpfulness of the housing assistance	Psychology	Communication Science	.09091	.11550	.860	-.2176	.3995
		European Studies	.36472	.12542	.024	.0351	.6943
		Public Administration	.31527	.13676	.127	-.0643	.6948
	Communication Science	Psychology	-.09091	.11550	.860	-.3995	.2176
		European Studies	.27381	.13645	.198	-.0874	.6350
		Public Administration	.22436	.14694	.437	-.1798	.6285
	European Studies	Psychology	-.36472	.12542	.024	-.6943	-.0351
		Communication Science	-.27381	.13645	.198	-.6350	.0874
		Public Administration	-.04945	.15486	.989	-.4688	.3699
	Public Administration	Psychology	-.31527	.13676	.127	-.6948	.0643
		Communication Science	-.22436	.14694	.437	-.6285	.1798
		European Studies	.04945	.15486	.989	-.3699	.4688

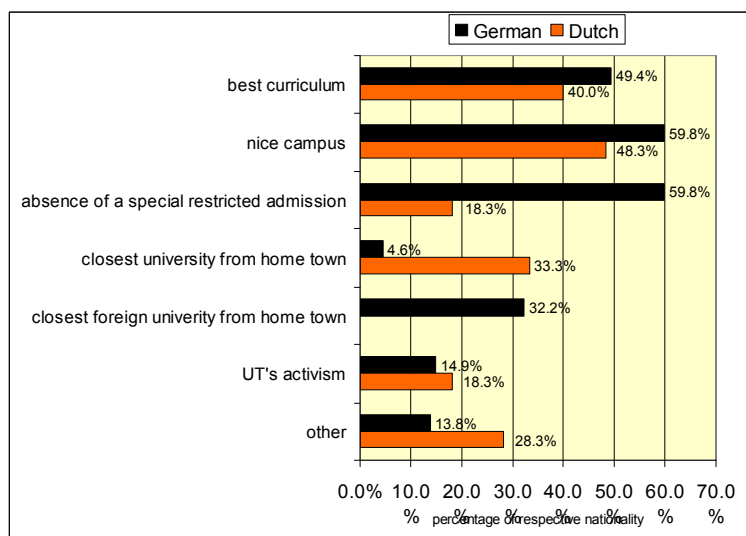
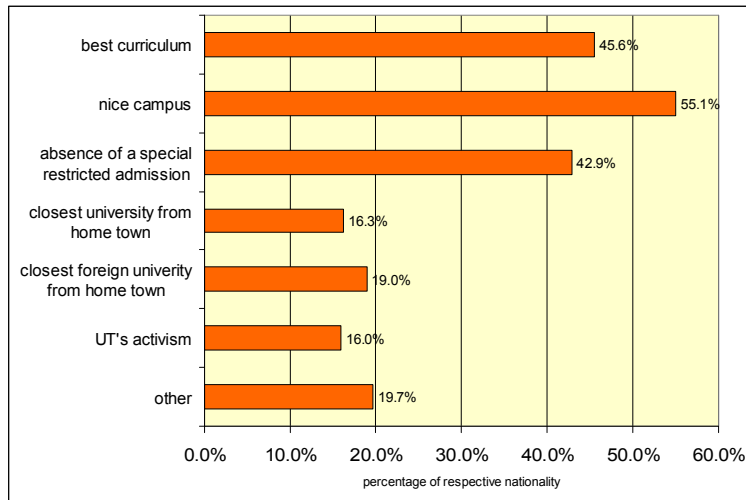
*. p< 0.05

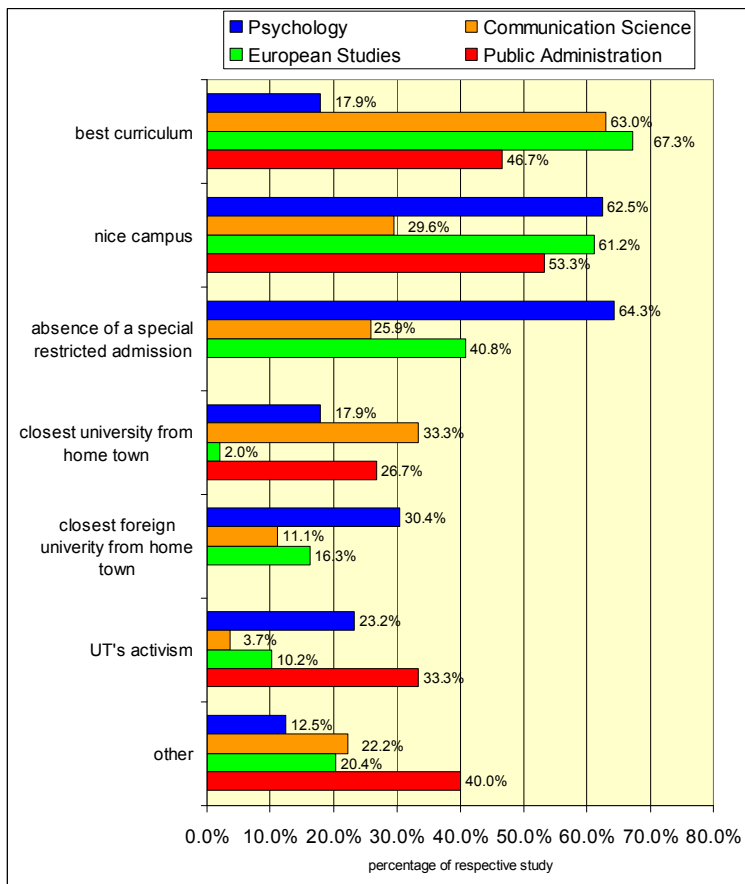
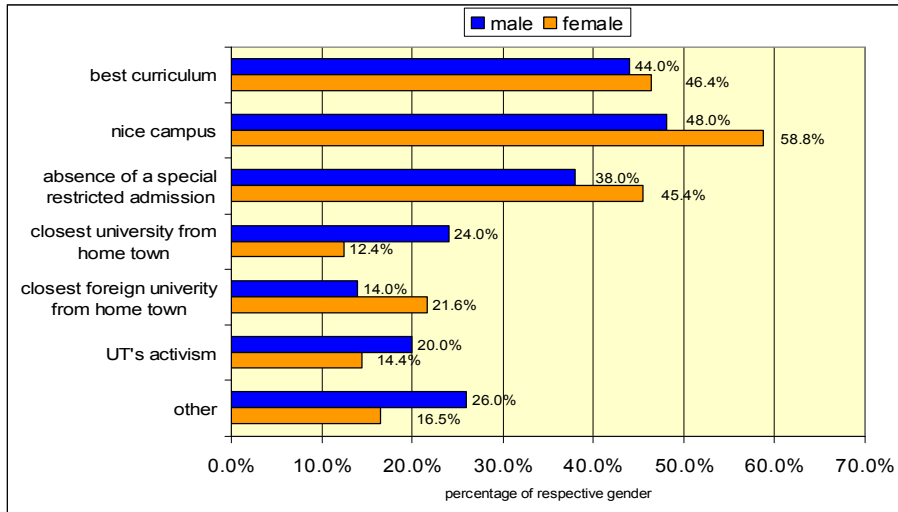
Table 26: Means of the four studies per item showing significant differences

		Expectations				Perception	Importance				Satisfaction
		Item 9: General appeal of the campus	Item 11: Quality and quantity of technical equipment	Item 20: Helpfulness of the International Office	Category: Curriculum	Item 17: Helpfulness of the housing assistance	Item 1: Quality of curriculum	Item 11: Quality and quantity of technical equipment	Item 20: Helpfulness of the International Office	Category: Curriculum	Item 17: Helpfulness of the housing assistance
Psychology	Mean	3.35	3.39	2.75	3.51	3.00	2.79	2.39	1.13	2.69	0.01
	N	54	51	32	56	36	56	56	56	56	44
	Std. Deviation	0.85	0.83	0.95	0.39	0.59	0.41	0.68	1.01	0.31	0.48
Communication Science	Mean	2.96	3.56	2.64	3.44	3.00	2.48	2.41	0.74	2.54	-0.08
	N	25	25	11	27	17	27	27	27	27	20
	Std. Deviation	1.02	0.82	1.03	0.51	0.35	0.75	0.75	0.86	0.37	0.40
European Studies	Mean	3.60	2.91	2.88	3.53	2.54	2.43	2.22	1.57	2.48	-0.36
	N	47	44	40	48	35	49	49	49	49	42
	Std. Deviation	0.74	1.01	0.99	0.38	0.74	0.76	0.71	0.87	0.49	0.66
Public Administration	Mean	3.13	2.79	1.90	3.14	2.22	2.13	1.80	1.20	2.20	-0.31
	N	15	14	10	15	9	15	15	15	15	13
	Std. Deviation	1.06	1.31	0.88	0.51	0.83	0.83	0.86	1.15	0.60	0.42
Total	Mean	3.34	3.20	2.70	3.46	2.76	2.54	2.28	1.21	2.54	-0.17
	N	141	134	93	146	97	147	147	147	147	119
	Std. Deviation	0.89	0.98	1.00	0.44	0.69	0.68	0.74	0.99	0.44	0.56

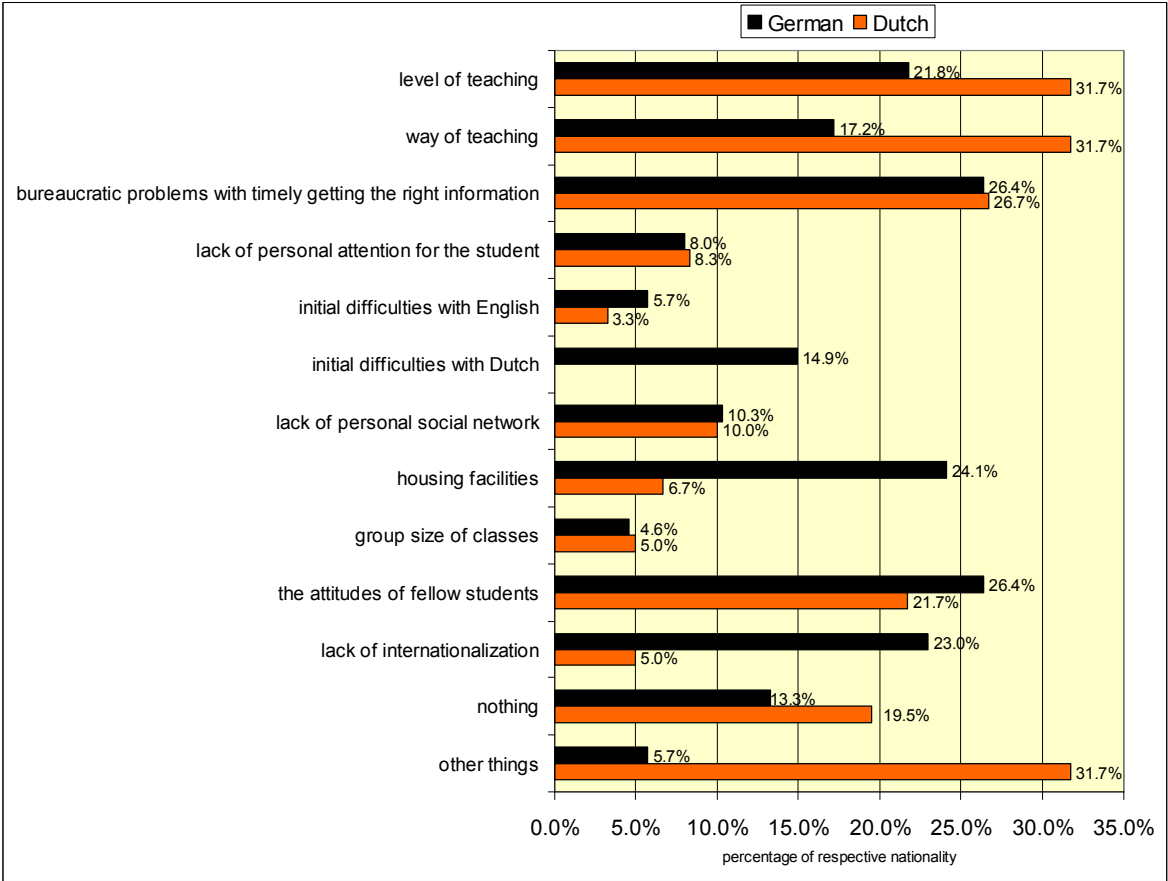
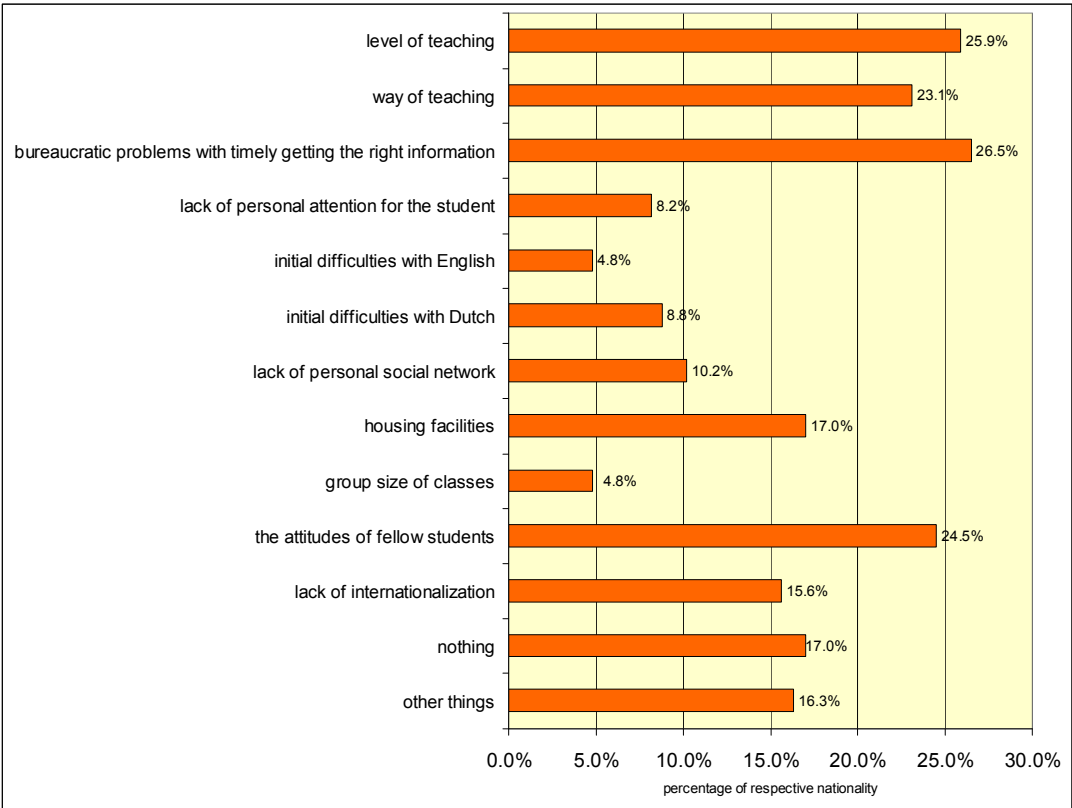
Graphs

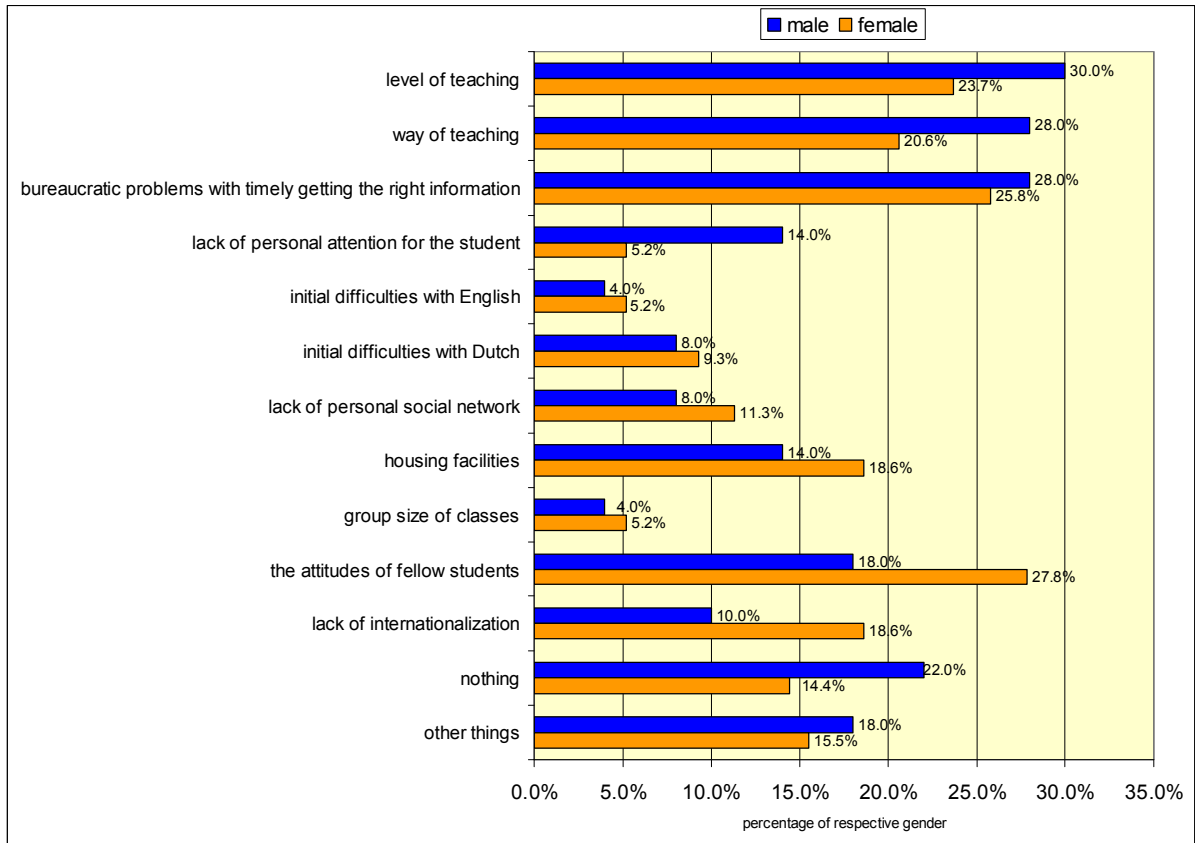
Graphs 1-4: Question G of the survey: Why did you choose to study at the UT?

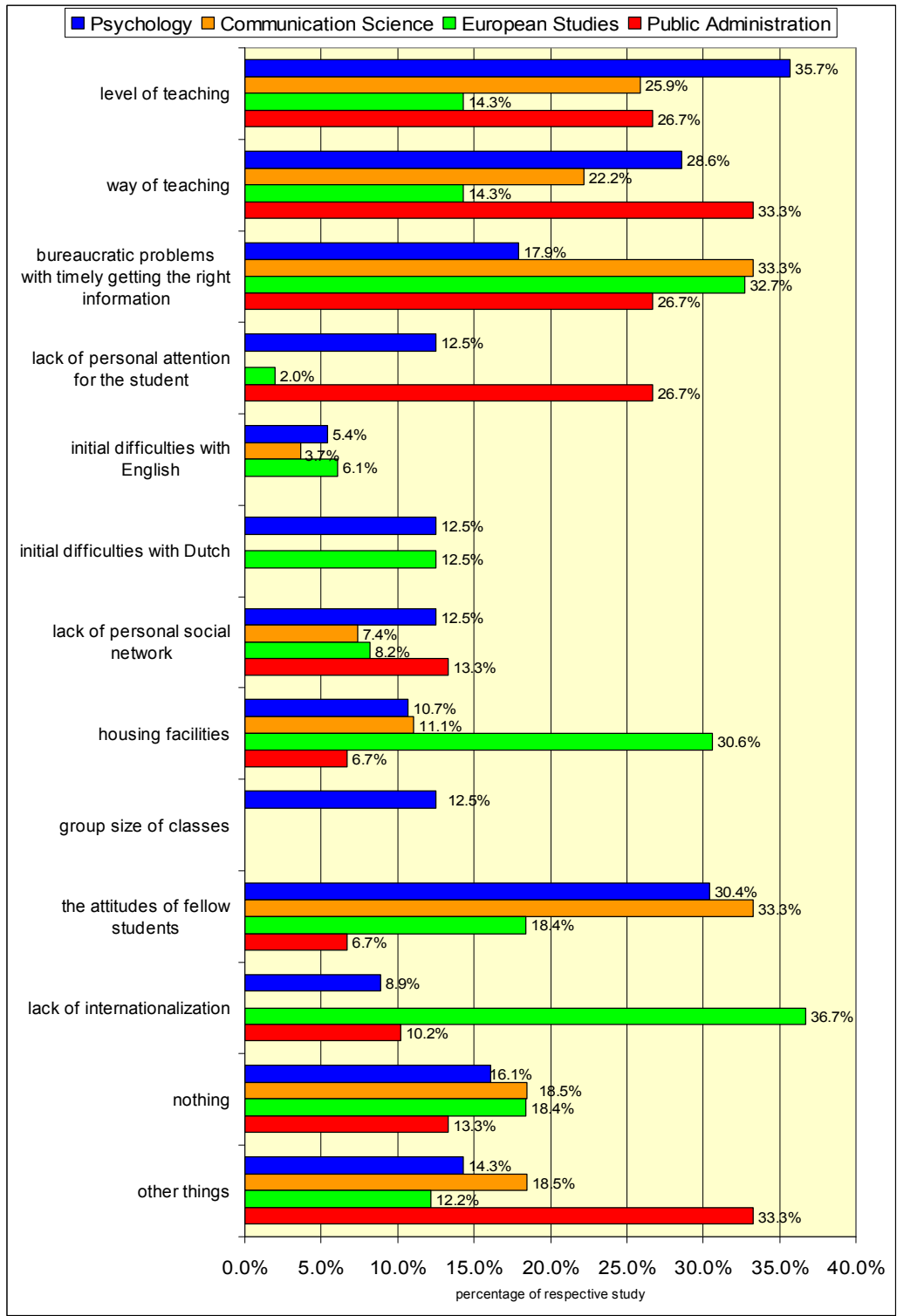




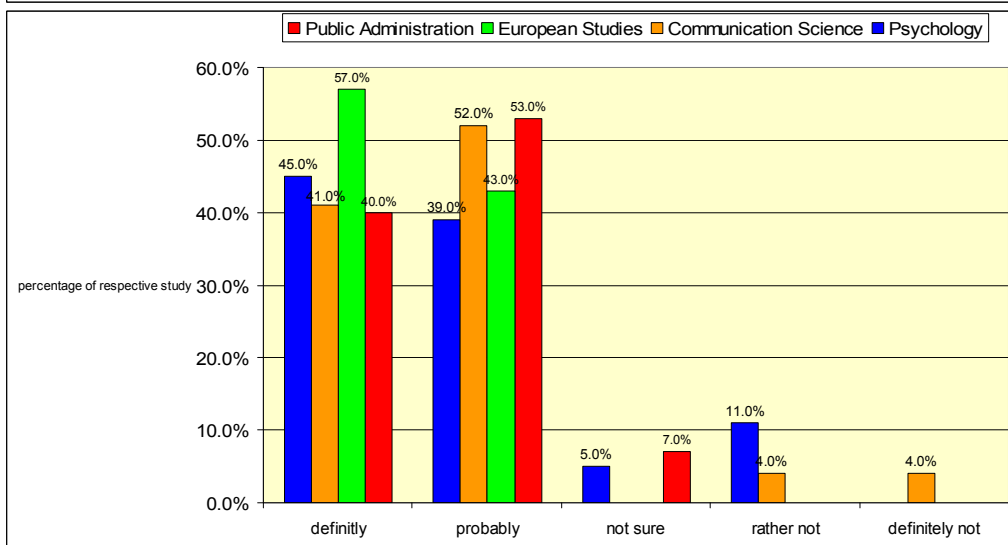
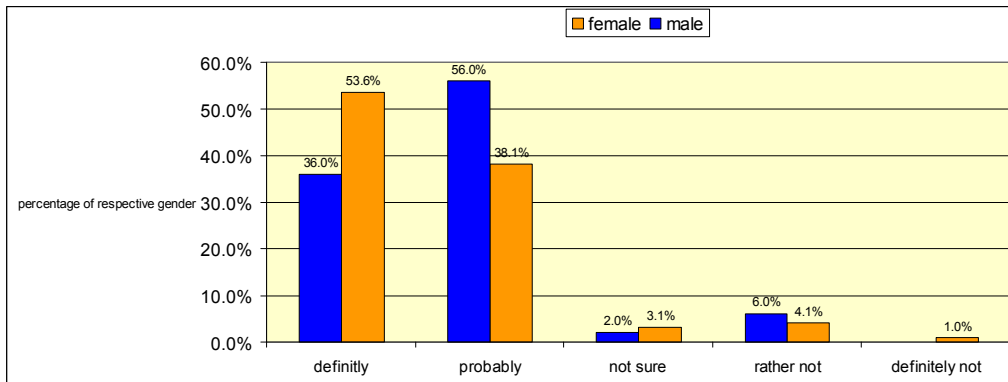
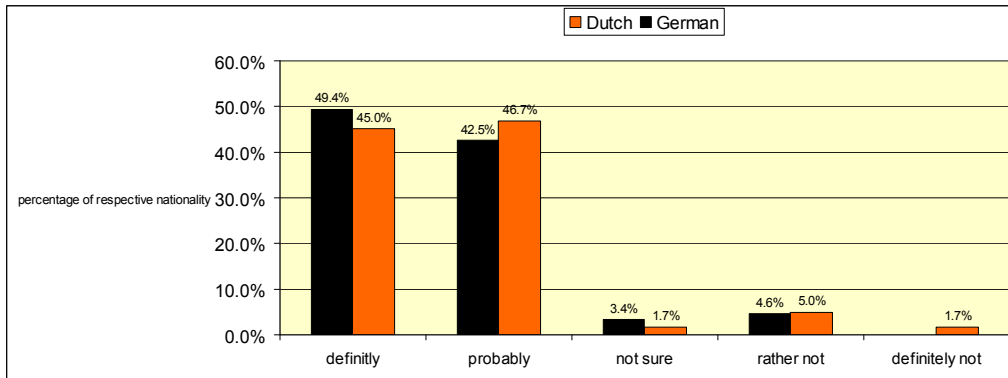
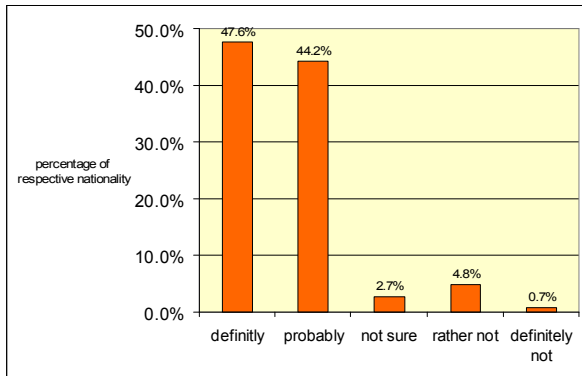
Graphs 5-8: Question I of the survey: To what extent have the following aspects negatively influenced your satisfaction with your college experience at the UT so far?







Graphs 9-12: Question H of the survey: Based on your experiences at the UT, would you recommend the university to other students thinking of applying here?



Open question answers

Question G: Why did you choose to study at the UT? 'Others...'

English curriculum

- Broad program in English
- to study in English
- Language of teaching, namely English
- I wanted to do an English study and could pick between the UT and Maastricht and I didn't like the Maastricht university that much when I visited.
- courses are in English

Advantages in the Netherlands

- better educational structure than in Germany and study is in English
- Study financing provided by the Dutch state
- I was interested in living in the Netherlands and the UT had the best promotion.
- interesting program in an international environment
- NC in Germany

Curriculum

- There is a cooperation between the UT and the University of Münster in Public Administration which means that you have to study a year at the UT to get the degree.
- shorter pre-master than other universities and the possibility to focus on marketing communication instead of just communication science
- the curriculum was closest to my interests (this is different from the best curriculum, therefore I chose this)
- the offered master track of my study
- good follow up program when coming from the saxion hogeschool enschede
- the study was given in the way I wanted here
- good proportion technical and social program
- ze hebben hier psychologie :) (*Here I can study Psychology)
- sloot goed aan op het saxion (*good transition from the Saxion college)
- is part of my study to be here for the third year
- Double-Bachelor programme with the University of Münster
- Interesting description of the study

Recruitment

- studie stak uit vergeleken met andere studies qua informatievoorziening. qua uitvoering blijkt dat niet zo te zijn... De stad was juist ver van hometown wat me ook aansprak (*the program was well advertised but the reality looks different. The city [Enschede] is far from my home town which I feel is an advantage.)
- the promotion for the ut was pretty exciting, but it's not totally like they promised!! The D-Team provides not a good work!
- the people all were nice with the voorlichtingsdagen (*Open days)
- People at the university made the impression that they really want us to study here and everyone was very friendly, open and enthusiastic.

Intimacy of a small university

- I expected personal contact, because of not too many students (you are not a number, but a person here)
- Kleinschaligheid en praktijkgericht onderwijs (*intimacy and practically oriented education)
- the small-scaliness [intimacy] of the university, and the personal contact to students and teachers.

Other

- cultuurmogelijkheden (*cultural variety)
- didn't really know what to do..
- Some of my relatives were already studying at the UT

- After having been to Geneeskunde (* medicine) in Nijmegen I felt like I wanted something a little closer to home.
- We had civil engineering which is the study I started with. When I switched to PA I was settled here so I stayed

Question 1: To what extent have the following aspects negatively influenced your satisfaction with your college experience at the UT so far? 'Other...'

Curriculum

- lack of choice in the curriculum
- Some lessons are really not that interesting to me, I don't know why I have to learn Statistics for example, it's really hard and boring!
- The lack of academic challenge
- The planning of the courses (not offering 3 interesting courses per semester but only 2, therefore everyone's study delays) and lack of attention of my mentors of my master thesis.
- the ability to choose all the courses you want, because some courses are only available once a year and are difficult to combine with other courses so you can't follow them all.
- although courses are very interesting, they do not challenge you to get the best out of you. therefore only the ppl that are really the best only excel. while other students should also excel I think.
- niveau van studie is niet verdiepend genoeg hoe verder je komt. 3e en 4e jaarsvakken gelijk qua niveau (Throughout the years the study does not specialize. Courses in the 4th and 5th study year have the same academic level as courses from the beginning.)
- lack of organization
- the curriculum could have been better (Psychology), because some courses are very important which I do not have. Next year it is much better, but then I am in my second year.
- particular courses (mandatory to the curriculum) not being as they ought to be (either in teaching or testing)
- no possibility of doing an internship without risking a delay in the study. You don't even get support when you do it on your own, and you encounter lots of problems when you step in your schedule again and try to catch up the missed courses. Furthermore, the given courses are too theoretically - you can study until you are master without seeing a company from inside lack of internships/ practical knowledge not being able to major in clinical psychology
- Too technical, too much emphasize on statistics/ research methods

Staff and teachers

- lack of staff who has any idea of the whole study
- the internationalization coordinator doesn't clearly provided me with the necessary information on going abroad (about all forms I need and when they're due)
- (soms) onbereikbaarheid van docenten, geen antwoorden op emails/vragen op teletop; werklast staat vaak niet in verhouding met waardering (EC's) (*(sometimes) you cannot get a hold of teachers. They do not respond to emails or ignore questions on the virtual learning environment. Often the workload is not proportionate to the awarded stuffy points)
- teacher do not speak English very fluent
- onduidelijkheden, of te late mededelingen! (*lack of clear instructions or late announcements)
- not necessarily challenging- language problem of teaching staff
- difficulty with English language of teacher

Facilities

- lack of enough computers
- Busy library
- Very bad canteen, off campus building

- information on teletop [virtual learning environment]
- te weinig pc's/werkplekken, materiaal (artikelen) die niet beschikbaar zijn, onduidelijkheid vanuit docenten over deadlines. (*There are not enough PC's and working places. Many study materials such as articles are not available. Moreover, teachers are not clear about deadlines)
- De huur prizes op de campus zijn te hoog (*The rent for flats on campus is too much)

Internationalization

- Increase in the amount of cases dealt with while the international aspect is put first. This should be national first at all times.
- to much pushed for internationalization
- the fact that what was praised as a multinational environment turned out to be an all-German environment.

Enschede

- distance from the Randstad
- The city of Enschede is too small for my tastes

Question J: What would increase your satisfaction as regards studying at the UT

Quality of curriculum

- More lectures and tutorials.
- A better master programme for European Studies. Many, many more language courses (German, French, Italian etc.)
- The way the courses are set up and the way of teaching
- discussion of current issues. most disappointing point: I study ES but do not know/evaluate what is currently going on
- more language courses (French, etc.), more interesting Masters in the field of Public Administration, International Relations or Development Studies.
- less methodology courses
- include an internship in the program!!!
- I would shift the focus of ES to some practical things, such as applying for the EU funds and writing EU projects...
- More interesting courses at CW.
- More creative work, less simple fact learning
- meer interactief leren en studeren in vorm van werk colleges (*more interactive education and learning in projects)
- betere voorbereiding tussen studie en toekomstmogelijkheden, dus ook vakken en praktijkvoorbeelden die daadwerkelijk op de praktijk inspelen. docenten die weten hoe ze de stof moeten overbrengen. verdieping. ben inmiddels trouwens overgestapt naar bedrijfskunde voor de master ipv psychologie (*better preparation for a future career. Hence also more practical courses that teach practical things. Teachers who are able to make students understand. Specialization. I choose for a master in business administration instead of Psychology)
- more group working of projects in the first year
- more attention to internships/practical knowledge. less research next to bachelor and master thesis
- More training in academic skills like writing, assessing data and presentation.
- more practical stuff. when I hear from friends what they're doing in Nijmegen... way cooler and better than this here. more flexible schedule, more support with internships, more working spaces, a new building for the psychologist (who wants to be in that building voluntary anyway???)
- not such a theoretical study and more a practical one
- much more integration with companies where you possibly could get a job in the future! There is a big gap between university (education) and business community.
- better curriculum, better attitude toward marks
- more opportunities for making exams

- Betere colleges, minder overlapping met andere vakken en een hoger niveau (*beter classes and less overlap with other courses. A higher academic level.)
- better course information on teletop/blackboard [virtual learning environment]
- Offer courses all year around
- Instead of 6 being sufficient, 7 should be sufficient. It requires little extra study for most of the courses while you gain a lot more insight.
- Replace some courses that have a low quality. That is 1-2-3 courses a year. Maybe it is a good thing to do research on every year of the study, some kind of evaluation in which everyone is able to participate
- better education
- Increase the quality of the study.
- More classes per week and less self study for European Studies students.
- More courses. Sometimes I have one or two courses per week. That's not enough to get profound knowledge.
- meer contactuuren voor PSY studenten (*more contact hours with teachers for Psychology students)

Flexibility of curriculum

- more optional courses
- Be able to choose courses you would like to attend
- a broader curriculum with more courses to choose from
- more choice in the curriculum
- more flexibility
- More possibility to choose between courses of own interest
- having more options in your curriculum.
- More opportunities to choose courses with respect to my personal interest. However, I am well aware of the fact that it is very difficult for the UT to offer a large variety of courses as my programs (European Studies) is in English and we are only 60 students
- Allow field specialization for bachelor studies
- choose more courses by yourself.
- More freedom in choosing my classes
- I would like to have more courses from which I can choose. No courses should be skipped or replaced by another.
- more subjects I could chose to study, like clinical psychology

Academic level of courses

- Higher qualitative standards of education (more expert-teachers with normal social and educational skills) and more structured information (including easier access) on curricula and requirements
- more academic challenges
- The level of teaching could be a bit higher. It's pretty easy sometimes... And I don't know if this'll influence my future career.
- higher level in class etc.
- higher level of education (for some of the subjects)
- Having colleges were you get more challenged to read and criticize important literature. More self-thinking instead of teachers telling there story.
- A challenging Master's degree program.
- level of teaching could be higher, study could be more challenging, Dutch language course during the study, not only before starting to study in NL
- A more challenging study, with more practice and assignments.
- meer ruimte voor intellectuele uitwisseling (*More intellectual exchange)
- More discussion about the subjects we learn about. Not only learning for exams.
- A better tuning of the course.

Teachers and staff

- MB employing competent people

- Students should be treated and marked FAIR an equal!! in fact, teacher should stay by rules and not allow everything students would like to do! Question: How can a paper with a given length of approximately 15 pages be marked as one of the best papers when it is extended to more than 20 pages?? There is no fairness in staying by given rules in many cases like that!
- More personal attention and coaching from teachers, researchers, staff, and more exchange with the study advisor, whom I never saw and never knew I had.
- Increase in the teaching skills of teachers. My teachers' English is sometimes bad and some of them lack the skill to keep students motivated.
- Better teachers...some are not good.
- better English skills of the teachers
- Duidelijkheid en stimulans (*clearness and stimulation)
- more control on how some teachers "teach" (or not)
- Can I say "more" personal attendance when, in fact, there is none available now? Well, it would be nice to have a contact person (not the studie adviseur).
- It would have been useful to have a mentor in the beginning to whom you can go and ask every question instead of having to find out everything on your own.
- personal student- docent interaction; reliable docent, getting to know actual results (getting tentamens [exams] back)
- more prof. who speaks a better English!!!
- More specific feedback from the teachers on how I did in exams and assignments. Often times, I only get a grade and there is not much substantive feedback. I would be glad, if the teachers could provide additional sessions discussing the exams with the students, for instance at the beginning of the following quarter. Partly, this has already been the case.

Internationalization

- more international students in ba programs/ more exchanges with other universities or dual degree programs- more choice in courses- more critical theory
- Less international development. Keep it local, for at least the bachelor phase as well as the housing
- Getting more international communities, as a lot of international students are present but not represented enough
- I think I would encourage more foreign students to attend ES.
- more internationalization (not only Dutch and Germans)
- better coordination in the field of exchange programs.
- It would be nice walking around without having the feeling to be in Germany (as for all those German students speaking German)
- meer nederlandstalige studieboeken (*more study material in Dutch)
- Easier administrative features which are particularly clarified for international (non-Dutch speaking) students.
- More information in English.

Bureaucracy

- less bureaucracy, competent people who really can help you (e.g. for Erasmus)
- more motivation in other students and more cooperation by CSA when it comes to graduating. Mainly when someone wants to send out a questionnaire to students.
- that people inform students about what they are changing or planning and actively involve students in the decisions about their study

Facilities

- more printers in the library
- increase the archive of the library.
- Better facilities for those who have poor health and therefore missing much classes. Maybe the UT can meet them with a financial support for buying things that will help

them following the courses at home. UT is a great university and I hope this will stay in the future!

- more facilities to study at the UT, like more and more silent rooms to study in. easier to use copying machines
- Meer en betere werkplekken in Cubicus. Voor de rest is de UT erg leuk :) (*more and better working places in the Cubicus [building on campus]. Apart from that I really like the UT)

Living conditions and student life

- better and cheaper food, on campus building, free xtra card.
- Better housing facilities, this means smaller groups in houses at the Campus. A better Cafeteria. The rest is fine ;)
- The housing provided by Acasa is not at all in satisfactory price range!
- if they are going to push the students flats on campus to get an international student and if they want student flats with less than 6 inhabitants
- More single person apartments at a reasonable price.
- more good possibilities to go out, less flat rate binge drinking on the campus I am very satisfied with the UT and my study. The only thing I could think of is that Enschede is a very small city with too few good/interesting clubs/discos.
- I would like to have more friends here, and I really really want that the UT would be in an other city, I miss the south of Holland...
- better connection with the Randstad
- better living situation at the campus and in Enschede!!

Others

- Stimulation of the character of the campus, instead of a decrease in campus character (eg. route60, new rules of de Veste [landlord of student houses])
- vanuit universiteit actief aansluiten van activisme met studiebegeleiding (*better fusion of activism and study mentoring)
- betere voorlichting van welke kanten je later kunt op gaan na je master communicatiewetenschap (*more information on possible future career after the Communication Science master)
- that students who are not motivated are kicked out of the study as soon as possible

'I'am satisfied'

- I am one of the most satisfied students of the UT, I guess. It could have happened nothing better to me than studying here, although I am quite far away from home.
- Nothing really; I'm very happy in my specialization.
- don't know! I m really satisfied with the UT
- Nothing I can come up with right now.
- Nothing
- nothing, but want to say make a better survey next time this one is not very high quality

Interesting observations and thoughts

- ❖ German participants are less satisfied than their Dutch colleagues with the campus' general appeal and the possibilities for going out and partying on and off campus.⁴⁷
- ❖ Female participants are significantly less satisfied than the male students with the standard of the library and with the possibilities for social networking while men are less content with the helpfulness of recruitment teams and the accuracy of information they provide.⁴⁸

⁴⁷ Yet, all groups indicate that items adequately meet their hopes and desires taking into consideration the respective importance rating.

⁴⁸ Idem.

- ❖ Psychology students have the highest satisfaction score in regard to the availability and good advice of the housing assistance and are also significantly more satisfied than European Studies students.⁴⁹
- ❖ It is rather not surprising that a student's satisfaction with his/her overall college experience at the UT is positively correlated to the fact whether he/she will recommend the university ($r=.326$, $p< .01$, $N=137$)
- ❖ Nearly every fourth German student indicates that the housing conditions negatively influenced his/her satisfaction with the college experience. Only 6.7% of the Dutch informants feel the same way. (question I)
- ❖ 23 participants criticize the lack of internationalization where Germans experience this significantly more upsetting than Dutch students (question I). Concluding from the open answers especially German but also Dutch European Study students would appreciate more internationalization (due to for example a German majority in the classes or a lack of abroad study possibilities) while some Dutch Public administration students feel that there is too much internationalization (or maybe 'Germanization'?) already.
- ❖ Under the 13 German participants indicating having had initial difficulties with the Dutch language (question I) there are also 6 European studies students. Since European Studies is an English taught bachelor program this appears abnormal at first sight. Nevertheless, it could be suggested that some German European study students would like to integrate better and faster in the new culture and feel that learning the national language would help them to achieve this goal. They hence miss an opportunity to learn Dutch (or other languages as becomes apparent from the open answers)
- ❖ (Recap from open questions): Students wish for two things primarily concerning their courses: a higher level of academic standard which challenges and stimulates them more as well as an increased practical, reality-related content (in contrast to technical and theoretical subject matters).

⁴⁹ Idem.