Master thesis of Tamara Fritzler

University of Almería
Faculty of Economics and Business Studies
Master in International Business Administration
and Foreign Languages
Supervisor: Dr. David Jiménez Castillo

International student recruitment and the World Wide Web:

A content analysis of European university websites

Tamara Fritzler
Almería, 26.09.2013

Almería a 8 de septiembre de 2013

Por la presente hago constar que he dirigido y supervisado el presente trabajo, cuya autora es Dña. Tamara Fritzler. El trabajo cumple los requisitos estipulados en la normativa del *Master in International Business Administration and Modern Languages* para ser presentado y defendido.

Fdo. Dr. David Jiménez Castillo

Abstract

This study investigates the extent to which universities exploit websites in order to increase international student recruitment. Therefore, 40 European institution websites were content analysed in terms of information quality, system quality, cultural values and creative strategies. The majority of the universities utilize the web as an effective public relations tool providing information and usability, but fail in connecting with the publics via two-way communication and the interactivity level. Further findings reveal that creative strategies are correlated with the number of incoming Erasmus students.

Resumen

Ese estudio investiga el uso por las universidades de las páginas web para aumentar el reclutamiento de los estudiantes internacionales. Además, 40 páginas web de instituciones europeas han sido analizadas en términos de calidad de la información, calidad del sistema, valores culturales y estrategias creativas. La mayoria de las universidades utiliza la web como un instrumento efectivo de relaciones públicas, proveyendo información y facilidad de uso, pero fallan en cuanto a la conexión con el público mediante la comunicación bidireccional y el nivel de interactividad. Más descubrimientos demuestran que las estrategias creativas estan correlacionadas con el número de ingresos de estudiantes Erasmus.

Table of contents

List of tables

List of figures

1. Introduction

The increased demand on diversity in society has been significantly reflected in academic institutions. In Europe the introduction of the Erasmus programme laid the foundations for students who desire to study abroad for a certain time and has been constantly attracting many scholars within the European Union. The number of participating students has been steadily growing. According to the European Commission (2013f), which submits a report about the student mobility of the Erasmus programme each year, 3244 Erasmus students from 11 countries used the opportunity for a temporary study period abroad in the first year of the programme. Since the beginning of the programme, the number of participating students increased by 37.5% to a total of 250000 students from 33 countries in the academic year 2011/2012 who rushed to study abroad, eager to learn about different cultures and countries while at the same time improving foreign language skills in order to gain a sense of globalization (European Commission, 2013a). These increased numbers indicate that an international experience is important to students' careers, gaining more and more recognition among students and educators.

In the process of recruitment, the major public relations activities, especially among non-profit organizations, are the achievability of target publics and their conviction to join the organization (Esrock & Leichty, 2000; Liu et al., 2001; Hill & White, 2001). Every higher education institution, as a non-profit organization, pursues those goals, namely reaching prospective students and their parents in order to attract them to enrol into the university.

Media technology such as the World Wide Web is a very successful and important tool in respect to recruitment, providing universities with more effective strategies for their effort, especially within limited financial resources (Kang & Norton, 2006; Liu, 2007). The web gives higher education institutions many advantages. Especially for prospective international students who are inferior to local prospective students in terms of distance to the future university and also have little knowledge about the institutions, using the web sites of the schools in order to gather information and submit their applications is crucial and efficient. University websites expand the communication with international students and also their parents across the nations

as well as the enhancement of the universities' reputation (Chapin & Fitzgerald, 2002; Kang & Norton, 2006; Liu, 2007; Mentz & Whiteside, 2003).

Lots of studies about the usefulness of the web in several areas of public relations were already conducted such as media relations (Callison, 2003; Hallahan, 2001; Hill & White, 2001), corporate relations (Esrock & Leichty, 2000; Park & Reber, 2008), organisational relations (Liu et al., 2001; Taylor, Kent & White, 2001, 2003), governmental relations (Taylor & Kent, 2004) and financial relations (Jun & Cai, 2001; Looman & O'Loughlin, 2008; Ozdemir & Trott, 2009). On the contrary, only little research has attempted to investigate the higher education institutions' public relations efforts on recruiting international students. This study aims to investigate how websites can be a relevant public relations tool for institutions in order to increase international student recruitment. More precisely, this study examines the extent to which European universities use their websites in order to increase the academic diversity on their campus. Therefore the content of the institutions websites is to be compared in terms of information quality, system quality, cultural values and creative strategies.

2. Background

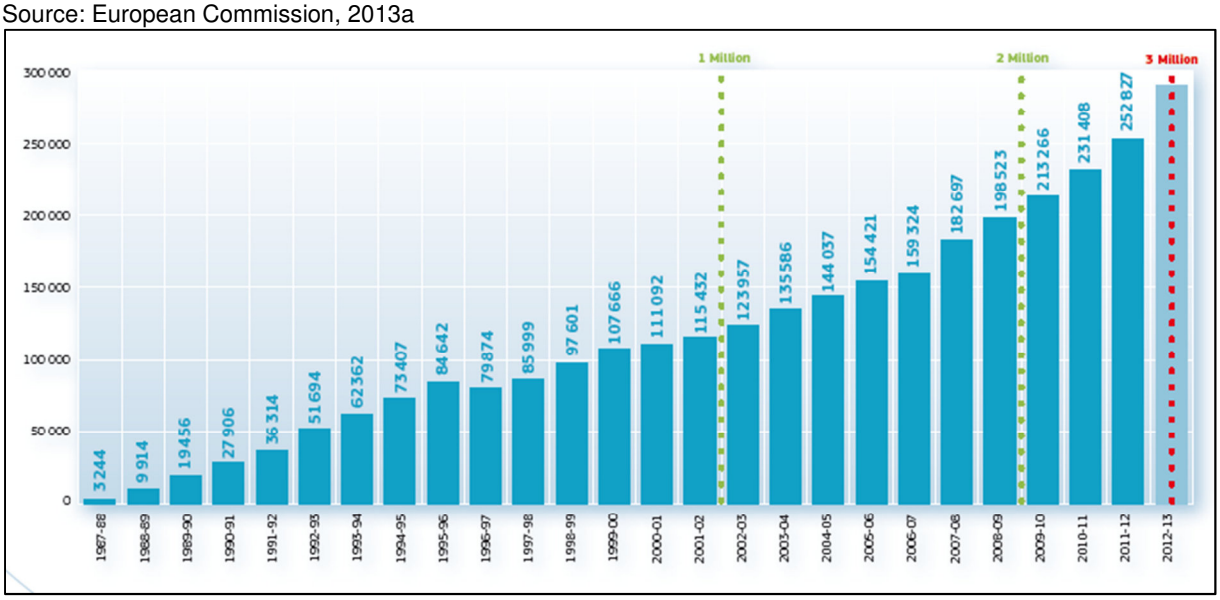
2.1. Erasmus in Europe

In 1987, the European Commission established a student exchange programme, based within Higher Education Institutions all over Europe: ERAMUS (***E**u**R**opean Community **A**ction **S**cheme for **M**obility of **U**niversity **S**tudents*), which forms the major part of the EU Lifelong Learning Programme 2007 – 2013. This programme is aimed to provide support for temporary student mobility within the European countries.[1] Since the beginning of the programme the number of participating students increased tremendously. In the first year 3244 students from eleven countries used this opportunity to study abroad for a limited period of time. (European

[1] The Erasmus programme was incorporated into the Socrates programme, which was established in 1994 by the European Commission, together with a number of other independent programmes. With the ending of the Socrates programme on 31 December 1999, it was replaced with the Socrates II programme on 24 January 2000. On 1 January 2007 then it was replaced another time by the Lifelong Learning Programme 2007–2013. (European Commission, 2013f)

Commission, 2013f) Meanwhile, in the academic year 2011/2012 more than 250000 students from 33[2] countries participated in the ERASMUS programme. The detailed trend between 1987 and 2012 of participating students is shown in Figure 1, which indicates a constant positive growth rate. (European Commission, 2013a)

Figure 1 Number of Erasmus students 1987-2012
Source: European Commission, 2013a

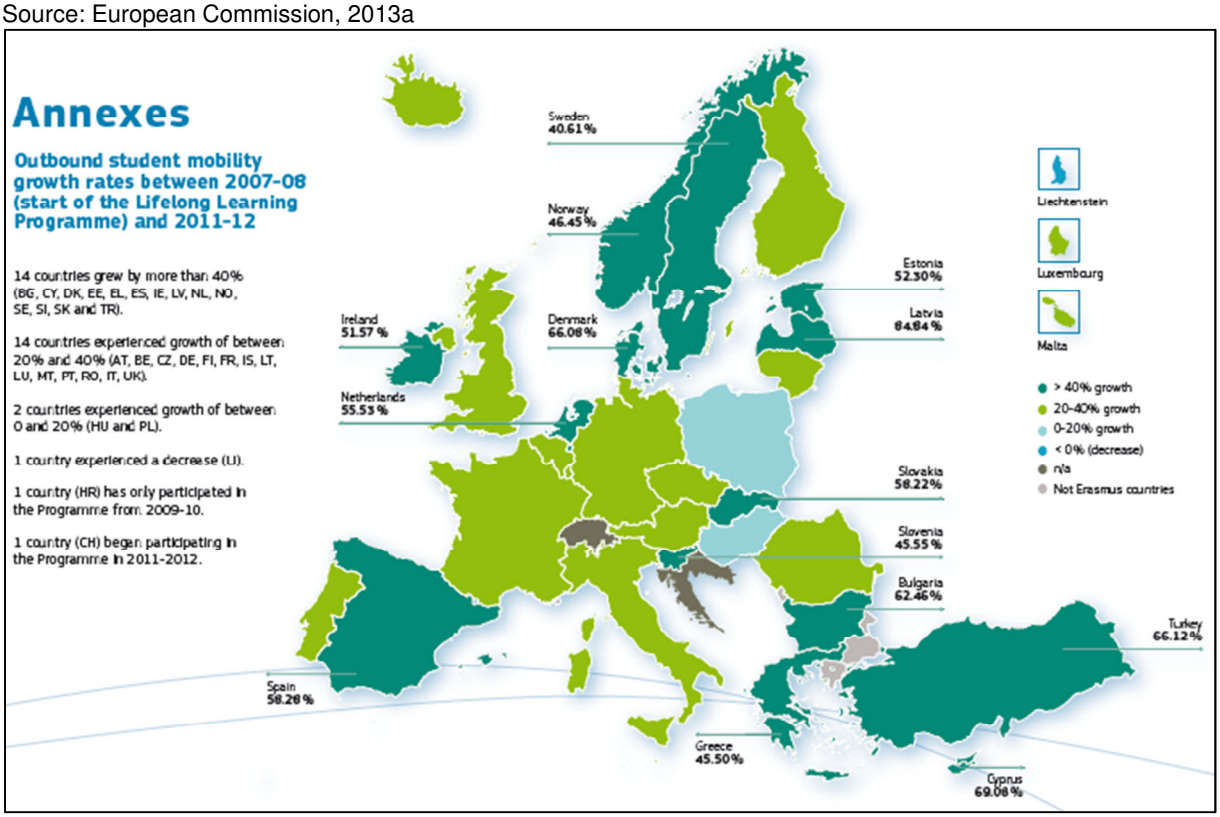


In the academic year 2011/12 the highest numbers of outgoing Erasmus students were reported in Spain (39 545), followed by Germany, France, Italy and Poland. These countries also have the largest student population among the participating countries. Figure A in Appendix shows the trend of the outgoing Erasmus student mobility for studies from 1987/88 – 2010/11 by country. It can be observed that the biggest numbers of outgoing students were always reported in the above mentioned countries (European Commission, 2012a). Nevertheless, regarding the figures of the outgoing student mobility for studies by country (% share of the student population) for example in the last academic year (2011/12), Luxemburg, Liechtenstein, Spain, the Czech Republic and Portugal show the highest percentages in comparison to other participating countries. Observing the outbound student mobility growth rates between 2007/08 and 2011/12 shown in Figure 2 it is remarkable that nearly half of the countries show a growth rate of more than 40%, as for example Bulgaria, Cyprus and Denmark, to mention some, and the other half indicates a growth rate between 20% and 40% as for instance Austria, Belgium and the Czech Republic. The most

[2] The 33 countries include the 27 EU member states, Croatia, Iceland, Liechtenstein, Norway, Switzerland and Turkey (European Commission, 2013a).

popular destinations for Erasmus students in the last academic year were again the countries with the highest student population, namely Spain, France, Germany, the United Kingdom and Italy, in which the United Kingdom receives almost as twice as many students as it sends. (European Commission, 2013a)

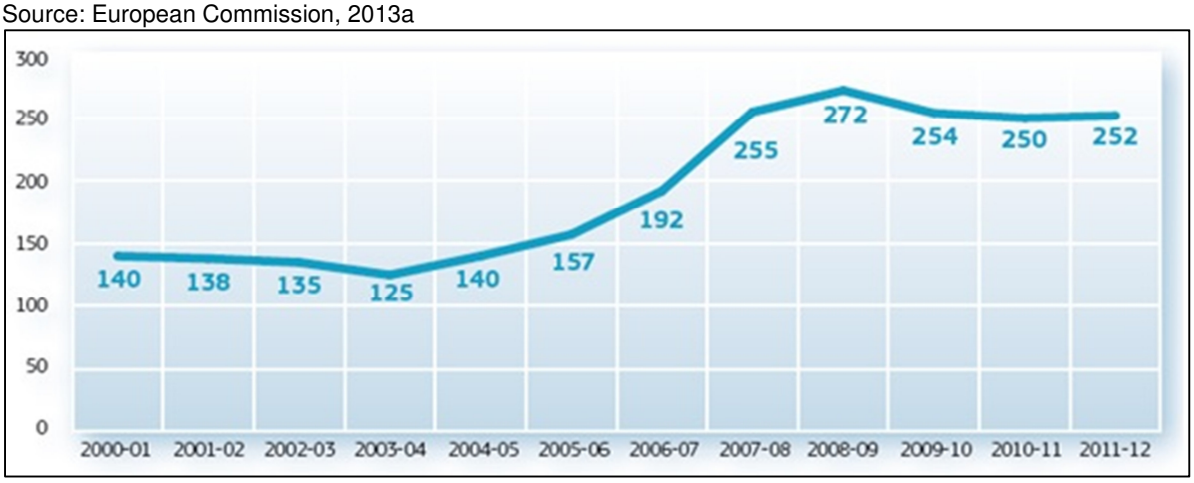
Figure 2 Outbound student mobility growth rates between 2007/08 and 2011/12
Source: European Commission, 2013a



Since the launch of the programme, the number of institutions applying for the Erasmus University Charter (EUC) characterized continuous growth, reaching the peak of 4400 institutions in the year 2011/12, 3189 of those sending students for studies and placements abroad (European Commission, 2013a). Among them, 4 out of the top 5 institutions are from Spain, namely Universidad de Granada (2101 students), Universidad Complutense de Madrid (2065 students), Universidad de Sevilla (1694 students) and Universitat de Valencia (Estudi General) UVEG (1527 students), and one Italian institution – Universitá di Bologna - ranking the third position by sending 1713 students abroad (European Commission, 2013c). The same universities share the highest numbers of incoming students in the same year, however the order differs a little bit: Universidad de Granada received the most students (2052), followed by Universidad de Sevilla (1769), Universidad Complutense de Madrid (1709), Universitat de Valencia (Estudi General) UVEG

(1698) and Universitá di Bologna (1693) (European Commission, 2013d). A budget of EUR 3.1 billion for the period 2007 – 2013 was provided for the Erasmus programme, which includes (for example) the monthly financial support for participating students. Figure 3 reveals that the monthly grant increased from EUR 140 in 2000/01 to EUR 252 in 2011/12, stagnating around EUR 252 since 2009/10. (European Commission, 2013a)

Figure 3 Average monthly EU grant for students mobility (in EUR) from 2000/01 - 2011/12
Source: European Commission, 2013a



The mobility grant is not the only advantage of a student's participation in the programme. In addition to that, the students receive a tuition fee waiver at the foreign university which reduces the costs a student has to invest for the application as well as the time needed to apply in advance in order to have no problems with the organization of a stay at a foreign institution (Parey and Waldinger, 2008). Moreover, the experience to study or work abroad for a certain period contributes to one's personal development and provides individuals with a lot of different competences and skills such as fluency in a foreign language, intercultural awareness, adaptability to changes and difficult situations as well as an entrepreneurial mind-set. These characteristics are increasingly valued by employers and thus raise job prospects in the student's homeland as well as abroad. By introducing the work placements in companies abroad as a part of the programme, the connection between higher education and business has been enhanced more and more, amongst others reflected by the rising numbers of participants. (European Commission, 2013a)

2.2 The importance of University websites: information quality, system quality, cultural values, creative strategies

Nowadays, university websites are commonplace. They are awarded the same basic functions as advertising among marketing tools: both try to inform and to persuade (Singh & Dalal, 1999). However, university websites are used as well to forward a certain image to its users by providing certain information (Hill & White, 2000) so that the prospective student's perception about the institution can be positively affected, for instance if it is well-organized and professional (Van Aart, 2011). At the same time, the collection of data such as applications, enquiries or feedback from students enables the usage of a two-way communication (Truell et al., 2005).

A website can pursue different goals, whether it wants to create awareness, communicate benefits, promote trial, and/or urge the public to take the initiative (Strauss & Frost, 2001; Perry & Bodkin, 2002; in Argyriou et al., 2006). However, when the content of a universities' website is focused on international students marketing, the site must strive for all of the above mentioned goals (Aarinen, 2012).

The evaluation of a website is made by its target public through the content of information it provides and the impression which results from it. From the public's point of view the most important issue of a website is that the site provides a certain goal-direction. Thus, a visitor is able to achieve its personal needs of information, communication and entertainment (Callison, 2003; Kent & Taylor, 2002; Park & Reber, 2008; Taylor & Kent, 2004; Taylor, Kent & White, 2001, 2003). The fact whether a website coincides with the goal of the public exhibits an important communication key while scanning and evaluating the website (Chapin & Fitzgerald, 2002; Kang & Norton, 2006; Kent & Taylor, 2002; Mentz & Whiteside, 2003; Taylor & White, 2004).

Websites play an important role for institutions especially when it comes to prospective students and even more when it comes to international students. By supplying the information students are searching for, the sites serve as a primary information-seeking source (Chapin & Fitzgerald, 2002; Kang & Norton, 2006; Liu, 2007). Recent data have shown that "66 per cent [of 5400 higher education bound students nationwide (USA)] say websites were more valuable than print materials…the web 'has emerged as a single most important tool in the [university]

search process' "(Clayton, 2003, paragraph 8)[3]. Thus, the students personal need for the obtainment of information can be satisfied; and by visiting the site frequently the possibility of getting to know better the institution rises (Callahan, 2005; Mentz & Whiteside, 2003). For prospective international students websites might even be the only source of information about an institution since other marketing channels such as campus visits or phone calls are less practical due to costs and distance. In addition, the probability of knowing people who attended or are still attending a foreign institution the prospective international students is interested in, is much lower than people who live in that country. On the contrary, gathering information on a website is possible at any time and anywhere in the world, given an internet access. Hence, websites seem to be a highly important information source for non-domestic students since their access to information is more limited than for locals. (Aarinen, 2012)

Universities moved their emphasis associated with marketing activities to websites rather than traditional media (Hayes, 2007) becoming aware that the internet provides more convenient possibilities and gained immensely in importance especially among young people. Consequently, other traditional methods such as recruitment have been rearranged as well. Namely, electronic-recruitment (e-recruitment), which represents one method of an institution to recruit and enrol more students for its university. To do so, the institutions resort to computer networks, especially the web, in order to be able to provide an electronic communication effort towards prospective students (Callahan, 2005; Liu et al., 2001).

Since the internet is counted among the most important and above all useful inventions in the 20th century, the usage of websites and in generally of media technology, and also the dependency on them, augmented tremendously within a short period of time and still continues to increase. As a result, the requirement of appraising key dimensions related to the quality of a website increases as well. Primarily, this includes the information quality (Callahan, 2005; Chapin & Fitzgerald, 2002; Kang & Norton, 2006; Liu, 2007; Mentz & Whiteside, 2003) and the system quality (Hallahan, 2001; Liu et al., 2001; Nielsen, 2000; Taylor, Kent & White, 2001, 2003).

[3] It must be considered, that this study was conducted in 2003; since the level of internet penetration has increased in the whole world, these figures might be much higher nowadays.

Information quality and system quality

Academic institutions should supply the information on their website from the publics' point of view, more precisely, it is essential that e-recruitment provides necessary information for international students in order to enhance their enrolment. Higher information quality may be transmitted by a website which is strategically well-organized and well-designed (Chung et al., 2010). The following key dimensions form the basis for a well-designed e-recruitment website of an institution:

a) General information about the institution,
b) Application information,
c) Information about financial aid, and
d) Academic information targeting international students (Chapin & Fitzgerald, 2002; Kang & Norton, 2006; Liu et al., 2001; Mentz & Whiteside, 2003).

Further key dimensions in terms of system quality also contribute to a well-composed website, namely usability and accessibility. Usability represents the quality received by a website's visitor when visiting the site or other user-operated devices (Hallahan, 2001). Accessibility is defined as the content available for the user on a website (W3C, 2004). Both share various systematic dimensions, serving for an effective e-recruitment website of an institution:

a) Foreign language version (Liu, 2007),
b) Ease of use/interface (Hallahan, 2001; Taylor, Kent & White, 2001, 2003),
c) Simplicity of design (Hallahan, 2001; Liu et al., 2001; Nielsen, 2000),
d) Interactive function (Liu et al., 2001; Park & Reber, 2008; Taylor, Kent & White,2001, 2003), and
e) Entertainment (Chapin & Fitzgerald, 2002; Kang & Norton, 2006; Mentz & Whiteside, 2003).

Several previous studies emphasized the importance of information and system quality in order to succeed in e-recruitment.

Chung et al. (2010) content analysed 261 university websites from the US, UK and South Korea in terms of information and system quality to examine the extent to which the institutions make use of the websites to enhance international student recruitment. They found out that "most of the three countries' universities use their

websites as an effective tool to utilise various public relations performance such as information providers" (Chung et al., 2010, p. 1). However, "they are not effectively using the web to connect with their publics in terms of two-way communication" (Chung et al., 2010, p. 13).

Liu (2007) investigated trends of 145 US university and college websites in terms of content and some design aspects intended for prospective international students. On the basis of a content analysis, the study states that "the amount of types of information intended for international students on the university websites is correlated with the international student population at the institutions (r=0.36) (Liu, 2007, p. 17). Among this information the most frequently provided issues are "Immigration/visa/SEVIS", "Electronic form/handbook/brochure", "Admission", "Workshop/event/study program" and "Housing" (Liu, 2007, p. 15). Further results also indicate that "the interactivity level of US universities and colleges is still low and there is a lot of improvement space in this aspect" (Liu, 2007, p.19).

Kang and Norton (2006) focused on all prospective students in their study with the purpose to "determine the extent to which institutions utilize benefits from the web to accomplish their public relation goals", […] paying "particularly attention to colleges' and universities' organizational characteristics" (Kang & Norton, 2006, p. 4). By content analysing 129 of the best national universities in the US, they found out that university websites outshine in ease of interface functions, but were only acceptable in respect to information provider capabilities and, in addition, their relational communication capabilities were not fully explored. Furthermore, the researcher discovered that institutions with high levels of excellent student recruitment in school characteristics are less likely than universities and colleges with small-medium levels to actively use the web in order to reach their target public.

Chapin and Fitzgerald (2002) surveyed the supply of information by websites and the demand for information by all prospective students. They both reviewed the websites of Association of Collegiate Schools of planning (ACSP)-accredited programs and conducted a survey that was completed by existing students. The results show that the supply of online information fits the students' demand for information quite well, although some gaps in online information exist. More deficits were found in online information provision by planning programs. The researches recommend directing

the focus on the content of websites; however, organization, style and connectivity are also crucial to the success of effective student recruitment.

Cultural values and creative strategies

Transnational marketing research manifests lots of studies concerning cultural differences in design and creative strategies, in order to find the best advertising methods and strategies to reach target consumers. Universities have been utilizing advertising strategies for a long time; depending on its culture each institution provides a certain image of itself in different ways in order to attract prospective students (Callahan, 2006). In this case universities represent a certain good and its prospective students the consumers (Wernicke, 1991). Since the web provides an unlimited and convenient access to promotional materials, this tool is considered to be seen as a virtual gateway to the world by many firms and organizations. Companies try to transmit a certain image in order to reach potential customers by utilizing virtual techniques for its product advertising. In the case of an international client base, the acknowledgement of their preferences supplied on the firms' websites reflects respect according to the clients' culture and hence contributes to a boost of contacts, opportunities and profits for the company. In the same manner, universities exploit the opportunities, provided by the web, and use it as an advertising tool in order to reach out to all students. (Callahan, 2006)

Several studies focused on the above mentioned issue:

Callahan (2006) examined how the designs of websites vary among cultures, by applying Hofstede's cultural model. By content analysing 20 randomly selected universities from each of the eight countries[4], the researcher found out that similarities and differences in website design can be described through the cultural model of Hofstede. More precisely, the results show that all US websites, with one exception, namely one Californian institution, offered only English version websites. On the contrary, all Swedish university websites provided at least one additional linguistic version. 19 Danish and Japanese, 17 Austrian and 12 Greek institution websites also had versions in other languages. Considering the content of the

[4] For each dimension of Hofstede's culture model two countries were selected, one with the highest score and one with the lowest score in his research. Since Callahan (2006) examined only four dimensions, the total number of the countries remains to be eight.

homepages, the information provided on the English-language pages of Japanese websites was the same as offered on the US websites: among them were general information about the university, academics, admission, information technology, job offerings and links to international exchange information and overseas student admission. By contrast, the English-language versions of Swedish institutions included a type of welcoming message or introduction to the university, different from the official homepages. In addition, information intended for international students was also present in the main menus. Despite not all Austrian institution websites had an English-language version, the ones that did provided the information targeting directly the international students' needs.

Another cross-cultural study was implemented by Gould et al. (2000), who compared the cultural orientations and design performances of Malaysian and US education websites. By doing an in-depth analysis, they found out that whereas the Malaysian site provided more effects of collectivism and control of the university administration; the US university websites' design highlighted the accomplishments of its faculty and students. In addition, the findings indicate as well that university websites in both cultures pursuit different ways of making the first impression to present their university and appeal to prospective students.

Okazaki and Rivas (2002) investigated the degree of standardization in multinational corporations' online communication strategies, among them creative strategies, across different cultures by content analysing 60 product-based homepages from Japan, Spain and USA. The results show that the Japanese multinationals focus their online communication strategies in their target markets.

Zandpour et al. (1992) content analysed 659 TV commercials from the US, France and Taiwan. The results showed that US commercials in general focus on consumer needs and problems; take advantage of celebrities, reliable sources and product users; use data-based arguments; attend to consumers with a polite and conventional manner; show off the commodity aggressively. Meanwhile, French advertisings use symbolism, humour and drama; disclaim arguments; and promise features of the product, which are hard to implement. Taiwanese commercials transmit a connection between the product and traditional Chinese values;

incorporate symbolism, metaphors and drama related to family events in the presentation; give short summaries but lack explicit consumer orientation.

The examination of the literature reveals that only few studies were conducted about the content and design as well as the communication strategies of university websites as a tool for recruiting international students. However, the small number of those studies which were examining this issue, referred mainly to the US area, consequently a big gap in research remains regarding the European countries. Research concerning European universities was conducted, but these studies examined other issues, such as:

"[…] the effect of studying abroad on international labour market mobility later in life for university graduates […]" (Parey & Waldiger, 2011, p. 1); "The professional value of temporary study abroad in another European country […]" (Teichler & Janson, 2007, p. 1); "The determinants of international student mobility flows […]" (Rodríguez González et al., 2010, p. 1); and "Toward improved data on student mobility in Europe […]" (Kelo et al., 2006, p.1).

Consequently, the objective of this study is to examine how the European universities use their websites in terms of information quality, system quality, cultural values and creative strategies to enhance international student recruitment.

3. Research questions and hypotheses

The question that guides this study is 'how can websites be a relevant public relations tool for universities in order to increase international student recruitment'. Namely, European university websites are examined in this study to determine the extent to which the institutions utilize their websites in order to achieve one of the most important goals for them; increase the academic diversity. The focus of the examination is directed on several factors when investigating the websites, namely the content, usability and communication strategies.

To investigate this issue, the genre of university websites has been chosen, since different genres of websites provide also different content and designs (Barber & Badre, 1998). Hence, the results would be too vague and multilateral due to the

necessity of introducing too many variables. A scope of this study was narrowed by limiting the observation to presence or absence in terms of information quality, system quality, cultural values and creative strategies.

Various reasons led to the decision choosing university websites. At first, universities, being in charge of transmitting education and culture, seem to understand the impact and possibilities that the internet provides to them, especially in terms of establishing and maintaining international relationships. Furthermore, education is culturally and socially shaped, consequently these values and preferences must also be transmitted in the design of university websites. In doing so, institutions reach out to the young generation, communicating cultural values and knowledge due to their educational mission. Thus, the content and design of the website should be given a lot of importance since it serves as a virtual gateway connecting the whole world.

Based on the overall literature and guided by the purpose of this study, the following research questions and hypotheses should lead to accomplishing the goal of this examination:

Information quality

RQ1a: What information quality is supplied on the European universities' websites?

RQ1b: Which variables are utilized most frequently?

$H1_0$: There is statistically significant correlation between information quality and the number of incoming Erasmus students.

System quality

RQ2a: What system function is supplied on the European universities' websites?

RQ2b: Which variables are utilized most frequently?

$H2_0$: There is statistically significant correlation between system functions and the number of incoming Erasmus students.

Cultural values

RQ3a: Which cultural values are supplied on the European universities' websites?

RQ3b: Which variables are utilized most frequently?

$H3_0$: There is a statistically significant correlation between the cultural values and the number of incoming Erasmus students?

Creative strategies

RQ4a: Which creative strategies are supplied on the European universities' websites?

RQ4b: Which variables are utilized most frequently?

$H4_0$: There is statistically significant correlation between creative strategies and the number of incoming Erasmus students?

4. Research method

4.1. Research design overview

Compilation of framework

This study involves analysing the content and communication strategies of European university websites. Therefore a literature review on the above-named issues was conducted in order to identify the relevant factors that might influence the international student recruitment and thus, which ought to be part of website content and design.

A framework was compiled, presented in Table 1, which synthesizes the variables that multiple authors have recognized as useful for the e-recruitment of prospective international students. The framework, which is divided into two main parts, follows two studies: On the one hand, the work of Chung et al. (2010)'s information quality and system quality of websites that form the basis for being a relevant public relations tool for universities to enhance the international student recruitment. However, this model was extended by complementing it with the findings of other authors on issues that are also considered as important for the e-recruitment of

international students. Nonetheless, few variables which seemed not to be coherent information for Erasmus students, were not considered for the framework. On the other hand, the framework follows the work of Okazaki and Rivas' (2002) online communication strategies, which originally were applied on MNC's web pages, advertising one specific product common in Spain, Japan and the USA, in order to evaluate the degree of standardization of the communication categories in multinational corporations across different cultures. However, since the goal of communication strategies is to reach its important publics, the categories from the study of Okazaki and Rivas (2002) are adequate to be applied on universities' web sites. However, categories, which were not applicable on institutions' web pages, were not considered.

Table 1 Variables
Source: Chung et al., 2010; Chapin & Fitzgerald, 2002; Liu, 2007; Okazaki & Rivas, 2002

Information quality	**Source**
1_Driving directions or links to directions	Chung et al., 2010
2_Links to satellite campuses	
3_History	
4_Logo	
5_University Ranking	
6_Clear statement about the university's statement on the philosophy and mission of the university	
7_Campus population status	
8_Diversity information	
9_Downloadable documents and forms (for application)	
10_Enrolment score requirements (TOEFL, etc.)	
11_Phone number and email of admissions office	
12_Online application	
13_Clear link to information for international students (e.g. International Office)	
14_Enrolment information in additional language	
15_FAQ's	
16_Housing	
17_Info about city	
18_Downloadable documents and forms (financial aid)	
19_Financial aid information (loan, grants, scholarships)	Chapin & Fitzgerald, 2002
20_Means to contact financial aid representatives (email, phone)	Chung et al., 2010
21_Complete online application for financial aid	

22_Comprehensive list of degree programs offered by the university	
23_List of colleges and Deans and a means to contact the key personal	
24_List of clubs and organisations and description of each	
25_ Language courses	Liu, 2007
26_Internship/working	Chapin & Fitzgerald, 2002
27_Health insurance	Liu, 2007
28_Immigration/VISA/SEVIS	
II. System quality	
29_Foreign language version	Chung et al., 2010
30_Easily identifiable URL	
31_Short scrolls of text (20-40)	
32_Minimal navigation menus	
33_Minimal pop-ups	
34_Minimal unwanted or intrusive ads	
35_Minimal loading time (t<4 sec)	
36_Glossary of terms	
37_Providing simplified menus	
38_Minimal graphic reliance	
39_Minimal animation with sound	
40_Site map	
41_search feature or link to search engine	
42_Online help	
43_Participation in online survey	
44_Discussion forum/chat room	
45_Newsletter sign up	Liu, 2007
46_Entertainment material on the web to appeal to visitors and encourage them to bookmark the site	Chung et al., 2010
III. Cultural values	Okazaki & Rivas, 2002
47_Collectivism	
48_Competition	
49_Enjoyment	
50_Idividualism	
51_Modernity	
52_Quality	
53_Technology	
54_Tradition	
55_Uniqueness	
IV. Creative strategies	
56_Information	
57_Argumentation	
58_Motivation with psychological appeals	
59_Symbolic association	

60_Imitation	

A more thorough explanation of this framework, more precisely the definition of each variable will be given in chapter 4.3 Instrumentation.

Content analysis

The technique, which is used in this study to analyse the variables of the framework, is called content analysis. It describes a systematic technique in which words are gathered into fewer content categories that are based on coding rules. These codes should ensure replicability (Stemler, 2001). As an empirical research method it serves as a practical tool in order to gather empirical data as well as a framework for analysing data material (Erikson & Kovalainen, 2008).

Holsti (1969) was one of the first who provided a definition for the content analysis. He described it as follows: “Content analysis is any technique for making inferences by objectively and systematically identifying specified characteristics of messages” (p.14). Krippendorff (2004b) said it was “a research technique for making reliable and valid inferences from data to their context” (p.18). Berelson (1971) determined content analysis as “a research technique for the objective, systematic, and quantitative description of the manifest content of communication” (p.18). More definitions on content analysis were provided by Riffe et al. (1998), who described it as follows: “Quantitative content analysis is the systematic and replicable examination of symbols of communication, which have been assigned numeric values according to valid measurement rules, and the analysis of relationships involving those values using statistical methods, in order to describe the communication, draw inferences about it meaning, or infer from the communication to its context” (p.20). A similar approach was provided by Neuendorf (2002), who defined content analysis as “summarizing, quantitative analysis of messages that relies on the scientific method … and is not limited as to the types of variables that may be measures of the context in which the messages are created or presented” (p.10). Appreciable about the last two definitions is that both examined content analysis not as a qualitative but a quantitative research. Furthermore, for both of them the use of scientific methods was essential: “including attention to objectivity-

intersubjectivity, a priori design, reliability, validity, generalizability, replicability, and hypothesis testing" (Neuendorf, 2002, p10).

Possible purposes of content analysis were also stated by Holsti (1969), who exhibited that this method allows drawing conclusions not only about the antecedents of communication, for instance to infer who the author is and why he is communicating. But also enables making inferences about the consequences of communication, as for example what impact communication has on the target's group behaviour. Considering the purpose of this study and the research questions which serve as a guidance for reaching the objective, a characterisation of the communication and arriving to a conclusion about these characteristics is considered to be the most relevant/appropriate. Since not only the evaluation whether the message meets the requirements of the recipient (in this case: the international students) is possible, but also if the universities share the same understanding with the students about what information is important for them.

Kolbe & Burnett (1991) confirm that content analysis is a suitable method in order to analyse written communication. Therefore it is a very common instrument among the marketing field. Several examples where content analysis has been used are for instance in studies on company image and service brand positioning on the web (Dou & Krishnamurthy, 2007; Truell et al., 2005). Regarding the higher education context, this method has been used in order to analyse particular marketing components like images on college viewbooks (Klassen, 2002) or content of the text on printed study guides (Gatfield et al., 1999). This study also relies on content analysis. In a higher education context this method will be used in order to analyse the written and graphical marketing communications on European university websites.

In this study, the content analysis process was as follows: First of all, European university websites were defined as a unit. Afterwards, coding categories were developed by basing the framework on two main research articles, namely Chung et al. (2010) and Okazaki and Rivas (2002). Four main category areas were compiled: Information quality, system quality, cultural values and creative strategies. Thereafter the categories were analysed in a pilot test on ten university websites. Thereby the reliability of the variables could be tested and those which did not meet the reliability

criterion were redefined or rather eliminated. The next step implied the coding of all material. In this case 40 institution websites were coded. Finally, the findings and conclusions from the coded data were drawn.

4.2. Sample

This study examines the extent to which European universities use their websites as a promotion tool in order to attract international students. For this reason, the list of the top 100 higher education institutions receiving ERASMUS students, published by the European Commission in 2013d, during the academic year 2011/2012 were chosen for the sample whereof the websites of the first 40 institutions were examined. The websites of these universities, which exhibit the largest numbers of international students, seem to be the most suitable source to show the trends of how European institutions serve the information needs of current and prospective international students.

Currently 33 countries participate in the ERASMUS program: 27 EU Member States, Croatia, Iceland, Lichtenstein, Norway, Switzerland and Turkey (European Commission, 2013a). In almost all of these countries different languages are spoken, which results in more than 30 different native tongues. Although not all nations are among the examined sample, still 13 different countries remain and make it impossible for the coder to investigate the website in the mother tongue of each country. Further considerations also reveal that the majority of the outgoing students do not dominate the language spoken in the target country to the extent that the content on the foreign institutions website could be understood without any difficulties. As a result students resort to the world language *English,* in most cases the first foreign language they already get to know in their childhood. Hence the English version of each institution's website was used in order to conduct the content analysis. Universities which did not provide an English version website were eliminated from the examination. This included the Italian university *Universita' Degli Studi di Firenze* and the Portuguese institution *Universidade Técnica de Lisboa*. Table 2 shows the 40 universities which remained after eliminating inoperative institution websites.

Table 2 Top 40 higher education institutions receiving Erasmus students in 2011/12
Source: European Commission, 2013d

Rank	Name of University	Country	Number of incoming ERASMUS students
1	UNIVERSIDAD DE GRANADA	Spain	2052
2	UNIVERSIDAD DE SEVILLA	Spain	1769
3	UNIVERSIDAD COMPLUTENSE DE MADRID	Spain	1709
4	UNIVERSITAT DE VALENCIA	Spain	1698
5	UNIVERSITA DE BOLOGNA	Italy	1693
6	AARHUS UNIVERSITET	Denmark	1532
7	UNIVERSIDAD POLITÉCNICA DE VALENCIA	Spain	1508
8	UNIVERZITA KARLOVA V PRAZE	Czech Republic	1137
9	UNIVERSIDAD DE SALAMANCA	Spain	1110
10	UNIVERSITA' DEGLI STUDI DI ROMA 'LA SAPIENZA	Italy	1107
11	UNIVERSITAT DE BARCELONA	Spain	1105
12	FREIE UNIVERSITAET BERLIN	Germany	1039
13	UNIVERSITAT AUTONOMA DE BARCELONA	Spain	1007
14	UNIVERZA V LJUBLJANI	Slovenia	957
15	KUNGLIGA TEKNISKA HÖGSKOLAN	Sweden	941
16	UNIVERSITAET WIEN	Austria	930
17	KOEBENHAVNS UNIVERSITET	Denmark	926
18	HUMBOLDT-UNIVERSITAET ZU BERLIN	Germany	907
19	LUNDS UNIVERSITET	Sweden	901
20	UNIVERSIDAD AUTONOMA DE MADRID	Spain	869
21	LINKÖPINGS UNIVERSITET	Sweden	843
22	UNIVERSIDAD DE ALICANTE	Spain	834
23	KATHOLIEKE UNIVERSITEIT LEUVEN	Belgium	802
24	UNIVERSITÉ DE STRASBOURG	France	769
25	UNIVERSITY COLLEGE - VITUS BERING DANMARK	Denmark	766
26	UNIVERSIDADE DE COIMBRA	Portugal	727
27	UNIVERSIDADE DO PORTO	Portugal	720
28	UNIVERSIDAD DE ZARAGOZA	Spain	720
29	NORGES TEKNISK-NATURVITENSKAPELIGE UNIVERSITET	Norway	715
30	POLITECNICO DI MILANO	Italy	708
31	HELSINGIN YLIOPISTO	Finland	696
32	UNIVERSITAT POLITÈCNICA DE	Spain	687

	CATALUÑA		
33	UNIVERSIDAD DE MALAGA	Spain	684
34	UNIVERSIDAD CARLOS III DE MADRID	Spain	682
35	UPPSALA UNIVERSITET	Sweden	677
36	UNIVERSITA' DEGLI STUDI DI PADOVA	Italy	669
37	UNIVERSIDADE NOVA DE LISBOA	Portugal	666
38	STOCKHOLMS UNIVERSITET	Sweden	665
39	UNIVERSITÉ LIBRE DE BRUXELLES	Belgium	658
40	UNIVERSIDAD DE CÁDIZ	Spain	646

The period of investigation of the websites was between 8 August 2013 and 20 August 2013[5]. The examination time of each website was between 60 and 120 minutes, coding on average four websites a day.

4.3. Instrumentation

The framework for this study was conducted on the basis of two main research papers, namely the studies of Chung et al. (2010) and Okazaki and Rivas (2002). However, variables, which seemed to be also important for the recruitment of international students via university websites, from other examinations were included as well.

Information quality

The first part of the framework, Information quality, consists of four different categories, which furthermore involve several variables.

The first category represents A) General information about the institution for international students, involving driving directions or links to directions, links to satellite campuses, history, logo, university ranking, philosophy and mission, campus population status and diversity information. The second category is B) Application information for international students and consists of the following variables: downloadable documents and forms, enrolment score requirements, phone number and email of admissions office, online application, link to international office,

[5] Since the internet is a very quick developing and changing medium, it may be possible that other observations could be made when examining the websites to another point of time.

enrolment information in additional language, FAQ, housing and information about city. The third category represents C) Information about financial aid for international students and involves the variables documents and forms, financial aid information, contact information and online applications for financial aid. The fourth and last category is D) Academic information for international students, containing degree options, contacts of colleges and Deans, extracurricular activities, language courses, internships/working, health insurance and Immigration/VISA/SEVIS.

System quality

The second part of the framework, system quality, contains one category, namely A) Usability and accessibility, which is contains the following variables: foreign language versions, easy identifiable URL, short scrolls of text, minimal navigation menus, minimal pop-ups, minimal unwanted ads, minimal loading time, glossary of terms, simplified menus, minimal graphic reliance, minimal animation with sound, site map, search engine, online help, online survey, discussion forum, newsletter sign up and entertainment material.

Cultural values

The third part of the framework reveals the following cultural values:

A) Collectivism
B) Competition
C) Economy
D) Enjoyment
E) Individualism
F) Modernity
G) Popularity
H) Social status
I) Technology
J) Tradition
K) Uniqueness

Creative strategies

The last part of the framework contains the following creative strategies:

A) Information
B) Argument
C) Motivation with psychological appeals
D) Repeated assertion
E) Command
F) Brand familiarization
G) Symbolic association
H) Imitation

The detailed explanation and meaning of the variables is provided in Table A to Table D in Appendix.

4.4. Data collection

4.4.1. Coders

This study required two individuals (including the researcher) to code independently the websites of the European universities provided in Table 2 over a concentrated period of time, namely between 8 August 2013 and 20 August 2013. All coders (post-) graduated in Economics; hence they provide an analytical background. Furthermore, they are experienced computer and internet users and also proficient in English. This is important as the diversity of the languages spoken in Europe makes it impossible to examine the websites in the native language version, thus only the websites which provide an English version were examined.

Prior to the coding, the coder met with the researcher to review the operational definitions and clear potential questions. First, the coders made an independent examination of 10 universities, belonging to the list of the top 100 higher education institutions receiving students during the academic year 2007/2008[6], as training and a pilot test for the instruments to be used. Thereby, the intercoder reliability could also be tested, which will be explained more detailed in the reliability section later on. Both coders were submitted two randomized lists which contained the 40 university

[6] The list of the 100 higher education institutions receiving students during the academic year 2007/08 was picked because more recent lists provided too many matches with the universities of the actual examination from the academic year 2011/12.

websites to be examined, so that they were able to code the websites independently and mainly in a different order.

4.4.2. Pilot test

A preliminary analysis was made in order to test the coding system, provide training to the coders, address any questions and determine problematic areas. Therefor the first 10 universities participating in the Erasmus program, which did not appear on the list of the top 100 higher education institutions receiving students in the academic year 2011/2012, were selected from the list of the top 100 higher education institutions receiving Erasmus students in the academic year 2007/2008. The following European university websites were analysed in the pilot test:

Table 3 Top 10 higher education institutions receiving Erasmus students in 2007/08 (not on the list 2011/12)
Source: European Commission, 2009e

	Name of University	**Country**	**Number of incoming Erasmus students**
1	Technische Universiteit Delft	Netherlands	495
2	Roma Tre University	Italy	459
3	University of Aberdeen	United Kingdom	410
4	Aristoteleio Panepistimio Thessalonikis	Greece	401
5	Ceske Vysoke Uceni Technicke V Praze	Czech Republic	389
6	Technische Universität Dresden	Germany	389
7	University of Manchaster	United Kingdom	380
8	Universita' Degli Studi Di Siena	Italy	379
9	Universidad de Castilla-La Mancha	Spain	378
10	Linnaeus Universitet	Sweden	375

With the help of this pilot test intercoder reliability was conducted and certain problems were solved, so that the actual study could be performed without uncertainty.

Firstly, variables which did not meet the need of information for Erasmus students were eliminated such as for instance the variable “Possibility to pay application with credit card”. Since Erasmus students get a tuition waver for the foreign institution when participating in the program, they do not have to pay the tuition fees in the host

country, they only have to pay the *normal* tuition fees of their home university. As a result this variable becomes useless in this case.

Secondly, the intercoder reliability test made it possible to eliminate variables whose coding was not reliable enough. This includes for instance the variable “Size and organization of the campus”, having only a value of 60% although Holsti’s (1969) formula for intercoder reliability, which was used in this study, demands at least 80%.

Lastly, some variables needed a more detailed definition in order to ensure a neatly coding of the websites, for instance “Downloadable documents and forms”.

4.4.3. Operationalization

When it comes to web content analysis a certain ambiguity related to the question ‘What is the actual meaning of the term ‘website’?‘ arises (McMillan, 2000). In fact, a website is constructed in a hierarchical manner providing information in a certain order, which is connected via hyperlinks to an unlimited number of other sites (Okazaki and Rivas, 2002). According to previous studies, a homepage has been defined as the front door or entry point to a website (Chapin & Fitzgerald, 2002; Kang & Norton, 2006; Liu et al., 2001; Mentz & Whiteside, 203). Hence, it should provide the majority of the content that visitors assume to find on a website. As a result this study examined the home pages of the European institution websites. Furthermore, all hyperlinked pages from the front page were also investigated since key information to content categories is also provided on these hyperlinked pages.

Two coders were trained in a pilot test in order to become aware with the coding scheme and to ensure intercoder reliability before the actual investigation was conducted. During this step variables which did not meet the requirements of intercoder reliability or did not fit into the information need of Erasmus students were eliminated. Furthermore, some variables were defined more detailed to ensure a better understanding which leads to a neatly coding procedure. After finishing the pilot test, the actual coding was conducted. Therefore, each coder was given 40 research files – one file for each institution website which had to be examined - in order to record the answers of the analysis[7]. The investigation began, withen the

[7] An example of a coding sheet is shown in Table E in the Appendix.

coders using *google* search engine to find the universities website. After having successfully found the website of the institutions, the coders then entered the English version and primarily identified all types of information and systematic functions on the homepage, based on the categories constructed for this study. Afterwards, the coders checked all links to sub-pages for the same categories. The coding of the categories *cultural values* and *creative strategies* was implemented only on the homepage of the English version of the website, since the homepage serves as an entry point. Providing the first impression for a web user, the front page should be attention-catching in order to persuade visitors to stay on the website. Additionally, for both categories, not only written communication was examined, but also pictures were considered, so that a coding of further hyperlinked sites would be too complex, given the short duration of the investigation. In both steps the coders had to confirm the presence or the absence of the variables to be analysed, more precisely all items were measured in two-point options (0 = no = absence, 1 = yes = presence). Each site was coded for the absence or coders' agreement of 28 items in the 'Information quality' category, 18 items in the 'System quality' category, nine items in the 'Cultural values' category and five items in the 'Creative strategies' category. Before starting to solve the research questions 1a, 2a, 3a and 4a, the intercoder reliability for the *actual test* was conducted as well.

The coding for each university was recorded on a research file. The notes made on the coding sheets were then transferred to an *Excel* sheet in order to allow calculations. Thus a frequency analysis of each variable could be made in order to solve the research questions 1b, 2b, 3b and 4b. In cases of disagreement, more precisely, if metrics were coded as present by one coder but not-present by the other, the variable was tested another time by checking again the presence or absence on the website. By conducting a third coding procedure, a final *clean* data collection was generated, in order to enable doing the analysis the most accurate way. Thereafter, the data was introduced into the SPSS program in order to test hypotheses $H1_0$, $H2_0$, $H3_0$ and $H4_0$. Therefore, a bivariate correlation analysis was conducted. First, the independent variables were classified in groups, represented by the categories[8], namely:

[8] The category *Information quality* was splitted into four different sub-categories because of the high existence of variables (28).

Group 1: *Information quality*

1A_General information for international students

1B_Application information for international students

1C_Information about financial aid for international students

1D_Academic information for international students

Group 2: 2_System quality

Group 3: 3_Cultural values

Group 4: 4_Creative strategies

The total sum of the variables, coded as present, was generated for each group and divided by the total number of the variables of each group. Consequently, the scale of measurement of the actual nominal variables changed into a metric one, whereas the scale of measurement of the dependant variable *Number of incoming Erasmus students* remained being metric. Afterwards, the *Kolmogorov-Smirnov-Test* (Test of Normality) was conducted in order to decide which type of correlation analysis should be applied in the next step. The groups which resulted in being normally distributed (value of *p* bigger than 0.05) were run for a *measure correlation analysis* according to *Pearson* and the variables which were not normally distributed (value of *p* was smaller than 0.05) were tested in a *Non-parametric correlation analysis* according to *Spearman* in order to check if there is a significant correlation between the groups and the dependent variable.

4.5. Reliability

It is important to measure the reliability in a study, since it represents the contingency and stability of a measurement performed. “The more reliable a measurement is, the more dependable it is because it leads to similar outcomes when applied to different people/texts, contexts, and/or time periods” (Frey, Botan & Kreps, 2000, p. 111). When research is done, it should not depend on who is doing it or when it is done, because it should provide similar results (Berelson, 1952).

Riffe et al. (1998) state that reliability in content analysis "requires that different coder applying the same classification rules to the same content will assign the same numbers" (p.54). That is why in content analysis intercoder reliability, which assesses to what extent multiple coders agree on the variables examined, is commonly used in order to detect reliability. A lot of different statistical formulae exist to determine intercoder reliability. However, there is no general agreement about one specific formula being suitable for any particular study (Neuendorf, 2002).

In this study, the intercoder reliability coefficient calculation formula of Holsti (1969) was used in order to determine the intercoder reliability. The coefficient is calculated by dividing the agreed upon items between two coders by the total number of items coded by both coders. The formula is as following:

$PA_0 = \frac{2\,A}{(n_1+n_2)}$, with PA_0 being the proportion agreement observed, *A* the number of agreements between the two coders and n_1, n_2 the respective number of items coded by each of two coders.

There is also no specific consensus agreed in respect to intercoder reliability. Therefore researchers who are well-respected in the field of content analysis position themselves around a rule of thumb. Neuendorf (2002) and Ellis (1994) stated that a correlation coefficient shows high reliability when it exceeds 0.75 to 0.80 (Ellis, 1994, p. 91). The standard was lowered slightly by Frey, Botan and Kreps (2000), accepting a reliable correlation coefficient exceeding at least 0.70. Krippendorf (1980) considered the reliability of a value above 0.80 as good and between 0.67 and 0.79 as acceptable. Riffe, Lacy and Fico (1998) argue that the values which are below 0.70 are considered to be hard to interpret and cause that the value of replication could be questioned. Neuendorf (2002) insists that the 'robustness' of a measure used should be considered as well. Consequently since 'beyond chance' statistics like Cohen's *kappa* or Scott's *pi* are more rigorous reliability assessments; the criterion should be more liberal, as for instance lower values for the level of agreement considered to be acceptable should not question the value of replication. On the contrary, the criterions for the level of agreement to be acceptable for methods like Holsti's intercoder reliability coefficient, which represent a simple measurement, are/(should be) stricter.

Upon the completion of the coding scheme, two coders implemented a pilot test in order to test the variables. However, the focus of this study is on the top 40 European higher education institutions receiving Erasmus students during the year 2011/12. Therefor ten additional European institutions with the highest numbers of incoming Erasmus students in the academic year 2007/08, which did not appear on the list of the year 2011/2012, were selected for the pilot test. After the coders finished the coding, they discussed the experience they had with the variables during the coding procedure and then assessed the intercoder reliability using Holsti's (1969) intercoder reliability coefficient calculation formula. The minimum level of agreement considered acceptable was set with 0.70 as recommended by Frey, Botan and Kreps (2000) and Riffe, Lacy and Fico (1998). Variables which did not met this criterion were removed such as "Size and organisation of the campus" with a value of 0.60.

The results in Table F in the Appendix[9] reveal that the intercoder reliability, which was conducted in the pilot test and the actual test, of all variables are within the level of agreement, namely above 0.70. It can therefore be concluded that all metrics were accepted as reliable.

Prior training of the coding such as a pilot test can significantly increase the level of intercoder agreement, an important feature which was demonstrated in several studies (Holsti, 1969).

Another possible factor influencing the reliability is coder fatigue. Potter and Levine-Donnerstein (1999) claim that "The clerical task of recording surface elements requires consistently high levels of concentration…coder fatigue then poses the greatest threat to the reliability of coding manifest content" (p. 271). In order to minimize coder fatigue the average number of websites coded was determined around four a day during 8 August 2013 and 20 August 2013. This schedule provided enough time to code all websites and at the same time guaranteed enough rest between the coding sessions.

[9] Table F shows all variables whose intercoder reliability value scored in the acceptable range, namely abouve 0.70. Hence the variables which did not meet this criterion are not provided on the list, since they were removed before calculating the final values.

5. Findings

In this study content analysis was used in order to examine to which extent European universities use their websites to increase the diversity on their campus and if a correlation exists between the content of the website and the number of international students. Therefore, content of the English version of 40 institution websites with the highest numbers of incoming Erasmus students during the year 2011/12 were examined in the categories: *Information quality, System quality, Cultural values and Creative strategies.* Thereto the presence or absence of the corresponding variables on the front page and also on hyperlinked pages was confirmed for the first two categories, namely *Information quality* and *System quality*. The examination of the variables of the last two categories, *Cultural values* and *Creative strategies*, was only conducted on the front page of the English version institution website.

As already mentioned in 4.5 Reliability, the results for intercoder reliability of all variables were within acceptable level.

In the following, the results of this study based on the research questions are presented.

Information quality

RQ1a: What information quality is supplied on the European universities' websites?

RQ1b: Which variables are utilized most frequently?

Table 4 shows the results of which information quality is provided on the university websites and which are utilized most frequently.

Table 4 Information quality: Frequency
Source: Own calculations

Information quality	**Frequency**	**%**
4_Logo	39	98%
1_Driving directions or links to directions	38	95%
16_Housing	36	90%
22_Comprehensive list of degree programs offered by the university	36	90%
13_Clear link to information for international students (e.g. International Office)	35	88%

7_Campus population status	33	83%
14_Enrolment information in additional language	33	83%
25_ Language courses	33	83%
12_Online application	32	80%
3_History	31	78%
26_Internship/working	31	78%
11_Phone number and email of admissions office	29	73%
27_Health insurance	29	73%
19_Financial aid information (loan, grants, scholarships)	28	70%
2_Links to satellite campuses	27	68%
28_Immigration/VISA/SEVIS	27	68%
10_Enrolment score requirements (TOEFL, etc.)	26	65%
24_List of clubs and organisations and description of each	21	53%
8_Diversity information	20	50%
17_Info about city	20	50%
20_Means to contact financial aid representatives (email, phone)	18	45%
23_List of colleges and Deans and a means to contact the key personal	18	45%
15_FAQ's	17	43%
5_University Ranking	16	40%
6_Clear statement about the university's statement on the philosophy and mission of the university	13	33%
21_Complete online application for financial aid	12	30%
9_Downloadable documents and forms (for application)	8	20%
18_Downloadable documents and forms (financial aid)	5	13%

It can be observed that all variables examined are provided on the university websites regarding Information quality. Around 1/3 of the variables are supplied in more than 50% of the cases. Thereby, most of the universities present not only general information (Logo 98%, Driving directions or links to directions 95%, Campus population status 83% and History 78%) and application information (Housing 90%, Clear link to information for international students 88%, Enrolment information in additional language 83% (82.5% English, 17.5% no additional language, 7.5% Valencian and 7.5% Catalan/15% Spanish[10], 5% Chinese, 2.5% German), Online application 80% and Phone number and email of admissions office 73%), but also academic information (Comprehensive list of degree programs offered by the

[10] The universities which provided additional application information in Valencian and Catalan/Spanish were Spanish institutions, however both languages are accepted as national languages. Since not all citizens of that regions speak both languages, namely Valencian/Spanish or Catalan/Spanish; these languages are considered as additional as well.

university 90%, Language courses 83%, Internship/working 78%, Health insurance 73%). However, less importance was given to Information about financial aid. The only variable which was provided in a higher frequency was Financial aid information (loan, grants, scholarships) 70%, whereas the presence of the rest of the variables in this section was rather poor (Means to contact financial aid representatives (email, phone) 45%, Complete online application for financial aid 30% and Downloadable documents and forms (financial aid) 13%).

$H1_0$: There is statistically significant correlation between information quality (Group 1A, 1B, 1C, 1D) and the number of incoming Erasmus students.

After conducting the Kolmogorov-Smirnov-Test for normality, the groups 1A, 1B and 1C resulted in being normally distributed (values of *p* bigger than 0.05) whereas group 1D resulted in not being normally distributed (value of *p* was smaller than 0.05)[11]. Consequently, for the groups 1A, 1B and 1C the *measure correlation analysis* according to *Pearson* was conducted, showing the results in Table 5. The figures of the test (1A: r_P = -0.036**,** p=0.828; 1B: r_P = -0.049, p=0.763; 1C: r_P = -0.036, p=0.827) reveal that there is no statistically significant linear correlation between the variables of group 1A, 1B and 1C and the number of incoming Erasmus students. Therefore the null hypothesis was rejected.

Table 5 Measure correlation analysis according to Pearson (Group 1A, 1B, 1C)
Source: Own calculations

		OneAGeneralInformation	OneBApplicationInformation	OneCFinancialINformation
Numberofincoming ERASMUSstudents	Correlation concerning to Pearson	-,036	-,049	-,036
	Significance (bilateral)	,828	,763	,827
	N	40	40	40

* The correlation is significant on the level 0.05 (bilateral).

**The correlation is significant on the level 0.01 (bilateral).

For group 1D a *Non-parametric correlation analysis* according to *Spearman was conducted* because normal distribution was not given. The results of the test provided in Table 6 (1D: r_S = -0.123, p=0.448) show that there is no statistically significant

[11] The detailed results of the Kolmogorov-Smirnov-Test for Normality can be found in Table G in the Appendix.

monotone correlation between the variables of group 1D and the number of incoming Erasmus students. Hence, the null hypothesis was not rejected.

Table 6 Non-parametric correlation analysis according to Spearman (Group 1D)
Source: Own calculation

Spearman Rho		OneDAcademicInformation
NumberofincomingERASMUSstudents	Correlation coeffizient	**-,123**
	Significance (bilateral)	**,448**
	N	40

*The correlation is significant on the level 0.05 (bilateral).

System quality

RQ2a: What system function is supplied on the European universities' websites?

RQ2b: Which variables are utilized most frequently?

Table 7 System quality: Frequency
Source: Own calculations

II. System quality	**Frequency**	**%**
29_Foreign language version	38	100%
35_Minimal loading time (t<4 sec)	40	100%
39_Minimal animation with sound	40	100%
30_Easily identifiable URL	39	98%
33_Minimal pop-ups	39	98%
34_Minimal unwanted or intrusive ads	38	95%
41_Search feature or link to search engine	37	93%
38_Minimal graphic reliance	36	90%
46_Entertainment material on the web to appeal to visitors and encourage them to bookmark the site	28	70%
40_Site map	25	63%
31_Short scrolls of text (20-40)	22	55%
32_Minimal navigation menus	18	45%
37_Providing simplified menus	13	33%
45_Newsletter sign up	6	15%
42_Online help	3	8%
43_Participation in online survey	3	8%
36_Glossary of terms	0	0%
44_Discussion forum/chat room	0	0%

Table 7 reflects what system functions are provided on the institutions websites and which one are utilized most frequently. Remarkable is that the Ease of use functions score the highest percentages (Minimal loading time 100%, Easy identifiable URL 98%, Minimal pop-ups 98% and Minimal unwanted or intrusive ads 95%). Furthermore, the majority of the university websites rely on the Simplicity of the design of a website, which becomes evident in the percentages of the corresponding variables (Minimal animation with sound 100% and Minimal graphic reliance 90%). However, one variable did not show high frequency; more precisely in 1/3 of the cases the websites did not provide simplified menus (Providing simplified menus 33%). In addition, about 70% of the websites spot entertainment material in order to persuade the visitor to stay on the website (Entertainment material on the web to appeal to visitors and encourage them to bookmark the site 70%). Besides, the presence of interactive functions is partly well represented (Search feature or link to search engine 93 % and Site map 63%). Nevertheless, there is a big lack of other interactive functions (Newsletter sign up 15%, Online help 8%, Participation in online survey 8%). Above all, two variables were not provided at all (Glossary of terms 0% and Discussion forum/chat room 0%).

$H2_0$: There is statistically significant correlation between system functions (Group 2) and the number of incoming Erasmus students.

After conducting the Kolmogorov-Smirnov-Test for normality, group 2 resulted in being normally distributed (values of *p* bigger than 0.05)[12]. Hence the *measure correlation analysis* according to *Pearson* was conducted, showing the results in Table 8. The figures of the test (2: r_P = -0.064, p=0.696) reveal that there is no statistically significant linear correlation between the variables of group 2 and the number of incoming Erasmus students. Therefore, the null hypothesis was rejected.

Table 8 Measure correlation analysis according to Pearson (Group 2)
Source: Own calculations

		TwoSystemQuality
NumberofincomingERASMUSstudents	Correlation concerning to Pearson	,064
	Significance (bilateral)	,696
	N	40

* The correlation is significant on the level 0.05 (bilateral).

**The correlation is significant on the level 0.01 (bilateral).

[12] The detailed results of the Kolmogorov-Smirnov-Test for Normality can be found in Table G in the Appendix.

Cultural values

RQ3a: Which cultural values are supplied on the European universities' websites?

RQ3b: Which variables are utilized most frequently?

Table 9 Cultural values: Frequency
Source: Own calculations

III. Cultural values	**Frequency**	**%**
47_Collectivism	20	50%
49_Enjoyment	19	48%
53_Technology	15	38%
54_Tradition	11	28%
52_Quality	8	20%
55_Uniqueness	7	18%
48_Competition	1	3%
50_Idividualism	1	3%
51_Modernity	0	0%

Generally speaking almost all websites provided maximum four different types of cultural values, in which mostly about two distinct cultural values were supplied. Table 9 reflects that the most common values transmitted Collectivism (50%), Enjoyment (48%) and Technology (38%), utilized on the front page of the English version institution websites, followed by Quality (20%) and Uniqueness (18%), which were present on 1/5 of the websites. Almost no university concentrated itself on providing cultural values like Competition (3%) or Individualism (3%). In addition, not even young universities tried to persuade students by transmitting Modernity (0%) on their websites.

$H3_0$: There is statistically significant correlation between the cultural values (Group 3) and the number of incoming Erasmus students.

After conducting the Kolmogorov-Smirnov-Test for normality, group 3 resulted in not being normally distributed (value of *p* was smaller than 0.05)[13]. Consequently, a *Non-parametric correlation analysis* according to *Spearman* was conducted. The results of the test in Table 10 (3: r_S = -0.258, p=0.108) show that there is no statistically

[13] The detailed results of the Kolmogorov-Smirnov-Test for Normality can be found in Table G in the Appendix.

significant monotone correlation between the variables of group 3 and the number of incoming Erasmus students. Hence, the null hypothesis was rejected.

Table 10 Non-parametric correlation analysis according to Spearman (Group 3)
Source: Own calculations

Spearman-Rho		ThreeCulturalValues
NumberofincomingERASMUSstudents	Correlation coeffizient	**-,258**
	Significance (bilateral)	**,108**
	N	40

*The correlation is significant on the level 0.05 (bilateral).

Creative strategies

RQ4a: Which creative strategies are supplied on the European universities' websites?

RQ4b: Which variables are utilized most frequently?

Table 11 Creative strategies: Frequency
Source: Own calculations

IV. Creative strategies	**Frequency**	**%**
56_Information	32	80%
58_Motivation with psychological appeals	13	33%
57_Argumentation	3	8%
60_Imitation	1	3%
59_Symbolic association	0	0%

The category *Creative strategies* procured five different possible variables to select when examining the front pages of the English version institutions websites. Generally speaking, the majority of the institutions concentrated on using one strategy on average. Table 11 shows that the variable most often used by far is Information (80%). Besides, around 1/3 of the universities rely on the strategy Motivation with psychological appeals (33%). Whereas other strategies like Argumentation (8%) and Imitation (3%) are not very common, in addition to that Symbolic association (0%) was not used at all.

$H4_0$: There is statistically significant correlation between creative strategies (Group 4) and the number of incoming Erasmus students.

After conducting the Kolmogorov-Smirnov-Test for normality, group 4 resulted in not being normally distributed (value of *p* was smaller than 0.05)[14]. Consequently, a *Non-parametric correlation analysis* according to *Spearman* was conducted. The results of the test in Table 12 (4: r_S = -0.375, p=0.017) show that there is a statistically significant negative monotone correlation between the variables of group 4 and the number of incoming Erasmus students. Hence the null hypothesis was not rejected.

Table 12 Non-parametric correlation analysis according to Spearman (Group 4)
Source: Own calculations

Spearman-Rho		FourCreativeStrategies
NumberofincomingERASMUSstudents	Correlation coeffizient	**-,375***
	Significance (bilateral)	**,017**
	N	40

*The correlation is significant on the level 0.05 (bilateral).

General observations

After describing the results of all four categories in particular, further general observations were made during the examination. To begin with, 5 out of 40 university English version websites differed in terms of design and content of the menu in comparison to the native language websites. This included Universita de Bologna, Univerzita Karlova v Praze, Lund Universitet, Université de Strasbourg and Université Libre de Bruxelles. Another remarkable observation was that some English version websites provided several contents in the menu, but when entering the hyperlinked menu item the information was written in the native language. Especially, Italian, Spanish, German and Portuguese institutions composed their websites in this way.

The last observation made refers to the British university websites, namely University of Aberdeen and University of Manchester, which were examined in the pilot test. Noticeable was that these institutions were the only universities which did not provide additional language versions of their website.

6. Discussion

This study examined the extent to which European universities exploit the benefits of the web in terms of information providing, system function, the application of cultural

[14] The detailed results of the Kolmogorov-Smirnov-Test for Normality can be found in Table G in the Appendix.

values and creative strategies in order to reach their major public relations goal: increase the academic diversity on their campus. The in-depth analysis reveals several salient findings towards the academic institutions' E-recruitment efforts on international students.

First of all, European universities provide a great quantity of general information about the institution and academic information. This includes especially the logo, driving directions and campus population status as well as a list of the degree programs and language courses. It seems that universities are convinced that these basics are important for prospective international students, making associations/alliance possible. However, the European universities do not effectively inform prospective students about the application process. The only salient information is about housing and a link to information for international students. Other important information such as the contacts of the admissions office or enrolment score requirements do not appear on all websites but rather only on average on 70%. In addition, there is a big lack in information about financial aid. Although about 2/3 of the universities provide information about grants, scholarships and loans, the quantity and quality of the information is poor. In addition, a lot of institutions only provide that information in their native language. The last salient finding referring to information quality is that downloadable documents and forms for financial aid or application are rare on the institution websites. A possible reason for that could be that in many European countries the application process is preceded by a central governmental association, so that the whole information of the admissions and application process is given in detail on that website. Furthermore, a couple of the universities have also a central website were financial aid information for several institutions are managed. Another possible reason could be that Erasmus students get a loan from the European commission, which forwards the financial aid through the *home universities*, so that the information and downloadable documents are provided on the native language website. In addition, the majority of the scholarships are for natives.

Secondly, in terms of system quality all universities[15] at least offer one version of foreign languages (in all cases English), while British institutions[16] did not provide

[15] All universities which were examined in the main analysis.

website versions in another language than the native one. It seems that all European countries besides Great Britain show multi-linguistic concerns.

Thirdly, all institutions do well in performing usability of the websites with ease of use (easy identifiable URL, minimal pop-ups, minimal unwanted ads and minimal loading time), simplicity of design (minimal graphic reliance and minimal animation with sound) and a search feature. These results meet the satisfactions of current university students, since visitors of institution websites consider an ease of information access as very important. However, about 1/3 of the universities do not provide simplified menus and a minimal navigation.

Furthermore, almost all universities showed a big lack in interactive functions such as online help, online surveys, chat rooms, newsletter sign ups and glossary of terms. Hence, the European universities fail in terms of two-way communication with publics on the web. These institutions do not effectively use their websites in order to connect with prospective and current students or interested parties via forums, chats, surveys or other instruments the web can provide.

Regarding the findings of cultural values and creative strategies the websites showed strong similarities, as could be expected within a single genre. The majority of the institutions websites had a banner with the name and the logo of the university and students were used on the pictures while studying or laughing (Collectivism and Enjoyment) as well as pictures of campus facilities were common. Additionally, almost every university used the website to appear as a visible presentation of the institution, demonstrating its values and commodities. However, differences varied between the types of institutions. Whereas technical universities emphasized possibilities for professional advancement and school resources, illustrating pictures of students with high technology equipment. Older universities placed emphasis on tradition, using pictures of a historical university facility or an official seal as a logo. Quality and uniqueness was only transmitted by 1/5 of the websites. A possible reason could be that mainly elite universities would strongly emphasis these cultural values. Only a very small number of schools placed emphasis on individualism or

[16] The British universities were examined in the pilot test. This included the University of Aberdeen and Manchester.

competition, possibly because higher education is more associated with support, a sharing aim and social contacts than with isolated students and rivalry.

Concerning the correlation, the findings reveal that there was no statistically significant correlation between group 1A, 1B, 1C, 1D, 2, 3 and the number of incoming Erasmus students and the categories. An explanation could be that the content and communication strategies of university websites may serve as a presentation tool for the institution, but obviously do not correlate with the number of (international) students. Maybe rather factors like geographical location and academic reputation influence the number of the (international) campus population.

Furthermore, almost every university used the creative strategy *Information* on its website, followed by motivations with psychological appeals. The findings reveal that a statistically significant negative correlation between group 4 (Creative strategies) and the number of incoming Erasmus students exists, meaning the fewer creative strategies a university is providing on its website the more international students it exhibits. Apparently, the reason is that the main goal of university websites is to inform the publics about the institution and also persuade them to develop the desire to study there. Since from the public's point of view the most important issue of a website is that the site provides a certain goal-direction. Thus a public is able to achieve its personal needs of information, communication and entertainment. If the universities start to use many different creative strategies, the students may get confused and hence leave the site or in the worst case do not consider that university as a future institution to study anymore.

In summary, European institutions seem to be good information provider as well as performing well in terms of system quality. The only big lack was found in the allocation of interactive functions, which require more advanced skills in developing web pages. However, the two-way communication can be improved through a more skilled technical staff involved in the maintenance and web construction. In addition, the universities should supply all important information in English and not mislead international students with English links in the menu, but native language content on the hyper-liked sites. Furthermore, institutions should not forget the importance of a well-organized website, for instance resulting from a minimal navigation and

simplified menu, since a website rich in information but poorly organized remains still an untapped resource for effective student recruitment.

7. Limitations and further research

The limitation of this study is that it focused only on university websites. Further research into other factors like the geographical location or the reputation of an institution will lead to more awareness of the e-recruitment effort via the websites. Additionally, this study examined *only* 40 (together with the pilot test 50) university websites and focused on Erasmus students only. Further studies with a bigger sample of examined university websites or surveying students which plan would like to study the whole degree abroad may would reveal other interesting findings and be interesting, especially in terms of the allocation and the necessity of all information in English. Moreover, further studies about the experiences and perception of international students about their use of university websites will be interesting to conduct from the public's perspective. Surveys of technical staff that are in charge of the construction and maintenance of the website will also reveal some inside factors that influence the content and design of institution websites.

References

- Aarinen, A. (2012). University websites as facilitators of international student decision-making. Department of Management and International Business, Aalto University School of Business. Espoo (Finland).

- Barber, W., & Badre, A. (1998). Culturability: The merging of culture and usability. Paper presented at 4th Conference on Human Factors & the Web, Baskin Ridge NJ, USA. Retrieved 27.07.2013, from http://www.research.att.com/conf/hfweb/proceedings/barber/.

- Berelsen, B. (1971). Content analysis in communication research. New York NY: Hafner Publishing Company.

- Berelson, B. (1952). Content analysis in communication research. New York, NY, US: Free Press.

- Callahan, E. (2006). Cultural similarities and differences in the design of university websites. Journal of Computer-Mediated Communication, 11, 12-41.

- Callison, C. (2003). Media relations and the internet: How Fortune 500 company Websites assist journalists in news gathering. Public Relations Review, 29, 29–41.

- Chapin, T., & Fitzgerald, J. (2002). Student recruitment and the World Wide Web: An analysis of the supply of and demand for online information in planning. Journal of Planning Education and Research, 21, 419-425.

- Chung, W., Lee, T., & Humphrey, V. (2010). Academic institutions' electronic-recruitment efforts on academic diversity: A comparative analysis of websites of US, UK, and South Korean universities. Retrieved 18.06.2013, from http://www.prismjournal.org/fileadmin/Praxis/Files/Journal_Files/Chung_Lee_Humphrey.pdf .

- Clayton, M. (2003). Speed-selecting a college. Retrieved 24.07.2013, from http://www.csmonitor.com/2003/1007/p13s02-lehl.html.

- Dou, W., & Krishnamurthy, S. (2007). Using brand websites to build brands online: A product versus service brand comparison. Journal of Advertising Research, 47, 193–206.

- Ellis, L. (1994). Research methods in social sciences. Madison, WI: WCB Brown & Benchmark.

- Eriksson, P., & Kovalainen, A. (2008). Qualitative methods in business research. London: Sage.

- Esrock, S. L., & Leichty, G. B. (2000). Organization of corporate web pages: Publics and functions. Public Relations Review, 26, 327-344.

- European Commission (2013a). Erasmus – Facts, Figures & Trends. The European Union support for student and staff exchanges and university cooperation in 2011-12. Retrieved 22.07.2013, from http://ec.europa.eu/education/erasmus/doc/stat/erasmus1112_en.pdf.

- European Commission (2013b). Erasmus – Statistics. Retrieved 22.07.2013, from http://ec.europa.eu/education/erasmus/doc/stat/studies.pdf.

- European Commission (2013c). Erasmus – Statistics. Retrieved 22.07.2013, from http://ec.europa.eu/education/erasmus/doc/stat/1112/sending_en.pdf.

- European Commission (2013d). Erasmus – Statistics. Retrieved 22.07.2013, from http://ec.europa.eu/education/erasmus/doc/stat/1112/receiving_en.pdf.

- European Commission (2013e). Erasmus – Statistics. Retrieved 22.07.2013, from http://ec.europa.eu/education/erasmus/doc/stat/0708/studentin.pdf.

- European Commission (2013f). History of the ERASMUS Programme. Retrieved 22.07.2013, from http://ec.europa.eu/education/erasmus/history_en.htm.

- Frey, L.R., Botan, C.H., & Kreps, G.L. (2000). Investiganting communication: An introduction to research methods (2nd ed.). Boston: Allyn & Bacon.

- Gatfield, T., Barker, M., & Graham, P. (1999). Measuring communication impact for university advertising materials. Corporate Communications: An International Journal, 4(2), 73-79.

- Gould, E.W., Zakaria, N., & Mohd, S.A. Yusof (2000). Applying culture to web site design: A Comparison of Malaysian and US web sites. Proceedings of IEEE professional communication society, 161-171.

- Hallahan, K. (2001). Improving public relations websites through usability research. Public Relations Review, 27, 223-239.

- Hayes, T. (2007). Delphi study of the future of marketing of higher education. Journal of Business Research, 60, 927-931.

- Hill, L. N., & White, C. (2001). Public relations practitioners' perception of the World Wide Web as a communications tool. Public Relations Review, 26, 31-51.

- Holsti, O. R. (1969). Content analysis for the social sciences and humanities. Merlo Park, CA: Addison-Wesley.

- Jun, M. & Cai, S. (2001). The key determinants of internet banking service quality: A content analysis. International Journal of Bank Marketing, 19, 276-291.

- Kang, S., & Norton, H. E. (2006). Colleges and universities' use of the World Wide Web: A public relations tool for the digital age. Public Relations Review, 32, 426-428.

- Kelo, M., Teichler, U., & Wächter, B. (2006). Toward improved data on student mobility in Europe: Findings and concepts of the Eurodata Study. Journal of Studies in International Education, 10 (3), 194-223.

- Kent, M. L., & Taylor, M. (2002).Toward a dialogic theory of public relations. Public Relations Review, 28, 21-37.

- Klassen, M. (2002). Relationship marketing on the internet: The case of top- and lowerranked universities and colleges. Journal of Retailing and Consumer Services, 9, 81-85.

- Kolbe, R.H., & Burnett, M.S. (1991). Content analysis research: An examination of applications with directives for improving research reliability and objectivity. Journal of Consumer Research, 14, 243-50.

- Krippendorf, K. (2004). Content Analysis: An introduction to its methodology. Thousand Oaks: Sage Publications.

- Liu, C., Arnett, K. P., Capella, L. M., & Taylor, R. D. (2001). Key dimensions of web design as related to consumer response. Journal of Computer Information Systems, 42, 47-69.

- Liu, M. (2007). Content and design for international students: A content analysis of US university websites. Paper presented at the International Communication Association Annual Conference. San Francisco, CA. Retrieved 20.06.2013, from http://citation.allacademic.com//meta/p_mla_apa_research_citation/1/7/3/2/6/pages173264/p173264-1.php.

- Loonam, M., & O' Loughlin, D. (2008). An observation analysis of E-service quality in online banking. Journal of Financial Services Marketing, 13, 164-178.

- McMillan, S.J. (2000). The microscope and the moving target: The challenge of applying content analysis to the world wide web. Journalism and Mass Communication Quarterly, 77 (1), 80-98.

- Mentz, G., & Whiteside, R. (2003). Internet college recruiting and marketing. Journal of College Admission, 12, 10-17.

- Neuendorf, K.A. (2002). The content analysis guidebook. Thousand Oaks: Sage Publications.

- Nielsen, J. (2000). Designing web usability: The practice of simplicity. New Riders Publishing: Indianapolis, IN.

- Okazaki, S., & Rivas, J.A. (2002). A content analysis of multinationals' Web communication strategies: Cross-cultural research framework and pre-testing. Internet Research, 12 (5), 380-390.

- Ozdemir, S., & Trott, P. (2009). Exploring the adoption of a service innovation: A study of internet banking adopters and non-adopters. Journal of Financial Services Marketing, 13, 284-299.

- Parey, M., & Waldinger, F. (2008). Studying abroad and the effect on international labour market mobility: Evidence from the introduction of Erasmus. The Economic Journal, 121, 194-222.

- Park, H., & Reber, B. H. (2008). Relationship building and the use of websites: How Fortune 500 corporations use their websites to build relationships. Public Relations Review, 34, 409–411.

- Perry, M., & Bodkin, C. (2002). Fortune 500 manufacturer websites: Innovative marketing strategies or cyberbrochures? Industrial Marketing Management, 31, 133–144.

- Potter, J.W., & Levine-Donnerstein, D. (1999). Rethinking validity and reliability in content analysis. Journal of Applied Communication Research, 27, 258-284.

- Riffe, D., Lacy, S., & Fico, F.G. (1998). Analysing media messages: Using quantitative content analysis in research. Mahwah, NY: Erlbaum.

- Rodríguez González, C., Bustillo Mesanza, R., & Mariel, P. (2010). The determinants of international student mobility flows: An empirical study on the Erasmus programme. Higher Education, 62 (4), 413-430.

- Singh, S.N., & Dalal, N.P. (1999). Web home pages as advertisements. Communications of the ACM, 42 (8), 91–98.

- Stemler, S. (2001). An Overview of Content Analysis. Retrieved 23.07.2013, from http://pareonline.net/getvn.asp?v=7&n=17.

- Strauss, J., & Frost, R. (2001). E-marketing. New Jersey: Prentice Hall.

- Taylor, M., & Kent, M. L. (2004). Congressional websites and their potential for public dialogue. Atlantic Journal of Communication, 12, 59-76.

- Taylor, M., Kent, M. L., & White, W. J. (2001). How activist organizations are using the Internet to build relationships. Public Relations Review, 27, 264-284.

- Taylor, M., Kent, M. L., & White, W. J. (2003). The relationship between websites design and organizational responsiveness to stakeholders. Public Relations Review, 29, 63-77.

- Teichler, U., & Janson, K. (2007). The professional value of temporary study in another European country: Employment and work of former Erasmus students. Journal of Studies in International Education, 11 (3-4), 486-495.

- Truell, A. D., Zhao, J. J., Alexander, M. W., & Whitesel, J. A. (2005). Characteristics and communication—Effectiveness of Fortune 500 company corporate homepages. The Delta Pi Epsilon Journal, 47(2), 83–90.

- Van Aart, J. (2011). Key influencers of international student satisfaction in Europe. Retrieved 25.07.2013, from http://media.prtl.eu/Key_Influencers_International_Student_Satisfaction.pdf.

- W3C (2004). Web content accessibility guidelines. Retrieved 20.06.2013, from http://www.w3.org/.

- Wernick, A. (1991). Promotional culture: Advertising, ideology and symbolic expression. London: Sage.

- Zandpour, F., Chang, C., & Catalano, J. (1992). Stories, symbols, and straight talk: A comparative analysis of French, Taiwanese, and US TV commercials. Journal of Advertising, 32 (1), 25-38.

Appendix

Figure A Outgoing Erasmus student mobility for studies from 1987/88 - 2010/11
Source: European Commission, 2012

	Erasmus			Erasmus					SOCRATES I - Erasmus				
Country	1987/88	1988/89	1989/90	1990/91	1991/92	1992/93	1993/94	1994/95	1995/96	1996/97	1997/98	1998/99	99/2000
BEFR													
BEDE													
BENL													
BE	58	404	795	1,154	1,837	2,314	2,809	3,480	3,978	4,101	4,233	4,446	4,404
BG													134
CZ												879	1,249
DK	57	189	417	729	950	1,282	1,561	1,771	1,930	1,730	1,795	1,751	1,764
DE	649	1,727	3,744	4,933	6,858	9,011	11,118	12,633	13,638	13,070	13,785	14,693	15,715
EE													183
GR	39	195	459	566	926	1,266	1,454	1,928	1,897	1,601	1,431	1,765	1,910
ES	95	1,063	2,201	3,442	4,353	5,697	7,043	8,537	10,547	10,841	12,468	14,381	16,297
FR	895	1,785	4,059	5,524	6,360	8,983	8,782	9,844	13,336	12,505	14,821	16,351	16,824
IE	112	167	351	644	894	1,214	1,493	1,632	1,618	1,584	1,564	1,504	1,689
IT	220	1,365	2,295	3,355	4,202	5,308	6,808	7,217	8,969	8,907	9,271	10,875	12,421
CV												35	42
LV													166
LT													361
LU		30	13					47	68	61	66	82	87
HU												856	1,627
MT													
NL	169	650	1,261	1,969	2,554	3,290	4,387	4,853	5,180	4,132	4,190	4,332	4,418
AT						855	982	1,801	2,301	2,384	2,442	2,711	2,952
PL												1,426	2,813
PT	25	158	276	543	760	1,025	1,333	1,903	1,609	1,674	1,834	2,179	2,472
RO												1,250	1,699
SI													170
SK												59	380
FI						779	976	1,641	2,530	2,538	3,052	3,441	3,486
SE						1,101	1,792	2,302	2,912	2,915	3,264	3,321	3,087
UK	925	2,181	3,585	5,047	6,620	8,872	10,519	11,988	11,735	10,537	10,582	9,994	10,056
IS						33	58	83	103	117	113	147	138
LI								3	3	0	3	2	3
NO						441	767	980	1,212	1,165	1,071	1,101	1,107
TR													
HR													
Total	3,244	9,914	19,456	27,906	36,314	51,471	61,882	72,643	83,566	79,862	85,985	97,581	107,654

SOCRATES II - Erasmus							LLP Erasmus				Total	Country
2000/01	2001/02	2002/03	2003/04	2004/05	2005/06	2006/07	Study 2007/08	Study 2008/09	Study 2009/10	Study 2010/11		
										2,388	2,388	BEFR
										0	0	BEDE
										3,265	3,265	BENL
4,427	4,521	4,620	4,789	4,833	4,971	5,119	4,781	5041	5269	5,653	88,037	BE
398	605	612	751	779	882	938	1,078	1283	1451	1,549	10,460	BG
2,001	2,533	3,002	3,589	4,178	4,725	5,079	5,335	5440	5338	5,589	48,937	CZ
1,750	1,752	1,845	1,686	1,793	1,682	1,587	1,674	1648	1794	1,913	35,050	DK
15,872	16,626	18,482	20,688	22,427	23,848	23,884	23,553	23407	24029	25,178	359,568	DE
255	274	304	305	444	511	572	595	551	725	787	5,506	EE
1,868	1,974	2,115	2,385	2,491	2,714	2,465	2,308	2737	2790	2,899	42,183	GR
17,158	17,403	18,258	20,034	20,819	22,891	22,322	23,107	24399	27448	31,427	342,231	ES
17,161	18,149	19,365	20,981	21,561	22,501	22,981	22,556	23560	24426	25,789	359,099	FR
1,648	1,707	1,627	1,705	1,572	1,567	1,524	1,514	1421	1600	1,858	32,209	IE
13,253	13,950	15,225	16,829	16,440	16,389	17,195	17,562	17754	19118	19,773	264,701	IT
	72	91	64	93	133	129	148	144	199	249	1,399	CY
182	209	232	308	607	681	807	968	1104	1269	1,384	7,917	LV
624	823	1,002	1,194	1,473	1,910	2,082	2,392	2425	2277	2,580	19,143	LT
126	104	119	138	116	146	170	367	426	445	439	3,050	LU
2,001	1,736	1,830	2,058	2,316	2,658	3,028	3,292	3518	3421	3,347	31,688	HU
92	129	72	119	130	149	125	107	142	122	0	1,187	MT
4,162	4,244	4,241	4,388	4,743	4,491	4,502	4,699	4902	5358	5,946	93,061	NL
3,024	3,024	3,325	3,721	3,809	3,971	4,032	4,133	4053	4234	4,241	57,995	AT
3,691	4,323	5,419	6,276	8,390	9,974	11,219	11,879	11784	11613	11,572	100,379	PL
2,569	2,825	3,172	3,782	3,845	4,312	4,424	4,471	4834	4677	5,031	59,733	PT
1,899	1,964	2,701	3,005	2,962	3,261	3,350	2,953	3064	3129	3,503	34,740	RO
227	364	422	546	742	879	972	1,018	1132	1118	1,199	8,789	SI
505	578	653	682	979	1,165	1,346	1,452	1703	1798	2,052	13,352	SK
3,286	3,291	3,402	3,951	3,932	3,851	3,773	3,265	3436	3529	3,927	58,086	FI
2,726	2,633	2,656	2,667	2,698	2,530	2,532	2,348	2413	2728	2,846	49,471	SE
9,020	8,475	7,973	7,539	7,214	7,131	7,235	7,523	7429	8053	8,577	188,810	UK
134	147	163	221	199	194	189	210	186	215	247	2,897	IS
18	17	7	19	26	30	44	30	20	19	35	279	LI
1,007	970	1,010	1,156	1,279	1,412	1257	1,103	1317	1262	1,450	21,067	NO
				1,142	2,852	4,438	6,274	6920	8016	8,993	38,635	TR
									235	462	697	HR
111,084	115,422	123,945	135,576	144,032	154,411	159,320	162,695	168,193	177,705	190,495	2,380,356	Total

Table A Information quality: Definition of the variables
Source: Chung et al., 2010; Chapin & Fitzgerald, 2002; Liu, 2007

Information quality	
A. General information about institution for international students	1_Driving directions or links to directions
	2_Links to satellite campuses
	3_History
	4_Logo
	5_University Ranking
	6_Clear statement about the university's statement on the philosophy and mission of the university
	7_Campus population status
	8_Diversity information
B. Application information for international students	9_Downloadable documents and forms (for application)
	10_Enrolment score requirements (TOEFL, etc.)
	11_Phone number and email of admissions office
	12_Online application
	13_Clear link to information for international students (e.g. International Office)
	14_Enrolment information in additional language
	15_FAQ's
	16_Housing
	17_Info about city
C. Information about financial aid for international students	18_Downloadable documents and forms (financial aid)
	19_Financial aid information (loan, grants, scholarships)
	20_Means to contact financial aid representatives (email, phone)
	21_Complete online application for financial aid
D. Academic information for international students	22_Comprehensive list of degree programs offered by the university
	23_List of colleges and Deans and a means to contact the key personal
	24_List of clubs and organisations and description of each
	25_ Language courses
	26_Internship/working
	27_Health insurance
	28_Immigration/VISA/SEVIS

Table B System quality: Definition of the variables
Source: Cheng et al., 2010; Liu, 2007

II. System quality	
A. Usability and accessibility	29_Foreign language version
	30_Easily identifiable URL
	31_Short scrolls of text (20-40)
	32_Minimal navigation menus
	33_Minimal pop-ups
	34_Minimal unwanted or intrusive ads
	35_Minimal loading time (t<4 sec)
	36_Glossary of terms
	37_Providing simplified menus
	38_Minimal graphic reliance
	39_Minimal animation with sound
	40_Site map
	41_search feature or link to search engine
	42_Online help
	43_Participation in online survey
	44_Discussion forum/chat room
	45_Newsletter sign up
	46_Entertainment material on the web to appeal to visitors and encourage them to bookmark the site

Table C Cultural values: Definition of variables
Source: Okazaki & Rivas, 2002

III. Cultural values	
47_Collectivism	The emphasis here is on the individual in relation to others typically in the reference group. Individuals are depicted as integral parts of the group.
48_Competition	The emphasis here is on distinguishing a product from its counterparts by aggressive comparisons. While explicit comparisons may mention the competitor's name, implicit comparisons may use such words as "number one" or "leader."
49_Enjoyment	This value suggests that a product will make its user wild with joy.
50_Idividualism	The emphasis here is on the self-sufficiency and self-reliance of an individual or on the individual as being distinct and unlike others.
51_Modernity	The notion of being new, contemporary, up-to-date, and ahead of time is emphasized.
52_Quality	The emphasis here is on the excellence and durability of a product, which is usually claimed to be a winner of medals or certificates awarded by a government department for its high grade or is demonstrated by the product's excellent performance.

53_Technology	Here, the advanced and sophisticated technical skills to engineer and manufacture a particular product are emphasized.
54_Tradition	The experience of the past, customs, and conventions are respected. The qualities of being historical, time-honored, and legendary are venerated, e.g., "Established in 1598".
55_Uniqueness	The unrivaled, incomparable, and unparalleled nature of a product is emphasized, e.g., "We're the only one that offers you the product."

Table D Creative strategies: Definition of variables
Source: Okazaki & Rivas, 2002

IV. Creative strategies	
56_Information	Presentation of unadorned facts, without explanation or argument, merely “news about” the product concerned.
57_Argumentation	Relating of facts (reason why) in some detail to the desired purchase; copy especially important; logical “playing on established desires” in presenting “excuses” to buy.
58_Motivation with psychological appeals	Explicit statement of how the product will benefit the consumer; use of emotion and appeals to self-interest in creating desires not previously readily apparent; interpretation of facts in an “especially for you” framework.
59_Symbolic association	Subtle presentation of a single piece of information; links the product to a place, event, person, or symbol (any positive connotation); sales pitch usually not explicit, copy usually minimal, and product, in general, not “featured”.
60_Imitation	Testimonial, by a celebrity, by “hidden camera” participant or by individual(s) unknown but with whom readers can readily identify (or whom they respect because of specified characteristics).

Table E Example of a coding sheet
Source: Own design, 2013

Coding sheet		
Name of the university		
Country		
Access date		
Information quality	**1=yes**	**0=no**
1_Driving directions or links to directions		

2_Links to satellite campuses		
3_History		
4_Logo		
5_University Ranking		
6_Clear statement about the university's statement on the philosophy and mission of the university		
7_Campus population status		
8_Diversity information		
9_Downloadable documents and forms (for application)		
10_Enrolment score requirements (TOEFL, etc.)		
11_Phone number and email of admissions office		
12_Online application		
13_Clear link to information for international students (e.g. International Office)		
14_Enrolment information in additional language		
15_FAQ's		
16_Housing		
17_Info about city		
18_Downloadable documents and forms (financial aid)		
19_Financial aid information (loan, grants, scholarships)		
20_Means to contact financial aid representatives (email, phone)		
21_Complete online application for financial aid		
22_Comprehensive list of degree programs offered by the university		
23_List of colleges and Deans and a means to contact the key personal		
24_List of clubs and organisations and description of each		
25_ Language courses		
26_Internship/working		
27_Health insurance		
28_Immigration/VISA/SEVIS		
II. System quality		
29_Foreign language version		
30_Easily identifiable URL		
31_Short scrolls of text (20-40)		
32_Minimal navigation menus		
33_Minimal pop-ups		
34_Minimal unwanted or intrusive ads		
35_Minimal loading time (t<4 sec)		
36_Glossary of terms		
37_Providing simplified menus		
38_Minimal graphic reliance		
39_Minimal animation with sound		
40_Site map		

41_search feature or link to search engine		
42_Online help		
43_Participation in online survey		
44_Discussion forum/chat room		
45_Newsletter sign up		
46_Entertainment material on the web to appeal to visitors and encourage them to bookmark the site		
III. Cultural values		
47_Collectivism		
48_Competition		
49_Enjoyment		
50_Idividualism		
51_Modernity		
52_Quality		
53_Technology		
54_Tradition		
55_Uniqueness		
IV. Creative strategies		
56_Information		
57_Argumentation		
58_Motivation with psychological appeals		
59_Symbolic association		
60_Imitation		

Table F Intercoder reliability (by Holsti)
Source: Own calculations

	Pilot test	**Actual test**
I. Information quality		
1_Driving directions or links to directions	0,9	1
2_Links to satellite campuses	1	0,98
3_History	1	1
4_Logo	1	1
5_University Ranking	0,9	0,95
6_Clear statement about the university's statement on the philosophy and mission of the university	0,9	0,93
7_Campus population status	0,8	0,95
8_Diversity information	1	0,8
9_Downloadable documents and forms (for application)	0,9	0,75
10_Enrolment score requirements (TOEFL, etc.)	1	0,83
11_Phone number and email of admissions office	1	0,95
12_Online application	0,9	0,98
13_Clear link to information for international students	0,8	0,98

(e.g. International Office)		
14_Enrolment information in additional language	1	1
15_FAQ's	1	0,85
16_Housing	1	0,98
17_Info about city	1	0,85
18_Downloadable documents and forms (financial aid)	0,9	0,98
19_Financial aid information (loan, grants, scholarships)	0,9	0,98
20_Means to contact financial aid representatives (email, phone)	0,9	0,9
21_Complete online application for financial aid	1	0,98
22_Comprehensive list of degree programs offered by the university	1	0,98
23_List of colleges and Deans and a means to contact the key personal	0,8	0,85
24_List of clubs and organisations and description of each	1	0,8
25_ Language courses	0,8	0,98
26_Internship/working	1	0,93
27_Health insurance	0,8	0,95
28_Immigration/VISA/SEVIS	0,8	0,98
II. System quality		
A. Usability and accessability		
29_Foreign language version	1	1
30_Easily identifiable URL	1	1
31_Short scrolls of text (20-40)	0,8	0,88
32_Minimal navigation menus	1	0,85
33_Minimal pop-ups	1	0,98
34_Minimal unwanted or intrusive ads	1	0,98
35_Minimal loading time (t<4 sec)	1	1
36_Glossary of terms	0,9	0,93
37_Providing simplified menus	0,9	0,88
38_Minimal graphic reliance	1	0,93
39_Minimal animation with sound	1	1
40_Site map	1	0,9
41_search feature or link to search engine	1	1
42_Online help	0,8	0,95
43_Participation in online survey	1	1
44_Discussion forum/chat room	0,9	1
45_Newsletter sign up	0,9	0,88
46_Entertainment material on the web to appeal to visitors and encourage them to bookmark the site	0,9	0,9
III. Cultural values		
47_Collectivism	0,7	0,85
48_Competition	0,7	0,95
49_Enjoyment	0,7	0,98

50_Idividualism	0,7	0,9
51_Modernity	0,7	0,93
52_Quality	0,8	0,88
53_Technology	0,9	0,93
54_Tradition	0,7	0,88
55_Uniqueness	1	0,95
IV. Creative strategies		
56_Information	0,9	0,85
57_Argumentation	0,8	0,7
58_Motivation with psychological appeals	0,7	0,83
59_Symbolic association	0,7	0,98
60_Imitation	0,8	0,95

Table G Kolmogorov-Smirnov-Test
Source: Own calculations

		NumberofincomingERASMUSstudents	OneAGeneralInformation	OneBApplicationInformation	OneCFinancialINformation
N		40	40	40	40
Parameter of the normal distribution[a,b]	Mean	980,775	,7031	,7167	,4188
	Standard deviation	374,4874	,19342	,16297	,24928
Extremest differences	Absolute	,200	,163	,180	,203
	Positive	,200	,107	,164	,176
	Negative	-,186	-,163	-,180	-,203
Kolmogorov-Smirnov-Z		1,267	1,030	1,136	1,282
Asymptotic significanzce (bilateral)		,081	,239	,151	,075

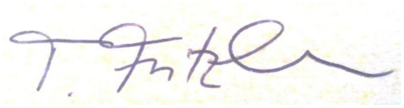
a. The examined distribution is a normal distribution.
b. Calculated from the data.

		OneDAcademicInformation	TwoSystemQuality	ThreeCulturalValues	FourCreativeStrategies
N		40	40	40	40
Parameter of the normal distribution[a,b]	Mean	,7429	,6208	,2750	,3350
	Standard deviation	,19464	,09235	,10672	,15941
Extremest differences	Absolute	,217	,164	,233	,233
	Positive	,129	,136	,192	,226
	Negative	-,217	-,164	-,233	-,233
Kolmogorov-Smirnov-Z		1,370	1,036	1,472	1,475
Asymptotic significanzce (bilateral)		,047	,233	,026	,026

a. The examined distribution is a normal distribution.
b. Calculated from the data.

Statement of authorship

I hereby certify that this master thesis has been composed by myself, and describes my own work, unless otherwise acknowledged in the text. All references and verbatim extracts have been quoted, and all sources of information have been specifically acknowledged. It has not been accepted in any previous application for a degree.



After positive appraisal of this thesis, I agree that one copy of my presented thesis may remain at the disposal of the library of the University of Almería.