Universiteit Twente.

Faculty: School of Management and Governance

Bachelor Programme: European Studies

Bachelor thesis for graduation as Bachelor of Science (B.Sc.)

The Bologna Process in Germany and the Netherlands

A research about the potential explanations for different student perceptions

Author: Maike Püschel
Studentnumber: s1006134

1st Supervisor: dr. Donald F. Westerheijden
Department: Center for Higher Education Policy Studies
2nd Supervisor: prof. dr. Ariana Need
Department: Public Administration

Abstract

My thesis deals with the Bologna Process in Germany and the Netherlands. It is more precisely a research about the potential explanations for different student perceptions in these two countries. Thus, this thesis wants to answer the main research question: To what extent do students from or in Germany and the Netherlands hold different perceptions of the Bologna Process? And to which factors are these perceptions related?
To answer this question, at first, I investigated and identified the differences in the perceptions more in detail. Afterwards, I discussed the Bologna Process itself, its purposes and its legal significance in order to relate resulting problems for the students from or in the two countries to it. Then, I identified the current and potential problems so that the main hypothesis as well as the conceptual framework resulted. With the help of the cross-sectional research design and an electronic questionnaire working with mainly closed questions, I asked to evaluate intensity of the students' perceived problems. After the analysis of the data could confirm the main hypothesis partially and by a deeper elaboration it became clear that students differ significantly in their perceptions of different parts of their higher education system. Thus, my study contributes to a better understanding of the Bologna Process, it underlines that the creation of a 'European Higher Education Area' still needs a lot of work and reforms and that European students can definitely identify those to achieve this goal.

TABLE OF CONTENTS

LIST OF FIGURES AND TABLES

FIGURES

TABLES

1. Introduction

Due to my experiences as a German student in the Netherlands and being interested in the field of education I had always the feeling that the attitude of German students and Dutch students differs when they talk about their studies. German students always complain about their studies and the formal aspects that came into effect with the signing of the Bologna Process. On the other hand, I had the impression that Dutch students do not express publicly any opinion about their study system.

Therefore, a problematic situation, which I explain in the following, could arise for the students who are the future of the so-called 'elites' in our society. They are expected to fill in the leading positions in the economy as well as in politics, which the traditional perception of education "as a means to civilize people and make young people useful and productive members of the society" shows (Tuomi, 2005, p.8). Similarly it is with the current discourse on education that "centers on the need to produce competent workers for the needs of the economy" (Tuomi, 2005, p.8). Furthermore, the world has undergone rapid changes due to globalisation influenced by modernized information and communication, media, and transport technologies. "Work will become increasingly knowledge-intensive, and productive activities will both concentrate in new geographical regions and, at the same time, become globally distributed" as Tuomi explains (2005, p.2). Thus, the reason of the reform of higher education in Europe by realisation of the Bologna Declaration is that the signing countries want to stay globally competitive. However, if students do not feel that well in their study environment they will not achieve the necessary results. In addition, the students do not receive the education politicians wish because they do not fully incorporate the learning matters/objectives. Even fear about the future can arise so that the exercise of a job will be uncertain.

Hence, in the next section I focus on the question whether there is really a difference in the students' perception of the Bologna Process. After identification of the difference, I mention reasons that might explain the different perceptions among German and Dutch students. A solution to the potential existing problems is only possible with the help of potential causes. In this way, one can improve the situation of higher education.

1.1 Survey of the Problem

In the following, I explain the topic of my forthcoming Bachelor thesis more precisely by highlighting supportive arguments and important facts.

In 1999, 29 countries signed the Bologna Declaration and institutionalised the aim of creating a European Higher Education Area. This number grew until now to 47 countries. Two of the originally and initially signing countries are Germany and the Netherlands. They are related by the Bologna Process' objectives like the implementation of the two-cycle system. This system has not existed in both countries before 1999 (c.f. Faber & Westerheijden, 2011, p.15). Nevertheless, they differ in the implementation, like modular structures and the allocation of credits. Thus, they are interesting for a research related to the higher education sector. All objectives associated with the Bologna Process the single governments undertook jointly. In addition, the governments were eager to comply with the objectives and to implement changes needed to meet the targets. In 2012, more than ten years later, differences can be found in the higher education systems of the member states signing the

Bologna Declaration. The reason is that the Bologna Declaration mentioned only the purposes and not the methods of implementation. However, although the targets should have been met in 2010, one can still recognise non-compliance with some objectives. Additionally, the perception of especially students seems to differ from country to country.

By means of the following facts I display the objective reasons for the two chosen countries. I show especially the difference in perception. On the one hand, there are the Netherlands in which the students focused with the last demonstration on the government's decision to cut back the budget for higher education as a response on the financial crisis and introducing a fine of 3000 Euro in case of a more than one-year delay in graduation (otr, dpa, & AFP, 2011). The demonstrations took place in January 2011 and around 15,000 people supported them. However, these did not deal with the introduction of the Bologna Process objectives or any criticism in their implementation. In contrast to this, the German students have protested against their higher education system very heavily since the year 2009. (Online) magazines, like 'Deutsche Welle', 'Der Stern', 'University World News', and/or 'The University Observer' published many newspaper articles on the so-called 'Bildungsstreik'. They had titles like 'Students protest across Germany against education reforms', 'Students protest across Germany', 'Bildungsstreik – Heißer Herbst an Deutschlands Unis' and/or 'Germany: Student protests continue'. Moreover, the reports deal with the continuing education strike "against implementation of the Bologna reforms, introduction of tuition fees and insufficient financial support" (Gardner, 2009). They mention numbers like "50.000 students and pupils protesting nationally" (Bognanni, 2009), "almost 100.000 students" and "over 40 German cities" (Rothwell, 2009). The articles were published in a period from June to December 2009. They stress the importance of this topic and the urgency to act that the students see. On the webpage 'bildungsstreik 2009.de', one recognises clearly that 2009 was only the beginning of the strike. The there existing category called 'Aufrufarchiv' comprises the appeal to strike in 2010 and the start page shows the appeal of 2011. Furthermore, the websites of the Dutch students union and of the German students union differ in their topics. The actual news reports on 'www.lsvb.nl', webpage of the Landelijke Studenten Vakbond (LSVb), are about student housing, financial support, and student organisations. In contrast to this, the 'freie zusammenschluss von studentInnenschaften (fzs)' reports on their webpage 'www.fzs.de' mainly about the criticism of students on the study system, reforms, tuition fees, or the 'Bildungsstreik'. These issues they always relate to the Bologna Process and the European Higher Education Area. Thus, I draw the preliminary conclusion that there is a difference in the students' perceptions of the Bologna Process .The students in Germany seem to perceive the Bologna Process as more negative than the students in the Netherlands.
This leads to the question: "How do students' perceptions differ in Germany and the Netherlands?"

On the one hand, there seems to be a quasi-no reaction or no criticism in the Dutch case. The question is now if students in the Netherlands have no opinion about the Bologna Process or if they have a rather positive attitude towards it, and therefore do not complain about it. On the other hand, there seems to be lot of criticism and negative opinions in the German case. In public, the students criticise the Bologna Process a lot. They have a strong support within the group of students in Germany. Thus, with my study I deal with the reasons for this difference.

1.2 Research question and outlook

The next step in my thesis is the elaboration of the research question. With the definition of the research question, I identify the focus of the discussion and the analysis. Then, a short overview of the following chapters is given. In addition, I display the ensued approach to solve the research problem and to be able to answer the research question in an appropriate way. Thus, my research question, an explanatory one, meaning searching for the reasons with positing a main hypothesis in advance, is:

To what extent do students from or in Germany and the Netherlands hold different perceptions of the Bologna Process? And to which factors are these perceptions related?

My research focuses on the perception of the Bologna process of students as the dependent variable. I investigate potential factors explaining the assumed difference, especially between the country of origin and the country of study. They are meant to be the independent variables. In the second chapter, the Bologna process itself is specified and the aspects like the political means of governance, the development, and the purposes. I do this specification so that the reader is informed about the process itself and the cooperation mechanisms of the regulatory framework of the Bologna Process, which influenced the implementation. Furthermore, especially the defined purposes are related with the problems and that is important for complete comprehension. The third chapter of my thesis deals with the potential factors that are realised and stated problems of the students from or in each country. This means that I assess critically issues like the realization of the Bologna Process by the governments as well as communication between the single parties. Then, by stating the main hypothesis I draw a preliminary conclusion. Two chapters about methodology follow. The fourth chapter presents the sampling method, the general method of data collection in the aspects of type, reasons for the choice and general facts about it and the research design. With the methods I mean to assess the students' opinions. I collect and evaluate the opinions since the scientific and academic literature lacks to draw attention on the real perception of the students of the Bologna Process and its influences on the study system. In the fifth chapter, I conceptualise and operationalise the variables. In addition, I describe the data collection, connoted the questionnaire, in detail. The analysis of the received data follows in the sixth chapter, which I do with the help of SPSS. First, I present the response statistics. Afterwards, I test my hypothesis and the present the outcomes. Thereafter, I explore alternative explanations and then, I interpret the outcomes according to my research question. Finally, in the seventh chapter, I draw a general conclusion and discuss the main findings and potential follow-up studies.

2. The Bologna Process

In the second chapter, I lay down the development and the purposes of the Bologna Process to inform about the process and to facilitate the comprehension of the legal measures related to its implementation. I focus on the original and the in the following process specified objectives related to the later mentioned problems of the two student groupings.

I deal with the Bologna Process as a strategic framework for cooperation and convergence in the higher education sector and its development until now. The Bologna Process, as many scholars often refer to, started actually with the signing of the Sorbonne Declaration 1998 by

France, Italy, the United Kingdom and Germany. It was a consequence of the recognition that “a joint initiative to harmonize European higher education” (de Wit, 2006, p.473) leads to advantages like the enhancement of mobility, cooperation, as well as competition with other parts of the world. Hence, they took the first step and through the invitation of the Italian minister of education in 1999, other countries joined the initiative. Thus, the Bologna Declaration came up as the basis of what one called later on the Bologna Process, which I describe and explain in the next section. The case-related description follows in the third chapter, since therein I discuss possible problems that came and come up due to transformation of the study systems in order to comply with the set targets in the two cases.

2.1 Overview of the Framework of Cooperation and its Development

This section deals with the information about the development of the Bologna Process and the widening and further specification of the objectives that are related to the potential problems I deal with later on. Thus, I improve the comprehension of the origin of the problems so that one can recognise which problems are related to the Bologna Process and which ones are not.

As mentioned before, in the year 1999 the ministers of education and civil servants met in Bologna since following the invitation made by the Italian minister of education. Together they developed what is called the Bologna Declaration. It is known as the first “European initiative aimed at reform on the level of higher education systems” (van Vught, van der Wende & Westerheijden, 2002, p.103). The overall purpose of this declaration was to stress what the Sorbonne Declaration had established before. That means “the Universities' central role in developing European cultural dimensions” and “the creation of the European area of higher education as a key way to promote citizens' mobility and employability and the Continent's overall development” (Bologna Declaration, 1999). Therefore, the original name was “the Declaration on the European Higher Education Area” (de Wit, 2006, p.474). In June 1999, the ministers set their signatures, but they did not directly use the word “harmonization” (de Wit, 2006, p.474) as in the Sorbonne Declaration. They spoke rather about the improvement of “the international competitiveness of European higher education by increasing its transparency, by enhancing the comparability of higher education degrees and qualifications by introducing in each country a two-cycle system” (van Vught, van der Wende & Westerheijden, 2002, p.108). Furthermore, they justified the convergence of systems by the need of cooperation between countries to be competitive in times of globalisation (cf. van Vught, van der Wende & Westerheijden, 2002, p.108). The Declaration set out general objectives to achieve these primary goals, but it let open the implementation methods for achievement. Furthermore, a period was defined, in 2010 [1] the prime objective “the creation of a European space for higher education …should be completed” (de Wit, 2006, p.475). For reaching the single goals and in order to assist each other the signatory states decided “the establishment of the European area of higher education requires constant support, supervision and adaption to the continuously evolving needs” (Bologna Declaration, 1999). Every two years from that moment on meetings followed in “order to assess the progress achieved and the new steps to be taken” (Bologna Declaration, 1999).

[1] London Communiqué, 2007: “As the EHEA continues to develop and respond to the challenges of globalisation, we anticipate that the need for collaboration will continue beyond 2010.” globalisation, we anticipate that the need for collaboration will continue beyond 2010.” globalisation, we anticipate that the need for collaboration will continue beyond 2010.”

The meetings took place in various cities all over Europe whereby new aims were formulated, specified old ones, and improved the process. The responsible ministers did this through their civil servants in the Bologna Follow Up Group (BFUG) and by so-called 'Communiqués', which were created before the actual meeting started. The Communiqués proposed guidelines and new objectives. During the meetings, the civil servants presented this document. Afterwards everyone signed it, usually changed to varying extent as consequence of the involvement of the responsible ministers. Furthermore, in almost every meeting new members joining the process could be welcomed.

In 2001, the first meeting took place in Prague and the ministers developed the 'Prague communiqué'. The participating countries' number increased from 29 to 33 and the original commitment was confirmed. Furthermore, they new areas were added, such as "the inclusion of higher education institutions and students" and "promoting the attractiveness of European Higher Education Area" (de Wit, 2006, p.475). In addition, the point that "the Bologna Process should have a 'social dimension'" widened the agenda (Wächter, 2004, p.266). The 'social dimension' as outcome was influenced by higher education institutions and students, which were included into the process as "'partners' in European higher education" from that time on (Wächter, 2004, p.266). The students came more into the centre of interest and thus, aims like "to promote greater flexibility" for and "easier transferability of the achievements" of the students were listed.

Berlin 2003 meant to be a confirmation of the precedent developments in Prague and "the move to ECTS was agreed upon also as a means of international curriculum development" (Westerheijden, et al., 2011, p.20). It stressed the importance of the social dimension as "counterweight to the need to increase competitiveness" (Wächter, 2004, p.267). Thus, as a complement the aim "to reduce social and gender inequalities both at national and European level" was added. The students' position rose due to receiving "the status of full partners in higher education governance" (Wächter, 2004, p.267). Moreover it was decided to award a degree after the first cycle which "shall also be relevant to the European labour market as an appropriate level of qualification and that the "second cycle should lead to the master and/or doctorate degree as in many European countries". However, the Berlin Communiqué 2003 redefined the degrees more precisely by the signatory states agreeing on "the first and second cycle degrees should have different orientations and various profiles in order to accommodate a diversity of individual, academic and labour market needs". Finally, an addition was "a framework of comparable and compatible qualifications for higher education systems is also to be introduced" (Wächter, 2004, p.267).

Bergen, in 2005, meant to be a meeting assessing the process in the mid-term. In addition, "degree lengths were specified in terms of credits in the European Credit Transfer and Accumulation System (ECTS)" (Westerheijden, et al., 2010, p.14). The number of participating countries rose from 40 to 45. The Bergen communiqué 2005 put up "modularisation and a reasonable share of electives" as a support of the establishment of flexible learning paths.

Three years before the expiration of the implementation period, the London communiqué emphasized the implementation of the ECTS should be "based on learning outcomes and student workload" (Westerheijden, et al., 2010, p.20). 2007 in London, the communiqué set out the use of learning outcomes and workload as instrument and connected "with national

qualification frameworks" and "proper implementation of ECTS" (Westerheijden, et al., 2011, p.24). Additionally, the signatory states recognised that the Bologna Process would last longer than 2010 as [1] shows, but which is not immediately relevant for the list of potential problems.

The meeting in Leuven, in 2009, backed up the 2005 set out objectives by the support of "student-centred learning, flexible and more individually tailored learning paths and improving the teaching quality of study programmes at all levels" (Westerheijden, et al., 2010, p.20). Thus, in this last meeting during the transformation period the importance of flexible learning paths was repeated and confirmed, especially with the student in the centre. Besides, the signatory states declared, "within each cycle, opportunities for mobility shall be created in the structure of degree programmes" (Westerheijden, et al., 2011, p.24). The exact aim the ministers set to "at least 20% of those graduating in the European Higher Education Area should have had a study or training period abroad" (Leuven Communiqué, 2009) for the field of mobility in 2020.

In 2010, the final year of the former defined transformation period, the last country joined the process. Yet, evaluating sources like 'The Bologna Process Independent Assessment' show that the openness of the Bologna Process "creates a European Higher Education Area of different speeds of implementation and varying levels of commitment". Even the most 'advanced' countries have struggled with the implementation of at least one of the Bologna elements: "There is no case of high performance across all elements" (Westerheijden, et al., 2010, p.6).

2.2 Overview of the main purposes

The last section mentioned the overarching aim of the creation of a European Higher Education Area. In this part I list more in detail the original objectives related to reach the formation of an area characterized by "attractiveness", "competitiveness" and "greater employability" (Wächter, 2004, p.265). Thus, one can understand the cooperation mechanisms of the regulatory framework related to the implementation and the later mentioned problems of the two student groupings, too.

In the Bologna Declaration the politicians promised to coordinate their policies "to reach in the short term, and in any case within the first decade of the third millennium" (Bologna Declaration, 1999) the objectives laid down in the following. The signatory states considered these objectives to have "primary relevance in order to establish the European area of higher education and to promote the European system of higher education world-wide". Afterwards, as shown before, amendments or deeper going specification of its goals developed the original Bologna Declaration. This happened by deeper explanation of the communiqués building the framework of cooperation.

In the following, the original and most important goals are discussed. Some have more significance in the process since they seemed to be more important and publicly debated than others. The relation of the objectives to the actual problems students have with the Bologna Process, I show in the third chapter. The agenda of the original Bologna Declaration of 1999 sets out the following targets to obtain in the year 2010 (cf. Bologna Declaration, 1999):

- "Adoption of a system of easily readable and comparable degrees…"

- "Adoption of a system essentially based on two main cycles, undergraduate and graduate…"

- "Establishment of a system of credits - such as in the ECTS system – as a proper means of promoting the most widespread student mobility…"

- "Promotion of mobility..": - "for students, access to study and training opportunities and to related services"
  - "For teachers, researchers and administrative staff, recognitions and valorisation of periods spent in a context researching, teaching, and training, without prejudicing their statutory rights"

- "Promotion of European co-operation in quality assurance with a view to developing comparable criteria and methodologies"

- "Promotion of the necessary European dimensions in higher education, particularly with regards to curricular development, interinstitutional co-operation, mobility schemes and integrated programmes of study, training and research"

The mentioned targets I shortened a little bit. The original document specified some aims, but the main points I named in the list above so that one can recognise their relation to the potential problems. The most visible and mostly publicly debated concept was the adoption of a system based on two cycles. This change of structure became very fast the 'label' of the European Higher Education Area (cf. Wächter, 2004, p.266). The two-cycle system had been in the focus until 2003 when in Berlin a change in priorities happened since quality assurance came to the fore (cf. Wächter, 2004, p.267).

In 2012, there are still significant differences in the speed of implementation, which the higher education systems of the member states signing the Bologna Declaration (c.f. Westerheijden, et al., 2010, p.107) reflect. On the one hand, the explanation is that the Bologna Process functions similar to the legal means called the open method of coordination (OMC), which the EU uses as soft law. Within some policy fields, the EU has only the right to act with the accordance of the member states. Nevertheless, there is to add that the Bologna Process rather "turned out to be a stimulus for the OMC" (Garben, 2011, p.198). At that time "the OMC had not yet officially been introduced in the field of education" (Garben, 2011, p.198) and the Bologna Process is not only related to the EU. In consequence of the Bologna Process functioning like an OMC the provision of the precise implementation does not exist, only the general objectives and a certain period. On the other hand, not only the transformation differs. Additionally, the compliance with the set out targets of the Bologna Declaration differs. This difference is related to "varying national agendas", various points of time "countries joined the Bologna Process", "differences in the distribution of authority nationally" and "different experiences and traditions regarding higher education policy making" (Westerheijden, et al., 2010, p.109).

The first example of these differences is related to the two-cycle structure, which is seen as

the core of the Bologna Declaration. All countries implemented it, but not in every field. The main "exceptions are concentrated in the medical field with medicine, dentistry, veterinary studies and pharmacy" (Westerheijden, et al., 2011, p.18). Furthermore, the minority of the Bologna Declaration signatory states are complying with the aim of credit allocation based on student workload and learning outcomes since "institutions in only twelve countries generally fulfil this requirement" (Westerheijden, et al., 2011, p.21)[2].

Above all, I concentrate on the implementation methods, especially in Germany and the Netherlands. In the next section, I assess those two cases critically to see possible factors explaining why the country of study or origin might be correlated to satisfaction or views on the Bologna Process.

3. Potential Problems

This chapter discusses the potential factors that does or could lead to conflict situations with students in the countries Germany and the Netherlands. The comprehension is facilitated of how the perceptions differ and which factors have influence. Furthermore, I can come up with factors as explanations to the second part of my research question and explain my main hypothesis more in detail.

In Germany the freier zusammenschluss von studentInnenschaften (fzs) organises the students nationally. It is "a registered non-governmental organisation in Germany, with local unions as its voluntary members" (The European Students Union, 2009, p.163). Students except those in Bavaria, Baden Wurttemberg, and Saxony-Anhalt are compulsory members of the local student unions. In the Netherlands, two national student unions exist. On the left side of the political spectrum the Landelijke studenten vakbond (LSVb), which is "a federation, independent from any public institution, but largely funded by the Ministry of Education and the member unions" (The European Students Union, 2009, p.165). Normally members are the local unions, additionally it is possible to have an individual membership, but that appears rarely. On the right side, the student union called Interstedelijk Studenten Overleg (ISO) is a non-governmental organisation in which local student unions are the members. All of these three unions are members of the European Students Union (ESU), which is an umbrella organisation of the 45 National Unions of Students from 38 countries. The ESU aims to represent and promote the educational, social, economic, and cultural interests of students at the European level towards all relevant bodies. I use information of reports published by them to display the present problems of the students of the two countries.

In Europe, there exist three concepts how to look at students. There are the consumer approach seeing students "as clients who buy the best value for money", the Humboldtian approach seeing "the student as a junior researcher or younger colleague in the research process" and the concept seeing "students as partners…which acknowledges their constructive participation in reform processes" (Almquist, & Bienefeld, 2004, p.431). These concepts are important to understand the problems and the claims of the students in a better

[2] More examples of these differences interested readers can find in the 'Independent Assessment, Volume 1' published in 2010 and written by Westerheijden et al.. This report is about the detailed assessment of the Bologna Process within the first decade of transformation.

way. Traditionally, a “European country that quintessentially represents the ‘Humboldtian’ university model” (Toens, 2009, p.247) is Germany. It advocates “the autonomy of single professors and students” (Toens, 2009, p.247). This model contravenes with the regulation envisioned by the advocates of the Bologna Process since it “advocates the autonomy of single professors and students”. Toens stresses “this model stands in stark contrast to a stricter regulation of teaching envisioned by the advocates of the Bologna process“ (2009, p.247). For Germany, the transformation implies “the reversal of its philosophy of education, from the humanist-oriented model of Alexander von Humboldt to a functional-economic tool for the demands of the twenty-first century” (Walkenhorst, 2006, p.483), which the next paragraph shows.

The Bologna Process structures “reverse to the idea of Humboldtian education” are at first the “highly regulated ‘school-like’ structure with many examinations” (Kehm, Michels, & Vabø, 2010, p.235). “From a Humboldtian perspective, the ‘schoolification’ of higher education is the essence of the transformations taking place and thus “the academic freedom of the students and of the faculty is considerably reduced” (Kehm, Michels, & Vabø, 2010, p.242). Furthermore, the two-cycle structure contrasts this. Before the Bologna Process ”the German university degrees conformed to the logic of the Humboldtian one-cycle structure, structured by a final examination at the end; an institution which could primarily be associated with Lernfreiheit” (Kehm, Michels, & Vabø, 2010, p.228). Therefore, the reform strives for “the reform in order to preserve some of the traditional notions of Lehr- und Lernfreiheit includes possibilities for more curiosity driven forms of teaching and learning” (Kehm, Michels, & Vabø, 2010, p.243). In the following section, I display the relation between the public made problems and claims by the German students and the German situation of the higher education needing another reform.

In addition, about the different approaches of students it needs to be said that, “some researchers have suggested a way of examining individual universities and systems on the basis of congruence with or lack of alignment to Humboldt’s vision” (Deem, 2006, p.287). Two of them, namely Schimank and Winnes, “examine three variants of the teaching/research connection” (Deem, 2006, p.287). They connected ‘Humboldtian’ to Germany and Italy. Then, they defined countries such as the UK, Sweden, Norway, and the Netherlands as ‘post-Humboldtian’. Additionally, they labelled France, Ireland, Iceland, Spain, and Hungary as ‘pre-Humboldtian’ (cf. Deem, 2006, p, 287). Then, they explain, “that academics themselves are most likely to favour the Humboldtian model, based on the close integration of teaching and research” (Deem, 2006, p.287). In contrast, the policy-makers’ perspective prefers the facilitating of the post-Humboldtian approach, “where the link between research and teaching is not universal in higher education but reserved for an elite set of universities, with other institutions specialising mainly in teaching” (Deem, 2006, p.287). In this way, one can see that Germany and its traditional ‘Humboldtian’ system should be preferred by the academics. However, policy makers, who were in authority in the Bologna Process, should have problems with Germany. On the contrary, the Netherlands with a ‘post-Humboldtian’ approach should have fewer and different problems.

In the following sections I relate the potential problems to both countries defined by researchers as well as student unions. One will see if the universities’ teaching systems and concepts of students facilitate or complicate the implementation of the Bologna Process.

3.1 Problems of Dutch Students

Researchers come up with characteristics like 'forerunner' or 'a positive example' when they mention the Netherlands related to the Bologna Process. In this section I investigate the negative side, which exists, too, when analysing the Netherlands and the Bologna Process more into detail. The independent assessment showed that in every country there are some shortcomings since the reality is never perfect. There must be at least a few problems, although they have not been called out loud like in other countries. Of course, these problems differ in all countries. Thus, perhaps the stakeholders weigh the problems differently or there are really only slight problems, which are less conspicuous than problems arising from the other "impacts from international, European and national level policy-making" (Almquist & Bienefeld, 2004, p.431).

At first, I give an overview of criticisms students have had with the implementation of the Bologna Process in the Netherlands according to relevant publications. Afterwards, a list of current potential problems follows.

In 2005, the students directed the criticism of the process against the very fast implementation of the two-cycle study system. The students saw the clarity of the purpose lacking in the beginning of the implementation. Effective information was done insufficiently, especially to the students at big universities at which personal contacts were more difficult to realise (Alesi, et al., 2005). Today, the criticism is not about the two-cycle system. It is established for almost all studies and since 2007, all students study in this system. Only the field of medicine is still in transition because of a later decision to restructure this study as well into a bachelor/master structure of 3+3 years.

Potential Dutch problems are taken from different sources since they are not available in one list; they are listed here in summarised form. It is left to say that the European Students Union's report "Bologna with Student Eyes" rather concentrates on the perspective of the Bologna Process official goals and instruments, not on students' problems such as funding:

- "Social dimension is not a priority of the government" (ESU, 2009, p.20):
    - Rise of tuition fees "by 22 euro for the next ten years" (ESU, 2009, p.27)
    - Increased strictness in completion of studies within a limited period of time and the following financial punishments – 'langstudeerders boete' (translated from rijksoverheijd.nl, section 'Hoger Onderwijs')
    - Payment of higher tuition fees by part time students plus less state support (European Commission, 2009, p.63)
    - Social level dependency (European Commission, 2009, p.67)

- Loss of academic freedom (original: 'academische Vrijheid') (Belleman, 2012)

- Lack of "ensuring the standard use of the Diploma Supplement in European format" (de Weert, 2010, p.47)

- Not made "real quantum leap mobility of students and staff" (de Weert, 2010, p.47)

- The generalisation of the "calculation of workload" (ESU, 2009, p.88)

- ‘New’ credit system rather an easy transcription of the old system
- Inappropriate measurement of the real student workload

In conclusion, one can see that there is criticism (of the Bologna Process), but it is not overwhelming and as researchers think the crucial element for the general acceptance of the reform was the involvement of all stakeholders (c.f. de Weert, E., 2009, p.49).

3.2 Problems of German Students

In this section I describe the situation of higher education related to the Bologna Process in Germany, which seems to be very difficult as investigated in the introduction and the survey. First, I describe shortly the situation of the implementation of the Bologna Process goals. Afterwards, I list the current and publicised potential problems of the German students.

Currently, dissatisfaction of the students and other stakeholders governs the climate in Germany. Even scientific articles mention, “Germany often ends up in a non-remarkable position in the middle of the field or even lower and is then seen as lagging behind “(Kehm, 2011, p.50). The slower development because of curricular reforms made integrated and not sequential reflects this as well as “that all students had the right to finish their studies under the same conditions as they started them” (Kehm, 2011, p.50). Integrated reforms mean that the German system offered parallel traditional programmes and two-cycle programmes, which the Netherlands did, too. However, the transition to the Bachelor-Master System was slower in Germany compared to the Netherlands. The observations show that through this not fully completion 80.5 percent of all German students studied in the two-cycle structure in the year 2010 (c.f. Kehm, 2011, p.51); whereas the ‘Independent Assessment, Volume 1’ shows that in the majority of countries 90.0 to 100.0 percent studied two-cycled at this point of time). In addition, many exemptions are still made for studies like state regulated professions or in the medical field (cf. Westerheijden, et al, 2010, p.17/18). This is the situation and development of Germany’s higher education system generally seen. The following paragraph of this section displays the potential problems resulting from the general situation, as researchers’ results of surveys of German students show.

By asking students and evaluating their answers scientists in the field of higher education draw the conclusion that in social and economic sciences students studying in the bachelor system see positive attributes of the new system, but the engineering students evaluate worse (cf. Roessler, 2011, p.102). ‘Employability’ defined as „the ability to gain initial, meaningful employment, or to become self-employed, to maintain employment, and to be able to move around within the labour market“ (Leuven Communiqué 2009) is an important topic when speaking in Germany about the Bologna Process. Alesi, et al. (2005, p.63) mention, that there are more worries than as in the average about the chances to be employed or rather to be able to work. The ‘Working Group on Employability ‘ conducted a survey and presents in their report at the ‘Bologna Conference in Leuven/Louvain-La-Neuve 28-29 APRIL 2009’ Germany as country whose “one main challenge is the acceptance of the bachelor as first academic degree relevant to the labour market”. Thus, the economic acceptation of the new degrees is one big potential problem for German students and it is tested as a reason for their perception. The purpose of an increase in mobility varies, too. On the one hand, it varies in the field of studies and on the other hand if one studies at a university or at a ‘Fachhochschule’. The latter can show a positive trend in the increase of

mobility. However, the difference between the types of institutions in the international mobility of students stands out with “only 22 percent of graduates having a degree from universities of applied sciences reported a stay abroad during their studies, compared to 35 percent of those with a university degree” (Schomburg, 2010, p.209). Additionally, the students in Germany complain that “im Kurzzeitstudium weniger Zeit für Auslandsaufenthalte vorhanden sei“ (Winter, 2009, p.25). The next paragraph displays the criticisms as students themselves demonstrate it in public.

The opinions of the students have a wider range, the students supporting the ‘Bildungsstreiks’ have a list of appeals of improvement on their webpage ‘bildungsstreik2009.de’ which I translated and summarised in the following:

- Social openness of universities:
    - The abolishment of any discrimination, as well in the most institutionalised form against foreign students
    - The abolishment of tuition fees
    - Financial independence – no study credits
    - Cutback of restriction of entry

- The abolishment of Bachelor/Master in the form at that time:
    - The rejection of the bachelor as regular degree
    - The end of ‘Verschulung’, regular study time and continuous examination
    - The possibility of individual priorities in the study
    - The real implementation of mobility between the universities

- Democratisation of the higher education system:
    - Cut back of the economical pressure
    - Co-management of all stakeholders
    - Introduction of student unions regulated by (Higher Education) law with political mandates in all states

- Improvement of teaching and learning conditions:
    - More and pedagogical qualitative staff

The overall criticism aims at the point of view of education and the student itself. The students claim the ideal to create persons who critically reflect as oppressed. In addition, students criticise that instead of this the Bologna Process makes education fitting to the demands of the economy and labels it to be a product. They see for example the Bologna Process as one of those core reforms that support and build up this thinking.

In this paragraph I display how to relate the researchers’ point of view as well as the students of the ‘Bildungsstreik’ point of view. The statements of the German national student union, the fzs, presented in the ESU’s report, confirm both of them. The claim that politicians do not have the social dimension as a priority in their agenda fits to the claim of social openness. In addition, there are statements related to the sub-statements in this category. The ESU writes in their report that Germany is “revealed to be one of the countries where the highest amount of foreign students incur severe financial problems in trying to offset their expenses with the available grants and loans” (2009, p.73). Furthermore, Germany belongs to the 16% of

countries in which, as the fzs confirmed, additional fees are always or usually charged for taking a language course. All of these facts lead to the dissatisfaction with the German point of view on the social dimension. The statement made in the ESU's reporting that "in Germany, the union is satisfied with the legislation in place, but feels there is a strong need to put it into practice" (ESU, 2009, p.38) supports researchers criticising the implementation or rather the still not full implementation. The "complaints that the absence of a common framework at national level creates a too diverse situation in the Lander state, some of which have undermined the principles that make it possible to have truly independent student unions" (ESU, 2009, p.44) reflect the introduction of student unions having political mandates in the single states. In addition, Germany belongs to one of the countries in which the students feel to lack recognition and information (ESU, 2009, p.74). Other points set out in the report are the missing legislation on automatically issuing of the Diploma Supplement for which in Germany the students even have to pay and the concerns that the student unions have about the internal quality assurance system. Additionally, there is the not recognition of prior learning, which seems to confirm the problems with the social dimension and the teaching and education conditions. In general, the conclusion can be drawn that in Germany more and different issues come up. Since having seen previously the Dutch case, it is obvious that in Germany exists a lack of students feeling to be stakeholders and having a voice in the Bologna Process. This led to frustration and the need of the students to remind the politicians of being there and being a part of the higher education system and having some interests, which they expressed by protests as mentioned in the beginning of the thesis.

In conclusion of this chapter, I contrast the problems of the two groups of students. Table 3-1 shows the problems perceived by students from different countries. It presents differences and similarities of the problems. The pure text in this chapter is not able to demonstrate these that clearly, especially the similarities are difficult to recognise. Shortly summarised one can see in the table the different categories of problems and their specific occurrence in the two countries of my study. In this way, one gains more insight in the different and the similar perception of students. Furthermore, table 3-1 supports the reader to understand the conceptual framework and main hypothesis, which I present in the following section of this chapter.

Category of the Problem	Problems of German Students	Problems of Dutch Students
Social Dimension	Not the priority of the government	Not the priority of the government
	Amount of tuition fees	Amount of tuition fees
	Consequences of the Regelstudienzeit	Consequences of the 'Langstudeerders Boete'
	Lack of financial independence	
		Payment of higher tuition fees by part time students
	Discrimination in the most institutionalised form against foreign students	Social level dependency

	Restriction of entry	
Teaching and Learning Conditions	'Verschulung'	Loss of academic freedom
	Lack of possibility of priorities	
		Generalisation of calculation of workload
	Number and quality of staff	
Mobility	Lack of ensuring the standard use of the Diploma	Lack of ensuring the standard use of the Diploma
	Lack of real implementation of mobility between	Not made real quantum leap mobility of students and staff
	Discrimination in the most institutionalised form against	
Students' and Universities' Influence	Lack of co-management of all stakeholders	
	Lack of penned student unions with political	
	Lack of recognition of and information to the students	
Employability	Acceptance of the bachelor as first academic degree	

Table 3-1 Students' perceived Problems by Country

3.3 The Main Hypothesis

In this section of the chapter, I present figure 3-1 which shows my conceptual framework with the potential factors related to the students' perceptions and the main hypothesis about the expected relation between the country of study and origin and the students' satisfaction. Thus, one gets an illustration of the different problems investigated in the section before and their influence on the perceptions.

My main hypothesis is, as one can see in figure 3-1, that there overall there is a more negative perception of students from or in Germany than of students from or in the Netherlands. The expectation is that the country of study or origin has an effect on the students' perceptions of the Bologna Process. Figure 3-1 reflects this with the two arrows from country of study and from country of origin to overall satisfaction. Thus, I assume that there will be significant differences by country of study and country of origin, which I can use as explanation and answer to my research question. More specific, I expect students from or in Germany showing means that tend to the more negative categories than the means of students from or in the Netherlands.

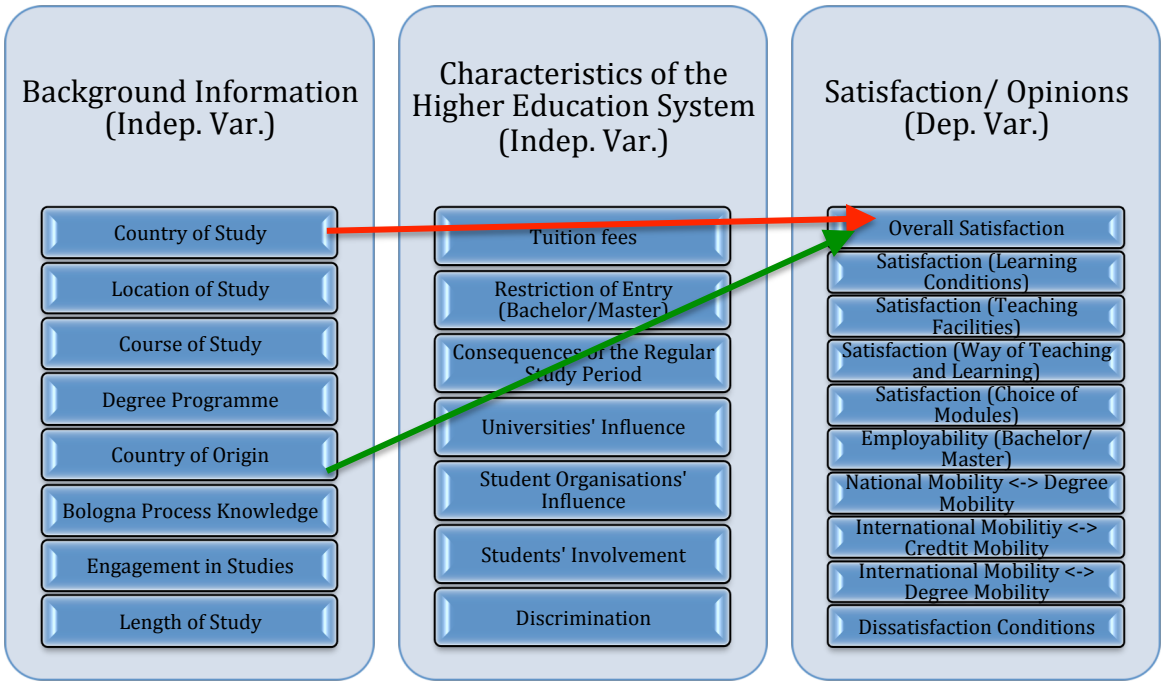

Figure 3-1 Expected Relations between the Background of Students and their Satisfaction

The statistical expression of my null hypothesis looks like a one-tailed direction hypothesis since I hypothesize a direction of the perceptions as shown before:

H_0= Perception of students from or in Germany > Perception of students from or in the Netherlands

> = is more negative than

Thus, the statistical expression of my alternative hypothesis looks like this:

H_A= Perception of students from or in Germany = Perception of the students from or in the Netherlands

= is the same as

The additional variables one can see in figure 3-1 belong to three different categories. I derived them from the definition of the potential problems and organised them in categories. The category 'background information' creates different groupings and belongs to the type of independent variables. The category 'characteristics of the higher education system' consists of independent variables describing various attributes of the higher education system. The dependent variables describing the overall as well as different kinds of satisfactions are represented by the category 'satisfaction/opinions'. These other variables, next to country of study and country of origin, I use for further exploration to find out factors related to the different perceptions, which is the second part of my research question.

4. Methodology

There are two chapters on aspects of methodology in my thesis. The fourth chapter of my bachelor thesis will be the part presenting and justifying the methodologies used to analyse the research question. Three sections are necessary for that since the sampling method, the

method of data collection and the method of the final data analysis are all important to explain. In this way, the reader gains insight how I as a researcher came to my results. Furthermore, I explain and analyse my methods in relation to internal validity, external validity, and statistical conclusion validity. The fifth chapter deals with measurement validity. It is about the more specified questionnaire of my thesis because in this part, I conceptualise and operationalise the variables used and compared. I define the above-mentioned validities, as having learned them in my research methodology courses.

In the first section of this chapter, I deal especially with external validity, which is by definition the degree to which the study's results generalize to and across various populations of the UTOS scheme (cf. Shadish, Cook, & Campbell, 2002, p.20). The UTOS scheme introduced by Cronbach in 1982 declares a complete sampling must cover that all elements of the UTOS scheme, namely that one can generalise the units (U), the treatments (T), the outcomes (O), and the settings (S) (cf. Shadish, Cook, & Campbell, 2002, p.19). Overall, this means that external validity always relates to sampling, dealt with in chapter 4.1, since the four elements fall into this process. Thus, "validity of inferences about cause-effect relationships" is the definition of internal validity and it stands in relation to the conclusions drawn from the observations made after the sampling. On the one hand, I have to deal with this when explaining and evaluating the research design and on the other hand when dealing with the method of data analysis. Statistical conclusion validity meaning "the correctness of statistical inferences derived from a study" comes in the fore when I work on the method of data analysis. There I explain the method of data analysis. In conclusion, this means that I relate my methods all the time to the question of possible threats to any kind of validity.

First, I describe and explain the sampling method, which is always the first process a researcher has to do before observing and analysing anything. Then the description and explanation of the research design and its data collection method follows, which I used to receive data I can analyse. Finally, I identify and specify the method of data analysis, which is the final evaluation of the data.

4.1 Sampling Method

"Ideally, observations chosen for inclusion in a sample should be (1) representative, (2) large in number (**N**), (3) at the principal level of analysis, (4) independent, and (5) comparable" (Gerring, 2011, p.630). In addition, Cook (2001, p.6038) explains "the best way to represent a population is to enumerate its members before selecting a random sample from that population". This is the ideal version of a sampling method, but in reality, as Cook (2001,p.6038) mentions, "causal agents are purposively chosen because of a presumed correspondence between substantive theory and operational instance(s)". The same is valid for my method of sampling since I only needed a certain group of the population, namely students. Because of my research question, I pursue a comparison between the group of German and Dutch students. This still does not mean that it could not be a random sample of German and Dutch students. . However, additionally I made a choice of attributes of the students in advance. Those attributes that could lead to their perception of the Bologna Process and in which I can compare the students I have defined before sampling. Thus, I did stratified sampling, meaning "the grouping of the units composing a population into homogenous groups before sampling" (Babbie, 2010, p.214).

In my case the most important pre-specified characteristics is the course of study. Academic articles often relate students and reasons for a certain attitude against or for something to their kind of studies. An example for such articles is the 'Arbeitspapier Nr.148 - Der Bologna-Prozess aus Sicht der Hochschulforschung Analysen und Impulse für die Praxis' edited by Sigrun Nickel in 2011. Conclusions drawn like "Ganz besonders in den Gesellschaftswissenschaften zeigen sich positive Ergebnisse für den Bachelor" or "Auch die Wirtschaftswissenschaften können sowohl an Universitäten als auch an Fachhochschulen auf positivere Urteile von Bachelorstudierenden blicken" (Roessler, 2011, p.88) relate the course of study and students' perceptions. Thus, I based my choice on the principle of having a variation of studies because I want to see results in social sciences as well as in natural sciences. According to this, I chose six courses of study appearing in Germany as well as in the Netherlands and transformed into the Bachelor-Master structure. These courses of study are industrial engineering, psychology, European Studies, (technical) physics, social pedagogy/social work, and primary teacher education. In addition, one has to know that some studies do not have the same names in both countries or only a similar course of study exists. This is the case in physics since in the Netherlands '(technical) physics' is very common and in Germany rather 'physics'. Nevertheless, in the main aspects of their learning objectives, it is the same; the same applies to social pedagogy and Soziale Arbeit.

Afterwards, I had to think of the method of contacting the persons matching the attributes I have defined before. Hence, I looked in my circle of friends so that they could help me as well with the distribution of the survey among their student friends. However, of course, I contacted the student organisations of the subjects in Germany as well as in the Netherlands and asked them for support with the distribution, too. My friends, the student organisations, coordinators of the different educational programmes in the Netherlands and I distribute the questionnaire by e-mail. The contacted students decide freely if they participate. It does not matter if they are Bachelors or Masters. The method described reflects stratification as explained. However, because of the data collection method the threat of self-selection arises. This means in this case "when individuals select themselves into treatments" (Shadish, Cook, & Campbell, 2002, p.56). In my study, the treatment is the questionnaire the students select themselves to answer or not to answer. Then, usually, only a certain part of the contacted students answers the questions, likely the ambitious ones, the ones with the higher marks and the ones knowing about, and being interested in the Bologna Process as topic. However, this is always the problem when conducting a survey through e-mail, ordinary mail, by telephone face to face because one cannot force anybody to participate. Furthermore, people who are interested in the topic and are ambitious answer the questionnaire truly and completely and on those people I have to rely.

I chose the cases Germany and the Netherlands because of my personal background and because academic circles see the Netherlands as the precursor in the implementation of the Bologna Process objectives and Germany as a one of the straggler of the first signatory countries in 1999. Moreover, the Netherlands and Germany have a very similar higher education system. The Netherlands has universities and 'Hogescholen', while Germany has universities and 'Fachhochschulen'. In both countries, certain programmes have an entry restriction related to the marks received in the certificate for the successful completion of secondary school education. In the Netherlands the name is 'Numerus Fixus' and in Germany 'Numerus Clausus'. I can generalise the units, meaning the group of students,

since they are coming from different universities and different courses of study. The treatment/assignment, meaning the questionnaire, I can generalise since it is the same for all of the units. Thus, the generalisation of the observations and the settings is possible since it is a survey by e-mail and every person with an Internet connection can answer it anywhere and in the same way.

4.2 Research Design and Method of Data Collection

The research design I used is the cross-sectional design, which will take the form of the "most similar" case comparison about which Gerring says "a small-sample cross-sectional design might take the form of a **"**most-similar**"** case comparison, across two or several cases "(2012, p.283). In the following paragraph, I explain how my study reflects this.

To begin with, I mention the attributes of my study which typical for the cross-sectional design. I study the students from or in Germany and the Netherlands. The two countries are the two similar cases, due to their very similar higher education system across Europe. The students from or in the two countries are the units of observation. Due to the data collection method by means of an electronic questionnaire and among at least six courses of study I expect to have more than ten units of observation, which is a condition for a cross-sectional design. However, I assume that in comparison to studies, for example the ones, in which one can pay the participants, the sample size is small. De Vaus explains the popularity of the cross-sectional design "that they enable the researcher to obtain results relatively quickly" (2001, p.176) and that applies to my choice, too. It is cost-effective, there is only one point in time the questionnaire as treatment is given to the units of observation and it enables "to provide valuable information about causal processes and for testing causal models" by the use of statistical controls (cf. De Vaus, 2001, p.176). Since I need exactly all of this, the cross-sectional design is the appropriate research design.

The last paragraph dealt with the research design itself, now I present the possible arising threats and their solution. Normally, the main threats to internal validity in this design arise from two sources, namely "problems in establishing cause without time dimension; and problems at the level of meaning" (De Vaus, 2001, p.177). Due to no real time element, this bans automatically threats like history or maturation. The establishment of a cause without a time dimension I minimise in my thesis due to relating the perception of students to in advance fixed factors and taking only those as variables tested in the questionnaire. . The problems at the level of meaning I have to handle by drawing a consistent conclusion and establishing a well-reasoned theory about the assumed relationship. Thus, the research question must be answered by a consistent and logical story.

In this paragraph, I begin with the description of the second topic of this section, the data collection method. I collect the data with an electronic questionnaire in which I ask open as well as closed questions. There are closed questions that the respondents answer by picking one answer of some possibilities. Thus, I request the potential attributes a variable can have. Then, there are closed questions about the evaluation on a scale of the perceived intensity of a factor by students. This is exactly the objective of my study and how the categories relate to each other. Normally, the scales consist of five scale points; only one question has seven scale points for which I want to receive results as exact as possible. Thus, the variables' attributes are in rank order. In contrast to the dichotomised and nominal measured ones, as

before mentioned, these variables are measured on the ordinal or interval level. I created the questionnaire online and it was available via a link to a webpage. This link I sent out to the different groups of students via e-mail. I repeated the sending of e-mails three times afterwards as explained in the text below about the tailored design method. After the final day of the questionnaire, I closed it and I began with the analysis of the collected data.

This second paragraph about the data collection method discusses the advantages and the disadvantages of it and how I settle the disadvantages. The reasons arguing against an online questionnaire are self-selection and thus, unqualified respondents, a low response rate and the inability to gain further insight. Then, there are the reasons speaking for online questionnaires, such as easy access to respondents, meaning anyone with an Internet access, the possibility of a large scale of data collection, low costs compared to other methods, thoughtful answers and the easy data entry and analysis. In general, this means that self- selection and a low response rate argue against the generalizability of units. In contrast to this stands the easy access to respondents. Furthermore, I lowered the threat to generalizability as consequence of unqualified respondents in the way that I used stratified sampling and contacted only certain students to answer my questionnaire. Additionally, students who really know about the topic will give thoughtful answers, thus I can easier generalize over the units. I fought the low response rate, also related to the units, by using the tailored design method of Dillman. According to this method, I sent out three reminder e-mails. The first is the 'Thank you/reminder' e-mail in which I thank all the people having already responded and remind all people not having responded. The second e-mail contains a letter and again the link to the questionnaire and the last e-mail is a high priority e-mail to show once again the importance (Dillman, 2007, chapter 4 element 2). The generalizability of the treatment applies since the Bologna Process affects every respondent, as well as the questions of the questionnaire are the same for everyone and thus, I can generalise the observations or rather the given answers. The setting I can generalise, too, since as mentioned in the pro arguments everyone with an Internet connection can access it and that means contemporarily everywhere.

4.3 Method of Data Analysis

As said before and in prevention of the problems of internal validity and upcoming of potential wrongly drawn inferences about causational relationships, the groups are matched in their attributes. De Vaus writes, "the analysis of cross-sectional data requires data from multiple cases using multiple variables. Analysis relies on comparing cases accounting for variation between the cases on one variable in terms of variation on another variable" (2001, p.181). This is exactly what I do. I conceptualise and operationalise the same variables valid for the sample and I compare these variable in terms of variation on another variable.
To begin with, I deal with the issues that can come up in the analysis of the data of a cross-sectional design and how to solve them. In the cross-sectional design the trade-off between omitting variables and multicollinearity arises, thus one has to be careful when drawing statistical conclusions about causation. This means that one has to be careful with the examination of the statistical procedures and the assumption one uses because not always, if there is a statistical significant result one can draw a consistent conclusion or theory. De Vaus gives advises for these cross-sectional issues. The analysis requires, according to De Vaus, no matter which method of data collection used (cf. 2001, p.181), "what is called a variable by case matrix – a grid in which we have the same information for each case". I do

this when I analyse the data quantitatively with SPSS. I look at the data by variable and case, especially to be sure that the samples are as similar as they can be. One case for which this is possible is the country of origin and the country of study, which has to be either the Netherlands or Germany, cases not fitting I exclude.
To come back to the topic of the method of data analysis, I explain the methods more in detail. On the one hand, I make crosstabs within which the results for the different variables are compared in variation on each other. I count the number of the sample for the variables grouping the students that consist of more than two groups. Then, I count the numbers of cases for each answer possibility and I will report the frequencies, calculate, and report the percentages. In my research, proportions are more important than absolute numbers due to different sample sizes and thus, the improvement of the comparability. On the other hand, since this does not say anything about the significance of the differences between the samples, I make t-tests. A t-test of two independent samples is the statistical measure for comparing two samples in variation of interval or ratio data (c.f. Babbie, 2010, p.485). The two samples can be Dutch and German or students selected by study country or any other background variable consisting of two groups and belonging to my conceptual framework. The interval data results from the evaluation of the students. Overall, the percentages and crosstabs have enough statistical weight and since not all data are measured in interval, I cannot only make t-tests. Thus, one can see that the focus lies on a quantitative analysis of the received data. However, there are as well open questions that the students had to answer and so I have to make a qualitative analysis, too. At first, I read the results. Then, I compare their content and count those answers stating similar concerns. Afterwards, I report impressions of the frequencies of the answers and mention them as additional reasons behind the part of the quantitative analysis either as additional confirmation or as contrast of the quantitative results. In some way, this is a discourse analysis. Finally, I write the results in text and present statements about explanations or only correlations.

5. Operationalisation

This chapter is rather a continuation of the previous one. However, in some aspects this chapter differs. It deals with the more detailed realisation of the methods explained before and put into practice in the electronic questionnaire. The first sub-section about conceptualisation and operationalisation is exactly about that, as well as the third sub-section. In the second sub-section, I list and explain the hypotheses about the outcomes of the tested variables. Thus, references are possible in the later part of the analysis. Thus, create a basis for the reader for a better understanding of the way variables are tested.

5.1 Conceptualisation and Operationalisation

This section I mention the theories and concepts of how the variables are used. Moreover, I operationalise the different variables. The conceptualisation and operationalisation stand in relation to the so-called construct validity defined as “the degree to which operational definitions used in a study are valid representations of focal constructs” (Stone-Romero, 2002, p.79). Thus, I based the constructs of the variables, or rather the concepts and operationalisation of those, on the potential problems. I listed and analysed them in chapter three after a literature review. Then, I tested these factors in the electronic questionnaire.

Students' perception:
Students' perception is conceptualized by me as the opinion of the Bologna Process, namely the objectives the Bologna Declaration set out, like the introduction of the two-cycle structure, establishment of a system of credits or the promotion of mobility. The division of the categories looks like this: positive students' perception (1), negative students' perception (2), and 'don't know' (-1) as defined as category in my questionnaire. The 'don't know' answers the statistical programme treats as missing values when making a t-test and thus, I do the same way. Additionally, students' perception is the dependent variable and I test this with the help of the following operationalised variable called 'Overall satisfaction':

Overall satisfaction:
This is the overall satisfaction of a student with his/her studies. The level of satisfaction can range from not satisfied (1) to fully satisfied (5), and 'don't know' (-1).

The Bologna Process:
All the modifications fixed in the Bologna Declaration of 1999 and the following communiqués as objectives that had to reached at first in the year 2010 and now by 2020. One example of theses objectives is the "adoption of a system essentially based on two main cycles, undergraduate and graduate" (Bologna Declaration, 1999).

The following variables are potential independent variables explaining the difference of the perception of the Bologna Process. The brackets behind the definitions or rather attributes of the variables contain the numbers that are the value labels used by the survey software for the support of statistic analysis programmes like SPSS and that is valid for all variables operationalised in this section of the chapter.

The following variables are categorical variables and measured at the nominal level:

Level of Engagement:
On the one hand, it is possible that a student works (1) in a student organisation or another organisation dealing with the course of study. On the other hand, it is possible that a student does not work (2) in one. The involvement in a formal organisation dealing with the course of study is the single best proxy for involvement.

Type of study:
The type of study is the course of study meaning the degree programme a student follows. In my thesis the programmes I will look upon are the same or very similar in the Netherlands and Germany. The transformation in the two-cycle structure took place, as for example in psychology or industrial engineer studies. In addition, I chose different categories of studies, like natural sciences or social sciences. I will label the defined courses of studies like this: psychology (1), industrial engineer studies (2), European Studies (3), Social Pedagogy (4), Primary School Education (5) and (Technical) Physics (7). For possible other studies I mentioned the category 'namely, other' (6) whose answers I define later on with the logical following numbers.

Type of degree programme:
On the one hand, it is possible that one studies in a Bachelors' degree programme (1). On the other hand, it is possible that one studies in a Masters' degree programme (2). However,

there is still the possibility to study in another degree programme (3). This applies to Germany (e.g. the 'Magister' in teaching programmes) as well as in the Netherlands (e.g. the 'Associate Degree' at Hogescholen).

Nationality:
On the one hand, the student can be Dutch (1) or the student is German (2) or one has another nationality (3).

Country of Study:
On the one hand, one can study in the Netherlands (1) or in Germany (2) or in another country (3). The last can be the case if the student answering the survey does an ERASMUS semester or year.

Place of Study:
Those are the universities the students study at, for example the University of Twente or the University of Cologne. I will label them like this: University of Twente (1), University of Cologne (2) and so on. Only in particular cases, I will deduce the state/province of study from this information, too. Thus, a comparison of the different states is possible since in Germany each state is responsible for the field of higher education.

One exception of the categorical independent variables is this interval level measured one:

Study length:
The semesters someone is studying by now. The definition of a semester is half of a year. For Dutch students that mean that if they are in the 1st or 2nd quarter of the 3rd year they are in the 5th semester. One semester (1), two semesters (2), three semesters (3) and so on until more than 12 semesters, since this is the highest amount of semesters a study can take as laid down in the Bologna Process, at least for Bachelor + Master, the so-called first two cycles.

The following variables I measure at the ordinal level. The variables the students evaluate on a scale in the questionnaire:

Social dimension:
The definition of the social dimension depends on several variables, namely tuition fees, the restriction of entry into a Bachelors' degree programme, the restriction of entry into a Masters' degree programme and every kind of discrimination. The definition focuses on the German students' problems, although of course some might apply to the Dutch students' problems, too.

a) Tuition fees:
   To begin with, there can be no tuition fees (1). Then the students can see tuition fees as very low (2), low (3), high (5), very high (6), and too high (7). Additionally, the evaluating student can click on the category 'don't know' (-1).
b) Restriction of entry into a Bachelors' degree programme, meaning the 'Numerus Fixus' and 'Numerus Clausus':
   To begin with, there can be no restriction (1). Then students can see the restriction of entry into a Bachelors' degree programme as very low (2), low (3), high (5), very high

(6), and too high (7). Additionally, the evaluating student can click on the category 'don't know' (-1).

c) Restriction of entry into a Masters' degree programme, meaning the 'Numerus Fixus' and 'Numerus Clausus':
To begin with, there can be no restriction (1). Then students can see the restriction of entry into a Masters' degree programme as very low (2), low (3), high (5), very high (6), and too high (7). Additionally, the evaluating student can click on the category 'don't know' (-1).

d) Discrimination:
To begin with, there can be no discrimination at the higher education institution (1). Then students can see the discrimination at their higher education institution as very low (2), low (3), high (5), very high (6), and too high (7). Additionally, the evaluating student can click on the category 'don't know' (-1).

Students' involvement in the Bologna Process (1999-2020) implementation:
Students can have the impression that their involvement in the implementation of the Bologna Process objectives in their higher education system is none (1), low (2), high (4), or all dominant (5). Additionally, the evaluating student can click on the category 'don't know' (-1).

Students' influence:
The extent to which student organisations can influence higher education politics is the definition of the student organisations' influence. Students can see this extent of influence as none (1), low (2), high (4) or very high (5). Additionally, the evaluating student can click on the category 'don't know' (-1).

Universities' influence:
The extent to which universities can influence higher education politics is the definition of the universities' influence. Students can see this extent of influence as none (1), low (2), high (4) or very high (5). Additionally, the evaluating student can click on the category 'don't know' (-1).

Consequences of the regular study period
The financial punishment of 3000€ for students studying longer than one year more than the regular study period in the Netherlands or the cut of the financial aid (BAföG) in Germany. If a student studies longer than the regular study period, these consequences are the cut of the financial aid or the exclusion from the course of studies. Students can evaluate them from very unfair and interest restrictive (1), unfair and interest restrictive (2), fair and interest non-restrictive (4), to very fair and interest non-restrictive (5). Besides, one can click on the category 'don't know' (-1).

The following variables, which I will test in my bachelor thesis, are potential other dependent variables. The following variable is a categorical variable and measured at the nominal level:

Main Dissatisfaction Condition:
This variable is asked for by one question concerning which of the following multiple-choice categories is seen as the main dissatisfaction condition for the student. The conditions

belong to the teaching facilities and learning conditions of the university or the course of study. There are the number of teaching staff (1), the quality of teaching staff (2), the availability of teaching staff (3), the number of seminar rooms (4), the type of books in the library (5), the conditions of seminar rooms (6), the number of working places in the library (7), number of working places in the university (8), number of books in the library (9), living conditions (10) or other reasons mentioned by the respondent. Additionally, the evaluating student can click on the category 'don't know' (-1).

The following variables I measure at the ordinal level. The variables the students evaluate on a scale in the questionnaire:

Teaching and learning conditions at universities:
The conditions surrounding the students at their university and in their life as a student define the variable. Students evaluate elements like the lessons itself, the space for learning on their own, and the material that is provided. I explain this below more in detail.

a) Learning conditions:
   The space in library a student has or if there is an ICT access define learning conditions. These learning conditions students can see as very bad (1), bad (2), okay (3), good (4) and very good (5). Additionally, the evaluating student can click on the category 'don't know' (-1).
b) Teaching facilities:
   The number of teaching staff, the quality of the teaching staff, the seminar rooms offered by the university, and the projectors offered by the university define teaching facilities. These teaching facilities students can see as very bad (1), bad (2), okay (3), good (4) and very good (5). Additionally, the evaluating student can click on the category 'don't know' (-1).
c) Way of teaching:
   The way of teaching the students can feel as like in school or as very different. Thus the way of teaching students can see as completely different (1), different (2), similar (4) and very similar (5) to the way of teaching in school. Additionally, the evaluating student can click on the category 'don't know' (-1).
d) Personal Preferences' Choice of modules/minors:
   The possibility of a choice of modules/minors according to personal preference can be never (1), sometimes (2), often (4) or always (5) given. Additionally, the evaluating student can click on the category 'don't know' (-1).

Employability:

a) The chance to get a job after having obtained a Bachelor degree is none (1) is similar to students just entering the university (3) or is real good (5). Of course, the evaluating student can click on the category 'don't know' (-1).
b) The chance to get a job after having obtained a Master degree is none (1), is similar to students just entering the university (3) or is real good (5). Of course, the evaluating student can click on the category 'don't know' (-1).

Mobility:
Mobility is according to the Bologna Declaration of 1999 "the overcoming of obstacles to the effective exercise of free movement", for students it means the "access to study and training opportunities and to related services" in other universities/countries. Credit mobility is

"temporary mobility in the framework of ongoing studies at a "home institution" for the purpose of gaining credit. After the mobility phase, students return to their "home institution" to complete their studies. Credit mobility is mostly for study, but it can also take other forms, such as a traineeship" (Kelo, Teichler& Wächter, 2006, p.5). Diploma mobility is "mobility aimed at the acquisition of a whole degree or certificate in the country of destination" (Kelo, Teichler & Wächter, 2006, p.5). In my thesis I relate the before mentioned types of mobility like this:

a) International Mobility related to credit mobility:
   Students are not supported (1), generally supported, but with difficulties (3) or strongly supported (5) to study abroad temporarily and the credits obtained are recognised, e.g. ERASMUS. Of course, the evaluating student can click on the category 'don't know' (-1).
b) International Mobility related to degree mobility:
   Foreign students are not supported (1), generally supported, but with difficulties (3) or strongly supported (5) to study in your study country and can obtain a whole degree (Bachelor/Master) or certificate. Of course, the evaluating student can click on the category 'don't know' (-1).
c) National Mobility related to degree mobility:
   Students are not supported (1), generally supported, but with difficulties (3) or strongly supported (5) to change the university within the country to obtain a whole degree (Bachelor/Master) or certificate. Of course, the evaluating student can click on the category 'don't know' (-1).

5.2 Data Collection: The Questionnaire

This section will be more in detail about the method of data collection, namely the questionnaire I created online via the webpage https://www.soscisurvey.de/.

I used 'onlineFragebogen' (oFb) which is professional, uncomplicated and helps to put one's online survey in the Internet. It comprises mainly closed questions, asking for general information either about the student or the evaluation of the variables concerning potential problems. In general, the language of the questionnaire was English, but since my mother tongue is German and I understand Dutch I allowed the respondents to answer the open questions in these two languages, too. This way, I tried to get more respondents because I expect them to feel more comfortable to write in their mother tongue. The types of the closed questions are to be explained by the operationalised variables above. One type is 'multiple choice'/'selection' meaning the picking of one option. The other type is 'scale' meaning the evaluation on a scale. As indicated, I asked a few open questions are asked, too. The arguments for the choice of using online questionnaires are on the one hand that many student organisations suggested creating an online survey. They gave me the advice that students would be more motivated to fill it out by following a link. Giving answers by one click is more popular than getting a document, filling it out and then being obligated to send it back to the researcher. Other arguments are that they label the variables, put together the data one needs in the specific data type, and has a wide choice of question types. Very important is that the users do not have to install any other software for using it.

One important aspect to know is that I used the possibility to make a so-called 'pre-test' meaning the creation of a preliminary questionnaire and testing it with a small number of

persons. In this case, the pre-test led to different changes. The biggest change is the number of questions, which I reduced. Additionally, I made some minor modifications in the wording. After having done this, the final questionnaire consists of 20 questions.

Lastly, it is to know that the questionnaire was available via the link https://www.soscisurvey.de/Bologna-in-NL-and-DE/ for the students contacted from the 1st to the 25th of May 2012. The analysis I have to do with an extra programme, I used SPSS. The questionnaire is available in the appendix.

6. Data Analysis

In this almost last chapter, I focus on the analysis of the data. With the help of the raw data gotten by my questionnaire and SPSS, I calculated the general descriptive response statistics, then I made independent samples t-tests and cross tables. Especially the independent samples t-tests display the values that are important to say something about the differences. At first, so that one can get a general idea, I refer to the common data received.

6.1 Descriptive Response Statistics

To begin with, I cannot specify the number of actual recipients of my e-mails. One reason is the incomplete response by the contacted student organisations on my enquiry. The other reason is the indication on their part of not knowing the actual recipients since some mail accounts filter mails from their mailing list out as junk mail. I know that my friends and I contacted around 300 persons and I think from numbers I got from the student organisations it is reasonable to assume that their numbers are as twice as much. Thus, I calculate with approximately 900 recipients. The outcome of this is a response rate of about 27%. If I work with the 413 people because this is the group of people that visited my questionnaire, somehow the response rate is around 59%. Mainly the Dutch left the questionnaire without finalisation. Overall, 243 persons filled in the questionnaire meaning from the first question to the penultimate page. One case is deleted since it comes from another country, studies normally in another country and did not fill in any location of studies. Thus, there are only 242 valid cases. Only one of the 242 did not answer the very last question. Nevertheless, I decided to add it to the sample because the last question is optional and open-ended.

The exact composition of the sample (N) = 242 one can check on the table 6-1.
As one can see, there are only 27 Dutch in the whole sample, 209 are Germans, and six belong to any other nationality. That let assume that the results are very difficult to generalise, having especially the Dutch sample in mind. The students studying in the Netherlands are overall 64. Thus, the sample of students in the Netherlands is twice as much as the sample of students from the Netherlands. If the sample of students in the Netherlands is compared to the sample of the students studying in Germany, the percentage is around 35%. This percentage is doubled drawing the comparison to the percentage the Dutch sample showed contrasted to the German sample.

Country of Study	Country of Origin			
	The Netherlands	Germany	Other	Total
The Netherlands	26 40.6%	36 56.2%	2 3.1%	64 100.0%
Germany	1 0.6%	173 97.2%	4 2.2%	178 100.0%
Total	27	209	6	242

Table 6-1 Country of Study by Country of Origin

Table 6-2 shows the courses of study by country of study. As explained in the chapters before, I contacted mainly students of six courses of study. Of course, there are students studying something different. In this case, there are 'Heilpädagogik' (Remedial pedagogy) and 'Wirtschaftspädagogik' (Business and Human Resource Education) as additional courses. In the Netherlands, psychology students are the largest category among the programmes with 26 of all students. The industrial engineering students predominate clearly in the German students' sample with 130 of all students. One can see an uneven distribution in the courses of study as well in the overall sample.

Course of Study	Country of Study		
	The Netherlands	Germany	Total
Psychology	26 68.4%	12 31.6%	38 100.0%
Industrial Engineering	10 7.1%	130 92.9%	140 100.0%
European Studies	20 90.9%	2 9.1%	22 100.0%
Social Pedagogy	5 26.3%	14 73.7%	19 100.0%
Primary School Education	0 0.0%	7 100.0%	7 100.0%
(Technical) Physics	3 33.3%	6 66.7%	9 100.0%
Remedial Pedagogy	0 0.0%	6 100.0%	6 100.0%
Business and Human Resource Education	0 0.0%	1 100.0%	1 100%
Total	64 26.4%	178 73.6%	242 100.0%

Table 6-2 Course of Study by Country of Study

The uneven distribution is one reason for my choice to find another way of looking at differences within this background variable grouping the students. The variable 'Course of Study' will have a main function for checking my expectations related to the country of study

and country of origin. Thus, I searched for a model grouping the courses of study into two groups is. Two groups are needed on the one hand to compare it to the variable 'Country of Study' since it consists of two relevant groups, too. Additionally, when doing a t-test one compares only two groups in variation on another variable. I identified the Biglan Model, and present this model in figure 6-1 on the next page, titled 'Table 2 Clustering of Academic Task Areas in Three Dimensions'. Biglan's model demonstrates the possibility of re-grouping. In my case, I will make a new variable, with both industrial engineering and physics programmes as 'hard sciences'. This, one can see in the two columns on the left with the heading 'Hard' in the table presented in figure 6-1. All of the other programmes together are 'soft sciences' as shown in the two columns on the right of this table with the heading 'Soft'.

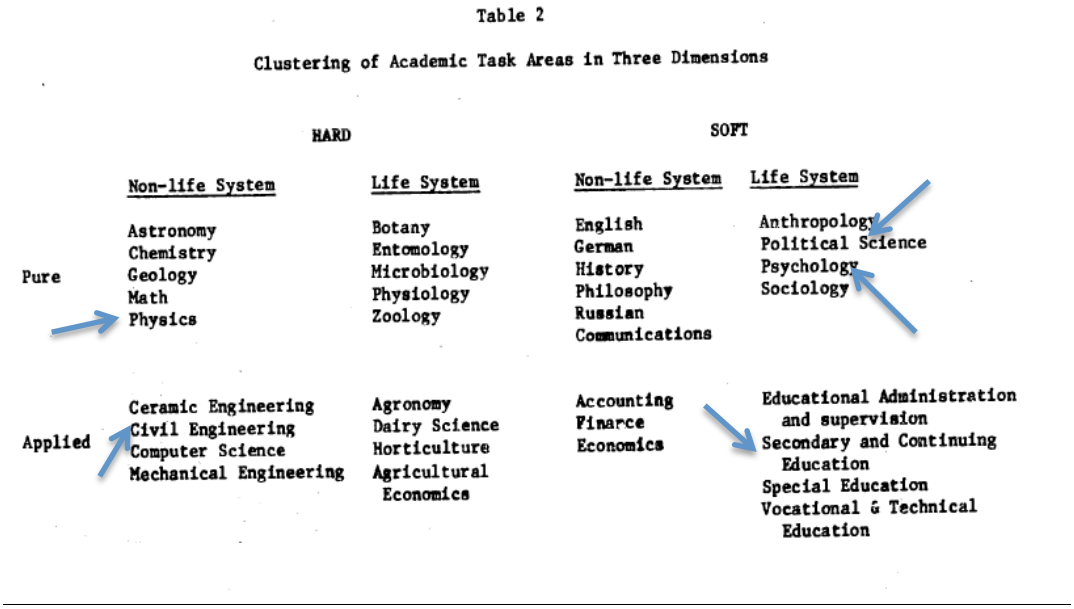

Table 2

Clustering of Academic Task Areas in Three Dimensions

	HARD		SOFT	
	Non-life System	Life System	Non-life System	Life System
Pure	Astronomy Chemistry Geology Math Physics	Botany Entomology Microbiology Physiology Zoology	English German History Philosophy Russian Communications	Anthropology Political Science Psychology Sociology
Applied	Ceramic Engineering Civil Engineering Computer Science Mechanical Engineering	Agronomy Dairy Science Horticulture Agricultural Economics	Accounting Finance Economics	Educational Administration and supervision Secondary and Continuing Education Special Education Vocational & Technical Education

Figure 6-1 from: (Biglan, 1971, p.14)

In table 6-3, the new distribution and groups are presented. Now, the sample has a better distribution regarding my objectives with 150 persons studying in the hard sciences and 93 persons studying in the soft sciences.

Course of Study (Biglan Model)		
	Frequency	Percent
Soft	93	38.3
Hard	150	61.7
Total	243	100.0

Table 6-3 Course of Study according Biglan

Another variable I use for the data analysis is the location of studies. To begin with, the table 6-4 below presents the locations of studies and their frequencies. There are only four German states the universities are placed. That makes the following analysis easier because the comparison of each university would be too detailed and the focus will be lost. In contrast, the comparison of the four states to the Netherlands is much simpler. Furthermore, the research question is about the country of origin and the country of study, which means that the single universities are not of significance, but the four single states represent the country of study. Additionally, in Germany the states possess the sovereign power in the field of education, thus it is assumed that it matters in which state a student studies.

Location of Studies (University in)	Frequency	Percent
North-Rhine-Westphalia	32	13.2
Bavaria	129	53.1
Baden-Württemberg	12	4.9
Schleswig - Holstein	1	0.4
The Netherlands	63	25.9
Missing Value	5	2.5
Total	242	100.0

Table 6-4 Location of Studies (State)

Since there is a relation between the tuition fees and the location of studies, I decided to re-group this variable, too, for a potential deeper exploration. Money always plays a role when talking about satisfaction of persons because people are quicker dissatisfied if the price is not appropriate for what they get, meaning there is a lack of quality. For a t-test, as said before, I need two groups. In this case, the best fits a group with 'low tuition fees' and one with 'high tuition fees'. The group with 'low tuition fees' is built by the German states North-Rhine-Westphalia and Schleswig-Holstein. Both of them do not have tuition fees, they only ask for a social service contribution, which is used for the administration and in support of facilities commonly used by the students, such as gymnasia or accommodations. This is a contribution demanded in all of the German states in addition to the tuition fees if established. The group with 'high tuition fees' is built by the Netherlands with around 850€ per semester and the German states Bavaria and Baden-Württemberg. In Baden-Württemberg the tuition fees are 500€ per semester and in Bavaria the universities are free to determine the amount; whereas the other educational institutions are able to demand up to 500€ per semester (cf. xStudySE, 1997-2012, Studiengebühren). Table 6-5, added in the appendix, shows the new groups and their distribution.

In the following, I focus especially on the variables discussed more in detail and mentioned above. For reasons of interpretation as well as addressing potential issues in the following sections, I list more general data. Tables mentioned one finds in the appendix. Overall, 70.3% of the Dutch are Bachelors and 83.7% of the Germans are Bachelors as table 6-6 shows. Thus, the average of the study length is higher in the Netherlands since a higher percentage Masters participated. Table 6-7 presents that 20.3% of the students studying in the Netherlands engages in some way related to their studies. In the German sample, there the percentage is 13.5%. Most students work in the student organisations of their course of study. The subjective perception of knowledge about the Bologna Process is almost balanced in the sample of students in the Netherlands, 51.6% say they know something about it and 48.4% do not as table 6-8 shows. In Germany, the situation looks differently. There, 80.9% has something in mind when the term Bologna Process comes up as they self-report. Furthermore, in the German students' sample one answer comes usually up in the question what the students know about the Bologna Process. That is the change from the 'Diplom' to the Bachelor as academic degree. In this context, the students evaluate the change as negative development.

After having presented the descriptive response statistics, I go on testing my main hypothesis.

6.2 Testing the Main Hypothesis

In this part of the chapter, I test my main hypothesis assuming that the perception of students from or in Germany of the Bologna Process is more negative than the perception of students from or in the Netherlands of the Bologna Process. Figure 3-1 in this thesis illustrates the hypothesis.

In both of the now following sections it is important to know that my main null hypothesis is going in a direction, thus a one-tailed test is made. Overall, it is tested if the country of study or the country of origin is related to the perception of students and later on, other factors related are explored afterwards.

In statistical terms, as laid down before, the null hypothesis looks like this:

$$H_0: \mu_1 > \mu_2$$

μ_1 = Mean of the perception of students from or in Germany
μ_2 = Mean of the perception of students from or in the Netherlands
> is more negative than

Thus, the alternative hypothesis due to making a t-test looks like this:

$$H_A: \mu_2 = \mu_1$$

μ_1 = Mean of the perception of students from or in Germany
μ_2 = Mean of the perception of students from or in the Netherlands

The alternative hypothesis does not go in any direction. In the following paragraph, I discuss the meaning for the significance level.

The statistical significance level is defined as **α** = 0.05 since it is traditionally used and said to give statistical significant results; whereas **α** = 0.01 gives highly significant results, but is useless for my (small) sample size(s) and **α** = 0.1 is not significant enough. Furthermore, one has to pay attention since a one-tailed test is made with the null hypothesis. This means that in the following tables I have divided the p-value by two beforehand. Otherwise, I draw conclusions for the wrong test.

I test my hypothesis with the help of an independent samples t-test. The first one compares the overall satisfaction of students in Germany and in the Netherlands and table 6-9 presents the result.

	In Germany Mean	In the Netherlands Mean	t-value	Significance of t-value
Overall Satisfaction	3.37	3.60	1.73	0.04

Table 6 - 9 Independent samples t-test - Overall Satisfaction/ Country of Study

My main hypothesis that the perception of students in Germany of the Bologna Process and the perception of students in the Netherlands of the Bologna Process differ significantly is confirmed because the probability error is > 0.05. Furthermore, the means of the two groups

lie in the same category. Thus, one cannot say that the students in Germany are extremely unsatisfied, only that they are a bit less satisfied. In addition, the significance of the t-value is marginally, which reflects the contiguous mean of both groups.

Then, table 6-10 shows the result of the t-test comparing the overall satisfaction of students from Germany and from the Netherlands.

	German Mean	Dutch Mean	t-value	Significance of t-value
Overall Satisfaction	3.40	3.63	1.19	0.12

Table 6 - 10 Independent samples t-test - Overall Satisfaction/ Country of Origin

This time, I have to reject my main hypothesis that the perception of students from Germany of the Bologna Process and the perception of students from the Netherlands of the Bologna Process differ significantly since the probability of error is far from the limit of 0.05. In these two groups, the means lie close to each other, are in the same category and have even the same distance as the two groups have shown before. However, as I presented in the descriptive response category, the sample sizes differ even more and thus, I assume they influence the result.

In conclusion, the main hypothesis is once rejected and once confirmed in the two operationalisations of the main independent variable. The first p=0.04 as result is close the limit and much less than the second p=0.12. All in all, the two groups are moderately satisfied since both chose in average the third category, which is the middle one of the five categories. In the rest of this chapter, the data of my questionnaire is studied, exploring possible explanations for this finding.

6.3 Exploring Potential Alternatives

In this section, I explore alternative explanations for my hypothesis and search for a more detailed answer to my research question.

In all of the cases the null hypothesis looks like this:

$$H_0 = \mu_{V1} \neq \mu_{V2}$$

μ_{V1} = Mean of the 1st Variable
μ_{V2} = Mean of the 2nd Variable
$\neq$ = is not the same as

Thus, the alternative hypothesis looks like this:

$$H_A = \mu_{V1} = \mu_{V2}$$

That means that there is no direction of the hypotheses and the test of the hypotheses are two-tailed. Again, the significance level is 0.05.

First, I search for a possible other explanation of the overall satisfaction with the help of the before mentioned grouping variables, such as the course of study according to the Biglan model, the location of studies according high and low tuition fees etc.. Afterwards, I make t-tests of the factors related to the overall satisfaction, such as employability, mobility, the teaching and learning conditions are made in comparison to the different grouping variables. Especially in these cases, I present summarising tables with the significant and insignificant differences. The significant results are highlighted in red in all of the following tables. In addition, I have to note that normally I only listed two decimals due to the overall sample size, but three times it was necessary to give three decimals so that one can differentiate between a significant and a insignificant result.

As a first alternative to test a potential rival explanation of the overall satisfaction a t-test compares the overall satisfaction between students of the soft and hard sciences, which table 6-11 presents. As I already mentioned in chapter 3.2 about the problems of German students, the evaluation of the Bologna Process can depend on the course of studies, which is a result of the study called “Bachelor auf Erfolgskurs!? Eine Überprüfung einzelner Reformziele anhand von Daten aus dem CHE-HochschulRanking written by Isabelle Roessler in 2011.

	Soft Sciences Mean	Hard Sciences Mean	t-value	Significance of t-value
Overall Satisfaction	3.51	3.38	0.98	0.33

Table 6 - 11 Independent samples t-test - Overall Satisfaction/ Course of Study

However, this t-test shows no significance and neither do the t-tests of the grouping variables called ‘Bologna Process Knowledge’, ‘Location of Studies <-> Tuition Fees’ and ‘Engagement in Studies’ with a probability error > 0.05 The exact values can be found in the tables 6-12 to 6-14 in the appendix. These alternative explanations are rejected, too.
The only other grouping variable, which shows a significant difference in the overall satisfaction with a probability error < 0.05 is the degree programme, which table 6-15 presents.

	Bachelor Degree Mean	Master Degree Mean	t-value	Significance of t-value
Overall Satisfaction	3.34	3.83	-4.22	0.00

Table 6 - 15 Independent samples t-test - Overall Satisfaction/ Type of Degree Programme

All in all, Bachelor students are less satisfied than Master students. Both means are in the same category; whereas the mean of the Master students rather tends to category four, which means satisfied and the mean of the Bachelor students rather tends to category three, which means moderately satisfied. The sample size of these two groups differs, too, which means that the Bachelor students are 189 and the Master students are 47, thus the interpretation and generalisation are difficult, especially by looking at the Master students who are not that many.

In the following, I make further tests to see if more specified parts of the original hypothesis can be maintained. I test the variables belonging to the category of variables called 'Satisfactions/Opinions'. In addition, I use the grouping variables so that the dependent variables can be compared in the two groups each of the grouping variables has. 'Country of Study' and 'Country of Origin' are the main independent variables. Thus, I definitely use these two variables in my further explorations as well as their tables are presented in this section.

The table 6-16 shows all the results of the grouping variable 'Country of Origin'. I list them below so that one can see which results are significantly different with a probability error < 0.05. Those are, as mentioned, the red numbers in the column significance of t-value.

	German Mean	Dutch Mean	t-value	Significance of t-value
Learning Conditions	3.53	3.48	-0.27	0.79
Teaching Facilities	4.09	3.63	-3.05	0.00
Way of Teaching and Learning	2.26	2.40	0.64	0.52
Consideration of Preferences (Higher Education System)	2.98	3.19	1.10	0.27
Consideration of Preferences (Course of Study)	2.99	3.38	1.96	0.051
Employability (Bachelor)	3.47	2.92	-2.38	0.02
Employability (Master)	4.59	4.48	-0.84	0.40
National Mobility <-> Degree Mobility	2.43	3.06	2.14	0.03
International Mobility <-> Credit Mobility	3.65	3.95	1.88	0.07
International Mobility <-> Degree Mobility	3.19	3.65	1.60	0.11

Table 6 - 16 Independent samples t-test – Country of Origin and Alternative Dependent Variables

At first, German students evaluate their teaching facilities better than the Dutch students do. The German mean belongs to category four which is labelled as ‘good’ and the Dutch mean to category three which is labelled as ‘okay’.

Secondly, a significant difference appears as well by evaluating the employability as Bachelor. The German students evaluate the chance to get a job with a Bachelor as better than Dutch students do. While the mean of the Dutch students falls in category two the mean of the German students falls in category three and the scale goes from one = no chance to five = real good chance.

The third and last significant difference one finds in the evaluation of national mobility related to degree mobility. The German students evaluate the support of the change of the university inside their country as weaker than the Dutch students do. The average of the Dutch students chose category three, which means that the change of a national university is generally supported, but with difficulties and the German students chose in average category two on the scale, which is not labelled, but less supportive since category one is labelled as ‘not supported’.

In the following table 6-17, one looks on the results for the grouping variable ‘Country of Study’. This variable, as one will see, in the further exploration shows most of the significant differences within the parts of the main hypothesis. That means that numbers highlighted in red are < 0.05.

	In Germany Mean	In the Netherlands Mean	t-value	Significance of t-value
Learning Conditions	3.46	3.70	2.02	0.045
Teaching Facilities	4.04	3.97	-0.65	0.52
Way of Teaching and Learning	2.21	2.40	1.19	0.24
Consideration of Preferences (Higher Education System)	3.00	3.02	0.12	0.91
Consideration of Preferences (Course of Study)	3.00	3.13	0.85	0.40
Employability (Bachelor)	3.57	2.92	-4.08	0.00
Employability (Master)	4.68	4.25	-3.83	0.00
National Mobility <-> Degree Mobility	2.41	2.95	2.57	0.01
International Mobility <-> Credit Mobility	3.58	4.02	3.24	0.00

International Mobility <-> Degree Mobility	3.13	3.60	2.337	0.02

Table 6 - 17 Independent samples t-test – Country of Study and Alternative Dependent Variables

Overall, there are six parts belonging to the main hypothesis which differ significantly and that are the learning conditions, the employability with a Bachelor and with a Master, and the three variables belonging to the category of mobility. The students in the Netherlands evaluate the learning conditions better than the students in Germany. The mean of the students in the Netherlands is on the scale from one to five, at which one is 'very bad' and five is 'very good', three the same as for the students in Germany. However, the mean of the students in Germany tends more to two, the mean of the students in the Netherlands tends more to four, and the probability error is near to the limit.

Secondly, the variables belonging to the category of 'Employability' differ significantly among students in Germany and students in the Netherlands, whereby the students in Germany see better chances to be employed with a Bachelor as well as with a Master. The means for the evaluation of the employability with a Bachelor are in two different categories of the scale from one to five, at which one is 'no chance' and five is 'real good chance'. The mean of the students in the Netherlands belongs to the category two and the mean of the students in Germany belongs to the category three. For employability with a Master, the means are in the same category, but again with two different trends as explained before for the learning conditions.

All variables being a part of the last category, in this case 'Mobility', differ significantly in the country of study. The students in Germany think that the support of the change of national universities is less than the students in the Netherlands do. Both means belong to the second category of the five-point scale, at which one is 'not supported' and five is 'strongly supported'. However, both means show an opposite tendency. It is to add that the scale is valid for all of the three types of mobility. To go on, there is the mobility, which everybody calls a ' temporary study abroad' and that is seen by the German students less supported than the students in the Netherlands do. The means are in two different categories, the students in Germany chose in average category three and the students in the Netherlands chose category four. The last kind of mobility is an international change of the university for doing another degree. Again, the students in the Netherlands think that this kind of mobility is more supported than the students in Germany do and the means are in the same category. In this case, it is category three. However, again their tendencies go in two different directions.

Again, another variable let recognise significant differences and this is the 'Course of Study (Biglan Model)'. Table 6-18 displays the most important information and the in red highlighted probability errors are < 0.05 and confirm potential rival explanations in contrast to country of study and country of origin.

	Soft Sciences Mean	Hard Sciences Mean	t-value	Significance of t-value
Learning Conditions	3.54	3.51	0.22	0.83
Teaching Facilities	3.86	4.12	-2.67	0.01
Way of Teaching and Learning	2.37	2.19	1.35	0.18
Consideration of Preferences (Higher Education System)	2.99	3.02	-0.21	0.83
Consideration of Preferences (Course of Study)	3.04	3.04	-0.03	0.98
Employability (Bachelor)	2.87	3.73	-5.85	0.00
Employability (Master)	4.12	4.84	-8.28	0.00
National Mobility <-> Degree Mobility	2.75	2.41	1.74	0.09
International Mobility <-> Credit Mobility	3.81	3.61	1.46	0.15
International Mobility <-> Degree Mobility	3.44	3.14	1.55	0.13

Table 6 - 18 Independent samples t-test – Course of Study (Biglan Model) and Alternative Dependent Variables

The course of study (Biglan Model) can be an explanation of different perceptions in the case of three variables. These variables are the teaching facilities and the two variables belonging to the category ‘Employability’. Students of the soft sciences evaluate the teaching facilities worse than the students of the hard sciences do, but both groups are not dissatisfied. The mean of the soft sciences students falls in category three labelled as ‘okay’ and the mean of the hard sciences students falls in category four labelled as ‘good’.

In addition, the different perceptions of the two variables of the category ‘Employability’ can be explained by the course of study (Biglan Model). The students of the soft sciences evaluate the chance to be employed worse than students of the hard sciences. The mean of the students of the soft sciences falls in category two and the one of the students of the hard sciences in category three of the five-point scale. This scale, valid for employability with a Bachelor and a Master, is labelled from one = ‘no chance’ to five = ‘real good chance’. Again, the students of the soft sciences evaluate the chances to be employed with a Master worse

than the students of the hard sciences. Nevertheless, both evaluate the chances still better than the ones to be employed with a Bachelor. This conclusion can be drawn by looking at the means of the two groups, which are in category four but with contrary tendencies.

Table 6-19 presents the most important information of the t-tests of the grouping variable 'Location of Studies related to Tuition Fees'. The two groups of the grouping variable differ significantly in the perception of three dependent variables and have a probability error < 0.05.

	Location of Studies with High Tuition Fees Mean	Location of Studies with Low Tuition Fees Mean	t-value	Significance of t-value
Learning Conditions	3.54	3.42	0.72	0.48
Teaching Facilities	4.05	3.79	1.86	0.06
Way of Teaching and Learning	2.32	2.06	1.33	0.16
Consideration of Preferences (Higher Education System)	2.96	3.22	-1.40	0.16
Consideration of Preferences (Course of Study)	2.96	3.42	-2.45	0.02
Employability (Bachelor)	3.46	3.03	2.00	0.046
Employability (Master)	4.60	4.31	2.28	0.02
National Mobility <-> Degree Mobility	2.53	2.68	-0.54	0.59
International Mobility <-> Credit Mobility	3.71	3.54	0.89	0.38
International Mobility <-> Degree Mobility	3.26	3.29	-0.10	0.92

Table 6 – 19 Independent samples t-test – Location of Studies <-> Tuition Fees and Alternative Dependent Variables

The perception of the consideration of the preferences in modules in the course of study and again of the variables of 'Employability' differs significantly between the two groups.

At first, the students of a location of studies with high tuition fees evaluate the consideration of the preferences in modules as less often than students of a location with low tuition fees. The mean of the students of a location of studies with high tuition fees belongs to category

two labelled as 'sometimes' and the mean of students with low tuition fees to category three, which has no label. Category three is the middle of the five-point scale, at which one means 'never' and five means 'always'.

Besides the before mentioned variables being explanations of the different perceptions of the variables of 'Employability', the location of studies related to tuition fees is it, too. That means that the students of a location with high tuition fees evaluate the chances to get a job with a Bachelor as higher than the students of a location with lower tuition fees. Contrary, the students of a location with higher tuition fees evaluate the chances to get a job with a Master as lower than students of a location with lower tuition fees. All of the variables' means are in or very close to category three, but they show different tendencies. All in all it can be said that chances to be employed are seen as equal to the chances to get a place at the university.

Sequently, table 6-20 displays the information of the t-tests of the grouping variable 'Bologna Process Knowledge'. One can recognise two significant differences, highlighted in red. Thus two probability errors < 0.05 are existent.

	Bologna Process Knowledge Mean	No Bologna Process Knowledge Mean	t-value	Significance of t-value
Learning Conditions	3.53	3.51	0.17	0.86
Teaching Facilities	4.05	3.94	1.04	0.30
Way of Teaching and Learning	2.25	2.29	-0.23	0.82
Consideration of Preferences (Higher Education System)	3.05	3.00	0.35	0.73
Consideration of Preferences (Course of Study)	3.00	3.02	-0.12	0.91
Employability (Bachelor)	3.48	3.19	1.81	0.07
Employability (Master)	4.62	4.40	2.23	0.03
National Mobility <-> Degree Mobility	2.45	2.86	-1.83	0.07
International Mobility <-> Credit Mobility	3.69	3.68	0.04	0.97
International Mobility <-> Degree Mobility	3.15	3.63	-2.16	0.03

Table 6 – 20 Independent samples t-test – Bologna Process Knowledge and Alternative Dependent Variables

All in all, the perception differs of the employability with a Master and of the international change of a university.

To begin with, the students who have subjectively perceived knowledge of the Bologna Process assess the chances to be employed as a Master better than the students without this knowledge. Nevertheless, the means are relatively close to each other and fall in category four of the five-point scale, at which one is 'no chance' and five is 'real good chance'. Thus, both groups rather tend to say that it is possible to be employed with a Master.

In addition, there is the international change of a university, which the students with subjectively perceived knowledge of the Bologna Process evaluate as less supported than the students without this knowledge. Once more, the means of the both groups are in the same category. This time it is category three which is labelled as 'generally supported, but with difficulties', but they show different tendencies.

As last table presenting the important information of the grouping variable 'Degree Programme' there is table 6-21. In addition to the significant difference in the perception of the overall satisfaction one can identify another significant difference. Thus the significance of the t-value is < 0.05 and highlighted in red below.

	Bachelor Degree Programme Mean	Master Degree Programme Mean	t-value	Significance of t-value
Learning Conditions	3.52	3.56	-0.27	0.79
Teaching Facilities	3.98	4.17	-1.54	0.13
Way of Teaching and Learning	2.24	2.37	-0.80	0.43
Consideration of Preferences (Higher Education System)	2.99	3.26	-1.64	0.10
Consideration of Preferences (Course of Study)	2.93	3.26	-1.88	0.07
Employability (Bachelor)	3.46	3.16	1.57	0.12
Employability (Master)	4.56	4.57	-0.04	0.97
National Mobility <-> Degree Mobility	2.44	2.97	-2.34	0.02

International Mobility <-> Credit Mobility	3.65	3.87	-1.39	0.17
International Mobility <-> Degree Mobility	3.17	3.53	-1.68	0.09

Table 6 – 21 Independent samples t-test – Degree Programme and Alternative Dependent Variables

The other significant difference is the perception of the mobility describing the national university change. The students who are in a Bachelor programme determine the national university change as less supported than the students who are in a Master programme. Both means are attributed to category two of the five-point scale. It is scaled from one, labelled as 'not supported', to five, labelled as 'fully supported'. Thus, both groups seem to feel not very much supported. However, the mean of the students in a Master programme clearly tends to category three and the mean of the students in Bachelor programme does not.

Thereafter, I analyse the last variable being a part of the overall satisfaction which is the variable about the top dissatisfying perceived condition of the students in the two countries. With the help of table 6-22 in the appendix I identify that with a percentage of 25.8 most of the students in Germany chose the number of working places in the university. This choice belongs to the category of learning conditions. With 29.9% the students in the Netherlands chose the number of working places in the library. The conditions of seminar rooms, which belong to the category of teaching facilities, both groups of students chose the least.

After the quantitative analysis of all the factors related to the overall satisfaction in variation on the different grouping variables I can identify 'Engagement in Study' clearly as no potential rival explanation. Overall, the other grouping variables can be ranked due to the times a significant difference appeared. Most often, six times, the country of study is an explanation of different perceptions of parts of the main hypothesis. Three variables come in second with three times showing significant differences and that are the country of origin, the course of study (Biglan Model) and the location of studies related to tuition fees. On the third place the variable 'Bologna Process knowledge' is to be found with two times being a significant explanation. Lastly, once more occurring as explanation beside as one for the overall satisfaction, there is the grouping variable degree programme.

In the following, I present the main results of the open questions in a qualitative analysis. To begin with, after having read the answers I identified three open questions and their answers as relevant to the research. The first one is the question concerning the subjectively perceived knowledge about the Bologna Process. Secondly, there is the question about the top dissatisfaction condition. Lastly and most of interest, there is the question about the overall biggest problem in the higher education system. I reflect impressions of frequencies of the answers and highlight typical answers as examples.

Overall, especially students in Germany gave very similar answers to all of the questions. The students in the Netherlands stayed rather focused on the topic. The students in Germany show in the question about the Bologna Process knowledge that they know about the most important goals of the Bologna Process. Most frequently, they mention aims such as the introduction of the Bachelor-Master-System. Thereafter, most of the answers are

related to the effort to make degrees comparable European wide and to the promotion of mobility. Anyhow, after having given an answer to the actual question, they directly start to complain about the Bologna Process. In the majority of the cases, they compare the Bachelor with the ‘Diplom’ and the statement is mostly like the following example, “In Deutschland ist der Bachelor nicht so ‘wertig’ wie ein Diplom” (Case 222). In secondly most instances they complain about the implementation of the two-cycle system, especially the workload is calculated wrongly in their eyes and important practical experience cancelled due to the pressure of time. They make statements like, “Das größte Problem ist, dass der Stoff reingepresst wird” (Case 361), which is additionally a new issue that came up. Furthermore, the third most answers are about the bad evaluation of the chances to get a job without a Master together with the complaint about the too small number of Master study places. This objection stands in contrast to the quantitative analysis, which showed students in the Netherlands more pessimistic about that issue than the ones in Germany. A written example reflecting the claim is that “companies don't want Bachelor graduates, they want Master” (Case 333). A lot of the listed complaints are summarised by the statement case 342 made, “it is the change of the structure of our study. Before this has started, we could do a "Diplom" in Germany. Now, we just can do a Bachelor (education Standard a little bit lower than Diplom) or later a Master (education Standard a little bit higher than Diplom). The problem is that not everyone gets a place to do a Master”. Some of these issues are related to the findings, which I present in the next section. These answers are typical for the students in Germany and run like a thread through all of the three questions mentioned. In addition, a few answers to the top dissatisfaction condition and to the biggest problem in the higher education system the students gave were related to the social dimension, such as tuition fees or the overall restriction of entry; whereas those answers were never given to the question about the Bologna Process. For the students in the Netherlands it is obvious that they focus on the topic the question requests. They only mention their knowledge about the Bologna Process, which is mainly about the Bologna objectives. The open question concerning the top dissatisfaction condition the students in the Netherlands answered very rarely while most of them left it blank. When they assess the biggest problem of the higher education system, they mention most frequently the ‘langstudeerde boete’ and the changes in the financial support system for students. Reflecting statements are, “Met de nieuwe langstudeerboete worden nieuwe studenten gedemotiveerd om moeilijkere en langere technische studies te kiezen” (Case 78) and “The "langstudeerboete". Students will have less time to develop themselves and will be less active with extra-curricular activities” (Case 93).

After having presented the data, in the next section I interpret the results in relation to the research question and illustrate the potential and consequential relations.

6.4 Answers to the Research Question

In the following, I present a more explicit interpretation of the quantitative results. I specify relations so that the research question can be answered as detailed as possible. First, I answer the main research question. Then, I identify alternative explanations. Afterwards, I add a coherent story by giving briefly important results for the other variables forming a part of the overall satisfaction and their explanations. Finally, I relate everything to each other so that the research question is answered the best way.

All in all, I summarise the results as answer to my research question as follows:

1. *Students in Germany differ significantly in their overall satisfaction compared to students in the Netherlands. More precisely, students in Germany are overall less satisfied with their studies than students in the Netherlands.*

2. *Students from Germany do not differ significantly in their overall satisfaction compared to students from the Netherlands. More precisely, students from Germany are neither overall less nor more satisfied with their studies than students in the Netherlands.*

Thus, I can confirm one part of my main hypothesis regarding the country of study and partly, I can answer my research question positively. However, the other part regarding the country of origin I have to reject as explanation. Furthermore, I have to add that I assume that the sample size of the two groups of the variable country of origin influenced the result since the distance in the difference of the two means is the same as for the variable country of study. The small number of Dutch students is a logical explanation for the different outcomes. In addition, I have to remind that the significance of the t-value in case of the country of study is only marginally with 0.04. In consequence, I can conclude that students in Germany and the Netherlands do hold different perceptions of the Bologna Process, but there have to be more significant ones. Therefore, I explored alternative explanations connected to the second part of my research question concerning other related factors to perceptions. Hence, I tested grouping variables as related factors, as presented in the third part of this chapter. I assumed especially the course of study having an effect on the overall satisfaction. However, this turned out to be insignificant. The only other variable being a potential explanation of the different perceptions is the degree programme. Thus, the overall satisfaction of students in a Bachelor degree programme differs compared to students in a Master degree programme. More precisely, students in a Bachelor degree programme are less satisfied than the students in a Master degree programme, but both means fall in category three. Hence, both groups are moderately satisfied and assessed similar to the students in Germany and the Netherlands. Nevertheless, the distance between the means of the Bachelor and Master students is bigger and thus, the p- value is more significant.

Since I want to search for a coherent story and since the degree programme was never discussed as potential explanation in my thesis before, I looked more into detail. Thus, I chose to explore the potential explanations of the variables forming a part of the main dependent variable ‘overall satisfaction’. In consequence, I tested the variables belonging to the categories ‘Teaching and Learning Conditions’, ‘Employability’ and ‘Mobility’. In the following, I display a potential coherent story for each of them.

In the category ‘Teaching and Learning Conditions’ neither the different perceptions of ‘The Way of Teaching and Learning’ nor of ‘The Choice of Modules within the Higher Education System’ can be explained by the grouping variables. Thus, a follow-up study is needed in these two cases. Furthermore, there is no clear pattern in explanations of the other variables belonging to this category since there are four different variables as explanations. Those variables are the country of study, the country of origin, the course of study and the location of studies related to tuition fees. There is a relation between the country of study and the perception of the learning conditions and of the perception of the teaching facilities. The perception of the teaching facilities is as well related to the course of study (Biglan Model). In addition, there is a relation between the location of studies related to tuition fees and the

perception of the choice of modules within the course of study. Thus, there are real and statistically significant relations, but still a variable telling a coherent story is needed.
As next step, I deliver more insight into the category 'Employability' and the associated variables. Overall, as one can see in table 6-18, the students in Germany seem to have a more positive attitude against the Bachelor as degree than students in the Netherlands. This finding contrasts the results of the survey of the potential problems of the two groups. According to this, only students in Germany make this issue public. A possible reason for the more positive evaluation than expected is the large amount of pedagogy students in the German sample. Normally, it is enough to have a bachelor to be employed in this field. All in all, I can conclude that the students have a more positive attitude against the Master as degree in the direct comparison with the Bachelor as degree. Additionally and opposite to my expectation according to the comparison of the potential problems is that the students from or in the Netherlands have a more negative attitude against the employability with both degrees. Even in the open questions only students in Germany listed this issue. The analysis of the t-tests of 'Employability with a Bachelor Degree' and 'Employability with the Master Degree' indicated several variables as explanation. I specify the actual and statistically significant relations in the following. The grouping variable country of study is related to the different perception of the employability with a Bachelor degree and the employability with a Master degree. The same applies to the grouping variables location of studies related to tuition fees and course of study. Furthermore, the country of origin stands in relation to the perception of the employability with a Bachelor degree. Moreover, the employability with a Master degree has a second explanation, too, which is the Bologna Process knowledge. In this category, one can recognise a coherent pattern since three variables are the same as explanations, and that are 'Country of Study', 'Course of Study' and 'Location of Studies <-> Tuition Fees'. That indicates that these three variables correlate with each other and may be 'manifest indicators' of a single, deeper factor.

I can easily summarise the results for the variables concerning 'Mobility' since the explanation is, except for two additional relations with the variable national mobility related to degree mobility, the same applies for all of them. The explanation of the differences in the perceptions applying to all of them is the country of study; the two exceptions related to national mobility related to degree mobility are the degree programme and the country of origin. Hence, it is clearly to see that the country of study is an explanation of the perception of the different kinds of mobility since it shows statistically significant differences in the means. Since the sample of Dutch students is not big, I rather expect the country of study to be the explanation of the different perceptions. Thus, the study's results indicate that the perception of 'Mobility' differs among students in Germany and students in the Netherlands. The outcome of the category 'Mobility' and the variable 'International Mobility related to Credit Mobility' which can be translated in the more usual expression of a temporary study abroad reflects findings of the final report about the 'Social and Economic Conditions of Student Life in Europe, Synopsis of indicators'. This report draws the conclusion that "countries in which a comparatively large share of students fears the progress of their studies being hampered by foreign enrolment periods are Portugal, Austria and above all Germany" (Orr, Gwosc, & Netz, 2011, p.176). Thus, the result that students in Germany assess the temporary study abroad as less supported than students in the Netherlands, displayed in table 6-18, confirms this finding. Furthermore, the category the students in Germany chose in average is labelled as 'generally supported, but with difficulties' and that is reflected by the

report, which mentions students' difficulties like being hampered in the progress of their studies due to a foreign enrolment period.

Overall, after having had a look upon the outcomes of the t-tests, which I discussed in the text before and wrote down precisely in this section, I can identify the country of study as a very influential factor. Due to serving as actual and statistically significant explanation most of the time the 'Country of Study' seems to be very important in the explanation of several differences. More specifically, it explains the perception of the Bologna Process, e.g. learning conditions, teaching facilities, employability, and mobility. I discuss these findings more in detail in the following and last chapter of this thesis.

7. Conclusion and Discussion

In the following, I shortly reflect on my study and on the main findings. Furthermore, I discuss limitations and potential follow-up studies treating them.

In my thesis I dealt with the Bologna Process in Germany and the Netherlands. I wanted to answer the question to which extent students from or in Germany and the Netherlands hold different perceptions of the Bologna Process. Furthermore, I wanted to investigate the factors to which the perceptions are related. I found the answer to my research question by using the following approach. At first, I identified that the problem of different perceptions exists. Then, I defined the Bologna Process in more detail to which I linked the potential problems of the two student groups afterwards. In consequence of the comparison of these problems I developed my main hypothesis and conceptual framework. Thereafter, I conceptualised and operationalised the variables according to the identified problems. In addition, with the help of the cross-sectional design and an electronic questionnaire asking for the assessment of the variables I analysed the different perceptions. After the analysis it become apparent that my main hypothesis was partly confirmed and partly rejected and thus I made further elaborations, which I reflect on more detailed in the next paragraph.

As presented some satisfactions or rather perceptions differ significantly in variation on the grouping variables. Nevertheless, there is not the one, same and main factor that can explain a publicly different perception to refer to the research question. Thus, correlations were found with more specific variables after the test if other parts of my original hypothesis can be maintained, too. Moreover, most alternative explanatory variables for the overall satisfaction did not perform better, such as study course, knowledge of the Bologna Process and location of studies related to tuition fees; only degree programme did so. Thus, the overall satisfaction does not only depend on the country in which a student studies.

The main findings for the category 'Learning and Teaching Conditions' are an incoherent pattern in the explanations. Four different grouping variables work as explanations, but there is none for the perception of the way of teaching and learning and of the choice of modules within the higher education system. The answers to the open questions tend to be similar. The Dutch focus on the complaints about their living conditions due to the 'langstudeerder boete' and the potential negative effects on the learning conditions, such as the lack of time for extra-curricular experiences, as a result of the established financial punishments. The German students mention problems related to this, too, but more often and in different ways. They complain about the amount of the tuition fees, the amount of workload and the

exclusion of practical experiences. Thus, the result can be a significant difference in the perception of the learning conditions. Furthermore, both groups do not really mention answers related to the choice of modules and the category of the way of teaching and learning. Only some of the German students mention ‘Verschulung’ as their problem. That could mean that both groups do not really differ in their perception of these two variables.

Another finding is that the more specific variables belonging to the category ‘Employability’ are explained by a more coherent pattern of grouping variables. These variables are country of study, the course of study and the location of studies related to tuition fees. The students’ answers to the open questions reflect the result since German students rather tend to complain about the chances to get a job with a Bachelor degree. They add that the former ‘Diplom’ had a bigger value than the new degrees. As investigated by the analysis, this is contrary to the quantitative results since the students in the Netherlands showed a more negative attitude about the employability with the new degrees. This attitude could be related to the current worse economic conditions, meaning higher unemployment, in the Netherlands. However, they did not mention a critical answer related to employability in the open questions. Summarised of this category I can say that a single and deeper factor may explain the different perceptions of the employability with a Bachelor and Master. Thus, for a follow-up study I would suggest a factor analysis of the various independent variables.

The last main finding is related to the category ‘Mobility’. Within this category the three variables are definitely explained by a common grouping variable, which is ‘Country of Study’. Furthermore, the perception of the change of a university within the own study country is explained by two other grouping variables, but they did not perform better. Thus, I explored the open questions for possible reflections on this finding. The answers, especially concerning the knowledge of the Bologna Process, are related to mobility. One recognises that only German students mention the problem with the change of national universities. Furthermore, students in Germany and the Netherlands always stress that the Bologna Process is an attempt to improve the mobility of students studying temporarily abroad as well as to change the university internationally. In addition, they use the attributes ‘try’ and ‘should’ or add comments about the not working of the mobility objectives. Thus, one gets the impression that both groups still see difficulties, which the statistical results reflect. They display that the students in both countries rather chose category three. All in all, students in Germany complain more about the not working of the mobility, which one can recognise by more comments after the qualitative. Thus, the country of study is a good explanation of the perceptions of mobility. Of course, there are as well limitations. In this case, it is the composition of the sample of students in the Netherlands, which consists of a lot of Germans. Therefore, one can assume that exactly the Germans who are already mobile drive the difference. However, after the analysis of the means of students being German and studying in Germany and of the students being Dutch and studying in the Netherlands this assumption is rejected. One can review the means of all three kinds of mobility in table 6-23 in the appendix.

One thing stands out and that are the correlations with more of the specific dependent variables, but not with overall satisfaction. I assume that overall satisfaction is too broad conceptualised as well as operationalised. I conceptualised overall satisfaction in a broad sense and related it to the studies the respondent is doing. Additionally, I expected the respondent to have their own concept of overall satisfaction in their mind. Furthermore and

related top the operationalization, I labelled only two categories of the overall satisfaction, which are the extremes. Thus, the respondent had to interpret the other categories him-/herself and thus, it could be that the middle of the five-point scale was the easiest to choose. This one can see as reflected by the coefficient of variation of the assessment of the overall satisfaction of the two groups. With 0.26 for the students in the Netherlands and with 0.27 for the students in Germany the coefficient is < 1and thus the variation is low. I assume it would have been better to label each of the categories to get results as precise as possible. Another hint for this theory is that the more specified conceptualisations and operationalisations of the variables forming a part of the overall satisfaction resulted in more precise answers of the respondents. This shows that specification stands a higher chance of results as exact as possible.

As one can realize, my findings are limited. The limitation is not only about the interpretation. On the one hand, obvious conditions of the data, such as the size of the whole sample, the size of the groups of the countries of study as well as the distribution of universities in the Netherlands and the distribution of students in the different courses of study limit the significance as well as the generalisability. Certainly, the way of sampling influences the sample size since I did not only focus on the nationality of the students, but also on the course of study. This method minimised the number of students as potential contacts. This could have resulted in the small sample size of the students from the Netherlands, too, which is also a reason for the difficulties to generalise the findings related to them. Furthermore, the distribution of students from different universities is very uneven since the German sample is very predominated by students from the university of applied sciences Munich and the Dutch sample is very predominated by students from the University of Twente. Besides, all of the students from Munich study industrial engineering, which is consequentially the predominant course of study. All of these factors limit my findings in the way than an equal distribution facilitates me the generalisation of the results. On the other hand, time and money play a limiting role and thus, the data received had to be taken. Furthermore, statements like “High tuition fees in Munich - very hard to study for poorer students” (Case 281) and “Tuition fees, which one still have to pay in some states, are not affordable for everyone. Bafög does not consider this fact, still gives the same amount of money, even less.” (Case 434) show that other factors could play a role in explaining different perceptions. These factors are for example tuition fees or the student support systems and from it potentially resulting discrimination, listed in the middle category of figure 3-1. The location of studies related to the amount of tuition fees was tested as potential explanation, but without combining the ‘real’ evaluation of the variable ‘Tuition Fees’ the students made and the country of study or the country of origin. This shows again the need for a factor analysis in a follow-up study, but the period of time was too short and the focus should not get lost.

To face the before mentioned problems, in a follow-up study, it would be better to do face-to-face interviews to get more students, especially on the Dutch side. Additionally, the researcher knows the sample from which the students are selected and has the possibility to interview people who rather decide not to take part in electronic surveys. Moreover, he/she can hold the people focused on the questions. Then, the time period should be longer and the financial situation better so that the researcher can travel from university to university so that the sample is of a broader range, in the courses of study as well as universities. The researcher can focus more on specific types of students, such as the ones working in study

related organisations. Very important are the statistical methods, which combine more variables to test a potential chain of relations. Thus, I suggest a factor analysis, again.

Finally, I draw the conclusion that my expectations are partially confirmed since I have to reject one part of my research question. It is positive to recognise that the overall satisfaction or rather perception depends on the country of study. Furthermore, actual correlations and explanations of parts of the main hypothesis were found and the country of study is a very influential factor as it is shown by the correlations, too. Lessons to be learned of this study are that although the Bologna Process should help to create a ‘European Higher Education Area’ still the perceptions differ and reforms are needed to unify the students across Europe. Furthermore, I hope having contributed to the comprehension of the Bologna Process and the effects on the European students.

Reference list

Anonymus (2009). *The Bologna Process in Higher Education in Europe – Key indicators on the social dimension and mobility*. (2009). Luxembourg: European Commission.

Alesi, B., Bürger, S., Kehm, B. M., & Teichler, U. (2005). *Stand der Einführung von Bachelor- und Master-Studiengängen im Bologna-Prozess sowie in ausgewählten Ländern Europas im Vergleich zu Deutschland*.

Bienefeld, S., & Almqvist, J. (2004). Student Life and the Roles of Students in Europe. *European Journal of Education, 39*(4), 429-441.

Biglan, A. (1971). Relationships Between the Characteristics of Academic Tasks and the Structure and Output of University Departments.

Bognanni, M. (2009). Heißer Herbst an Deutschlands Unis. stern.de Retrieved 29th February, 2012, from http://www.stern.de/politik/deutschland/bildungsstreik-heisser-herbst-an-deutschlands-unis-1522566.html

Babbie, E. R. (2010). *The Practice of Social Research*: Wadsworth Cengage.

Belleman, B. (2012). 'Bemoeizucht bedreigt academische vrijheid'. *Weekblad van de Technische Universiteit Delft*. Retrieved from http://www.delta.tudelft.nl/artikel/-bemoeizucht-bedreigt-academische-vrijheid/24998

Bologna Process (2009). Ministerial Declarations and Communiqués .The official Bologna Process website July 2007–June 2010 at http://www.ond.vlaanderen.be/hogeronderwijs/bologna/documents/, Retrieved 8th February 2012.

Cook, T. D. (2001). Generalization: Conceptions in the Social Sciences. *International Encyclopedia of the Social & Behavioral Sciences*, 6037-6043.

Deem, R. (2006). Conceptions of Contemporary European Universities: to do research or not to do research? *European Journal of Education, 41*(2), 281-304.

de Vaus, D. A.(2001). *Research Design in Social Research*.

de Weert, E. (2010). *The Netherlands*. Enschede: CHEPS.

de Wit, H. (2006). European Integration in Higher Education: The Bologna Process Towards a European Higher Education Area. International Handbook of Higher Education. In J. J. F. Forest & P. G. Altbach (Eds.), (Vol. 18, pp. 461-482): Springer Netherlands.

Dillman, D. A. (2007). *Mail and Internet Surveys: The Tailored Design Method*: Wiley.

Garben, S. (2011). *EU Higher Education Law: The Bologna Process and Harmonization by Stealth*: Kluwer Law International.

Gardner, M. (2009). GERMANY: Student protests continue. University World News Retrieved 29th February, 2012, from http://www.universityworldnews.com/article.php?story=20091218104206101

Gerring, J. (2011). How Good Is Good Enough? A Multidimensional, Best-Possible Standard for Research Design. *Political Research Quarterly, 64*(3), 625-636.

Gerring, J. (2012). Social Science Methodology - A Unified Framework. In C. U. Press (Eds.)

Kehm, B. M. (2011). Where does Germany stand in international comparison? *Arbeitspapier: Der Bologna-Prozess aus Sicht der Hochschulforschung - Analysen und Impulse für die Praxis, 148*, 50-57.

Kehm, B. M., Michelsen, S., & Vabo, A. (2010). Towards the Two-cycle Degree Structure: Bologna, Reform and Path Dependency in German and Norwegian Universities. *High Educ Policy, 23*(2), 227-245.

Kelo, M, Teichler, U. & Wächter, B. (2006). Introduction. In EURODATA – Student mobility in European higher education/Maria Kelo/Ulrich Teichler/Bernd Wächter (eds.)– Bonn: Lemmens Verlags- & Mediengesellschaft, 2006

Orr, D., Gwosc, C., & Netz, N. (2011). *Social and Economic Conditions of Student Life in Europe. Synopsis of indicators Final report. Eurostudent IV 2008–2011.* Bielefeld.

otr, dpa, & AFP. (2011). Tausende Studenten protestieren gegen Bummelgebühren. *Studiengebühren* Retrieved 29th February, 2012, from http://www.spiegel.de/unispiegel/studium/0,1518,740951,00.html

Roessler, I. (2011). Bachelor auf Erfolgskurs!? Eine Überprüfung einzelner Reformziele anhand von Daten aus dem CHE-HochschulRanking. *Arbeitspapier: Der Bologna-Prozess aus Sicht der Hochschulforschung - Analysen und Impulse für die Praxis, 148*, 88-103.

Rothwell, K. (2009). Students protest across Germany. The University Observer Retrieved 29th February, 2012, from http://www.universityobserver.ie/2009/11/24/students-protest-across-germany/

Schomburg, H. (2010). *Country Report on Employability and Mobility of Bachelor Graduates in Germany*. Berlin: International Conference “Employability and Mobility of Bachelor Graduates in Europe”.

Sergan, N. (2009). Forderungen der Studierenden. *Bundesweiter Bildungsstreik* Retrieved February, 2012, from http://bildungsstreik2009.de/

Shadish, W. R., Cook, T. D., & Campbell, D. T. (2002). *Experimental and quasi-experimental designs for generalized causal inference*: Houghton Mifflin.

Stone-Romero, E. F. (2002). The Relative Validity and Usefulness of Various Empirical

Research Designs. In S. G. Rogelberg (Ed.), *Handbook of Research Methods in Industrial and Organizational Psychology*: John Wiley & Sons.

Toens, K. (2009). The Bologna Process in German Educational Federalism: State Strategies, Policy Fragmentation and Interest Mediation. *German Politics, 18*(2), 246-264.

Tuomi, I. (2005). *The Future of Learning in the Knowledge Society: Disruptive Changes for Europe by 2020*.

The European Ministers of Education (1999). Joint Declaration of the European Ministers of Education - The Bologna Declaration of 19 June 1999. Bologna

The European Students Union (2009). *Bologna with student eyes 2009*. Leuven.

van Vught, F., van der Wende, M.C & Westerheijden, D.F. (2002). Globalisation and internationalisation: Policy agendas compared. In: J. Enders & O. Fulton (eds.), Higher education in a Globalising World. Dordrecht: Kluwer Academic Publishers, ISBN 1-4020-0863-5, pp. 103-121

Wächter, B. (2004). The Bologna Process: developments and prospects. *European Journal of Education, 39*(3), 265-273.

Walkenhorst, H. (2005): Europeanisation of the German education system, German Politics, 14:4, 470-486

Westerheijden, D. F., et. al (2010). *The first decade of working on the European Higher Education Area: The Bologna Process Independent Assessment*. Enschede.

Winter, M. (2011). Die Revolution blieb aus: Überblick über empirische Befunde zur Bologna-Reform in Deutschland. *Arbeitspapier: Der Bologna-Prozess aus Sicht der Hochschulforschung - Analysen und Impulse für die Praxis, 148*, 20-35

xStudySE. (1997-2012). Studiengebühren. Retrieved 15th of July, 2012, from http://studieren.de/studium-studiengebuehren.0.html

Appendix

The Questionnaire

Section IS: Info Student

[IS01] Selection

Nationality

"Which nationality do you have?"

IS01 Nationality

1 = Dutch
2 = German
3 = Other nationality

[IS02] Selection

Study country

"In which country do you study?"

IS02 Study country

1 = In the Netherlands
2 = In Germany
3 = Other country

[IS03] Free Mentions

Study Place

"At which university do you study?"

IS03 Number of mentions

IS03x01 Mention 1

Text input

[IS04] Selection

Course of study

"What do you study?"

IS04 Course of study

1 = Psychology/Psychologie
2 = Industrial Engineering/Technische Bedrijfskunde/Wirtschaftsingenieurwesen
3 = European Studies
4 = Social Pedagogy/Sociale Pedagogiek/Sozialpädagogik oder Soziale Arbeit
5 = Primary school education/Basisonderwijs/Grundschullehramt bzw. Lehramt Sekundarstufe I
7 = (technical) Physics/(technische) Natuurkunde/(technische) Physik
6 = Other, namely:

IS04_06 Course of study/Other, namely:

Text input

[IS09] Selection

Study cycle

"Which degree programme do you follow?"

IS09 Study cycle

1 = Bachelor
2 = Master
3 = Other, namely:

IS09_03 Study cycle/Other, namely:

Text input

[IS06] Selection

Engagement in studies

"Are you working in a student organisation or another organisation dealing with your study course?"

IS06 Engagement in studies

1 = Yes, I work for
2 = No
-9 = Not answered

IS06_01 Engagement in studies/Yes, I work for

Text input

[IS08] Selection

Study length

"In which semster are you right now?"

IS08 Study length

1 = 1st semester
2 = 2nd semester
3 = 3rd semester
4 = 4th semester
5 = 5th semester
6 = 6th semester
7 = 7th semester
8 = 8th semester
9 = 9th semester
10 = 10th semester
11 = 11th semester
12 = 12th semester
13 = More than 12 semesters

[IS10] Selection

Bologna Process Knowledge

"Do you know what the Bologna Process is?"

IS10 Bologna Process Knowledge

1 = Yes, namely:
2 = No

IS10_01 Bologna Process Knowledge/Yes, namely:

Text input

Section BE: Bologna Evaluation

[BE02] Scale (fully labeled)

Overall satisfaction

"How would you evaluate your overall satisfaction with your studies?"

BE02_01 I would evaluate my overall satisfaction with my studies as

1 = not satisfied
5 = fully satisfied
-1 = don’t know
-9 = Not answered

[BE03] Scale (fully labeled)

Study abroad

"How do you evaluate the support of mobility in your country?"

BE03_01 Temporary study abroad (ERASMUS, internship etc.)

BE03_02 University change inside your country (From University of Cologne to University of Hannover etc.)

BE03_03 International University change, e.g for a Master (A student from Sweden wants to do a masters' programme at your university)

1 = not supported
3 = generally supported, but there are difficulties
5 = strongly supported
-1 = don’t know
-9 = Not answered

[BE04] Scale (fully labeled)

Chance to get a job

"How do you evaluate the chance to get a job after having graduated as a Bachelor/Master?"

BE04_01 Bachelor

BE04_02 Master

1 = no chance
3 = chance similar to students just entering university
5 = real good chance
-1 = don’t know
-9 = Not answered

[BE09] Scale (fully labeled)

Social Openness factors

"How do evaluate the following factors related to social openness/fairness within your higher education system?"

BE09_01 The system of higher education has ... tution fees.

BE09_02 The system of higher education has ... discrimination.

BE09_03 The system of higher education has ... restriction of entry in a Bachelor's degree programme (=numerus fixus/numerus clausus).

BE09_04 The system of higher education has ... restriction of entry in a Master's degree programme (=numerus fixus/numerus clausus).

1 = no/zero
2 = very low
3 = low
5 = high
6 = very high
7 = too high
-1 = don’t know
-9 = Not answered

[BE10] Scale (fully labeled)

Students' preferences

"How do you evaluate the consideration of your personal preferences?"

BE10_01 Higher education system: I and my preferences are ... considered.

BE10_02 Study course: I and my preferences are ... considered.

1 = never
2 = sometimes
4 = often
5 = always
-1 = don’t know
-9 = Not answered

[BE11] Scale (fully labeled)

Influence students/universities

"To what extent can universities and student organisations influence higher education politics, in your view?"

BE11_01 The influence of universities is ...

BE11_02 The influence of student organisations is ...

1 = none
2 = low
4 = high
5 = very high
-1 = don’t know
-9 = Not answered

[BE13] Scale (fully labeled)

Teaching and learning

"How do you evaluate the teaching and learning conditions in the higher education system?"

BE13_01 The teaching facilities are ...

BE13_02 The learning conditions are ...

BE13_03 All in all the teaching and learning conditions are ...

1 = very bad
2 = bad
3 = okay
4 = good
5 = very good
-1 = don’t know
-9 = Not answered

[BE14] Scale (fully labeled)

Schoolification

"How do you evaluate the way of teaching and learning when comparing it to teaching and learning in school?"

BE14_01 The way of teaching and learning in universities is ... to/from the one in school.

1 = completely different
2 = different
4 = similar
5 = very similiar
-1 = don’t know
-9 = Not answered

[BE15] Multiple Choice

Improvement teaching and learning

"What are the conditions leading to your dissatisfaction?"

BE15_01 Improvement teaching and learning/Number of teaching staff

BE15_02 Improvement teaching and learning/Quality of teaching staff

BE15_03 Improvement teaching and learning/Availability of teaching staff

BE15_04 Improvement teaching and learning/Number of seminar rooms

BE15_07 Improvement teaching and learning/Type of books in the library

BE15_05 Improvement teaching and learning/Conditions of seminar rooms

BE15_06 Improvement teaching and learning/Number of working places in the library

BE15_10 Improvement teaching and learning/Number of working places in the university

BE15_08 Improvement teaching and learning/Number of books in the library

BE15_09 Improvement teaching and learning/Living conditions

BE15_11 Improvement teaching and learning/Other, namely:

1 = Not checked
2 = Checked

BE15_11a Improvement teaching and learning/Other, namely: (1)

[BE16] Scale (fully labeled)

Regular period of study

"What do you think of the consequences introduced if studying longer than expected (German: Überzug der 'Rege..."

BE16_01 The consequences are ... for the student.

1 = very unfair and interest restrictive
2 = unfair and interest restrictive
4 = fair and interest nonrestrictive
5 = very fair and interest nonrestrictive
-1 = don’t know
-9 = Not answered

[BE18] Scale (fully labeled)

Involvement Students Bologna Process

"Which kind of impression do you have of the students’ involvement in the Bologna implementation process? "

BE18_01 The involvement of the students was...

1 = none
2 = low
4 = high
5 = all-dominant
-1 = don’t know
-9 = Not answered

[BE20] Free Mentions

Biggest Problem overall

"What do think in general is the biggest problem in the higher education system in the country you are studying in?"

BE20 Number of mentions

BE20x01 Mention 1

BE20x02 Mention 2

BE20x03 Mention 3

BE20x04 Mention 4

BE20x05 Mention 5

BE20x06 Mention 6

BE20x07 Mention 7

BE20x08 Mention 8

BE20x09 Mention 9

BE20x10 Mention 10

Text input

Tables

Table 6-5

Location of Studies <-> Tuition Fees		
	Frequency	Percent
High Tuition Fees	204	13.6
Low Tuition Fees	33	84.3
Missing	5	2.1
Total	242	100.0

Table 6-5 Location of Studies according to Amount of Tuition Fees

Table 6-6

Degree Programme	Country of Study		
	The Netherlands	Germany	Total
Bachelor	45 70.3%	149 83.7%	194 80.2%
Master	19 29.7%	28 15.7%	47 19.4%
Other	0 0.0%	1 0.6%	1 0.4%

Table 6-6 Degree Programme by Country of Study

Table 6-7

Engagement in Studies	Country of Study		
	The Netherlands	Germany	Total
Yes	13 20.3%	24 13.5%	37 15.3%
No	51 79.7%	154 86.5%	205 84.7%

Table 6-7 Engagement in Studies by Country of Study

Table 6-8

Bologna Process Knowledge	Country of Study		
	The Netherlands	Germany	Total
Yes	33 51.6%	144 80.9%	177 73.1%
No	31 48.4%	34 19.1%	65 26.9%

Table 6 -8 Bologna Process Knowledge by Country of Study

Table 6-12

	Bologna Process Knowledge Mean	No Bologna Process Knowledge Mean	t-value	Significance of t-value
Overall Satisfaction	3.43	3.43	0.02	0.99

Table 6 - 12 Independent samples t-test - Overall Satisfaction/Bologna Process Knowledge

Table 6-13

	Location of Studies with High Tuition Fees Mean	Location of Studies with Low Tuition Fees Mean	t-value	Significance of t-value
Overall Satisfaction	3.40	3.50	-0.56	0.57

Table 6 - 13 Independent samples t-test – Overall Satisfaction/Location of Studies <-> Tuition Fees

Table 6-14

	Engagement in Studies Mean	No Engagement in Studies Mean	t-value	Significance of t-value
Overall Satisfaction	3.36	3.44	-0.47	0.64

Table 6 – 14 Independent samples t-test – Overall Satisfaction/Engagement in Studies

Table 6-22

Checked Dissatisfaction Conditions	Country of Study	
	The Netherlands	Germany
Quality of Teaching staff	10 15.6%	39 21.9%
Availability of Teaching staff	7 10.9%	21 11.8%
Number of Teaching staff	7 10.9%	20 11.2%
Number of Seminar Rooms	5 7.8%	10 5.6%
Type of Books in the Library	3 4.7%	12 6.7%
Conditions of Seminar Rooms	1 1.6%	9 5.1%
Number of Working Places in the Library	14 21.9%	43 24.2%
Number of Working Places in the University	9 14.1%	46 25.8%
Number of Books in the Library	2 3.1%	21 11.8%
Living Conditions	6 9.4%	27 15.2
Other	7 10.9%	22 12.4%

Table 6 – 22 Top Dissatisfaction Condition

Table 6-23

Country of Study + Nationality	Three kinds of Mobility		
	Mean of International Mobility <-> Credit Mobility	Mean of National Mobility <-> Degree Mobility	Mean of International Mobility <-> Degree Mobility
Netherlands	4.0	3.13	3.75
Germany	3.58	2.36	3.13

Table 6 – 23 Country of Study and Nationality by Means of the three kinds of Mobility