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ABSTRACT

Studying abroad has become a very important element in the educational curriculum of a very important part of the world's student population. Companies take into account international experience, specially in a world where international relations keep gaining importance and having contact with people from different nationalities is almost impossible to avoid. However, while there has been quite exhaustive research on the benefits that study abroad programs bring to students that decide to enroll in international study programs, researchers have failed to reach a common conclusion on what are the main motivations that encourage students to undertake them. This study gathers elements from a set of theories and presents a statistical analysis of what are the main motivation that encourage private and public university students to study abroad. In order to so, the MSA theory's motivational categories by Anderson and Lawton (2015) were used to formulate the study. This undergraduate dissertation depicts the motivational aspects that influence private and public university students and finds the common traits that these two groups have.

Key words: **Study abroad | International education | Motivation measuring models | Motivations to study abroad**

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1. INTRODUCTION

While there has been quite exhaustive research on the benefits that study abroad programs bring to students that decide to enroll in international study programs, researchers have failed to reach a common conclusion on what are the main motivations that encourage students to undertake them.

Current educational programs and many companies are based on and believe in the assumption that students with international experience will be better prepared for a world that is increasingly connected. As a matter of fact, Knight (2004) states in Li, Olson and Frieze (2013) that: 'The escalating number of national, regional, international, and cultural conflicts is pushing academics to help students understand global issues and international/intercultural relationships. The mobility of the labor market and the increase in cultural diversity of communities and the workplace require that both students and academics have an increased understanding and demonstrated skills to work and live in a culturally diverse or different environment'.

The aim of this research is to find out what motivates Business Administration (BA) and Tourism and Hospitality Management (THM) students from Spanish universities to undertake study programs abroad and analyze what makes them choose one destination over another one. This research will look at the insights of the students' perspectives towards studying abroad, their motivations and the most important factors considered when choosing the destination for their studies in a foreign country.

In order to narrow down the topic and make it more relevant, this research is focused only on Spanish students from a private and public university. Hopefully, this research will provide an overview of what Spanish students value more when choosing a destination to study abroad and will also show what are their motivations and expectations towards enrolling in an academic mobility program in another country, which also implies the attractions and constraints that such an experience involves.

The main objectives that this study aims to reach are (i) discover what motivates Spanish students from public and private universities to go abroad, (ii) analyze which are the main constraints to enroll in a study abroad program, (iii) find out what factors most influence Spanish students when enrolling in an academic experience abroad and (iv) determine if gender is a factor to be considered in regards studying abroad.

The results of this research could help academic plan developers abroad to create more suitable international programs for Spanish students, therefore reaching a larger amount of participants, improving their experience, enhancing new knowledge and adapting the programs

to the new academic and professional spectrum. Additionally, this research collaborates in proving the applicability of the MSA theory by Anderson and Lawton (2015) in other markets, and therefore making it more relevant for further research on the topic of motivations to study abroad.

2. LITERATURE REVIEW

2.1. INTRODUCTION

The study abroad phenomenon finds its origins between the late seventeenth century and the beginning of the eighteenth century in England. The sons of aristocratic British families were sent to undertake a trip throughout Europe, known as the 'Grand Tour', to complete their education and become remarkable leaders. Since the 1980s educational tourism has been growing in Europe and it is a fundamental part of many students' education. (Swarbrooke, J. and Horner, S., 1999).

In such a globalized world, where everything is interconnected, the benefits of studying abroad include increased multicultural awareness, greater foreign language proficiency, better professional development, and better academic performance as per Bandyopadhyay, S. and Bandyopadhyay, K. (2015), citing Ingraham and Peterson (2004) and Hadis (2005) in their study on 'Factors Influencing Student Participation in College Study Abroad Programs'.

Other authors such as Murphy, Sahakyan, Yong-Yi, and Sieloff Magnan (2014), believe that studying abroad prepares graduates to face challenges and use opportunities in a world where globalization and interdependence are growing, consequently producing the so-called "global citizens".

However, in the same article Davies (2006) clarifies that the term "global citizenship" is overly general. He states that this term is defined with traits that go from "cross-cultural competencies and interpersonal skills in problem-solving", (Matherly and Nolting, 2007) to "intercultural awareness" (Rexeisen, Anderson, Lawton and Hubbard, 2008).

On the other hand, Woolf (2010) defines global citizens in Murphy, Sahakyan, Yong-Yi, and Sieloff Magnan (2014) as "someone who is, or who aspires to be, broad minded, intellectually engaged with other cultures, aware of the interdependence of nations, committed to tolerance and understanding of difference".

The following analysis of the existent literature on studying abroad is organized in four points that introduce the reader to the focus of the objectives of this research. These main elements are explained taking the most important points of a series of studies from other researchers, specially in the field of motivation, and help understanding the outcomes of the motivational analysis of this paper.

2.2. DECISION MAKING PROCESS

The decision making process is a very wide field of study. The processes by which people decide to purchase products and services, act in a certain way in front of specific situations, and in this case decide where to spend their holidays, has been of interest for many theorists (Schmoll, 1977; Mayo and Jarvis, 1981; Ajzen and Driver, 1992; Sirakaya and Woodside, 2005; Wong and Yeh, 2009; Smallman and Moore, 2010). Even thought decision making has typically been researched for marketing purposes in the area of consumer behavior since the 1950s to understand the buying process of tangible and manufactured products, academics have used the most general models to explain the process to purchase tourism products (Sirakaya and Woodside, 2005).

Gathering previous studies (Huber, 1980; Einhorn and Hogarth, 1981; Engel, Blackwell and Miniard, 1986; Carroll and Johnson, 1990), Sirakaya and Woodside (2005) put the steps of decision making for tourist products and services in the following order: (i) *recognition of a decision* that needs to be made, (ii) *formulation of goals and objectives*, (iii) *generation of alternative options* with consideration, (iv) *information search* on the properties of the alternatives, (v) *final choice among the alternatives*, (vi) *acting upon the decision*, and (vii) *providing feedback* for the next decision. However, they also remark that the decision-making process has influences on both psychological and personal aspects, such as attitudes, motivations and believes, as well as psychological or external variables.

The decision making process has undergone a large evolution. Smallman and Moore (2010) present in their study on the Process Studies of Tourists' Decision-Making a set of different theories from other authors.

Classical authors such as Von Neumann and Morgenstern (1944) and Edwards (1954), suggest that people generally gather data to then analyze it and at some point pick a solution from an array of choices, selecting the most appropriate option for their objectives, which is believed to be the optimal decision.

However, the Prospect (Kahneman and Tversky, 1979) and the Regret theories (Loomes and Sugden, 1982) see the possibility of deterministic limits coming from human rationality affecting the decision making process, by accepting risk and uncertainty in decisions.

From the tourism point of view, one of the most used models is the choice set theory, where tourists are depicted as *Homo Economicus*, who try to take the most advantage from the

usefulness of their actions before purchasing a tourist product by reducing risks with large problem solving by thorough planning (Wahab, Crampon and Rothfield, 1976).

There is a more realistic point of view based on the bounded rationality theory, which implies that individuals do not really make optimal decisions, but rather satisfying decisions, because they are affected by time constraints, their cognitive capacity and lack of information (March and Simon, 1958; Simon, 1955). The incrementalism theory adds to the bounded rationality theory that individuals make their choices regardless of the rational limitations when the alternative choice is better than the mainstream options (Lindblom, 1959).

In their research on timings and trade-offs in the marketing of education courses, Moogan, Baron and Bainbridge (2001) based their approach on Kotler's (1997) consumer buying decision process, which is composed of three different phases.

Firstly, there is the problem recognition phase, which is the existent gap between what Kotler describes as the ideal state and the actual state and is linked to the second phase, which is information search. The ideal state goes in reference to the desires of the customer, the position in which he or she would like to be; and contrarily, the actual state is the consumer's current perception of its present situation. As a consequence, the bigger the difference between the actual and the ideal state, the greater the level of motivation, ability and opportunity will be, and therefore the more likely the consumer will act.

Secondly, students go through the information search stage. During this process internal information, as well as external information is gathered by the students. The internal information refers to the students' own memory and experiences, whereas external information comes mainly from the educational market. The authors remark that students will depend on prospectuses, guide books, as well as electronic sources. On the other hand, more personal information sources such as teachers, informational personnel and career advisors may be consulted, as well as family and relatives.

Thirdly, the evaluation of alternatives takes place, where the consumer will balance the pros and cons of their choice or possible choices. There will be a different level of importance for every alternative, and it will depend on the individual and environmental differences. The alternatives will also be very influenced by the amount of available information, the existing competitors and the attributes of each one of the alternatives (Bettman and Kakkar, 1977; Keller and Stealin, 1987; Lussier and Olshavsky, 1979; Punj and Steward, 1983).

2.3. MOTIVATIONS TO STUDYING ABROAD

There are a myriad of factors that have an effect on the students' decision process when choosing a destination.

Nevertheless, it is important to refer to one of the main travel motivation theories, which is Pearce's (1988 1991, 1993) Travel Career Ladder (TCL). The TCL describes the tourist motivations as a set of five levels, on the basis that people's motivations change while they gain travel experience. These levels of needs are divided into (i) *relaxation needs*, (ii) *safety and security needs*, (iii) *relationship needs*, (iv) *self-esteem and development needs* and finally, (v) *self-actualization/fulfilment needs*. Nevertheless, travelers cannot be only in one specific level, but also in various. In the TCL framework, it is suggested that people move through some of the different stages, or otherwise have very predictable motivations. In this case mobility within the latter may be reduced or inexistent due to limiting factors, such as illnesses and other limitations. Nonetheless, in the normal course of events, people rise on the scale while they accumulate travel experiences.

Williams and McNeil (2011) proposed a modified TCL model applied on academic travel behaviors. In their version of Pearce's Travel Career Ladder, the authors divide the different steps of the TCL, which they named after FAST-CL, into (i) *survival needs*, (ii) *safety/security needs,* (iii) *relationship needs* (iv) *self-esteem needs,* and (v) *self-actualization or fulfillment needs.*

The *survival needs* are the grounds of the FAST-CL and are related to the importance of knowledge and its relevance in building a strong résumé. The second level of the FAST-CL is based on the proper execution of all the procedures and policies of the host university. The *safety or security needs* are linked to meeting submission deadlines of travel forms, keep good travel records, following the university's policies and protocols, taking part in activities and meetings, and sharing information before and after travel meetings. The *relationship needs* are aimed at building new relationships. Travelling is seen as a privilege to interact with people who would not be able to meet in other circumstances. The *self-esteem needs* consist in participating in team or program activities and meetings, and developing leadership skills. Last but not least, the *self actualization or fulfilment needs* are related to having trust, wisdom, justice or meaning via peak experiences. Williams and McNeil point out, referencing Blichfeldt (2007, p.7), that "students are likely to reach a level of travel as fulfillment for very different reasons than would a faculty person. However, for both, the motive would be one of reaching a peak experience at a given point in their lives".

Swarbrooke and Horner (1999) divide into three the different types of educational travel: (i) *Exchanges between universities*, where students travel to other countries to study at other universities for periods that go from two months up to a year, as part of their educational curriculum; (ii) *Language programs*, in which students travel to another country to learn or to become proficient in the host country's language for a length of stay that can vary from few weeks up to a year; and last but not least, (iii) there are many tourists who travel to very specific places to meet people with the same interests with whom they *share and pursue knowledge*.

Studying abroad has become an important experience for a large part of the worldwide student population. Now more than ever, higher education institutions in the whole world are increasing their efforts to offer their students the opportunity of having an academic experience abroad.

As a matter of fact, Lusby and Bandaruck (2010) said in their study on the recreation curriculum of studying abroad, referencing Hubbs (2006), that 80% of North American college students would like to have an international experience, either in the fields of education, community services or professional career development, but that only 1% of these students actually end up living this experience.

A study conducted by the European Commission and CHE Consult GmbH in 2016 on the impact of the ERASMUS program on the personality, skills and career of students of European countries, showed that the main reasons for students going abroad were (i) the opportunity to *live abroad*, the opportunity to *meet new people*, (ii) the opportunity to *learn or improve a foreign language*, (iii) the opportunity to develop *soft skills*, such as adaptability, taking initiative or proactivity, and (iv) *improve and widen their career prospects* in the future.

Depending on the region there were some differences in terms of the importance given to each of the different aspects. However, the variances were not relevant enough to draw a motivational pattern considering nationality. The main distinction was that 9% more Southern European students saw studying abroad as a great opportunity to improve their career prospects than in Western Europe, for example.

In a similar fashion, Lusby and Bandaruk (2010) pointed out in their research that the students' motivations were linked to many different aspects, such as (i) *becoming proficient in a foreign language*, (ii) *broadening their vision of the world*, (iii) *learning about a new culture* or (iv) *getting to know new people*.

When classifying motivations to study abroad, Nyaupane, Paris and Teye (2010) cite Kitsantas (2004) and Weirs-Jenseen (2003), who divide the motivations to study abroad in four

categories: (i) *cross-cultural experience*, (ii) *academics*, (iii) *future careers* and (iv) *family heritage*. In a similar study, Sanchez, Fornerino and Zhang (2006) depict five motivation categories, which are (i) *searching for a new experience*, (ii) *improving a professional situation*, (iii) *searching for liberty and/or pressure*, (iv) *learning a new language* and (v) *improving a social situation*.

Based on the last two categorizations, Anderson and Lawton (2015), developed a model known as the MSA (Motivation to Study Abroad) to measure the students' motivation to study abroad in which they divided these motivations into four categories as well. These four categories were (i) *world enlightenment*, (ii) *personal growth*, (iii) *career development* and (iv) *entertainment*. The world enlightenment category included everything related to culture, such as learning about the world, interacting with people from other countries and enhancing their understanding of global affairs and events. Personal growth gathered aspects like learning to live on one's own, growing as a person and increasing one's confidence, whereas career development was based on gaining career skills, gaining in-depth knowledge in a chosen field and building a résumé. Lastly, experiencing the local nightlife, having a romantic encounter and making one's friends envious were part of the entertainment category.

Naffziger, Bott and Mueller (2013) add to the list of possible motivations to study abroad the amount of extracurricular activities offered at the host university and the intent to study beyond undergraduate education in the future. Nevertheless, the preeminent factor that most authors find is that students want to study abroad to learn or become proficient in a foreign language, with the exception of Anderson and Lawton (2015), who do not include it as a relevant factor on its own.

Some authors have agreed on the fact that there is no substantial difference between gender and race when looking at the motivations to study abroad. Ning and Chen (2010) did not find relevant statistical difference regarding participation in study abroad programs, as well as Naffziger, Bott and Mueller (2013), who went further and stated that gender, race, family income, parental education, previous travel experiences, and age were not related to either of the two dependent variables that they studied, which were *openness to* and *interest in* study abroad opportunities.

Summing up, the general theory highlights particularly three motivations to take part in a study abroad program. These motivations are (i) *learning or becoming proficient in a foreign language* (Lusby and Bandaruk, 2010; Naffziger, Bott and Mueller, 2013; Petrova et al., 2016), (ii) *networking and discovering new cultures* (Lusby and Bandaruk, 2010; Petrova, et al., 2016)

and (iii) *developing one's career* (Sanchez, Fornerino and Zhang, 2006; Nyaupane, Paris and Teye, 2010; Anderson and Lawton, 2015)

2.4. CONSTRAINTS TO STUDYING ABROAD

As far as the constraints to undertaking an experience abroad are concerned, Ning and Chen (2010) found that the main issues that students had when enrolling in study abroad programs were time, because they wanted to graduate as fast as possible, and money.

From the European perspective, students –especially from Southern and Eastern Europe, were also concerned about the financial requirement that having an experience abroad presents. Other problems they expressed were the inability to obtain recognition for their courses in other universities, and lack of information or support from their home institutions. Nevertheless, the EU is working on ensuring credit recognition to all European students within the Bologna program's area (Altbacht and Knight, 2007).

Other reasons for not participating in an academic mobility included (i) *family reasons or personal relationships*, (ii) *uncertainty about the benefits of the Erasmus period abroad* and last (iii) *applications that were not selected* (Petrova, et al., 2016).

In Li, Olson and Frieze (2013), other authors also introduce motives not to study abroad such as losing a part-time job, leaving the comfort zone and familiar places, friends and family (Paus and Robinson, 2008), having negative emotions during the stay, feeling homesick (Fisher, 1989; Frieze and Li, 2010), or facing problems to communicate with others in the foreign country (Kim, 2001).

As far as the constraints are concerned, all authors coincide with the fact that one of the main problems that studying abroad presents is the economical part that it involves. Living in another county, even when sponsored by the government or private entities, implies an extra expense for the students and their families, who have to finance an extra rent, living expenses, and so on. Moreover, another great issue for many students appears to be the credit recognition in some countries and universities. Due to local regulations and/or educational programs some students find it difficult to get recognition for their credits, which make studying abroad unattractive. This last point is related to the fear of having no positive impact from the international experience and seeing more advantages in staying in one's home country.

2.5. OUTCOMES OF STUDYING ABROAD

The outcomes that studying abroad confers have been discussed and studied by many academics. For instance, Kitsantas (2004), cited in Anderson and Lawton (2015), conveyed that study abroad programs boost the students' worldview (Carlson and Widman, 1988), global perspective (McCabe, 1994), cross-cultural effectiveness (Kitsantas and Meyers, 2001), interest in travel, art, foreign languages, history and architecture (Carsello and Creaser, 1976), and increase reflective thought, self-reliance, self-confidence and personal well being (Kuh and Kaufman, 1984).

Furthermore, a study conducted by Dwyer (2004) and Dwyer and Peters (2004), cited in Murphy, Sahakyan, Yong-Yi, and Sieloff Magnan (2014), in which five decades of IES (International Education Students) were surveyed, showed that studying abroad had long-term effects on the students' academic success, career path and intercultural and personal enrichment.

Citing other authors, Li, Olson and Frieze (2013) point out that the main benefits from international educational experiences are the development of cognitive skills (Maddux and Galinsky, 2009; Nash, 1976), self-confidence (Milstein, 2005), intercultural consciousness (Langely and Breese, 2005), second language proficiency (Magnan and Black, 2007) and a long-term career impact in the students (Franklin, 2010).

3. CONCEPTUAL FRAMEWORK

The literature review is divided into four areas of interest. First of all, the point on the *Decision Making Process* presents the different phases that take part in the decision making process, which is followed by a set of theories on the topic that go from the first theories to the most recent and accepted ones. Secondly, the main topic of study is explained with the main motivational theories, starting with the most general ones and finishing with the MSA theory, which is the grounds of this report. It has been considered that these theories were the most relevant for the research because they cover the main motivational aspects involved in the motivation process to study abroad. Thirdly, the constraints for studying are also tackled. This point gathers a series of motives not to study abroad. It has a lot of importance because it could help in finding solutions for the main obstacles to enroll in study programs abroad. Last but not least, the Outcomes to Study Abroad are also included in the literature review. The reason why this part is not as developed as the others is because, even if it is of great importance, it is not the focus of this study, and in fact it could be a research topic on its own.

The chosen division of topics gives a general perspective of what studying abroad involves, which is crucial in order to understand the process that students undergo before choosing to study abroad.
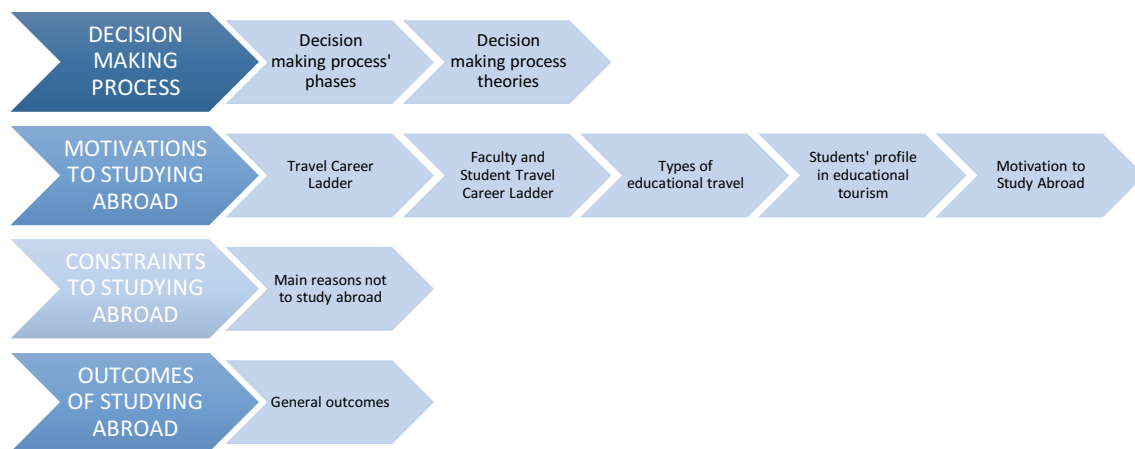
Figure 1 Conceptual framework. Own elaboration.

4. THEORETICAL FRAMEWORK

4.1. INTRODUCTION

This chapter introduces the MSA theory. A summary of the theory's formulation and outcomes is given to the readers' understanding of the whole study. The first point also adds the quality measurements for the applicability of the model in table 1. Furthermore, the limitations in the original MSA and the prospective limitations in the current study are described. Last but not least, the modifications on the original MSA are listed in the last point to reflect the need to adapt the model to the sample.

4.2. THE MSA

Regarding what has been written so far on motivations for studying abroad, it has been considered that this research should be based on the MSA theory by Anderson and Lawton (2015). Among the different theories, the MSA takes into account aspects that others do not consider, such as the variable *Entertainment* (Nyaupane, Paris and Teye, 2010)*,* and it appears to be the most recent in the field. However, as already mentioned by the authors in their paper, there might be slight differences between students from different nationalities, which is why this research presents a new view of the MSA focused on business and tourism Spanish students from a private and a public university.

Anderson and Lawton decided to design the MSA after revising the existent literature at the time. After finding out that the published research on the motivation of students to take part in an experience abroad was not really solid, they decided to formulate this theory based on three groups of 120, 173 and 308 students from US institutions.

In the beginning they used a list of 53 statements that epitomized the motivations that students could have to study abroad. However, after administering these 53 statements to the first group of students, evidence showed that the list was too long and they discarded 16 statements. Next, they surveyed the second group of students with the remaining 37 statements, continuing with the second round of exploratory research. After the second group was surveyed, Anderson and Lawton discovered that there were four elements that outstood among the others. Then, the statements were gathered into four categories, which caused the elimination of 13 more statements, reducing the list to 23 statements. These four categories were tagged as *world enlightenment*, *personal growth*, *career development*, and *entertainment*.

Lastly, they tested the 23 statements with a third group in order to evaluate the adequacy of the model. After using quality measuring instruments, the results demonstrated the

suitability of the MSA for measuring motivations to study abroad as seen in the following table, taken from Anderson and Lawton's (2015) paper.

	Excellent model	Adequate model	MSA statistics
CFI	> 0.95	> 0.90	0.91
TLI	> 0.95	> 0.90	0.90
RMSEA	< 0.06	< 0.08	0.074 90 percent C.I. 0.067 to 0.081
SRMR	< 0.06	< 0.08	0.062

Table 1 Quality of instrument Ratings

As far as the results are concerned, Cronbach's alphas were used for the last group of students. The variable *world enlightenment*, which included everything related to cultural traits, such as learning about the world, interacting with people from other countries and enhancing their understanding of global affairs and events, was the category with the highest mean, even though it decreased a slightly, along with the variable *personal growth* with the third group. They were followed by *career development*, and *entertainment*, as explained in Chapter 2.2. of this research. Table 2 shows the results that Anderson and Lawton (2015) obtained from their study.

	Number of items	n	Mean	Median	Standard deviation	Cronbach's alpha
World enlightenment	7	308	4.23	4.36	0.68	0.91
Personal growth	6	308	4.05	4.20	0.68	0.86
Career development	5	308	3.80	3.80	0.97	0.90
Entertainment	5	308	1.60	1.60	0.72	0.81

Table 2 The original MSA's Cronbach Alphas

4.3. LIMITATIONS

While the results were very promising, the authors pointed out some limitations that could have biased the results of their research. First of all, they remarked that some categories could have been undermined due to social desirability, and others could have been given too much importance. Secondly, they also believe that even if students were assured that the surveys would be anonymous, some could have still shown distrust and given unreal answers. Thirdly, one of the biggest limitation of the study was that the collected data came exclusively from

students enrolled in programs offered by US centers, which could represent an issue when applying the model with students from other nationalities.

The proposed study presents similar limitations, since it is based mainly on Spanish students. Furthermore, it is impossible to make sure that all participants answer the survey's questions honestly. Nevertheless, even if the results may be a little bit biased, the patterns of student motivations can still provide interesting information, as Anderson and Lawton point out in the original study.

4.4. MODIFICATIONS

When analyzing this method, it was interesting to notice that Anderson and Lawton had eliminated *Learning or becoming proficient in a foreign language* from their list of statements, which should have more relevance in a Spanish and European context.

As reported by the European Commission (Petrova, et al., 2016), one of the most relevant reasons for students to study abroad under the ERASMUS program is learning or becoming proficient in a foreign language, which is not reflected in the MSA. Taking this into account, this research includes the element *Learning or becoming proficient in a foreign language* in the list of statements.

A second statement was included in the category of Career development. Anderson and Lawton's original study contained a variable tagged as *Gain in-depth knowledge in my chosen field*. However, this study changes the focus of this variable and reformulates it as *Going to a prestigious educational institution*.

In order to adapt the research to BA and THM Spanish students from public and private universities, the study uses the following statements in their corresponding categories, following the original MSA's guidelines.

Category	Statements
World enlightenment	- Better understand different cultures - Interact with people from other countries
Personal growth	- Become more independent - Gain maturity
Career development	- Enhance my employment prospects - Learning or becoming proficient in a foreign language - Going to a prestigious institution
Entertainment	- Experience the local nightlife

Table 3 MSA categories. Own elaboration.

As can be seen, the number of statements in this study is remarkably lower than in the original model. This is due to the time limitations, as well as the availability of the students that were surveyed. By doing that it is expected that the reduced model will provide a clear image of what motivates BA and THM Spanish students.

5. METHODOLOGY

5.1. INTRODUCTION

This chapter is aimed at giving an overview of the design of this research and the used data collection techniques. Additionally, a short summary of the methodology used in Anderson and Lawton's (2015) theory is provided. Furthermore, it links the concept of the study with the research philosophy to justify the selected data collection methods. As stated in Chapter 1, this study aims to draw a clear picture of what motivates Spanish private and public university students to enroll in study abroad programs, in order to optimize educational programs abroad and adapt them to the students' wants and needs. Additionally, an explanation of the statistical hypothesis testing methods is given for the readers' understanding. Last but not least, the MSA's categories are used, which helps structuring the different statements under study and additionally it provides proven grounds to the current study.

5.2. RESEARCH PHILOSOPHY

There is large and extensive investigation of research philosophies, which indicates the importance of applying a suitable approach for the selected research, regardless of its field of study.

The general literature divides the research philosophy into two main branches, positivism and phenomenology. The positivism is based on a more external and objective view of world, where the observer is independent and mainly focused on facts. This philosophy reduces phenomenon to the simplest elements, which implies the use of large samples. Generally, the data is obtained through surveys and such, which allow the researcher to operationalize the concepts. Contrarily, phenomenology analyses people along with their social behavior, perceiving the world as socially constructed and subjective. This paradigm includes the observer in the object of observation and analyses the meaning of events. As opposite to positivism, it is based on small samples, but it requires a greater depth of analysis or a longer time of observation (Easterby-Smith et al., 2008).

In addition, there are two research approaches, the deductive and the inductive. The deductive approach involves testing a hypothesis, which tries to explain the relationship between two or more concepts. These concepts are on their own abstract thoughts that together help to build theories and hypothesis. When using deductive reasoning, empirical observation or experimentation is required. Nevertheless, before that, it is crucial to operationalize the concepts, which means making them measurable. This can sometimes lead

to only considering observable data, and therefore restricting subjective and intangible elements in most cases (Gray, 2014).

In the same publication, Gray defines the inductive approach stating that "plans are made for data collection, after which the data are analyzed to see if any patterns emerge that suggest relationships between variables" (2014, p. 17). It is from these observations that generalizations, relationships and theories can be built. By that it is meant that the inductive approach requires a previous collection of data that will later lead to the construction of a hypothesis, whereas the deductive approach requires a theory that will be tested once formulated.

5.3. BACKGROUND

Anderson and Lawton (2015) explain in their research that there is not a generally agreed theory on students' motivation to study abroad, even if a few authors have attempted to do so (Sanchez, Fornerino and Zhang, 2006; Nyaupane, Paris and Teye, 2010). As shown in chapter 4, when analyzing the different methods for measuring motivations to study abroad the MSA was perceived as the the most adequate, because it considered aspects that others did not (i.e. Nyaupane, Paris and Teye (2010) did not take into account entertainment as a variable), and because it is the most recent one, which makes it more suitable.

Using the MSA implies the use of quantitative methods, since the method requires statistical data, which should be taken from surveys that answer the different statements from the motivational categories. Additionally, the quantitative research gives a more objective point of view and it is a very clear way of classifying data (Gliner and Morgan, 2000).

In the same publication, Glinder and Morgan state that the positive approach, or quantitative methodology, has the aim of depicting a general idea of the concept that is being studied, regardless of the context and time.

5.4. METHOD

Firstly, regarding the characteristics of this research, it has been decided that the positivist philosophy will be most adequate to the set objectives. Compulsorily, this research implies a brief contact with the surveyed students, nevertheless this contact does not imply any sort of effect on the results. Following the philosophy's guidelines, the concepts are presented in a way that can be measured. Positivism offers a very clear interpretation of the results and only focuses on hard facts. The sample consists of 209 students of BA and THM from HTSI School of

Tourism and Hospitality Management, which is the private center, and Universitat de Barcelona, which is the public center.

Secondly, this study is based on the deductive approach. By using an already existing theory, which in this case is the MSA by Anderson and Lawton (2015), it is possible to gather the corresponding information and use it following the theory's structure.

Thirdly, it has been decided that using a quantitative approach will help to determine the effect of one variable on a representative group of the population, measuring and giving value to each of the different relationships between the influencing factors. To quantify this relationships, the *t*-Test and the Chi-square test have been used.

The questions of the survey have been designed according to the list of statements presented in Chapter 3. The main areas of interest consist of (i) *World enlightenment*, which includes *Better understanding different cultures* and *Making friends and networking with people from other countries*; (ii*) Personal growth*, composed by *Becoming more independe*nt and *Gaining maturity*; (iii) *Career development*, giving special importance to *Learning or becoming proficient in a foreign language*, *Enhancing one's employment prospects* and *Studying in a prestigious center*; and last but not least (iv) *Entertainment*, which is focused on *Experiencing the local nightlife.*

After analyzing Anderson and Lawton's (2015) list of motivations to studying abroad, *Learning or becoming proficient in a foreign language*, and *Studying in a prestigious center* were added to the list of motivations, which as mentioned before, they are not included as a motivation statement in the original theory.

5.5. SAMPLE

The first factor that is involved in studying abroad is the students' profile. There are many factors that interact and have a huge effect in the decision-making process of a student when choosing an academic program, a university or simply a destination. These factors can go from the students' studies at their home-institution, their nationality, culture, social class, age, cultural background, purchasing power and so on, even though some authors like Naffziger, Bott and Mueller (2013) may argue that.

When evaluating which was the most adequate sample, the first approach was basing the research on students from many different fields of study from Spanish universities. Nevertheless, regarding the time limitations and the difficulties to reach a considerable amount

of students from each field of study, the sample was narrowed down to first and second year BA and THM students, from the Universitat de Barcelona and HTSI School of Tourism and Hospitality Management, a public and a private center.

Not only did narrowing the sample seem to be a good idea to solve the mentioned limitations, but also it made sense according to a report from the Spanish Ministry of Education, Culture and Sports (2015) on the profile of Spanish ERASMUS students between 2012 and 2013. The report shows that the majority of Spanish bachelor students taking part in the ERASMUS program are between twenty-two and twenty-five years old or even younger.

Furthermore, in the most common European destinations for academic periods abroad within the ERASMUS program, such as Italy, France, Germany and the Netherlands, students came from the fields of social sciences, BA and law. In terms of gender, supporting Ning and Chen (2010) and Naffziger, Bott and Mueller's (2013) argument about the inexistence of relevant differences in the motivations to studying abroad between gender, 55.99% of the surveyed students were female.

The survey's target is composed by male and female, first and second year THM and BA students from HTSI School of Tourism and Hospitality Management and Universitat de Barcelona, ranging between 18 and 25 years old. There are some elements to take into account of both groups. First of all, the sample of THM students is slightly larger. Secondly, the BA students are enrolled in a public university, whereas the THM students are from a private center. Furthermore, while the THM students' group is mainly composed by female students, in the BA students' group there is more gender equity. In the following table a clear distribution by gender of both groups can be found:

Gender	BA Students		THM Students	
	Male	Female	Male	Female
Distribution	50	48	28	83
%	51.02%	48.98%	25.23%	74.77%
Total	98		111	

Table 4 Gender distribution. Own elaboration.

This sample should provide a clear picture of what motivates students from these two areas of knowledge to undertake study programs abroad and should epitomize the general perceptions of students of the academic mobilities.

5.6. DATA COLLECTION

The current study's data collection method is based on surveys. The respondents were 209 first and second year THM and BA students from HTSI School of Tourism and Hospitality Management and Universitat de Barcelona, both male and female ranging between 18 and 25 years old. The students were surveyed in Spanish in four groups on April 21st, 28th and 29th, and the average time to respond was between 5 and 10 minutes. The surveys follow a fixed-response approach, which involves that the respondent has to select an option from a list of closed answers. Malhorta and Birks (2003) point out that this is the most common method for the collection of primary data in marketing research, and that it is a simpler way of administering and it and obtaining consistent results.

5.7. SURVEY DEVELOPMENT

The surveys were developed with the aim of extracting as much information as possible from the students' profiles and preferences in regards their international education.

Firstly, the first two introductory questions were meant to define the students' average age and gender distribution. In order to do so, an open question for determining the age, and a *yes* or *no* question for the gender distribution were proposed.

Question number 1 was aimed at finding out the students' intention to study abroad in the future. Either answering positively or negatively, the student had to continue with Question number 2. However, if the answer was negative, the student had finished the survey after answering question 2.

Question number 2 assessed if the students had had previous academic experiences abroad. Depending on the answer the student had to stop answering the survey or continue with the remaining questions. If the response was positive the student had to continue to question 2.1., where the experience had to be specified. The alternatives offered were i) Language course, ii) ERASMUS, iii) Volunteering, iv) Specific courses, and v) Others, where the student was asked to specify the experience. It was considered that adding an open-end question would bring more in-depth results. If the answer was negative, the student had to go to question 2.2., where the limitations to go abroad were asked. The possible answers were i) Financial constraints, ii) Family issues, iii) Professional ties, iv) Poor academic results, v)

Relationships, and lastly vi) Others. This question followed the same structure as question number 2.1.

If the student answered both questions number 1 and 2 negatively, the survey was finished. Alternatively, if question number 1 was answered negatively, and question number 2 positively, the survey was finished as well. Last but not least, if question number 1 was answered positively, but question number 2 negatively, the student had to continue with the rest of the survey.

Question number 3 was focused on the preferred length of stay during an academic experience abroad. Six alternatives were possible: i) 1 to 2 weeks, ii) 3 weeks, iii) 1 month, iv) 3 months, v) 1 semester, vi) more than 1 semester.

It is in questions number 4, 5, 6, 7, 8, 9, 10 and 11 where the core of the research was analyzed. These questions tackled the statements included in the four main categories of the MSA. Furthermore, a five-level Likert scale was applied, which is a psychometric measurement technique commonly used in surveys. Likert's (1932) scaling technique was developed with the intention of measuring attitudes by assessing responses to a series of statements about a specific area of interest. What this method measures is the extent to which people agree or disagree with a fact or a statement, therefore tackling the cognitive and affective components of attitudes.

Fixed-choice answers are largely used in Likert-type or frequency scales formats, in order to define or measure attitudes and opinions (Bowing, 1997; Burns and Grove, 1997). Using a rating scale of this kind allows to build an effective questionnaire and it is as well easy for the respondents to comprehend (Malhotra and Birks, 2003). This dissertation approach of the Likert scale is based on the following format: 1) Strongly disagree, 2) Disagree, 3) Neither agree or disagree 4) Agree, and 5) Strongly agree.

The previously mentioned questions were constructed around the following statements: i) Perception of other cultures, ii) Interest in making friends and networking with people from other nationalities, iii) Becoming more independent after the experience, iv) Being a better person and maturing, v) Enhancing one's employment possibilities, vi) Improving one's language skills, vii) Importance of the destination's nightlife, and viii) Prestige of the hosting institution.

Last but not least, question number 12 shows a set of nine statements that are as well related to the four motivational categories of the MSA. In this case students were asked to cross the three most important statements for them out of the nine possibilities.

5.8. STUDENT'S t-TEST FOR COMPARING TWO MEANS

The Student's *t*-test is the most commonly used method for testing a hypothesis based on the differences between sample means. This method evaluates the equivalence of the means of two populations with respect to the variable that is being tested. This method has been studied and applied by many theorists, such as Bulmer (1975), Robbins and Van Ryzin (1975), Lehmann and Romano (2008), Srivastava and Srivastava (2009), Weiss (2011) and Gaston (2014), among others.

The aim of this method is proving the statement known as the null hypothesis (H_0). The result of this test is the acceptance or rejection of the null hypothesis, which is based on the fact that the two populations under consideration are not different, and that any existent discrepancy between those populations is the consequence of an accidental mistake. On the other hand, there is the alternative hypothesis (H_A), which presents the opposite view of the null hypothesis. This is, the two considered population means are different, and the discrepancies between them reflect that. The *t*-Statistic to be used in this study is the following:

$$t = \frac{(\bar{x}_1 - \bar{x}_2) - (\mu_1 - \mu_2)}{\sqrt{\dfrac{s_1^2}{n_1} + \dfrac{s_2^2}{n_2}}} \ (\mathbf{1})$$

Formula 1 t-Test

In formula (1), $\bar{x}_1$ and $\bar{x}_2$ represent the sample means, which are the Likert scale average scores of each group that has been analyzed. S_1^2 and S_2^2 are the sample variances of two sets of data with a size of n_1 and n_2. In order to have a sufficient sample, n_1 and n_2 should be bigger than 30. Also, presuming that the two population's variances are different, the *t* Statistic resulting from the formula will have a t-Student probability distribution t_k, where *k*, as given by the Welch-Satterthwaite equation (Satterthwaite, 1946; Welch, 1947), is the degree of freedom of the distribution.

$$k = \frac{\left(\frac{s_1^2}{n_1} + \frac{s_2^2}{n_2}\right)^2}{\left[\frac{\left(\frac{s_1^2}{n_1}\right)^2}{n_1 - 1} + \frac{\left(\frac{s_2^2}{n_2}\right)^2}{n_2 - 2}\right]} \; (\mathbf{2})$$

Formula 2 Welch-Sattertwaite equation

If the result obtained from the degree of freedom in formula (2) is a decimal number, the closest integer to *k* can be used. If the degrees *k* of freedom are higher than 120, then it will be considered that there are infinite degrees of value (*k*). Additionally, the significance test is a great tool to test the confidence level of the results. In order to have a sufficiently confident set of results, the confidence levels should go from 90% to 99%. For example, if the null hypothesis (H_0) is rejected with a confidence level of 95%, the outcome will be positive and the results correct. Hence, the probability *p* of making a mistake when rejecting (H_0) will not be higher than $\frac{(100-95)}{100} = 0.05$. By probability *p* what is meant is the significance level. Therefore, a significance level of 5% (*p = 0.05*) entails a confidence level of 95% (*1 − p = 0.95*).

The *t*-value subtracted from formula (1) is correlated with the hypothetical t_k value, which corresponds with the resulting degrees of freedom *k* from formula (2), and the chosen confidence level.

Many statistical analysis books offer tables of t_k values, and can be found in Annex 2 of this dissertation as well. The table in Annex was taken from Lyman and Longnecker (2008).

Should the calculated sample t-value be higher or equal than the theoretical t_k value in the Tables of Student's t distribution, the null hypothesis will be rejected, and consequently the alternative hypothesis will be accepted.

$$If \begin{cases} t \geq t_k, & Reject\ H_0\ and\ Accept\ H_A \\ t < t_k, & Accept\ H_0\ and\ Reject\ H_A \end{cases}$$

For this dissertation, the outcomes from the t-test resulted in a significance level of 1%, but the degrees of freedom vary, which means that some are higher than 100 and others lower. Thus, the critical or theoretical value of the Student's distribution varies as well, depending on the degrees of freedom.

5.9. CHI-SQUARE TEST FOR HOMOGENEITY OF PROPORTIONS

This test is aimed at testing a categorical variable from two different populations. Also know as the χ^2-test, it measures if the frequency counts are distributed harmoniously among the existent populations, and can be consequently used to compare the proportions of the different populations.

It is generally agreed that every hypothesis test needs a null hypothesis (H_0) and an alternative hypothesis (H_A). A determining characteristic of the null hypothesis (H_0) and the alternative hypothesis (H_A) is that they are mutually exclusive, which means that if one is accepted, the other will forcedly be rejected, and vice versa.

In a case where data were sampled from r populations, and presuming that the categorical variable was divided into c different levels, the null hypothesis would state that each population had the same proportion of observations at any specified level of the categorical variable. If P_1 and P_2 are the unknown population proportions, and O_i represents the detected counts of category I, E_i represents the expected counts of observations in the survey. Therefore, the formula follows the Chi-square χ^2 distribution with k degrees of freedom, as long as all the projected frequencies E_i are higher than or equal to 1 ($E_i \geq 1$) and that a maximum of 20% of the expected frequencies E_i are less than 5.

$$\chi^2 = \sum_{i=1}^{m} \frac{(O_i - E_i)^2}{E_i} \ (\mathbf{3})$$

Formula 3 Chi-square test

Also, the degrees of freedom (k) can easily be calculated with the following formula, where r represents the number of populations, and c the number of levels of the categorical variable that is being analyzed. In this dissertation, this model is used to analyze the proportions of students interested in studying abroad.

$$K = (r-1)x(c-1)(\mathbf{4})$$

Formula 4 Degree of freedom

Therefore, the hypothesis can be tested with the following correlation:

$$\left.\begin{array}{l} H_0: P_1 = P_2 \\ H_A: P_1 > P_2 \end{array}\right\}$$

The calculated χ^2-value that is obtained by using formula (3) can be compared with the critical or theoretical χ^2 (k) distribution value that corresponds to the given degrees of freedom k resulting from formula (4), and the chosen confidence level. There are plenty statistical analysis books in which tables of critical $\chi^2(k)$ values can be found (Bulmer, 1975; Robbins and Van Ryzin, 1975; Lehmann and Romano, 2008; Srivastava and Srivastava, 2009; Weiss, 2011; Reid, 2013; Gaston, 2014).

Should the calculated sample χ^2 value be greater or equal than the theoretical $\chi^2(k)$ value in the Chi-square χ^2 distribution tables, the null hypothesis (H_0) will be rejected and the alternative hypothesis (H_A) accepted. Contrarily, should the calculated χ^2 value be lower than the theoretical $\chi^2(k)$ value in the Chi-square χ^2 distribution tables, the null hypothesis will (H_0) will be accepted, and the alternative hypothesis (H_A) rejected.

$$If \begin{cases} x^2 \geq x^2(k), & Reject\ H_0\ and\ Accept\ H_A \\ x^2 < x^2(k), & Accept\ H_0\ and\ Reject\ H_A \end{cases}$$

In the current dissertation's χ^2-tests, a significance level of 1% (p=0.01) has been chosen, as well as degrees of freedom k equal to 1, which means that the theoretical value of the Chi-square χ^2 distribution is 6.635 (see tables of probabilities of the Chi-square χ^2 distribution given by Lyaman and Longnecker (2008) in Annex 3) and the decision criteria for all the hypothesis tested is the following:

$$If \begin{cases} x^2 \geq 6.635, & Reject\ H_0\ and\ Accept\ H_A \\ x^2 < 6.635, & Accept\ H_0\ and\ Reject\ H_A \end{cases}$$

6. RESULTS

7. DATA ANALYSIS

7.1. INTRODUCTION

This chapter is focused on analyzing the data taken from 209 surveys at HTSI School of Tourism and Hospitality Management and University de Barcelona. A comparison of the preferences of these two groups of students and gender is presented. The results are illustrated in tables and graphs.

7.2. PRIVATE UNIVERSITY STUDENTS

7.2.1. Interest in studying abroad

In table 5 the gender distribution of students interested in studying abroad from HTSI School of Hospitality Management is shown. Out of the 111 students surveyed in this private institution 106 stated that they were interested in studying abroad, which represents 95.50% of the group. Male and female students showed practically the same disposition to study abroad, accounting for 96.43% and 95.18% of each population.

Interest in studying abroad	Male	Female
Distribution	27	79
%	96.43%	95.18%
Total	106	
%	95.50%	

Table 5 Interest in studying abroad: Private university students. Own elaboration.

7.2.2. Previous experiences abroad

In table 6 a distribution of the students with previous experiences abroad can be found. The surveys showed that 79.28% of the students had been enrolled in academic programs abroad before. In this case, female students overall appeared to have more academic experience abroad, accounting for 81.93% of the entire female population. On the other hand, 71.43% of male students had previous experience abroad.

Previous experience abroad	Male	Female
Distribution	20	68
%	71.43%	81.93%
Total	88	
%	79.28%	

Table 6 Previous experience abroad: Private university students. Own elaboration.

The students were also asked to specify the type of experience abroad that they had lived. As can be seen in Figure 2, 56.82% of the students had taken part in language courses in another country. Most of the remaining students chose the option "Others", where they were asked to specify the type of experience that they had lived. The most common appeared to be language exchanges, high school and academic year abroad, accounting for 10.23%, 6.82% and 5.68% respectively. Very few students marked the options "Volunteering", "Specialized courses" and "ERASMUS", accounting for 4.55%, 4.55% and 2.27% respectively.
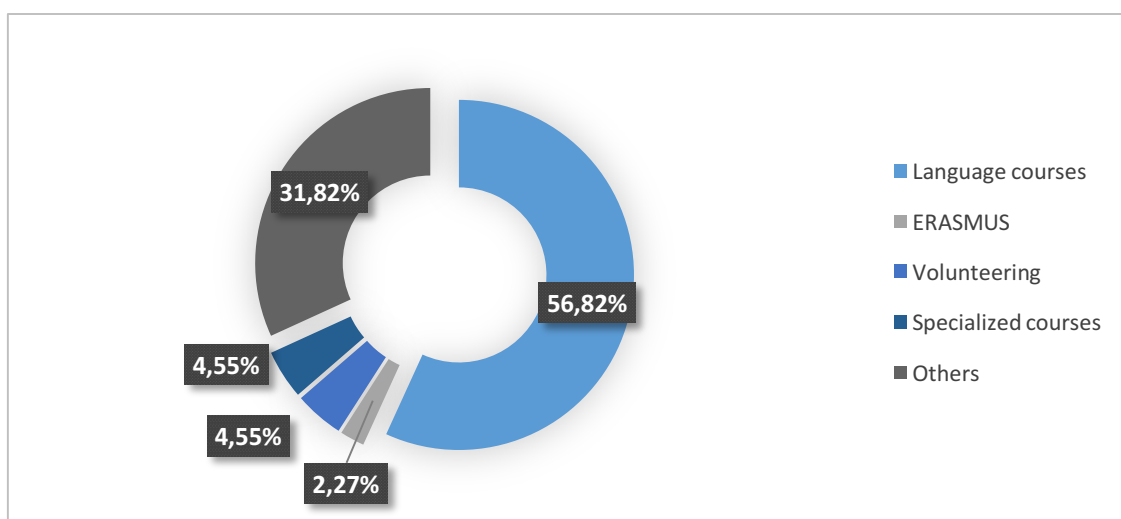
Figure 2 Types of experiences: Private university students. Own elaboration.

7.2.3. Main constraints

A very limited number of students from the private university had never been abroad for academic purposes before. Table 7 shows that 20.72% of the students never had an academic experience abroad. The results showed that 28.57% of the male students and 18.07% of the female students had no academic experience abroad.

No previous experience abroad	Male	Female
Distribution	8	15
%	28.57%	18.07%
Total	23	
%	20.72%	

Table 7 No previous experience abroad: Private university students. Own elaboration.

The reasons why they had never studied abroad before were very diverse. In figure 3 the main reasons not to study abroad can be found. 26.09% of the students without experience abroad claimed that they were limited by financial constraints. Again, the second most common answer was "Others". The students that responded "Others" clarified that the reasons that impeded them to study in another country were that they had never had the chance to do it (13.04%), that they were not interested in studying abroad (13.04%) and that they had lack of confidence to do so (4.35%). Further constraints included relationships (17.39%), professional ties (13.04%) poor academic results (8.70%) and family issues (4.35%).
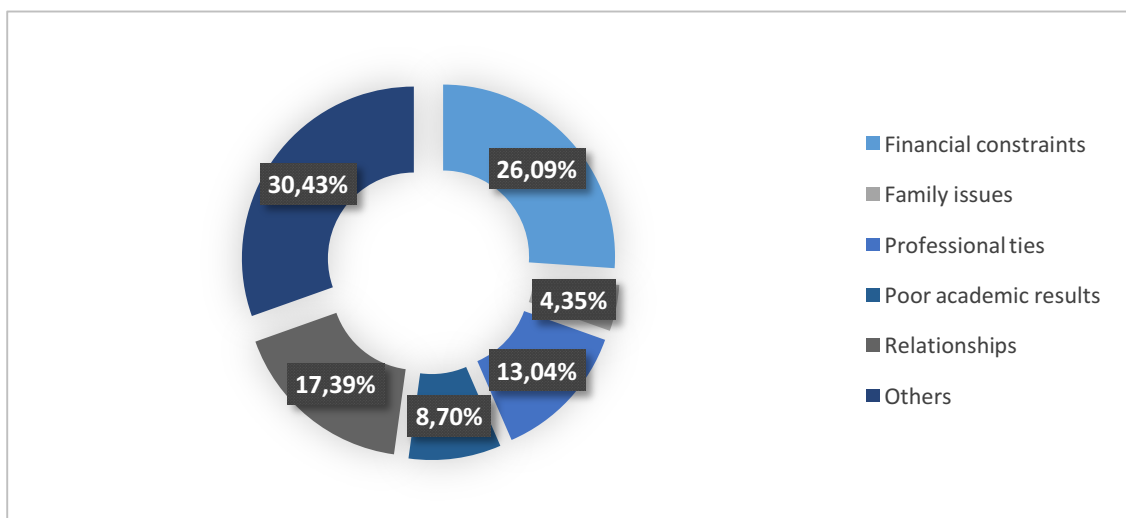
Figure 3 Constraints to study abroad: Private university students. Own elaboration.

7.2.4. Preferred length of stay

Figure 4 reflects the preferences of the students from HTSI School of Tourism and Hospitality Management in regards the length of their stay abroad. 46.23% of the students expressed that the optimal duration of their stay would be 1 semester, whereas 40.57% said that they preferred to stay longer than 1 semester in another country for their studies. The third most chosen possibility was 3 months. On the other hand, none of the students considered as an option staying for 1 or 2 weeks in another country with academic purposes. Furthermore,

out of the 106 students that responded this question, only one chose the option to stay for 3 weeks and only three students chose to stay for 1 month.
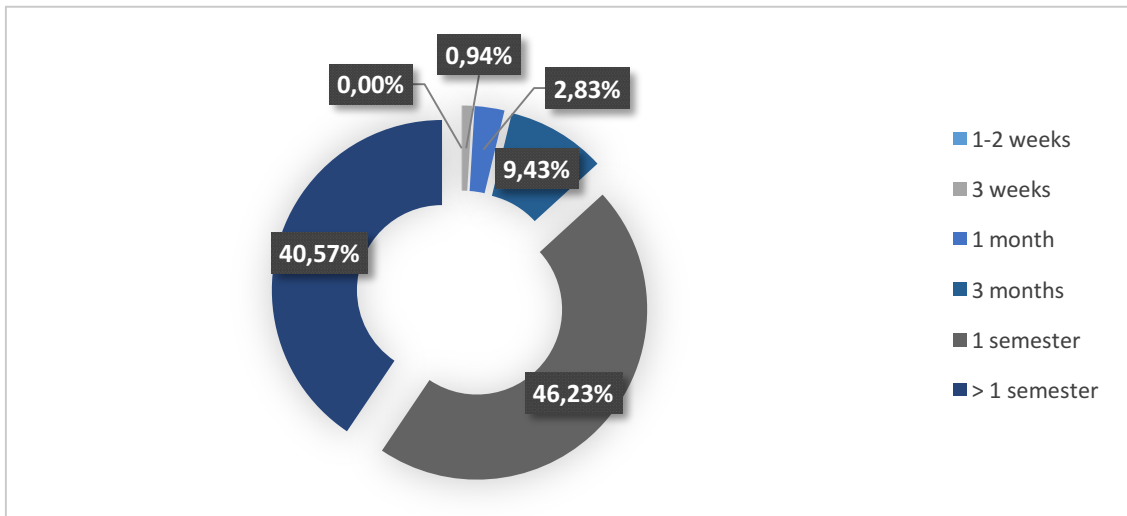
Figure 4 Preferred length of stay: Private university students. Own elaboration.

7.3. PUBLIC UNIVERSITY STUDENTS

7.3.1. Interest in studying abroad

Table 8 shows the interest that students from the Universitat de Barcelona have to study abroad. Out of the 98 students surveyed, 67 expressed their interest in studying abroad, which represents 68.37% of the group. Male students showed more interest than female students in studying abroad, accounting for 76.00% and 60.42% respectively.

Interest in studying abroad	Male	Female
Distribution	38	29
%	76.00%	60.42%
Total	67	
%	68.37%	

Table 8 Interest in studying abroad: Public university students. Own elaboration.

7.3.2. Previous experiences abroad

In table 9 the previous academic experience abroad of public university students can be found. A total of 27 students had previously been enrolled in academic programs abroad, which represents 27.55% of the total population. In this case, more female than male students had studied abroad before, accounting for 31.25% and 24.00% respectively.

Previous experience abroad	Male	Female
Distribution	12	15
%	24.00%	31.25%
Total	27	
%	27.55%	

Table 9 Previous experience abroad: Public university students. Own elaboration.

This group of students were also asked to specify the types of experiences that they had. As shown in figure 5, 59.26% of the students had been enrolled in language courses abroad. Also, 22.22% answered "Others". The most common alternatives that the category "Others" included were language exchanges (11.11%), primary school (7.41%) and "au pair" (3.70%). From the remaining students, 7.41% had taken part in volunteering programs, 7.41% in the ERASMUS program, and 3.70% in specialized courses.
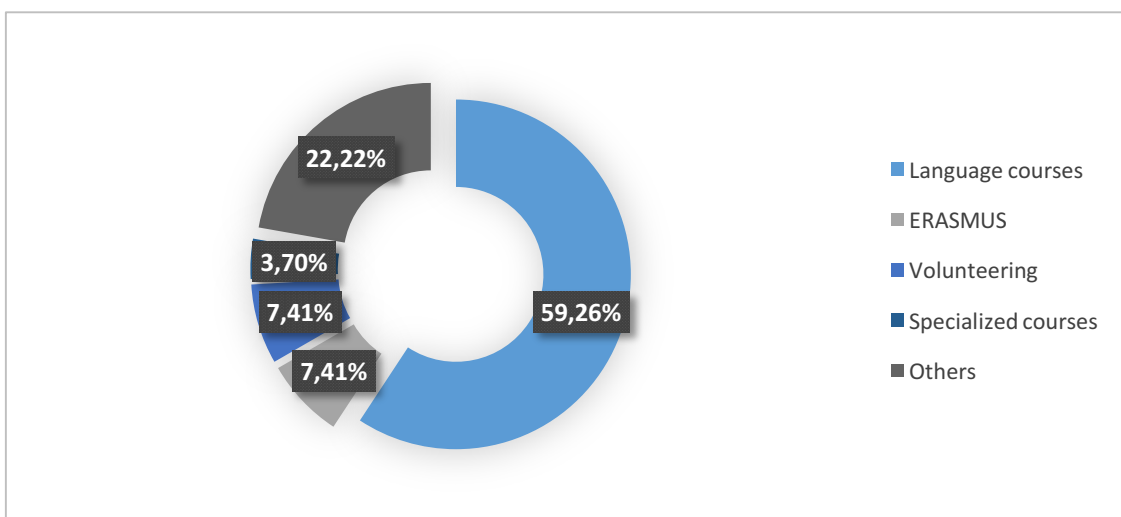
Figure 5 Types of experiences: Public university students. Own elaboration.

7.3.3. Main constraints

Table 10 shows the number of public university students without academic experience abroad. Out of the total students that were surveyed, 72.45% did not have experience abroad with academic purposes. As can be seen, 76.00% of the male students and 68.75% of female students were inexperienced.

No previous experience abroad	Male	Female
Distribution	38	33
%	76.00%	68.75%
Total	71	
%	72.45%	

Table 10 No previous experience abroad: Public university students. Own elaboration.

The reasons that impeded public university students to study abroad were also very diverse. As shown in figure 6, 32.39% of the students considered that the strongest impeding factor that did not allow them to study abroad were financial constraints. Furthermore, 32.39% of the students marked the category "Others", in which the most common answers appeared to be that the students never had the chance to do it (9.86%), that they had never considered the option (7.04%) and the language barrier (2.82%). Other constraints were professional ties (16.90%), relationships (11.27%), poor academic results (4.23%) and family issues (2.82%).
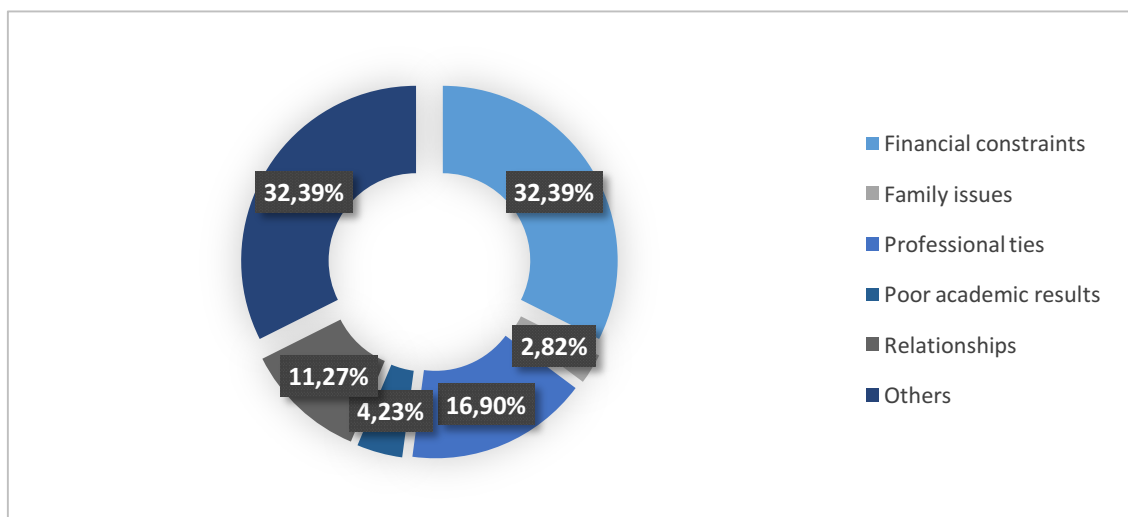
Figure 6 Constraints to study abroad: Public university students. Own elaboration.

7.3.4. Preferred length of stay

Figure 7 represents the preferences of public university students in regards the duration of their stay abroad in an academic context. The results showed that 40.30% of the students would like to stay for 1 semester. On the other hand, 25.37% of the students would like to spend more than 1 semester abroad. None of the students considered to stay between 1 and 2 weeks. Other options included staying for 3 months (23.39%), 1 month (8.96%) and 3 weeks (2.99%).
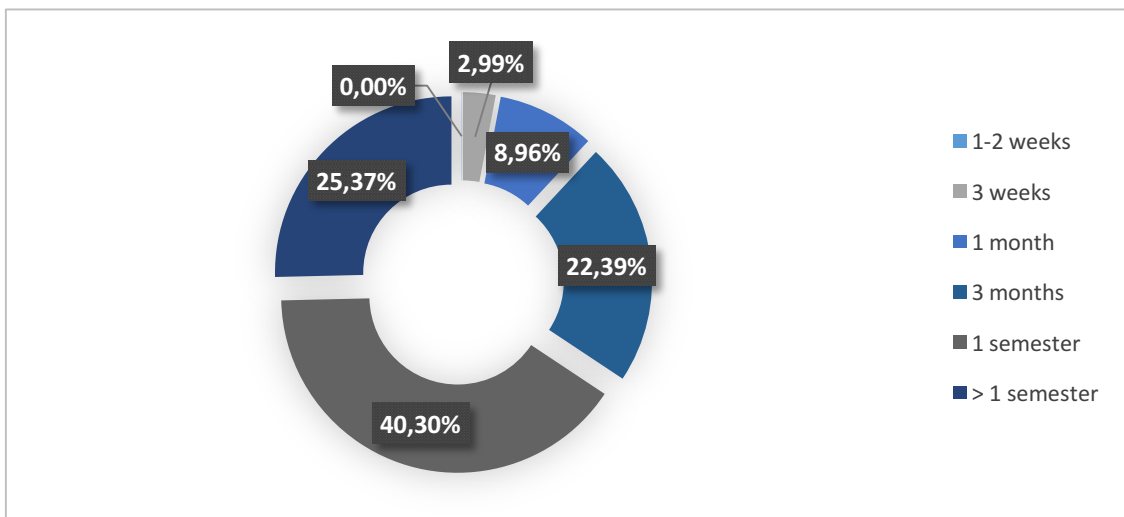
Figure 7 Preferred length of stay: Public university students. Own elaboration.

7.4. DIFFERENCES BETWEEN PUBLIC AND PRIVATE UNIVERSITY STUDENTS IN REGARDS TO STUDYING ABROAD

After analyzing both public and private university students, some differences between the two groups were noticed. First of all, private university students showed more interest in studying abroad than public university students. Table 11 epitomizes this contrast between the two groups of students. Out of the 173 students who claimed to be interested in studying in another country, 106 were from the private university and 67 from the public university. Proportionally, this represents 95.50% of the total private university students and 68.37% of the total public university students.

Interest in studying abroad	Count	Percentage
Private	106	95.50%
Public	67	68.37%
Total	**173**	**82.78%**

Table 11 Interest in studying abroad: Public and private university students. Own elaboration.

Furthermore, private university students also appeared to have more international educational experience than public university students. As can be seen in table 12, 88 out of the 111 students from the private university had previous experiences abroad, whereas in the case of the public university 27 out of the 98 had previously been enrolled in academic programs abroad.

Previous experience	Count	Percentage
Private	88	79.28%
Public	27	27.55%
Total	**115**	**55.02%**

Table 12 Previous experience abroad: Public and private university students. Own elaboration.

As long as duration of the stay in another country for academic reasons is concerned, both groups agreed that they would preferably stay abroad for one semester. 40.30% of the students from the Universitat the Barcelona, and 46.23% of the students from HTSI School of Tourism and Hospitality Management marked one semester as their optimal length of stay in a foreign country with academic purposes. Nevertheless, private university students showed a clear higher disposition of staying abroad for a duration of more than one semester, accounting for 40.57% of the private university students. Contrarily, public university students were not so sure about staying abroad for more than one semester, which represented 25.37% of the total sample of public university students. However, while private university students did not show much interest in staying abroad for three months, public university students showed almost the same interest as in staying for more than one semester (22.39%).

On the other hand, a common trait that both groups had was that neither of them marked staying for one or two weeks as an option. Furthermore, durations of three weeks and one month were not very interesting for any group. However, public university students were more interested in short-term stays than private university students.

Length of stay	Count	Percentage
1-2 weeks		
Private	0	0.00%
Public	0	0.00%
Total	**0**	**0.00%**
3 weeks		
Private	1	0.94%
Public	2	2.99%
Total	**3**	**1.73%**
1 month		
Private	3	2.83%
Public	6	8.96%
Total	**9**	**5.20%**
3 months		
Private	10	9.43%
Public	15	22.39%
Total	**25**	**14.45%**

1 semester		
Private	49	40.30
Public	27	35.53%
Total	**76**	**43.93%**
> 1 semester		
Private	43	40.57%
Public	17	25.37%
Total	**60**	**34.68%**

Table 13 Preferred length of stay: Public and private university students. Own elaboration.

As reflected previously, there was a considerable difference between the number of public and private university students with previous experience abroad. Nevertheless, the reasons why the students did not have international academic experience were very similar. In both cases, the biggest problem were financial constraints. Even though the percentage of public university students with financial constraints was higher, private university students also also saw the lack of economic resources as the most important limitation.

The percentage of students with professional ties was similar in both groups. 16.90% of public university students and 13.04% of private university students said that they had never studied abroad because they had to work.

On the other hand, proportionally more private university students said that the reason why they did not go abroad were relationships. While the percentage of private university students that were limited for this reason was 17.39%, in the case of public university students the percentage was 11.27%.

Other reasons not to study abroad such as family issues and poor academic results did not show high numbers in neither group. The number of students with the same limitation was very small. In case of the public university students 2.82% had family issues and 4.23% had poor academic results that impeded them to go abroad. The percentage of private university students with family issues was 4.35% and the percentage of students with poor academic results was 8.70%.

Within the category "Others", public university students presented more alternatives than private university students. However, there were three reasons that both groups coincided in: lack of confidence, never having had the chance and lack of interest.

Constraints	Count	Percentage
Financial constraints		
Private	6	26.09%
Public	23	32.39%
Total	**29**	**30.85%**
Family issues		
Private	1	4.35%
Public	2	2.82%
Total	**3**	**3.19%**
Professional ties		
Private	3	13.04%
Public	12	16.90%
Total	**15**	**15.96%**
Poor academic results		
Private	2	8.70%
Public	3	4.23%
Total	**5**	**5.32**
Relationships		
Private	4	17.39%
Public	8	11.27%
Total	**12**	**12.77%**
Others		
Private	7	30.43%
Public	23	32.39%
Total	**30**	**31,91%**

Table 14 Main constraints: Public and private university students. Own elaboration.

7.5. GENDER DIFFERENCES IN REGARDS TO STUDYING ABROAD

Once the differences between public and private university students were depicted, it was considered that the gender difference should be analyzed as well. As can be seen in table 15, the female students' population interested in studying abroad is considerably larger than the male students' population. However, while 82.44% of the female students are interested in studying, 83.33% of the male students are interested in studying abroad.

Interest in studying abroad	Count	Percentage
Male	65	83.33%
Female	108	82.44%
Total	**173**	**82.76%**

Table 15 Interest in studying abroad: Male and female students. Own elaboration.

Accordingly, as illustrated in table 16, the number of female students with previous experience abroad is as well considerably higher than the number of male students. Accordingly, the percentage of female students with previous academic experience abroad is 63.36% and the percentage of male students with academic experience abroad is 41.02%.

Previous experience	Count	Percentage
Male	32	41.02%
Female	83	63.36%
Total	**115**	**55.02%**

Table 16 Previous experience abroad: Male and female students. Own elaboration.

Both male and female students showed a very similar predisposition in terms of length of the stay. To begin with, neither of them considered staying abroad for one to two weeks as an alternative. Secondly, the options to stay three weeks or one month were not very high either.

However, staying abroad for three months was an option that 23.15% of the 173 students interested in studying abroad preferred. In this case male students were more interested in spending three months abroad than female students, accounting for 18.46% and 12.04% of the entire population, respectively.

Spending one semester or more than one semester abroad were the two main categories that most students chose. 43.93% of the students saw staying abroad for one semester the best option, and both male and female students agreed on that. 40.00% of the male students and 46.30% of the female students preferred to spend one semester abroad.

The students that chose staying in another country for more than one semester represented 34.68% of the students interested in studying abroad. In this case the male students interested in staying abroad for more than one semester accounted for 33.85% of the entire male population. On the other hand, 35.19% of the female students expressed their preference for stays longer than one semester.

Length of stay	Count	Percentage
1-2 weeks		
Male	0	0.00%
Female	0	0.00%
Total	**0**	**0.00%**
3 weeks		
Male	1	1.54%
Female	2	1.85%
Total	**3**	**1.73%**
1 month		
Male	4	6.15%
Female	5	4.63%
Total	**9**	**5.20%**
3 months		
Male	12	18.46%
Female	13	12.04%
Total	**25**	**14.45%**
1 semester		
Male	26	40.00%
Female	50	46.30%
Total	**76**	**43.93%**

> 1 semester		
Male	22	33.85%
Female	38	35.19%
Total	**60**	**34.68%**

Table 17 Preferred length of stay: Male and female students. Own elaboration.

In terms of constraints to study abroad, the results were very similar between both genders. Firstly, out of the fix categories, the financial constraints were the strongest and represented 30.85% of the respondent's answers. 30.04% of the male students, and 31.25% of the female students without experience abroad saw this category as a limitation to study abroad.

Secondly, professional ties and relationships also played a very important role in the limiting factors to study abroad. They represented 15.96% and 12.77% of the answers, respectively. While 17.39% of the male students and 14.58% of the female students said that they had professional ties, 13.04% of the male students and 12.50% of the female students pointed out that they had not been abroad before due to relationships.

Thirdly, family issues and poor academic results were the lowest categories, representing 3.19% and 5.32% of the total answers. In this case, 4.34% of the male students and 2.08% of the female students claimed that the reason why they had never studied abroad before was a result of family issues. On the other hand, 4.34% of the male students and 6.25% of the female students gave as a reason their low academic results.

Lastly, the category "Others" had again a great importance in proportion. 31.91% of the students answered "Others", where the main specifications included "lack of interest", "never having had the chance" and "not having considered it". 30.43% of the male students and 33.33% of the female students crossed "Others".

Constraints	Count	Percentage
Financial constraints		
Male	14	30.04%
Female	15	31.25%
Total	**29**	**30.85%**
Family issues		
Male	2	4.34%
Female	1	2.08%
Total	**3**	**3.19%**
Professional ties		
Male	8	17.39%
Female	7	14.58%
Total	**15**	**15.96%**
Poor academic results		
Male	2	4.34%
Female	3	6.25%
Total	**5**	**5.32%**
Relationships		
Male	6	13.04%
Female	6	12.50%
Total	**12**	**12.77%**
Others		
Male	14	30.43%
Female	16	33.33%
Total	**30**	**31.91%**

Table 18 Main constraints: Male and female students. Own elaboration.

8. FINDINGS

8.1. STATISTICAL HYPOTHESIS TESTING

In the previous chapter a basic analysis of the obtained data in the surveys was carried out. In this chapter the focus is on the findings and statistical hypothesis testing methods are used. The results taken from the statistical analysis will answer the research objectives from chapter 1.

8.1.1. Private and public university students

8.1.1.1. Data

In this point two types of population are analyzed: (i) Private university students and (ii) Public university students. By using the calculations explained in the methodology, the following results have been extracted:

Better understanding other cultures	Sample size	Sample mean	Sample variance
Private university students	n_1=106	$\bar{x}_1$=4.491	s_1^2=0.443
Public university students	n_2=67	$\bar{x}_2$=4.045	s_2^2=0.589
Making friends from other nationalities			
Private university students	n_1=106	$\bar{x}_1$=4.660	s_1^2=0.379
Public university students	n_2=67	$\bar{x}_2$=4.358	s_2^2=0.809
Becoming more independent			
Private university students	n_1=106	$\bar{x}_1$=4.698	s_1^2=0.270
Public university students	n_2=67	$\bar{x}_2$=4.433	s_2^2=0.704
Maturing			
Private university students	n_1=106	$\bar{x}_1$=4.585	s_1^2=0.436
Public university students	n_2=67	$\bar{x}_2$=4.239	s_2^2=0.669
Enhancing one's employment prospects			
Private university students	n_1=106	$\bar{x}_1$=4.594	s_1^2=0.377
Public university students	n_2=67	$\bar{x}_2$=4.343	s_2^2=0.592
Improving one's language skills			
Private university students	n_1=106	$\bar{x}_1$=4.849	s_1^2=0.148
Public university students	n_2=67	$\bar{x}_2$=4.806	s_2^2=0.280
Going to a prestigious center			
Private university students	n_1=106	$\bar{x}_1$=4.094	s_1^2=0.810
Public university students	n_2=67	$\bar{x}_2$=3.642	s_2^2=1.021
Enjoying the local nightlife			
Private university students	n_1=106	$\bar{x}_1$=3.425	s_1^2=0.875
Public university students	n_2=67	$\bar{x}_2$=3.313	s_2^2=0.794

Table 19 Likert scale scores: Private and public university students. Own elaboration.

Private university students mean = μ_1

Public university students mean = μ_2

8.1.1.2. Hypothesis testing

In this point eight null hypothesis (H_0) are tested. The eight null hypothesis (H_0) are based on the same structure, which consist in the following: the null hypothesis (H_0) states that the Likert scale mean score of private university students (μ_1) is the same as the Likert scale mean score of public university students (μ_2) in each of the studied categories, presented in table 19. What is meant by that is that private university students are equally motivated by the MSA's statements than public university students are.

On the other hand, there are as well eight alternative hypothesis (H_A), which follow the same structure as well. This is, the alternative hypothesis states (H_A) that the Likert scale mean score of private university students (μ_1) is higher than the Likert scales score of public university students (μ_2) in each of the categories from table 19. This means that private university students are more motivated for each of the different statements from the MSA theory.

The higher the Likert scale mean score is, the higher the degree of agreement of the statement will be. Contrarily, the lower the Likert scale mean score is, the lower the degree of agreement will be. Therefore, the hypothesis statement is the following:

$$H_0: \mu_1 = \mu_2$$

$$H_0: \mu_1 > \mu_2$$

8.1.1.3. Distribution of the test statistic

The Welch-Satterthwaite equation (2) is used to calculate the degrees of freedom (k) of each of the eight categories, as explained in the methodology.

- Better understanding other cultures:

$$k = \frac{\left(\frac{s_1^2}{n_1} + \frac{s_2^2}{n_2}\right)^2}{\left[\frac{\left(\frac{s_1^2}{n_1}\right)^2}{n_1 - 1} + \frac{\left(\frac{s_2^2}{n_2}\right)^2}{n_2 - 2}\right]} = \frac{\left(\frac{0.443}{106} + \frac{0.589}{67}\right)^2}{\left[\frac{\left(\frac{0.443}{106}\right)^2}{106 - 1} + \frac{\left(\frac{0.589}{67}\right)^2}{67 - 2}\right]} = 9,700.79 \approx 9,701$$

If the assumption that private and public university students are equally motivated to go abroad to better understand other cultures is true, the null hypothesis (H_0) will be accepted, and the t statistic will be distributed in 9,701 degrees of freedom.

- Making friends from other nationalities:

$$k = \frac{\left(\frac{s_1^2}{n_1} + \frac{s_2^2}{n_2}\right)^2}{\left[\frac{\left(\frac{s_1^2}{n_1}\right)^2}{n_1 - 1} + \frac{\left(\frac{s_2^2}{n_2}\right)^2}{n_2 - 2}\right]} = \frac{\left(\frac{0.379}{106} + \frac{0.809}{67}\right)^2}{\left[\frac{\left(\frac{0.379}{106}\right)^2}{106 - 1} + \frac{\left(\frac{0.809}{67}\right)^2}{67 - 2}\right]} = 6,712.78 \approx 6,713$$

If the assumption that private and public university students are equally motivated to go abroad to make friends from other nationalities is true, the null hypothesis (H_0) will be accepted, and the t statistic will be distributed in 6,713 degrees of freedom.

- Becoming more independent:

$$k = \frac{\left(\frac{s_1^2}{n_1} + \frac{s_2^2}{n_2}\right)^2}{\left[\frac{\left(\frac{s_1^2}{n_1}\right)^2}{n_1 - 1} + \frac{\left(\frac{s_2^2}{n_2}\right)^2}{n_2 - 2}\right]} = \frac{\left(\frac{0.270}{106} + \frac{0.704}{67}\right)^2}{\left[\frac{\left(\frac{0.270}{106}\right)^2}{106 - 1} + \frac{\left(\frac{0.704}{67}\right)^2}{67 - 2}\right]} = 7,528.54 \approx 7,529$$

If the assumption that private and public university students are equally motivated to go abroad to become more independent is true, the null hypothesis (H_0) will be accepted, and the t statistic will be distributed in 7,529 degrees of freedom.

- Gaining maturity:

$$k = \frac{\left(\frac{s_1^2}{n_1} + \frac{s_2^2}{n_2}\right)^2}{\left[\frac{\left(\frac{s_1^2}{n_1}\right)^2}{n_1 - 1} + \frac{\left(\frac{s_2^2}{n_2}\right)^2}{n_2 - 2}\right]} = \frac{\left(\frac{0.436}{106} + \frac{0.669}{67}\right)^2}{\left[\frac{\left(\frac{0.436}{106}\right)^2}{106 - 1} + \frac{\left(\frac{0.669}{67}\right)^2}{67 - 2}\right]} = 8,427.12 \approx 8,427$$

If the assumption that private and public university students are equally motivated to go abroad to gain maturity is true, the null hypothesis (H_0) will be accepted, and the t statistic will be distributed in 8,427 degrees of freedom.

- Enhancing one's employment possibilities:

$$k = \frac{\left(\frac{s_1^2}{n_1} + \frac{s_2^2}{n_2}\right)^2}{\left[\frac{\left(\frac{s_1^2}{n_1}\right)^2}{n_1 - 1} + \frac{\left(\frac{s_2^2}{n_2}\right)^2}{n_2 - 2}\right]} = \frac{\left(\frac{0.377}{106} + \frac{0.592}{67}\right)^2}{\left[\frac{\left(\frac{0.377}{106}\right)^2}{106 - 1} + \frac{\left(\frac{0.592}{67}\right)^2}{67 - 2}\right]} = 9{,}498.54 \approx 9{,}499$$

If the assumption that private and public university students are equally motivated to go abroad to enhance one's employment possibilities is true, the null hypothesis (H$_0$) will be accepted, and the *t* statistic will be distributed in 9,499 degrees of freedom.

- Improving one's language skills:

$$k = \frac{\left(\frac{s_1^2}{n_1} + \frac{s_2^2}{n_2}\right)^2}{\left[\frac{\left(\frac{s_1^2}{n_1}\right)^2}{n_1 - 1} + \frac{\left(\frac{s_2^2}{n_2}\right)^2}{n_2 - 2}\right]} = \frac{\left(\frac{0.148}{106} + \frac{0.280}{67}\right)^2}{\left[\frac{\left(\frac{0.148}{106}\right)^2}{106 - 1} + \frac{\left(\frac{0.280}{67}\right)^2}{67 - 2}\right]} = 19{,}697.45 \approx 19{,}697$$

If the assumption that private and public university students are equally motivated to go abroad to improve one's language skills is true, the null hypothesis (H$_0$) will be accepted, and the *t* statistic will be distributed in 19,697 degrees of freedom.

- Going to a prestigious educational center:

$$k = \frac{\left(\frac{s_1^2}{n_1} + \frac{s_2^2}{n_2}\right)^2}{\left[\frac{\left(\frac{s_1^2}{n_1}\right)^2}{n_1 - 1} + \frac{\left(\frac{s_2^2}{n_2}\right)^2}{n_2 - 2}\right]} = \frac{\left(\frac{0.810}{106} + \frac{1.021}{67}\right)^2}{\left[\frac{\left(\frac{0.810}{106}\right)^2}{106 - 1} + \frac{\left(\frac{1.021}{67}\right)^2}{67 - 2}\right]} = 5{,}613.85 \approx 5{,}614$$

If the assumption that private and public university students are equally motivated to go abroad to go to a prestigious educational center is true, the null hypothesis (H$_0$) will be accepted, and the *t* statistic will be distributed in 5,614 degrees of freedom.

- Enjoying the local nightlife:

$$k = \frac{\left(\frac{s_1^2}{n_1} + \frac{s_2^2}{n_2}\right)^2}{\left[\frac{\left(\frac{s_1^2}{n_1}\right)^2}{n_1 - 1} + \frac{\left(\frac{s_2^2}{n_2}\right)^2}{n_2 - 2}\right]} = \frac{\left(\frac{0.875}{106} + \frac{0.794}{67}\right)^2}{\left[\frac{\left(\frac{0.875}{106}\right)^2}{106 - 1} + \frac{\left(\frac{0.794}{67}\right)^2}{67 - 2}\right]} = 7{,}238.51 \approx 7{,}239$$

If the assumption that private and public university students are equally motivated to go abroad to enjoy the local nightlife is true, the null hypothesis (H_0) will be accepted, and the t statistic will be distributed in 7,239 degrees of freedom.

8.1.1.4. Decision rule

Considering that the significance level that has been used is p=0.01, the critical value of t will depend on the degrees of freedom k obtained from the Welch-Satterthwaite equation (2). In this case, the critical value of t is 2.326 in all categories, because in all cases the degree of freedom is higher than 100. The critical value t can be found in the t-test table (see Annex 2). As a result:

$$If \begin{cases} t > 2.326, & Reject\ H_0\ and\ Accept\ H_A \\ t \leq 2.326, & Accept\ H_0\ and\ Reject\ H_A \end{cases}$$

8.1.1.5. Calculation of the test statistic

By using formula (1), the test statistic can be calculated for each of the categories:

- Better understanding other cultures:

$$t = \frac{(\bar{x}_1 - \bar{x}_2) - (\mu_1 - \mu_2)}{\sqrt{\frac{s_1^2}{n_1} + \frac{s_2^2}{n_2}}} = \frac{(4.491 - 4.045)}{\sqrt{\frac{0.443}{106} + \frac{0.589}{67}}} = 3.91$$

$$t = 3.91 > 2.326, Reject\ H_0\ and\ Accept\ H_A$$

- Making friends from other nationalities

$$t = \frac{(\bar{x}_1 - \bar{x}_2) - (\mu_1 - \mu_2)}{\sqrt{\frac{s_1^2}{n_1} + \frac{s_2^2}{n_2}}} = \frac{(4.660 - 4.358)}{\sqrt{\frac{0.379}{106} + \frac{0.809}{67}}} = 2.41$$

$$t = 2.41 > 2.326, Reject\ H_0\ and\ Accept\ H_A$$

- Becoming more independent:

$$t = \frac{(\bar{x}_1 - \bar{x}_2) - (\mu_1 - \mu_2)}{\sqrt{\frac{s_1^2}{n_1} + \frac{s_2^2}{n_2}}} = \frac{(4.698 - 4.433)}{\sqrt{\frac{0.270}{106} + \frac{0.704}{67}}} = 2.32$$

$$t = 2.32 \leq 2.326, Accept\ H_0\ and\ Reject\ H_A$$

- Gaining maturity:

$$t = \frac{(\bar{x}_1 - \bar{x}_2) - (\mu_1 - \mu_2)}{\sqrt{\dfrac{s_1^2}{n_1} + \dfrac{s_2^2}{n_2}}} = \frac{(4.585 - 4.239)}{\sqrt{\dfrac{0.436}{106} + \dfrac{0.669}{67}}} = 2.91$$

$$t = 2.91 > 2.326, Reject\ H_0\ and\ Accept\ H_A$$

- Enhancing one's employment possibilities:

$$t = \frac{(\bar{x}_1 - \bar{x}_2) - (\mu_1 - \mu_2)}{\sqrt{\dfrac{s_1^2}{n_1} + \dfrac{s_2^2}{n_2}}} = \frac{(4.594 - 4.343)}{\sqrt{\dfrac{0.377}{106} + \dfrac{0.592}{67}}} = 2.25$$

$$t = 2.25 \leq 2.326, Accept\ H_0\ and\ Reject\ H_A$$

- Improving one's language skills:

$$t = \frac{(\bar{x}_1 - \bar{x}_2) - (\mu_1 - \mu_2)}{\sqrt{\dfrac{s_1^2}{n_1} + \dfrac{s_2^2}{n_2}}} = \frac{(4.849 - 4.806)}{\sqrt{\dfrac{0.148}{106} + \dfrac{0.280}{67}}} = 0.57$$

$$t = 0.57 \leq 2.326, Accept\ H_0\ and\ Reject\ H_A$$

- Going to a prestigious educational center:

$$t = \frac{(\bar{x}_1 - \bar{x}_2) - (\mu_1 - \mu_2)}{\sqrt{\dfrac{s_1^2}{n_1} + \dfrac{s_2^2}{n_2}}} = \frac{(4.094 - 3.642)}{\sqrt{\dfrac{0.810}{106} + \dfrac{1.021}{67}}} = 2.99$$

$$t = 2.99 > 2.326, Reject\ H_0\ and\ Accept\ H_A$$

- Enjoying the local nightlife:

$$t = \frac{(\bar{x}_1 - \bar{x}_2) - (\mu_1 - \mu_2)}{\sqrt{\dfrac{s_1^2}{n_1} + \dfrac{s_2^2}{n_2}}} = \frac{(3.425 - 3.313)}{\sqrt{\dfrac{0.875}{106} + \dfrac{0.794}{67}}} = 0.78$$

$$t = 0.78 \leq 2.326, Accept\ H_0\ and\ Reject\ H_A$$

8.1.1.6. Statistical decision

Regarding the results, there are some discrepancies between the categories. On the one hand, in the cases of (i) Becoming more independent, (ii) Enhancing one's employment

possibilities, (iii) Improving one's language skills, and (iv) Enjoying the local nightlife the proposed null hypothesis (H_0) are accepted. Therefore, $H_0: \mu_1 = \mu_2$, which means that there is no statistical difference between the motivational effect of these categories on public and private university students.

On the other hand, the remaining categories (i) Better understanding other cultures, (ii) Making friends form other nationalities, (iii) Gaining maturity, and (iv) Going to a prestigious educational center reject the null hypothesis (H_0). This is, $H_0: \mu_1 > \mu_2$, which means that private university students are statistically more influenced by these motivations when deciding to study abroad. Therefore, the alternative hypothesis is accepted.

8.1.2. Male and female students

8.1.2.1. Data

In this point two types of population are analyzed: (i) Male students and (ii) Female students. By using the calculations explained in the methodology, the following results have been extracted:

Better understanding other cultures	Sample size	Sample mean	Sample variance
Male students	$n_1=65$	$\bar{x}_1=4.185$	$s_1^2=0.631$
Female students	$n_2=108$	$\bar{x}_2=4.398$	$s_2^2=0.471$
Making friends from other nationalities			
Male students	$n_1=65$	$\bar{x}_1=4.446$	$s_1^2=0.570$
Female students	$n_2=108$	$\bar{x}_2=4.602$	$s_2^2=0.545$
Becoming more independent			
Male students	$n_1=65$	$\bar{x}_1=4.431$	$s_1^2=0.687$
Female students	$n_2=108$	$\bar{x}_2=4.694$	$s_2^2=0.289$
Maturing			
Male students	$n_1=65$	$\bar{x}_1=4.231$	$s_1^2=0.805$
Female students	$n_2=108$	$\bar{x}_2=4.583$	$s_2^2=0.357$
Enhancing one's employment prospects			
Male students	$n_1=65$	$\bar{x}_1=4.446$	$s_1^2=0.563$
Female students	$n_2=108$	$\bar{x}_2=4.528$	$s_2^2=0.420$
Improving one's language skills			
Male students	$n_1=65$	$\bar{x}_1=4.754$	$s_1^2=0.313$
Female students	$n_2=108$	$\bar{x}_2=4.880$	$s_2^2=0.126$
Going to a prestigious center			
Male students	$n_1=65$	$\bar{x}_1=3.800$	$s_1^2=1.131$
Female students	$n_2=108$	$\bar{x}_2=3.991$	$s_2^2=0.813$

Enjoying the local nightlife			
Male students	n_1=65	$\bar{x}_1$=3.538	s_1^2=0.752
Female students	n_2=108	$\bar{x}_2$=3.287	s_2^2=0.879

Table 20 Likert scale scores: Male and female students. Own elaboration.

Female students mean = μ_1

Male students mean = μ_2

8.1.2.2. Hypothesis testing

In this point eight null hypothesis (H$_0$) are tested as well. The same structure is followed with each of the eight null hypothesis (H$_0$). If the Likert scale mean score of the female students (μ_1) is equal to the Likert scale mean score of the male students (μ_2) in each of the categories from table 20, then the null hypothesis (H$_0$) will be accepted. By that it is meant that female and male students are equally motivated by the MSA's statements.

Nevertheless, there are as well eight alternative hypothesis (H$_A$), which follow the same structure as well. Should the alternative hypothesis (H$_A$) be accepted, the reason will be that the Likert scale mean score of the female students (μ_1) is higher than the Likert scale mean score of the male students in each of the categories in table 20. In other words, the alternative hypothesis (H$_A$) states that female students are more motivated by each of the different statements from the MSA theory than male students are.

The higher the Likert scale mean score is, the higher the degree of agreement of the statement will be. Contrarily, the lower the Likert scale mean score is, the lower the degree of agreement will be. Therefore, the hypothesis statement is the following:

$$H_0: \mu_1 = \mu_2$$

$$H_0: \mu_1 > \mu_2$$

8.1.2.3. Distribution of the test statistic

Once again, the Welch-Satterthwaite equation (2) is used to calculate the degrees of freedom (k).

- Better understanding other cultures:

$$k = \frac{\left(\frac{s_1^2}{n_1} + \frac{s_2^2}{n_2}\right)^2}{\left[\frac{\left(\frac{s_1^2}{n_1}\right)^2}{n_1 - 1} + \frac{\left(\frac{s_2^2}{n_2}\right)^2}{n_2 - 2}\right]} = \frac{\left(\frac{0.471}{105} + \frac{0.631}{65}\right)^2}{\left[\frac{\left(\frac{0.471}{105}\right)^2}{105 - 1} + \frac{\left(\frac{0.631}{65}\right)^2}{65 - 2}\right]} = 11.51 \approx 12$$

If the assumption that female and male students are equally motivated to go abroad to better understand other cultures is true, the null hypothesis (H$_0$) will be accepted, and the t statistic will be distributed in 12 degrees of freedom.

- Making friends from other nationalities:

$$k = \frac{\left(\frac{s_1^2}{n_1} + \frac{s_2^2}{n_2}\right)^2}{\left[\frac{\left(\frac{s_1^2}{n_1}\right)^2}{n_1 - 1} + \frac{\left(\frac{s_2^2}{n_2}\right)^2}{n_2 - 2}\right]} = \frac{\left(\frac{0.545}{105} + \frac{0.570}{65}\right)^2}{\left[\frac{\left(\frac{0.545}{105}\right)^2}{105 - 1} + \frac{\left(\frac{0.570}{65}\right)^2}{65 - 2}\right]} = 17.64 \approx 18$$

If the assumption that female and male students are equally motivated to go abroad to make friends form other nationalities is true, the null hypothesis (H$_0$) will be accepted, and the t statistic will be distributed in 18 degrees of freedom.

- Becoming more independent:

$$k = \frac{\left(\frac{s_1^2}{n_1} + \frac{s_2^2}{n_2}\right)^2}{\left[\frac{\left(\frac{s_1^2}{n_1}\right)^2}{n_1 - 1} + \frac{\left(\frac{s_2^2}{n_2}\right)^2}{n_2 - 2}\right]} = \frac{\left(\frac{0.289}{105} + \frac{0.687}{65}\right)^2}{\left[\frac{\left(\frac{0.289}{105}\right)^2}{105 - 1} + \frac{\left(\frac{0.687}{65}\right)^2}{65 - 2}\right]} = 3.95 \approx 4$$

If the assumption that female and male students are equally motivated to go abroad to become more independent is true, the null hypothesis (H$_0$) will be accepted, and the t statistic will be distributed in 4 degrees of freedom.

- Gaining maturity:

$$k = \frac{\left(\frac{s_1^2}{n_1} + \frac{s_2^2}{n_2}\right)^2}{\left[\frac{\left(\frac{s_1^2}{n_1}\right)^2}{n_1 - 1} + \frac{\left(\frac{s_2^2}{n_2}\right)^2}{n_2 - 2}\right]} = \frac{\left(\frac{0.357}{105} + \frac{0.805}{65}\right)^2}{\left[\frac{\left(\frac{0.357}{105}\right)^2}{105 - 1} + \frac{\left(\frac{0.805}{65}\right)^2}{65 - 2}\right]} = 4.38 \approx 4$$

If the assumption that female and male students are equally motivated to go abroad to become gain maturity is true, the null hypothesis (H_0) will be accepted, and the t statistic will be distributed in 4 degrees of freedom.

- Enhancing one's employment possibilities:

$$k = \frac{\left(\frac{s_1^2}{n_1} + \frac{s_2^2}{n_2}\right)^2}{\left[\frac{\left(\frac{s_1^2}{n_1}\right)^2}{n_1 - 1} + \frac{\left(\frac{s_2^2}{n_2}\right)^2}{n_2 - 2}\right]} = \frac{\left(\frac{0.420}{105} + \frac{0.563}{65}\right)^2}{\left[\frac{\left(\frac{0.420}{105}\right)^2}{105 - 1} + \frac{\left(\frac{0.563}{65}\right)^2}{65 - 2}\right]} = 11.48 \approx 11$$

If the assumption that female and male students are equally motivated to go abroad to enhance one's employment possibilities is true, the null hypothesis (H_0) will be accepted, and the t statistic will be distributed in 11 degrees of freedom.

- Improving one's language skills:

$$k = \frac{\left(\frac{s_1^2}{n_1} + \frac{s_2^2}{n_2}\right)^2}{\left[\frac{\left(\frac{s_1^2}{n_1}\right)^2}{n_1 - 1} + \frac{\left(\frac{s_2^2}{n_2}\right)^2}{n_2 - 2}\right]} = \frac{\left(\frac{0.126}{105} + \frac{0.313}{65}\right)^2}{\left[\frac{\left(\frac{0.126}{105}\right)^2}{105 - 1} + \frac{\left(\frac{0.313}{65}\right)^2}{65 - 2}\right]} = 3.59 \approx 4$$

If the assumption that female and male students are equally motivated to go abroad to improve one's language skills is true, the null hypothesis (H_0) will be accepted, and the t statistic will be distributed in 4 degrees of freedom.

- Going to a prestigious educational center:

$$k = \frac{\left(\frac{s_1^2}{n_1} + \frac{s_2^2}{n_2}\right)^2}{\left[\frac{\left(\frac{s_1^2}{n_1}\right)^2}{n_1 - 1} + \frac{\left(\frac{s_2^2}{n_2}\right)^2}{n_2 - 2}\right]} = \frac{\left(\frac{0.813}{105} + \frac{1.131}{65}\right)^2}{\left[\frac{\left(\frac{0.813}{105}\right)^2}{105 - 1} + \frac{\left(\frac{1.131}{65}\right)^2}{65 - 2}\right]} = 10.76 \approx 11$$

If the assumption that female and male students are equally motivated to go abroad to go to a prestigious educational center is true, the null hypothesis (H_0) will be accepted, and the t statistic will be distributed in 11 degrees of freedom.

- Enjoying the local nightlife:

$$k = \frac{\left(\frac{s_1^2}{n_1} + \frac{s_2^2}{n_2}\right)^2}{\left[\frac{\left(\frac{s_1^2}{n_1}\right)^2}{n_1 - 1} + \frac{\left(\frac{s_2^2}{n_2}\right)^2}{n_2 - 2}\right]} = \frac{\left(\frac{0.879}{105} + \frac{0.752}{65}\right)^2}{\left[\frac{\left(\frac{0.879}{105}\right)^2}{105 - 1} + \frac{\left(\frac{0.752}{65}\right)^2}{65 - 2}\right]} = 24.43 \approx 24$$

If the assumption that female and male students are equally motivated to go abroad to enjoy the local nightlife is true, the null hypothesis (H_0) will be accepted, and the t statistic will be distributed in 24 degrees of freedom.

8.1.2.4. Decision rule

In this case, the significance level that has been used is p=0.01 as well. The critical value of t will depend on the degrees of freedom k subtracted from the Welch-Satterthwaite equation (2). The critical values of t are different in each category.

- Better understanding other cultures:

$$If \begin{cases} t > 2.681, & Reject\ H_0\ and\ Accept\ H_A \\ t \leq 2.681, & Accept\ H_0\ and\ Reject\ H_A \end{cases}$$

- Making friends from other nationalities:

$$If \begin{cases} t > 2.552, & Reject\ H_0\ and\ Accept\ H_A \\ t \leq 2.552, & Accept\ H_0\ and\ Reject\ H_A \end{cases}$$

- Becoming more independent:

$$If \begin{cases} t > 3.747, & Reject\ H_0\ and\ Accept\ H_A \\ t \leq 3.747, & Accept\ H_0\ and\ Reject\ H_A \end{cases}$$

- Gaining maturity:

$$If \begin{cases} t > 3.747, & Reject\ H_0\ and\ Accept\ H_A \\ t \leq 3.747, & Accept\ H_0\ and\ Reject\ H_A \end{cases}$$

- Enhancing one's employment possibilities:

$$If \begin{cases} t > 2.718, & Reject\ H_0\ and\ Accept\ H_A \\ t \leq 2.718, & Accept\ H_0\ and\ Reject\ H_A \end{cases}$$

- Improving one's language skills:

$$If \begin{cases} t > 3.747, & Reject\ H_0\ and\ Accept\ H_A \\ t \leq 3.747, & Accept\ H_0\ and\ Reject\ H_A \end{cases}$$

- Going to a prestigious educational center:

$$If \begin{cases} t > 2.718, & Reject\ H_0\ and\ Accept\ H_A \\ t \leq 2.718, & Accept\ H_0\ and\ Reject\ H_A \end{cases}$$

- Enjoying the local nightlife:

$$If \begin{cases} t > 2.492, & Reject\ H_0\ and\ Accept\ H_A \\ t \leq 2.492, & Accept\ H_0\ and\ Reject\ H_A \end{cases}$$

8.1.2.5. Calculation of the test statistic

- Better understanding other cultures:

$$t = \frac{(\bar{x}_1 - \bar{x}_2) - (\mu_1 - \mu_2)}{\sqrt{\frac{s_1^2}{n_1} + \frac{s_2^2}{n_2}}} = \frac{(4.398 - 4.185)}{\sqrt{\frac{0.471}{108} + \frac{0.631}{65}}} = 1.80$$

$$1.80 \leq 2.618, Accept\ H_0\ and\ Reject\ H_A$$

- Making friends from other nationalities:

$$t = \frac{(\bar{x}_1 - \bar{x}_2) - (\mu_1 - \mu_2)}{\sqrt{\frac{s_1^2}{n_1} + \frac{s_2^2}{n_2}}} = \frac{(4.602 - 4.446)}{\sqrt{\frac{0.545}{108} + \frac{0.570}{65}}} = 1.32$$

$$1.32 \leq 2.552, Accept\ H_0\ and\ Reject\ H_A$$

- Becoming more independent:

$$t = \frac{(\bar{x}_1 - \bar{x}_2) - (\mu_1 - \mu_2)}{\sqrt{\frac{s_1^2}{n_1} + \frac{s_2^2}{n_2}}} = \frac{(4.694 - 4.431)}{\sqrt{\frac{0.289}{108} + \frac{0.687}{65}}} = 2.29$$

$$2.29 \leq 3.747, Accept\ H_0\ and\ Reject\ H_A$$

- Gaining maturity:

$$t = \frac{(\bar{x}_1 - \bar{x}_2) - (\mu_1 - \mu_2)}{\sqrt{\frac{s_1^2}{n_1} + \frac{s_2^2}{n_2}}} = \frac{(4.583 - 4.231)}{\sqrt{\frac{0.357}{108} + \frac{0.805}{65}}} = 2.81$$

$$2.81 \leq 3.747, Accept\ H_0\ and\ Reject\ H_A$$

- Enhancing one's employment possibilities:

$$t = \frac{(\bar{x}_1 - \bar{x}_2) - (\mu_1 - \mu_2)}{\sqrt{\dfrac{s_1^2}{n_1} + \dfrac{s_2^2}{n_2}}} = \frac{(4.528 - 4.446)}{\sqrt{\dfrac{0.420}{108} + \dfrac{0.563}{65}}} = 0.72$$

$$0.72 \leq 2.718, Accept\ H_0\ and\ Reject\ H_A$$

- Improving one's language skills:

$$t = \frac{(\bar{x}_1 - \bar{x}_2) - (\mu_1 - \mu_2)}{\sqrt{\dfrac{s_1^2}{n_1} + \dfrac{s_2^2}{n_2}}} = \frac{(4.880 - 4.754)}{\sqrt{\dfrac{0.126}{108} + \dfrac{0.313}{65}}} = 1.62$$

$$1.62 \leq 3.747, Accept\ H_0\ and\ Reject\ H_A$$

- Going to a prestigious educational center:

$$t = \frac{(\bar{x}_1 - \bar{x}_2) - (\mu_1 - \mu_2)}{\sqrt{\dfrac{s_1^2}{n_1} + \dfrac{s_2^2}{n_2}}} = \frac{(3.991 - 3.800)}{\sqrt{\dfrac{0.813}{108} + \dfrac{1.313}{65}}} = 1.21$$

$$1.21 \leq 2.718, Accept\ H_0\ and\ Reject\ H_A$$

- Enjoying the local nightlife:

$$t = \frac{(\bar{x}_1 - \bar{x}_2) - (\mu_1 - \mu_2)}{\sqrt{\dfrac{s_1^2}{n_1} + \dfrac{s_2^2}{n_2}}} = \frac{(3.538 - 3.287)}{\sqrt{\dfrac{0.752}{65} + \dfrac{0.879}{108}}} = 1.79$$

$$1.79 \leq 2.492, Accept\ H_0\ and\ Reject\ H_A$$

8.1.2.6. Statistical decision

As per the results, it has been statistically proved that there are no differences between the studied motivations of male and female students to study abroad. In all cases the null hypothesis (H₀) has been accepted. Therefore, H₀: $\mu_1 = \mu_2$.

8.2. CHI-SQUARE TEST FOR HOMOGENEITY OF PROPORTIONS

The Chi-square test is used in this research to test if the proportions of private and public university students and male and female students are homogeneous and distributed identically, when showing interest to study abroad.

8.2.1. Interest in studying abroad: Private and Public university students

8.2.1.1. Observed frequencies (O_i)

Two types of population are analyzed:

Population 1 (P_1) = proportion of private university students

Population 2 (P_2) = proportion of public university students

Interest in studying abroad	Private	Public	Total
Interested	106	67	173
%	(95%)	(68%)	(83%)
Not interested	5	31	36
%	(5%)	(32%)	(17%)
Total	111	98	209
%	(100%)	(100%)	(100%)

Table 21 Observed frequencies (O_i): Private and public university students. Own elaboration.

8.2.1.2. Hypothesis statement

The proposed null hypothesis (H_0) states that the proportion of private (P_1) and public (P_2) university students interested in studying abroad is equal. Contrarily, the alternative hypothesis (H_A) states that the proportion of private university students (P_1) interested in studying abroad is higher than the proportion of students from the public university (P_2). The result of that is the following hypothesis statement:

$$H_0: P_1 = P_2$$

$$H_A: P_1 > P_2$$

8.2.1.3. Expected frequencies (E_i)

Interest in studying abroad	Private	Public
Interested	$E_i = \dfrac{173\times111}{209} = 91.88$	$E_i = \dfrac{173\times98}{209} = 81.12$
Not interested	$E_i = \dfrac{36\times111}{209} = 19.12$	$E_i = \dfrac{36\times98}{209} = 16.88$

Table 22 Expected frequencies (E_i): Private and public university students. Own elaboration.

8.2.1.4. Calculation of the test statistic

In order to calculate the test statistic, formula (3) has been used:

$$\chi^2 = \frac{(106 - 91.88)^2}{91.88} + \frac{(67 - 81.12)^2}{81.12} + \frac{(5 - 19.12)^2}{19.12} + \frac{(31 - 16.88)^2}{16.88} = 26.865$$

8.2.1.5. Distribution of the statistic

On the other hand, the degrees of freedom have been calculated with formula (4):

$$k = (2 - 1)\times(2 - 1) = 1$$

Should the null hypothesis (H_0) be accepted, it will mean that the test statistic will be distributed with 1 degree of freedom.

8.2.1.6. Decision rule

Considering that the significance level is p=0.01, and that the freedom level is k=1, the critical value of t is 6.635, as can be seen in the Chi-square table (see Annex 3). Consequently, the result is the following:

$$If \begin{cases} \chi^2 > 6.635, & Reject\ H_0\ and\ Accept\ H_A \\ \chi^2 \leq 6.635, & Accept\ H_0\ and\ Reject\ H_A \end{cases}$$

8.2.1.7. Statistical decision

Regarding the obtained results, the null hypothesis (H_0) is rejected $26.865 > 6.635$. The results taken from the Chi-square test for the homogeneity of proportions demonstrate that the proposed null hypothesis $H_0: P_1 = P_2$ is false, and that consequently, the alternative hypothesis $H_A: P_1 > P_2$ is true. What is meant by that is that statistically private university students are more motivated than public university students to study abroad. Out of the 209 students that

were surveyed, 173 were interested in studying abroad, which accounts for 83% of the sample. While 61% of these 173 students were private university students, the remaining 39% were public university students, which shows that private university students have a stronger inclination for international education.

8.2.2. Interest in studying abroad: Male and female students

8.2.2.1. Observed frequencies (O_i)

Two types of population are analyzed:

Population 1 (P_1) = proportion of female students

Population 2 (P_2) = proportion of male students

Interest in studying abroad	Male	Female	Total
Interested	65	108	173
%	(83%)	(82%)	(83%)
Not interested	13	23	36
%	(17%)	(18%)	(17%)
Total	78	131	209
%	(100%)	(100%)	(100%)

Table 23 Observed frequencies (O_i): Male and female students. Own elaboration.

8.2.2.2. Hypothesis statement

The proposed null hypothesis (H_0) states that the proportion of female (P_1) and male (P_2) students interested in studying abroad is equal. However, the alternative hypothesis (H_A) states that the proportion of female students (P_1) interested in studying abroad is higher than the proportion of male students (P_2). Consequently, the hypothesis statement is the following:

$$H_0: P_1 = P_2$$

$$H_A: P_1 > P_2$$

8.2.2.3. Expected frequencies (E_i)

Interest in studying abroad	Private	Public
Interested	$E_i = \dfrac{173 \times 78}{209} = 64.56$	$E_i = \dfrac{173 \times 131}{209} = 108.44$
Not interested	$E_i = \dfrac{36 \times 78}{209} = 13.44$	$E_i = \dfrac{36 \times 131}{209} = 22.56$

Table 24 Expected frequencies (E_i): Male and female students. Own elaboration.

8.2.2.4. Calculation of the test statistic

In order to calculate the test statistic, formula (3) has been used:

$$\chi^2 = \frac{(65 - 64.56)^2}{64.56} + \frac{(108 - 108.44)^2}{108.44} + \frac{(13 - 13.44)^2}{13.44} + \frac{(23 - 22.56)^2}{22.56} = 0.027$$

8.2.2.5. Distribution of the statistic

Additionally, the degrees of freedom have been calculated with formula (4):

$$k = (2 - 1) \times (2 - 1) = 1$$

If the null hypothesis (H_0) is accepted, it will mean that the test statistic will be distributed with 1 degree of freedom.

8.2.2.6. Decision rule

Considering that the significance level is p=0.01, and that the freedom level is k=1, the critical value of t is 6.635, as can be seen in the Chi-square table (see Annex 3). Consequently, the result is the following:

$$If \begin{cases} \chi^2 > 6.635, & Reject\ H_0\ and\ Accept\ H_A \\ \chi^2 \leq 6.635, & Accept\ H_0\ and\ Reject\ H_A \end{cases}$$

8.2.2.7. Statistical decision

After examining the results, it can be said that the null hypothesis (H_0) is accepted $0.027 = 6.635$. The Chi-square test for homogeneity of proportions shows that the proposed null hypothesis $H_0: P_1 = P_2$ is true, and that consequently, the alternative hypothesis $H_A: P_1 > P_2$ is false. As a conclusion, it could be said that the proportions of male and female students that want to study abroad are equal, which confirms the hypothesis that gender is not a factor that

has an effect on the decision to study abroad. This hypothesis supports Ning and Chen (2010) and Naffziger, Bott and Mueller's (2013) argument about the inexistence of relevant differences in the motivations to study abroad between gender.

8.2.3. Ranking of preferences: Private and Public university students

In this section a study of how private and public university students rank a series of statements related to their education abroad has been done. Out of the nine statements from question 12 in the survey, the four most rated were taken for further analysis. These four statements are i) Improving one's language skills, ii) Making friends from other nationalities, iii) Travelling and knowing new places, and iv) Enhancing one's employment possibilities.

Statements	Private			Public		
	Rank	Count	%	Rank	Count	%
Improving one's language skills	1	68	64,15%	1	58	86,57%
Making friends from other nationalities	2	62	58,49%	4	26	38,81%
Travelling	3	61	57,55%	3	32	47,76%
Enhancing one's employment possibilities	4	44	41,51%	2	39	58,21%

Table 25 Ranking of preferences: Private and public university students. Own elaboration.

8.2.3.1. Observed frequencies (Oᵢ)

- **Improving one's language skills:**

For this statements two types of population are analyzed:

Population 1 (P_1) = proportion of public university students

Population 2 (P_2) = proportion of private university students

Improving one's language skills	Public	Private	Total
Relevant %	58 (87%)	68 (64%)	173 (73%)
Irrelevant %	9 (13%)	38 (36%)	47 (27%)
Total %	67 (100%)	106 (100%)	173 (100%)

Table 26 Observed frequencies (Oi): Private and public university students. Own elaboration.

- **Making friends from other nationalities:**

For this statements two types of population are analyzed:

Population 1 (P_1) = proportion of private university students

Population 2 (P_2) = proportion of public university students

Making friends from other nationalities	Private	Public	Total
Relevant %	62 (58%)	26 (39%)	88 (51%)
Irrelevant %	44 (42%)	41 (61%)	85 (49%)
Total %	106 (100%)	67 (100%)	173 (100%)

Table 27 Observed frequencies (Oi): Private and public university students. Own elaboration.

- **Travelling and knowing new places:**

For this statements two types of population are analyzed:

Population 1 (P_1) = proportion of private university students

Population 2 (P_2) = proportion of public university students

Travelling and knowing new places	Private	Public	Total
Relevant %	61 (58%)	32 (48%)	93 (54%)
Irrelevant %	45 (42%)	35 (52%)	80 (46%)
Total %	106 (100%)	67 (100%)	173 (100%)

Table 28 Observed frequencies (Oi): Private and public university students. Own elaboration.

- **Enhancing one's employment possibilities:**

For this statements two types of population are analyzed:

Population 1 (P_1) = proportion of public university students

Population 2 (P_2) = proportion of private university students

Enhancing one's employment possibilities	Public	Private	Total
Relevant	39	44	83
%	(58%)	(42%)	(48%)
Irrelevant	28	62	90
%	(42%)	(58%)	(52%)
Total	67	106	173
%	(100%)	(100%)	(100%)

Table 29 Observed frequencies (Oi): Private and public university students. Own elaboration.

8.2.3.2. Hypothesis statement

Accordingly, four null hypotheses (H_0) have been proposed:

- **Improving one's language skills:**

The proposed null hypothesis (H_0) states that the proportion of public university students (P_1) and private university students (P_2) who find improving their language skills relevant is equal. However, the alternative hypothesis (H_A) states that the proportion of public university students (P_1) who find improving their language skills relevant is higher than the proportion of private university students (P_2). Consequently, the hypothesis statement is the following:

$$H_0: P_1 = P_2$$

$$H_A: P_1 > P_2$$

- **Making friends from other nationalities:**

The proposed null hypothesis (H_0) states that the proportion of private university students (P_1) and public university students (P_2) who find making friends from other nationalities relevant is equal. However, the alternative hypothesis (H_A) states that the proportion of private university students (P_1) who find making friends from other nationalities relevant is higher than the proportion of public university students (P_2). Consequently, the hypothesis statement is the following:

$$H_0: P_1 = P_2$$

$$H_A: P_1 > P_2$$

- **Travelling and knowing new places:**

The proposed null hypothesis (H_0) states that the proportion of private university students (P_1) and public university students (P_2) who find travelling and knowing new places relevant is

equal. However, the alternative hypothesis (H$_A$) states that the proportion of private university students (P$_1$) who find travelling and knowing new places relevant is higher than the proportion of public university students (P$_2$). Consequently, the hypothesis statement is the following:

$$H_0: P_1 = P_2$$

$$H_A: P_1 > P_2$$

- **Enhancing one's employment possibilities:**

The proposed null hypothesis (H$_0$) states that the proportion of public university students (P$_1$) and private university students (P$_2$) who find enhancing their employment possibilities relevant is equal. However, the alternative hypothesis (H$_A$) states that the proportion of public university students (P$_1$) who find enhancing their employment possibilities relevant is higher than the proportion of private university students (P$_2$). Consequently, the hypothesis statement is the following:

$$H_0: P_1 = P_2$$

$$H_A: P_1 > P_2$$

8.2.3.3. Expected frequencies (E$_i$)

Improving one's language skills	Public	Private
Relevant	$E_i = \dfrac{126 \times 67}{173} = 48.80$	$E_i = \dfrac{126 \times 106}{173} = 77.20$
Irrelevant	$E_i = \dfrac{47 \times 67}{173} = 18.20$	$E_i = \dfrac{47 \times 106}{173} = 28.80$

Table 30 Expected frequencies (E$_i$): Private and public university students. Own elaboration.

Making friends from other nationalities	Private	Public
Relevant	$E_i = \dfrac{88 \times 106}{173} = 53.92$	$E_i = \dfrac{88 \times 67}{173} = 34.08$
Irrelevant	$E_i = \dfrac{85 \times 106}{173} = 52.08$	$E_i = \dfrac{85 \times 67}{173} = 32.92$

Table 31 Expected frequencies (Ei): Private and public university students. Own elaboration.

Travelling and knowing new places	Private	Public
Relevant	$E_i = \dfrac{93 \times 106}{173} = 56.98$	$E_i = \dfrac{93 \times 67}{173} = 36.02$
Irrelevant	$E_i = \dfrac{80 \times 106}{173} = 49.02$	$E_i = \dfrac{80 \times 67}{173} = 30.98$

Table 32 Expected frequencies (Ei): Private and public university students. Own elaboration.

Enhancing one's employment possibilities	Public	Private
Relevant	$E_i = \dfrac{83 \times 67}{173} = 32.14$	$E_i = \dfrac{83 \times 106}{173} = 50.86$
Irrelevant	$E_i = \dfrac{90 \times 67}{173} = 34.86$	$E_i = \dfrac{90 \times 106}{173} = 55.14$

Table 33 Expected frequencies (Ei): Private and public university students. Own elaboration.

8.2.3.4. Calculation of the test statistic

In order to calculate the test statistic of the four statements, formula (3) has been used:

- **Improving one's language skills:**

$$\chi^2 = \frac{(58 - 48.80)^2}{48.80} + \frac{(68 - 77.20)^2}{77.20} + \frac{(9 - 18.20)^2}{18.20} + \frac{(38 - 28.80)^2}{28.80} = 10.425$$

- **Making friends from other nationalities:**

$$\chi^2 = \frac{(62 - 53.92)^2}{53.92} + \frac{(26 - 34.08)^2}{34.08} + \frac{(44 - 52.08)^2}{52.08} + \frac{(41 - 32.92)^2}{32.92} = 6.635$$

- **Travelling and knowing new places:**

$$\chi^2 = \frac{(61 - 56.98)^2}{56.98} + \frac{(32 - 36.02)^2}{36.02} + \frac{(45 - 49.02)^2}{49.02} + \frac{(35 - 30.98)^2}{30.98} = 1.581$$

- **Enhancing one's employment possibilities:**

$$\chi^2 = \frac{(39 - 32.14)^2}{32.14} + \frac{(44 - 50.86)^2}{50.86} + \frac{(28 - 34.86)^2}{34.86} + \frac{(62 - 55.14)^2}{55.14} = 4.587$$

8.2.3.5. Distribution of the statistic

Additionally, the degrees of freedom have been calculated with formula (4):

$$k = (2-1) \times (2-1) = 1$$

If the null hypothesis (H_0) is accepted, it will mean that the test statistic will be distributed with 1 degree of freedom.

8.2.3.6. Decision rule

Considering that for the analysis of these four elements the significance level is p=0.05, and that the freedom level is k=1, the critical value of t is 3.841, as can be seen in the Chi-square table (see Annex 3). Consequently, the results are the following:

- **Improving one's language skills:**

$$If \begin{cases} \chi^2 > 3.841, & Reject\ H_0\ and\ Accept\ H_A \\ \chi^2 \leq 3.841, & Accept\ H_0\ and\ Reject\ H_A \end{cases}$$

- **Making friends from other nationalities:**

$$If \begin{cases} \chi^2 > 3.841, & Reject\ H_0\ and\ Accept\ H_A \\ \chi^2 \leq 3.841, & Accept\ H_0\ and\ Reject\ H_A \end{cases}$$

- **Travelling and knowing new places:**

$$If \begin{cases} \chi^2 > 3.841, & Reject\ H_0\ and\ Accept\ H_A \\ \chi^2 \leq 3.841, & Accept\ H_0\ and\ Reject\ H_A \end{cases}$$

- **Enhancing one's employment possibilities:**

$$If \begin{cases} \chi^2 > 3.841, & Reject\ H_0\ and\ Accept\ H_A \\ \chi^2 \leq 3.841, & Accept\ H_0\ and\ Reject\ H_A \end{cases}$$

8.2.3.7. Statistical decision

The results have varied depending on the statement:

- **Improving one's language skills:** regarding the results obtained, it can be said the the null hypothesis (H_0) is rejected $10.425 > 3.841$. The Chi-square test for homogeneity of proportions shows that the proposed null hypothesis $H_0: P_1 = P_2$ is false, and that consequently, the alternative hypothesis $H_A: P_1 > P_2$ is true. As a conclusion, it could be said that the proportions of private and public university students who find improving their language skills relevant are not equal. That is, public university students find improving their language skills while studying abroad more relevant than private university students.

- **Making friends from other nationalities:** regarding the results obtained, it can be said the the null hypothesis (H₀) is rejected $6.635 > 3.841$. The Chi-square test for homogeneity of proportions shows that the proposed null hypothesis $H_0: P_1 = P_2$ is false, and that consequently, the alternative hypothesis $H_A: P_1 > P_2$ is true. As a conclusion, it could be said that the proportions of private and public university students who find making friends from other nationalities relevant are not equal. This is, private university students find making friends from other nationalities while studying abroad more relevant than public university students.

- **Travelling and knowing new places:** regarding the results obtained, it can be said the the null hypothesis (H₀) is accepted $1.581 < 3.841$. The Chi-square test for homogeneity of proportions shows that the proposed null hypothesis $H_0: P_1 = P_2$ is true, and that consequently, the alternative hypothesis $H_A: P_1 > P_2$ is false. As a conclusion, it could be said that the proportions of private and public university students who find travelling and knowing new places relevant are equal. This is, private and public university students find travelling and knowing new places while studying abroad equally relevant.

- **Enhancing one's employment possibilities:** regarding the results obtained, it can be said the the null hypothesis (H₀) is rejected $4.587 > 3.841$. The Chi-square test for homogeneity of proportions shows that the proposed null hypothesis $H_0: P_1 = P_2$ is false, and that consequently, the alternative hypothesis $H_A: P_1 > P_2$ is true. As a conclusion, it could be said that the proportions of private and public university students who find enhancing their employment possibilities relevant are not equal. This is, public university students find enhancing their employment possibilities while studying abroad more relevant than private university students.

8.2.4. Ranking of preferences: Male and Female students

In this section an analysis of how male and female students rank a series of statements related to their education abroad has been done. Out of the nine statements from question 12 in the survey, the four most rated were taken for further analysis. These four statements are i) Improving one's language skills, ii) Making friends from other nationalities, iii) Travelling and knowing new places, and iv) Enhancing one's employment possibilities.

Statements	Male			Female		
	Rank	Count	%	Rank	Count	%
Improving one's language skills	1	47	72,31%	1	95	87,96%
Making friends from other nationalities	2	36	55,38%	3	67	62,04%
Travelling	4	33	50,77%	2	75	69,44%
Enhancing one's employment possibilities	3	35	53,85%	4	65	60,19%

Table 34 Ranking of preferences: Male and female students. Own elaboration.

8.2.4.1. Observed frequencies (O_i)

- **Improving one's language skills:**

For this statements two types of population are analyzed:

Population 1 (P_1) = proportion of female students

Population 2 (P_2) = proportion of male students

Improving one's language skills	Female	Male	Total
Relevant **%**	95 (88%)	47 (72%)	142 (82%)
Irrelevant **%**	13 (12%)	18 (28%)	31 (18%)
Total **%**	108 (100%)	65 (100%)	173 (100%)

Table 35 Observed frequencies (Oi): Female and male students. Own elaboration.

- **Making friends from other nationalities:**

For this statements two types of population are analyzed:

Population 1 (P_1) = proportion of female students

Population 2 (P_2) = proportion of male students

Making friends from other nationalities	Female	Male	Total
Relevant	67	36	103
%	(62%)	(55%)	(60%)
Irrelevant	41	29	70
%	(38%)	(45%)	(40%)
Total	108	65	173
%	(100%)	(100%)	(100%)

Table 36 Observed frequencies (Oi): Female and male students. Own elaboration.

- **Travelling and knowing new places:**

For this statements two types of population are analyzed:

Population 1 (P_1) = proportion of female students

Population 2 (P_2) = proportion of male students

Travelling and knowing new places	Female	Male	Total
Relevant	75	33	108
%	(69%)	(51%)	(62%)
Irrelevant	33	32	65
%	(31%)	(49%)	(38%)
Total	108	65	173
%	(100%)	(100%)	(100%)

Table 37 Observed frequencies (Oi): Female and male students. Own elaboration.

- **Enhancing one's employment possibilities:**

For this statements two types of population are analyzed:

Population 1 (P_1) = proportion of female students

Population 2 (P_2) = proportion of male students

Enhancing one's employment possibilities	Female	Male	Total
Relevant	65	35	100
%	(60%)	(54%)	(58%)
Irrelevant	43	30	73
%	(40%)	(46%)	(42%)
Total	108	65	173
%	(100%)	(100%)	(100%)

Table 38 Observed frequencies (Oi): Female and male students. Own elaboration.

8.2.4.2. Hypothesis statement

Accordingly, four null hypotheses (H$_0$) have been proposed:

- **Improving one's language skills:**

The proposed null hypothesis (H$_0$) states that the proportion of female students (P$_1$) and male students (P$_2$) who find improving their language skills relevant is equal. However, the alternative hypothesis (H$_A$) states that the proportion of female students (P$_1$) who find improving their language skills relevant is higher than the proportion of male students (P$_2$). Consequently, the hypothesis statement is the following:

$$H_0: P_1 = P_2$$

$$H_A: P_1 > P_2$$

- **Making friends from other nationalities:**

The proposed null hypothesis (H$_0$) states that the proportion of female students (P$_1$) and male students (P$_2$) who find making friends from other nationalities relevant is equal. However, the alternative hypothesis (H$_A$) states that the proportion of female students (P$_1$) who find making friends from other nationalities relevant is higher than the proportion of male students (P$_2$). Consequently, the hypothesis statement is the following:

$$H_0: P_1 = P_2$$

$$H_A: P_1 > P_2$$

- **Travelling and knowing new places:**

The proposed null hypothesis (H$_0$) states that the proportion of female students (P$_1$) and male students (P$_2$) who find travelling and knowing new places relevant is equal. However, the alternative hypothesis (H$_A$) states that the proportion of female students (P$_1$) who find travelling and knowing new places relevant is higher than the proportion of male students (P$_2$). Consequently, the hypothesis statement is the following:

$$H_0: P_1 = P_2$$

$$H_A: P_1 > P_2$$

- **Enhancing one's employment possibilities:**

The proposed null hypothesis (H$_0$) states that the proportion of female students (P$_1$) and male students (P$_2$) who find enhancing their employment possibilities relevant is equal.

However, the alternative hypothesis (H_A) states that the proportion of female students (P_1) who find enhancing their employment possibilities relevant is higher than the proportion of male students (P_2). Consequently, the hypothesis statement is the following:

$$H_0: P_1 = P_2$$

$$H_A: P_1 > P_2$$

8.2.4.3. Expected frequencies (E_i)

Improving one's language skills	Female	Male
Relevant	$E_i = \dfrac{142 \times 108}{173} = 88.65$	$E_i = \dfrac{142 \times 65}{173} = 53.35$
Irrelevant	$E_i = \dfrac{31 \times 108}{173} = 19.35$	$E_i = \dfrac{31 \times 66}{173} = 11.65$

Table 39 Expected frequencies (E_i): Female and male students. Own elaboration.

Making friends from other nationalities	Female	Male
Relevant	$E_i = \dfrac{103 \times 108}{173} = 64.30$	$E_i = \dfrac{103 \times 65}{173} = 38.70$
Irrelevant	$E_i = \dfrac{70 \times 108}{173} = 43.70$	$E_i = \dfrac{70 \times 65}{173} = 26.30$

Table 40 Expected frequencies (Ei): Female and male students. Own elaboration.

Travelling and knowing new places	Female	Male
Relevant	$E_i = \dfrac{108 \times 108}{173} = 67.42$	$E_i = \dfrac{108 \times 65}{173} = 40.58$
Irrelevant	$E_i = \dfrac{65 \times 108}{173} = 40.58$	$E_i = \dfrac{65 \times 65}{173} = 24.42$

Table 41 Expected frequencies (Ei): Female and male students. Own elaboration.

Enhancing one's employment possibilities	Female	Male
Relevant	$E_i = \dfrac{100 \times 108}{173} = 62.43$	$E_i = \dfrac{100 \times 65}{173} = 37.57$
Irrelevant	$E_i = \dfrac{73 \times 108}{173} = 45.57$	$E_i = \dfrac{73 \times 65}{173} = 27.43$

Table 42 Expected frequencies (Ei): Female and male students. Own elaboration.

8.2.4.4. Calculation of the test statistic

In order to calculate the test statistic of the four statements, formula (3) has been used:

- **Improving one's language skills:**

$$\chi^2 = \frac{(95 - 88.65)^2}{88.65} + \frac{(47 - 53.35)^2}{53.35} + \frac{(13 - 19.35)^2}{19.35} + \frac{(18 - 11.65)^2}{11.65} = 6.762$$

- **Making friends from other nationalities:**

$$\chi^2 = \frac{(67 - 64.30)^2}{64.30} + \frac{(36 - 38.70)^2}{38.70} + \frac{(41 - 43.70)^2}{43.70} + \frac{(29 - 26.30)^2}{26.30} = 0.745$$

- **Travelling and knowing new places:**

$$\chi^2 = \frac{(75 - 67.42)^2}{67.42} + \frac{(33 - 40.58)^2}{40.58} + \frac{(33 - 40.58)^2}{40.58} + \frac{(32 - 24.42)^2}{24.42} = 6.034$$

- **Enhancing one's employment possibilities:**

$$\chi^2 = \frac{(65 - 62.43)^2}{62.43} + \frac{(35 - 37.57)^2}{37.57} + \frac{(43 - 45.57)^2}{45.57} + \frac{(30 - 27.43)^2}{27.43} = 0.669$$

8.2.4.5. Distribution of the statistic

Additionally, the degrees of freedom have been calculated with formula (4):

$$k = (2 - 1) \times (2 - 1) = 1$$

If the null hypothesis (H_0) is accepted, it will mean that the test statistic will be distributed with 1 degree of freedom.

8.2.4.6. Decision rule

Considering that for the analysis of these four elements the significance level is $p=0.05$, and that the freedom level is k=1, the critical value of t is 3.841, as can be seen in the Chi-square table (see Annex 3). Consequently, the results are the following:

- **Improving one's language skills:**

$$If \begin{cases} \chi^2 > 3.841, & Reject\ H_0\ and\ Accept\ H_A \\ \chi^2 \leq 3.841, & Accept\ H_0\ and\ Reject\ H_A \end{cases}$$

- **Making friends from other nationalities:**

$$If \begin{cases} \chi^2 > 3.841, & Reject\ H_0\ and\ Accept\ H_A \\ \chi^2 \leq 3.841, & Accept\ H_0\ and\ Reject\ H_A \end{cases}$$

- **Travelling and knowing new places:**

$$If \begin{cases} \chi^2 > 3.841, & Reject\ H_0\ and\ Accept\ H_A \\ \chi^2 \leq 3.841, & Accept\ H_0\ and\ Reject\ H_A \end{cases}$$

- **Enhancing one's employment possibilities:**

$$If \begin{cases} \chi^2 > 3.841, & Reject\ H_0\ and\ Accept\ H_A \\ \chi^2 \leq 3.841, & Accept\ H_0\ and\ Reject\ H_A \end{cases}$$

8.2.4.7. Statistical decision

The results have varied depending on the statement:

- **Improving one's language skills:** regarding the results obtained, it can be said the the null hypothesis (H$_0$) is rejected $6.762 > 3.841$. The Chi-square test for homogeneity of proportions shows that the proposed null hypothesis $H_0: P_1 = P_2$ is false, and that consequently, the alternative hypothesis $H_A: P_1 > P_2$ is true. As a conclusion, it could be said that the proportions of female and male students who find improving their language skills relevant are not equal. That is, female students find improving their language skills while studying abroad more relevant than male students.

- **Making friends from other nationalities:** regarding the results obtained, it can be said the the null hypothesis (H$_0$) is accepted $0.745 > 3.841$. The Chi-square test for homogeneity of proportions shows that the proposed null hypothesis $H_0: P_1 = P_2$ is true, and that consequently, the alternative hypothesis $H_A: P_1 > P_2$ is false. As a conclusion, it could be said that the proportions of female and male students who find making friends from other nationalities relevant are equal. This is, female and male students find making friends from other nationalities while studying abroad equally relevant.

- **Travelling and knowing new places:** regarding the results obtained, it can be said the the null hypothesis (H$_0$) is rejected $6.034 < 3.841$. The Chi-square test for homogeneity of proportions shows that the proposed null hypothesis $H_0: P_1 = P_2$ is false, and that consequently, the alternative hypothesis $H_A: P_1 > P_2$ is true. As a conclusion, it could be said that the proportions of female and male students who find travelling and knowing new

places relevant are not equal. This is, female students find travelling and knowing new places while studying abroad more relevant than male students.

- **Enhancing one's employment possibilities:** regarding the results obtained, it can be said the the null hypothesis (H_0) is accepted $0.669 > 3.841$. The Chi-square test for homogeneity of proportions shows that the proposed null hypothesis $H_0: P_1 = P_2$ is true, and that consequently, the alternative hypothesis $H_A: P_1 > P_2$ is false. As a conclusion, it could be said that the proportions of female and male students who find enhancing their employment possibilities relevant are equal. This is, female and male students find enhancing their employment possibilities while studying abroad equally relevant.

9. CONCLUSIONS

9.1.   INTRODUCTION

This chapter presents the conclusion taken from the results and findings from this study. It is structured in four main topics. Firstly, the extracted hypothesis of the inexistence of differences between male and female students in regards of studying abroad is explained. Secondly, the differences in the motivations and interest to study abroad between private and public university students are highlighted. Thirdly, an analysis of the main elements that students find relevant is done. Last but not least, future research lines are proposed.

9.2.   MALE AND FEMALE STUDENTS

After conducting a thorough analysis of the motivations to study abroad of both male and female students, the conclusion that has been reached is that there is no difference in the factors that motivate these two populations.

Regarding the results of the *t*-tests of each of the MSA's categories, male and female students are equally motivated by them. None of the null hypothesis (H_0) were rejected, which means that there is not any evidence that supports the alternative hypothesis (H_A), based on the assumption that female students are more influenced by the motivational categories under study than male students.

Furthermore, considering the Chi-square test results, the assumption that there is no difference in the motivational aspect of studying abroad between genders is confirmed. The Chi-square test results show that the proportions of male and female students are homogeneous, which means that the null hypothesis (H_0) is accepted, and therefore both populations are equally interested in studying abroad.

These reflections support the argument that there is little or no difference in regards studying abroad and the motivations that affect the decision of students to enroll in an international academic program between male and female students, given by Ning and Chen (2010) and Naffziger, Bott and Mueller's (2013).

9.2.1.   Ranking of preferences

The Chi-squared test results of question number twelve in the survey showed that male and female students did no see the four main statements under study equally relevant.

Improving one's language skills and travelling appear to be more relevant for female students than for male students.

In the case of improving one's language skills, the proposed null hypothesis (H_0) was rejected. This is, a higher proportion of female students find learning or improving their language skills more relevant than male students. Furthermore, the results also show that female students also find more relevant travelling and knowing new places than male students. Although there is no direct correlation between them, these two statements could suggest that female students see studying abroad as an opportunity to be more international.

Last but not least, the other statements, which included making friends from other nationalities and enhancing one's employment possibilities, did not show any differences between the two population. This is, the null hypotheses (H_0) were accepted. The obtained results demonstrate that there is no difference in the relevance that male and female students give to making friends from other nationalities and enhancing their employment possibilities.

9.3. PRIVATE AND PUBLIC UNIVERSITY STUDENTS

As shown in the *t*-test results, there are some categories that actually motivate more the private university students than the public university students. This section is divided into two conclusion arguments. The first one states that there are differences between the motivations that encourage private and public university students to study abroad. The second one is based on the fact that there are as well differences on the intention or interest of private and public university students to study abroad.

9.3.1. Motivations to study abroad

It has been proven in this study that there are differences between the motivations of private and public university students to study abroad. First of all, the *t*-test reflects that private university students are more motivated by better understanding another culture, making friends from other nationalities, gaining maturity and going to a prestigious educational center than public university students.

All these statements rejected the proposed null hypothesis (H_0), which assumed that private and public university students were equally motivated by the MSA's categories. Nevertheless, in other categories such as becoming more independent, enhancing the students' employment possibilities, improving the students' language skills and enjoying the local

nightlife, the null hypothesis (H_0) was accepted, which means that these categories motivate equally both private and public university students.

The fact that private university students are more motivated by such factors than public university students could mean that private university students have a more internationally oriented education and future perspectives. It is also important considering that in this case the private university students were THM students, who study both in English and Spanish, which could be a factor that encouraged them to be more motivated to study abroad for the already mentioned reasons.

On the other hand, the number of private university students with previous experience abroad was as well utterly superior than the number of public university students with experience abroad. This could also be considered as a conditioning factor.

Furthermore, taking into account the percentages of students from the public university who lacked of previous educational experience could imply that one of the reasons why these students could not study abroad was related to economical aspects.

9.3.2.   Interest in studying abroad

In terms of interest to study abroad, the results of the Chi-square test proved that private university students were more interested to expand their education in another country than public university students. The proposed null hypothesis (H_0) was once again rejected, which means that the proportion of students of each population interested in studying abroad was not homogeneous, and in this case the proportion of private university students was notably higher than the proportion of public university students.

These results could be related to the financial constraints as well. Private university students have generally more resources than public university students, and proof of that is the high difference between the number of students without previous international experience of public and private universities.

Furthermore, while in the previous section Naffziger, Bott and Mueller's (2013) argument about the inexistence of statistical difference between male and female students in regards to studying abroad was confirmed, in this case the argument does not coincide with the obtained results. In their study, the researchers stated that there was no difference in the interest to study abroad between people with different levels of income. However, the results of this study

demonstrate the opposite, and demonstrate that private university students are more interested in studying abroad than public university students.

9.3.3. Ranking of preferences

After surveying what were the main elements that private and public university students take most into account, the results showed that improving their language skills, enhancing their employment prospects, making friends from other nationalities and travelling and knowing new places were the most important. The Chi-square test showed that while some aspects were considered more relevant by public university students, others were more important for private university students while studying abroad.

First of all, the results showed that public university students find more relevant than private university students improving their language skills while they are abroad, which means that the null hypothesis (H_0) was rejected. As mentioned previously, the private university students study both in English and Spanish, and the public university students study only in Spanish, which could suggest that learning another language or improving one's language skills is more important for public university students because they have a stronger need of improving their knowledge in a foreign language. Furthermore, private university students had more previous experience abroad, which was very focused on learning other languages and therefore explains why they find studying another language as relevant.

Secondly, the rejected null hypothesis (H_0) states that private university students give more importance to making friends from other nationalities than public universities. What these results show is that private university students see studying abroad as a networking opportunity more than public universities. This could be related to the previous assumption that private university students have a higher knowledge of foreign languages than public university students, because as they find it easier to communicate in another language, they also find making friends from other nationalities easier.

Thirdly, both private and public university students find travelling and knowing new places equally relevant, which means that both populations see studying abroad as an opportunity to discover new places.

Lastly, as per the results of the Chi-square test, public university students see studying abroad more relevant to enhance their employment possibilities than private university students. These results suggest that public university students see studying abroad as an opportunity to find a job and strengthen their résumé. This assertion could be linked with the

fact that public university students find improving their language skills while studying abroad more relevant than private university students. Improving their skills in another language could help them build a stronger résumé, which is directly linked with enhancing their employment possibilities.

9.4.   FUTURE RESEARCH LINES

This study has epitomized the existent differences between male and female students and private and public university students in regards studying abroad in an empirical way. The conclusions obtained could be helpful for academic plan developers abroad in order to adapt the programs to the public university students, or offer more possibilities to private university students. Furthermore, it has been proven that gender is not a variable to take into account, which means that future programs can be offered equally for male and female students.

Nevertheless, as mentioned in the limitations, this study could present difficulties to extrapolate the results with other markets. Although the same analysis could be used, the results of this study would probably only be useful for Spanish students.

Another aspect to take into account is that this study could go further and study more motivational aspects like in the MSA theory, if it was not for the time and resources limitation. Future research could focus not only in BA and THM students, but also in other fields of expertise. Furthermore, more in-depth analysis about the students' preferred destinations and the reasons behind their choice could be carried out.

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APPENDICES

APPENDIX 1: SURVEY MSA

Age: **Gender**: ☐ Male | ☐ Female

1. **Are you planning on studying abroad?**   ☐ Yes
                                                               ☐ No

2. **Have you ever had previous experiences abroad?**   ☐ Yes
                                                               ☐ No

If yes, which type of experience did you have?

☐ Language courses   ☐ Specialized courses

☐ ERASMUS program   ☐ Others (specify which other experiences):

☐ Volunteering

If not, why?

☐ Financial constraints   ☐ Poor academic results

☐ Family issues   ☐ Relationships

☐ Professional ties   ☐ Others (specify which other reasons):

If you are not interested in studying abroad, and you have never had an experience abroad you have finished this survey. Thank you.

3. **For how long would you like to stay abroad?**

☐ 1 – 2 weeks   ☐ 3 months

☐ 3 weeks   ☐ 1 semester

☐ 1 month   ☐ > 1 semester

4. **Rate from 1 to 5 (1: strongly disagree – 3: neither agree or disagree – 5: strongly agree) the following statement: Studying abroad will change my understanding of other cultures.**

☐ 1 | ☐ 2 | ☐ 3 | ☐ 4 | ☐ 5

5. **Rate from 1 to 5 (1: strongly disagree – 3: neither agree or disagree – 5: strongly agree) the following statement: It is important for me to make friends from other nationalities when studying abroad.**

☐ 1 | ☐ 2 | ☐ 3 | ☐ 4 | ☐ 5

6. **Rate from 1 to 5 (1: strongly disagree – 3: neither agree or disagree – 5: strongly agree) the following statement: After studying abroad I will be more independent.**

☐ 1 | ☐ 2 | ☐ 3 | ☐ 4 | ☐ 5

7. **Rate from 1 to 5 (1: strongly disagree – 3: neither agree or disagree – 5: strongly agree) the following statement: After studying abroad I will be more mature.**

☐ 1 | ☐ 2 | ☐ 3 | ☐ 4 | ☐ 5

8. **Rate from 1 to 5 (1: strongly disagree – 3: neither agree or disagree – 5: strongly agree) the following statement: Studying abroad will enhance my employment possibilities.**

☐ 1 | ☐ 2 | ☐ 3 | ☐ 4 | ☐ 5

9. **Rate from 1 to 5 (1: strongly disagree – 3: neither agree or disagree – 5: strongly agree) the following statement: Studying abroad will improve my language skills**

☐ 1 | ☐ 2 | ☐ 3 | ☐ 4 | ☐ 5

10. **Rate from 1 to 5 (1: strongly disagree – 3: neither agree or disagree – 5: strongly agree) the following statement: It is very important for me to find a good nightlife in the destination.**

☐ 1 | ☐ 2 | ☐ 3 | ☐ 4 | ☐ 5

11. **Rate from 1 to 5 (1: strongly disagree – 3: neither agree or disagree – 5: strongly agree) the following statement: It is important for me going to a prestigious educational institution.**

☐ 1 | ☐ 2 | ☐ 3 | ☐ 4 | ☐ 5

12. **Choose the 3 of the following statements that are more relevant to you when choosing to study abroad.**

☐ Enhance my employment prospects   ☐ Become more independent

☐ Learn or become proficient in the local language   ☐ Better understand different cultures

☐ Experience the local nightlife   ☐ Travel and know new places

☐ Interact with people from other countries   ☐ Gain maturity

☐ Develop new skills not offered in my university

Thank you for your participation.

APPENDIX 2: STUDENT'S *t* DISTRIBUTION CRITICAL VALUES

Shaded area = α
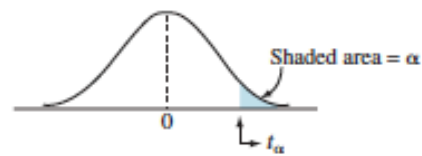
Percentage points of Student's *t* distribution

| df/α =	.40	.25	.10	.05	.025	.01	.005	.001	.0005
1	0.325	1.000	3.078	6.314	12.706	31.821	63.657	318.309	636.619
2	0.289	0.816	1.886	2.920	4.303	6.965	9.925	22.327	31.599
3	0.277	0.765	1.638	2.353	3.182	4.541	5.841	10.215	12.924
4	0.271	0.741	1.533	2.132	2.776	3.747	4.604	7.173	8.610
5	0.267	0.727	1.476	2.015	2.571	3.365	4.032	5.893	6.869
6	0.265	0.718	1.440	1.943	2.447	3.143	3.707	5.208	5.959
7	0.263	0.711	1.415	1.895	2.365	2.998	3.499	4.785	5.408
8	0.262	0.706	1.397	1.860	2.306	2.896	3.355	4.501	5.041
9	0.261	0.703	1.383	1.833	2.262	2.821	3.250	4.297	4.781
10	0.260	0.700	1.372	1.812	2.228	2.764	3.169	4.144	4.587
11	0.260	0.697	1.363	1.796	2.201	2.718	3.106	4.025	4.437
12	0.259	0.695	1.356	1.782	2.179	2.681	3.055	3.930	4.318
13	0.259	0.694	1.350	1.771	2.160	2.650	3.012	3.852	4.221
14	0.258	0.692	1.345	1.761	2.145	2.624	2.977	3.787	4.140
15	0.258	0.691	1.341	1.753	2.131	2.602	2.947	3.733	4.073
16	0.258	0.690	1.337	1.746	2.120	2.583	2.921	3.686	4.015
17	0.257	0.689	1.333	1.740	2.110	2.567	2.898	3.646	3.965
18	0.257	0.688	1.330	1.734	2.101	2.552	2.878	3.610	3.922
19	0.257	0.688	1.328	1.729	2.093	2.539	2.861	3.579	3.883
20	0.257	0.687	1.325	1.725	2.086	2.528	2.845	3.552	3.850
21	0.257	0.686	1.323	1.721	2.080	2.518	2.831	3.527	3.819
22	0.256	0.686	1.321	1.717	2.074	2.508	2.819	3.505	3.792
23	0.256	0.685	1.319	1.714	2.069	2.500	2.807	3.485	3.768
24	0.256	0.685	1.318	1.711	2.064	2.492	2.797	3.467	3.745
25	0.256	0.684	1.316	1.708	2.060	2.485	2.787	3.450	3.725
26	0.256	0.684	1.315	1.706	2.056	2.479	2.779	3.435	3.707
27	0.256	0.684	1.314	1.703	2.052	2.473	2.771	3.421	3.690
28	0.256	0.683	1.313	1.701	2.048	2.467	2.763	3.408	3.674
29	0.256	0.683	1.311	1.699	2.045	2.462	2.756	3.396	3.659
30	0.256	0.683	1.310	1.697	2.042	2.457	2.750	3.385	3.646
35	0.255	0.682	1.306	1.690	2.030	2.438	2.724	3.340	3.591
40	0.255	0.681	1.303	1.684	2.021	2.423	2.704	3.307	3.551
50	0.255	0.679	1.299	1.676	2.009	2.403	2.678	3.261	3.496
60	0.254	0.679	1.296	1.671	2.000	2.390	2.660	3.232	3.460
120	0.254	0.677	1.289	1.658	1.980	2.358	2.617	3.160	3.373
inf.	0.253	0.674	1.282	1.645	1.960	2.326	2.576	3.090	3.291

Source: Computed by M. Longnecker using Splus.

APPENDIX 3: CHI-SQUARED DISTRIBUTION CRITICAL VALUES
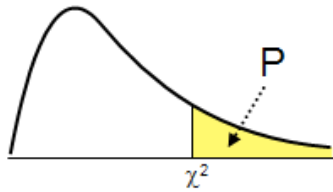
DF	P 0.995	0.975	0.20	0.10	0.05	0.025	0.02	0.01	0.005	0.002	0.001
1	0.0000393	0.000982	1.642	2.706	3.841	5.024	5.412	6.635	7.879	9.550	10.828
2	0.0100	0.0506	3.219	4.605	5.991	7.378	7.824	9.210	10.597	12.429	13.816
3	0.0717	0.216	4.642	6.251	7.815	9.348	9.837	11.345	12.838	14.796	16.266
4	0.207	0.484	5.989	7.779	9.488	11.143	11.668	13.277	14.860	16.924	18.467
5	0.412	0.831	7.289	9.236	11.070	12.833	13.388	15.086	16.750	18.907	20.515
6	0.676	1.237	8.558	10.645	12.592	14.449	15.033	16.812	18.548	20.791	22.458
7	0.989	1.690	9.803	12.017	14.067	16.013	16.622	18.475	20.278	22.601	24.322
8	1.344	2.180	11.030	13.362	15.507	17.535	18.168	20.090	21.955	24.352	26.124
9	1.735	2.700	12.242	14.684	16.919	19.023	19.679	21.666	23.589	26.056	27.877
10	2.156	3.247	13.442	15.987	18.307	20.483	21.161	23.209	25.188	27.722	29.588
11	2.603	3.816	14.631	17.275	19.675	21.920	22.618	24.725	26.757	29.354	31.264
12	3.074	4.404	15.812	18.549	21.026	23.337	24.054	26.217	28.300	30.957	32.909
13	3.565	5.009	16.985	19.812	22.362	24.736	25.472	27.688	29.819	32.535	34.528
14	4.075	5.629	18.151	21.064	23.685	26.119	26.873	29.141	31.319	34.091	36.123
15	4.601	6.262	19.311	22.307	24.996	27.488	28.259	30.578	32.801	35.628	37.697
16	5.142	6.908	20.465	23.542	26.296	28.845	29.633	32.000	34.267	37.146	39.252
17	5.697	7.564	21.615	24.769	27.587	30.191	30.995	33.409	35.718	38.648	40.790
18	6.265	8.231	22.760	25.989	28.869	31.526	32.346	34.805	37.156	40.136	42.312
19	6.844	8.907	23.900	27.204	30.144	32.852	33.687	36.191	38.582	41.610	43.820
20	7.434	9.591	25.038	28.412	31.410	34.170	35.020	37.566	39.997	43.072	45.315
21	8.034	10.283	26.171	29.615	32.671	35.479	36.343	38.932	41.401	44.522	46.797
22	8.643	10.982	27.301	30.813	33.924	36.781	37.659	40.289	42.796	45.962	48.268
23	9.260	11.689	28.429	32.007	35.172	38.076	38.968	41.638	44.181	47.391	49.728
24	9.886	12.401	29.553	33.196	36.415	39.364	40.270	42.980	45.559	48.812	51.179
25	10.520	13.120	30.675	34.382	37.652	40.646	41.566	44.314	46.928	50.223	52.620
26	11.160	13.844	31.795	35.563	38.885	41.923	42.856	45.642	48.290	51.627	54.052
27	11.808	14.573	32.912	36.741	40.113	43.195	44.140	46.963	49.645	53.023	55.476
28	12.461	15.308	34.027	37.916	41.337	44.461	45.419	48.278	50.993	54.411	56.892
29	13.121	16.047	35.139	39.087	42.557	45.722	46.693	49.588	52.336	55.792	58.301
30	13.787	16.791	36.250	40.256	43.773	46.979	47.962	50.892	53.672	57.167	59.703