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Cand. Soc. in Service Management

# Multilingual Skies

The role of language in service encounters  
An approach to the airline industry



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To write a Master Thesis is a long process.

Mine has been a longer one...

I want to dedicate this paper to my son, Eirik,  
Might he understand the privileges of bilingualism one day.

## **ABSTRACT**

The purpose of the present thesis is to investigate the influence of language in service encounters to further identify the relationship between language and perceptions of service quality. The context of the study will be the aviation industry in Europe. Opinions of Spanish and Danish nationals have served to assess passengers' language preferences when travelling and to value the general perceptions of the service provided by cabin crews. The objective of the research is to shorten the gap in the literature, to measure how the service is affected by language and to produce valuable managerial recommendations.

Based on a thorough literature review and on the lack of research in how language influences service quality perceptions, the SERVQUAL model of service quality has been combined with some relevant language dimensions in the service setting onboard an aircraft. The integrated model aims to measure the dependency that language have on service quality. Furthermore, some demographical factors of passengers will be introduced in the model to determine further relationships with the proposed language dimensions.

Data have been obtained through selected interviews and an online questionnaire targeted to the two nationalities in study. The methods used to analyze the data of the interviews consist on pattern matching based on categories; statistical tests have been used to measure the data gathered by the survey questionnaire. The quantitative analysis will focus on the relationship of the two main variables (language dimensions and service quality dimensions); moreover, differences between the two nationality groups will be tested.

The results show a clear distinction between Spanish and Danish passengers. Spanish nationals have a higher native language attachment; on the contrary, Danish have better language ability and understanding of English. Perceptions of service quality are shaped accordingly. Suggestions to airlines managers are made based on these results. The research provides with a deeper understanding of how perceptions of service quality are affected by language in air travel. Moreover, the results of the study advocate for the acknowledgement of the role that language plays during the service encounter.

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## 1. INTRODUCTION

Free movement of capital, goods, services and labor represent the favorable characteristics of the European Union (Keegan & Green, 2013), which have made possible the development of a comprehensive aviation network within its boundaries (Scharpenseel, 2001). The Schengen agreement consolidated this free flow, with a progressive elimination of the internal borders by creating internal agreements between state members (SchengenVisaInfo.com, 2017). Another important occurrence came with the fully deregularization and liberalization of the European airline industry in the late 1990s. Airlines could freely operate not only to and from any state member, but also nationally within a country (Keynes, 2009; Scharpenseel, 2001). Free competition in price, frequencies and service were additionally granted (ICAO, 2017; Keynes, 2009).

Overall, the above-mentioned context triggered a rapid transformation and expansion of the aviation industry in the whole region, where competitiveness was (and still is) at the center. Different business models arose, offering different service concepts (Keynes, 2009). However, the recent financial crisis altered the malleable industry (Goyal & Negi, 2014). Transformations and reductions in price, demand, capacity, labor and operating costs, together with the reinforcement and flourishing of low cost carriers, are the main impacts in the recent years of aviation. Many companies have been forced to change to survive the competitive European market. As the work of Berechman and de Wit (1996, cited in Keynes, 2009) announced, some airlines have expanded their operations to a secondary country, complementing their national offerings.

New patterns have emerged in the last years. The final report of Jorens, Gilis, Valcke & De Coninck (2015) investigating the employment status in European aviation, concludes, among other issues, that the outsourcing employees is a long-stay trend. Several European companies (such as Ryanair, Norwegian or Finnair) have employed pilots and cabin crews from other countries (i.e. Spain) to cut labor costs and to benefit from cheaper union agreements (ibid.). Consequently, new forms of service delivery have taken place in the industry. A passenger flying from his/her home country with a national/regional company does not grant national based employees who speak the same language. The research of Holmqvist & Grönroos (2012) confirms this issue: giving the boundless frontiers of the European markets, the use of the same language in service companies is no longer expected. Furthermore, the use of the English language in aviation is well spread; indeed, many companies take for granted the English verbal skills of their customers. Certainly, English is the most used second language in the European countries, however its use is proficient only in the Netherlands (90%), Malta (89%), and Scandinavia (86%) (Eurobarometer, 2012). Consequently,

service expectations may not be met during the service encounter in a second language, and perceptions of service quality might be erroneously affected.

The direct service encounters between employees and customers are critical for the customer to elaborate satisfying or dissatisfying service experiences (Bitner, Booms, & Tetreault, 1990; Wilson, Zeithaml, Bitner, & Gremler, 2012). The results of this experiences will influence the overall customer's perception of service quality. Multiple factors interact in the service encounter, being verbal communication an important element affecting quality (Grönroos, 1984; Parasuraman, Zeithaml, & Berry, 1988; Sharma & Patterson, 1999; Wilson et al., 2012, Holmqvist & Grönroos, 2012). Due to the high interaction between employees and customers in services, proper verbal communication is imperative to enhance the perceptions of the service (Holmqvist & Grönroos, 2012). Despite the importance of language use in services, research is scarce; as Holmqvist & Grönroos (2012) indicate, no study has covered how does language specifically influence the service encounter. Furthermore, no previous study addresses this issue in the aviation service context.

### **1.1. Problem statement**

Employees and customers' interactions in the service encounter are based on communication. Messages and information exchange occurs through verbal (and non-verbal) communication. Not surprisingly, communication "*in a language customers can understand*" is regarded as a main determinant in the seminal research of Parasuraman, Zeithaml, & Berry, (1985) defining service quality and its dimensions.

The attributes of the service provided by employees need to be excellent and exceed the perceptions of customers to gain quality. To achieve customer satisfaction and consequent loyalty, the goal of every company is deliver service quality. Differences in the language used will affect directly the quality of the service (Grönroos, 1984; Mattson & Den Haring, 1998; Marschan-Piekkari, Welch & Welch, 1999; Sharma & Patterson, 1999; Sundaram & Webster, 2000; Holmqvist & Grönroos, 2012). Accordingly, employees and customers' language skills will play a determinant role in the quality perceptions during service encounters (Marschan-Piekkari, Welch & Welch, 1999, Sundaram & Webster, 2000, Marcella & Davies, 2004, Mudie & Pirrie, 2006, Wilson et al., 2012, Holmqvist, Van Vaerenbergh & Grönroos, 2014). Communicating in a second/non-native language may cause problems during the service encounter such as misunderstandings or confusion in receiving/sending the message. Besides, lack in fluency or unfamiliarity of the language may influence the overall perception of the service received (Marschan-Piekkari, Welch & Welch, 1999; Dawson, Madera & Neal, 2011).

The role that language plays in the aviation industry is vital. As air travel involves a high-risk situation, clear and comprehensible verbal communication is imperative during all the phases of a flight to enhance security and safety onboard (Orasanu, Fischer & Davison, 1997; Drury & Ma, 2002, Krivonos, 2005, Krivonos, 2007). Furthermore, cabin crews and passengers' language skills may also assure or jeopardize the overall service experience. The extended use of the English language in aviation also affects perceptions of service.

Language diversity and language skills play a relevant role in airlines' service encounters of cabin crews and passengers. Due to the relevance of language and verbal communications in (airline) services and given the absence of research in the area, the aim of the present thesis will be to investigate the influence of language in service encounters and to identify the relationship between language and perceptions of service quality. The research will be focused on the aviation industry given the important purpose that language plays during the service onboard. To assess this issue, the following research question is proposed:

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***How does language influence the perceived and experienced quality of service?***

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To ensure a more comprehensive analysis of the topic, several sub-questions, based on the propositions of Holmqvist & Grönroos (2012), will be addressed:

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***SQ<sub>1</sub> To what extent customer satisfaction is affected by language perceptions?***

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***SQ<sub>2</sub> To what extent demographical factors influence language preferences during the service encounter?***

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***SQ<sub>3</sub> To what extent language influences the selection of service provider and willingness to return?***

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## **1.2. Contribution to the field**

The study will contribute to bridge the gap in the present literature about the influence of language use in customers' perceptions of service quality (Holmqvist & Grönroos, 2012). By assessing and understanding the role of language diversity in services, businesses may stand out in nowadays multicultural and heterogeneous markets. Furthermore, there is little literature regarding language use in air travel services. The answering of the research questions might provide new insights for the airline industry, which seems to



be unconcerned about the matter. Few authors have focus their research in the matter, focusing mainly in safety communications in the passenger cabin (Krivonos, 2005, Parker, 2006). Throughout the research, the author has discovered three main language aspects that have an influence on perceptions of service quality: Native Language Attachment, Language Ability and English use.

As no other research have study these aspects in services, this paper significantly contributes to shorten the gap in the literature; furthermore, relevant perceptions of airline passengers regarding language use during the service encounters are originally presented.

### **1.3. Limitations**

The main limitation of this study is the non-parametric distribution of the data obtained. The subsequent statistical tests are also restricted to this type of data. Conveniently, the sample collection focus only in Spanish and Danish nationals, limiting the international scope of the research. These limitations have an impact on the generalizability of the results.

Due to space constrains of a master thesis, language influence in the perceptions of service quality are only measured *during* the service encounter. Perceptions before and after the service encounter are not included in this paper. Additionally, the thesis only focuses on the role of verbal language in service encounters; other aspects of the communication process such as non-verbal cues or written language are not measured.

Other limitation is related to time. The study is cross-sectional, collection of data is gathered only once after the travel is completed. Longitudinal studies measuring pre-flight expectations would provide with deeper understanding. Change of perceptions of the same passengers over time would be also pertinent to corroborate the findings.

### **1.4. Structure of the thesis**

The thesis is divided in 6 main chapters. The first chapter has introduced the main topics and the purpose of the research according with the problem statement and the proposed research questions; moreover, contribution to the field are presented and limitations discussed. Chapter 2 explores the present state of knowledge of the topic proposed. A thorough literature review will be conducted to gain further insights. Possible gaps of knowledge will be identified, which will serve as basis for this research. In chapter 3, the methodology and design applied to answer the research question will be described. The next two chapters

will focus on the analytical part of the paper: chapter 4 will present and explain the qualitative analysis of the interviews, in chapter 5, the online questionnaires will be statistically analyzed and the results will be interpreted and presented accordingly. Chapter 6 will conclude the paper, presenting a discussion of the results; some managerial recommendations will be suggested accordingly; several propositions for further research will close the chapter. Lastly, bibliography and appendix chapters will be included.

## **2. LITERATURE REVIEW**

In the following chapter, the author will explore the current state of knowledge of the topics proposed for the present thesis. The objective of the section is two-fold: analyze the relevant existing literature and identify the possible gap of knowledge to validate the empirical research. It is divided in three sub-sections: within aviation industry context, section 2.1 presents service quality and customer satisfaction constructs, discussing its dimensions and attributes during the service delivery. The subsequent section (2.2) focus the attention on the factor of study: language use in the service encounter; attributes of verbal communication together with employees and customers' use of language will be analyzed. Section 2.3 will conclude the chapter summarizing the main findings of the analyzed literature and presenting a theoretical model and hypotheses subject to analysis.

### **2.1. Service Quality & Customer Satisfaction in the service encounter**

Service marketing has become a focus point for marketers and researchers alike since the 1980s (Shostack, 1977 and Dixon 1990, cited in Vargo & Lusch, 2004). Intangibility, interactivity and ongoing relationships are the key characteristics of services nowadays, where the customer is at the center participating actively in any face-to-face encounter (Bitner, Booms, & Tetreault, 1990; Holmqvist & Grönroos, 2012; Mudie & Pirrie, 2006; Vargo & Lusch, 2004; Wilson, Zeithaml, Bitner, & Gremler, 2012). The service encounter represents the scenario where the direct interaction between employees and customers takes place; where the actions and behavior of each actor play a crucial role; where perceptions of service quality are built and influenced; and where satisfaction and loyalty are tested (Mudie & Pirrie, 2006; Wilson et al., 2012).

*To give additional insights of the constructs of service quality and customer satisfaction and to relate them with the purpose of this analysis, the first part of this section will explore the proposed concepts with the example of the airline industry. Furthermore, a short analysis of the most seminal articles and authors which have discussed the constructs through the last four decades will be presented in the subsequent parts.*

#### **2.1.1. Service Quality & Customer Satisfaction in aviation industry**

The aviation industry represents an optimal example to analyze and measure service quality and customer satisfaction, as service quality is paramount in airline companies. The aim of any airline company is to provide excellent customer service and ensure the safety of their passengers. During the in-flight service, multiple interactions between employee and customer occur (Chen & Chang, 2005); moreover, customers

may influence several of the stages of the whole service process (Wilson et al., 2012). Consequently, the actions of both, employees and passengers, will have an effect in the overall satisfaction/quality of the service (Bitner et al., 1990). Furthermore, as aviation services represent a high-involvement and risk service situation, it can be argued that customers receive more than a simple transactional service when flying. The service encounter onboard ought to be reliable, assured, responsive and empathetic to maintain the psychological and emotional tranquility of passengers.

Giving the intangibility and fortuity of the service provided by airlines (Grönroos, 1984; Wilson et al., 2012), the quality of some aspects of the service onboard (emergency situations or medical problems) are difficult to measure and assess (Krivonos, 2005, Parker 2006). Additionally, passengers' expectations of service quality refers mainly to direct and frequent service delivery, since an "emergency service" is rare to be provided (Chau & Kao, 2009). Assumptions and preconceptions can only be made to measure and understand the "might-happen" phases of the service on board.

The concept of service quality in the airline industry have been widely researched (Chang, 2003; Chen & Chang, 2005); moreover, Chau & Kao (2009) urge to understand the service quality role in the success of the industry. Several authors have addressed the issues of service expectations and perceptions (Sultan & Simpson, 2000; Gilbert & Wong, 2002; Chen & Chang, 2005; Le Bel, 2005; Chau & Kao, 2009; Nameghi & Ariffin, 2013); other researches have studied service quality and customer satisfaction compound in airlines (Sultan & Simpson, 2000; Chang, 2003; Nicolini & Salini, 2005; Koufteros, 2008; Chau & Kao, 2009; An & Noh, 2009; Namukasa, 2013, Baker, 2013).

The extensive research of Sultan & Simpson (2000) showed that service quality dimensions are regarded differently depending on nationality. Their pioneering work serves as example to follow, as the SERVQUAL model was applied in an international aviation context (Europe-USA). The dimensions of the model were perceived distinctively, however, reliability was commonly considered the most important. Interestingly, the results of the study implied new insights in terms of consumer behavior as nationality is influential in the perceptions and expectations of service quality. Nevertheless, as geographical dispersion is high (Europe-USA), it will be pertinent to analyze the degree of importance of service quality attributes within countries of a region (i.e. Europe).

Similarly, Gilbert & Wong (2002) analyzed passengers' expectations through the SERVQUAL dimensions. In an interesting way, the authors adapted the model to the airline industry, modifying to a total of eight the attributes of measurement. The model was used to investigate whether expectations of service vary from nationality and the purpose of the travel. In accordance with Sultan & Simpson's study (2000), nationality had an influence on service expectations; controversially, the assurance dimension was regarded as the

most significant. The adaptation of the SERVQUAL model represents an insightful work to relate to. An interesting perspective for analysis could be to investigate the relationships between service perceptions depending on the language use in the service interactions.

A similar relevant outcome resulted from the study of Chen & Chang (2005), who analyzed the gap between expectations and actual service delivery. The authors corroborated the existence of a gap, where passengers expected more than they received. Additionally, tangibles, responsiveness and assurance dimensions of service quality were valued highest by passengers. It is noteworthy to mention that passengers considered unimportant the employees' presence in the cabin as well as inflight cabin announcements. As the study was carried within a national company, it will be interesting to further investigate whether the existence of the gap occurs in an international context and whether passengers share the same considerations regarding employee presence.

Four dimensions of service quality as well as the quality of the meals and beverages constituted the items of the research model of An & Noh (2009). The study divided the respondents according to seat class (business and economy), which produced different perceptions. Despite of pointing out relevant characteristics such as service delivered by flight attendants, the focus was based on the airline in-flight meal service. In comparison with Chen & Chang (2005), responsiveness and assurance were depicted as important factors of service quality. Furthermore, as the results showed strong relation between in-flight service quality and customer satisfaction, the question proposed in this study will investigate which attributes matters most to enhance perceptions of service quality and satisfaction.

The large research carried by Chau & Kao (2009) covered expectations, service quality and customer satisfaction in two locations (Taiwan and the U.K.). The study agrees with the previous literature in confirming differences in expected versus perceived service quality (Sultan & Simpson, 2000) and asserting the assurance dimension as relevant (Gilbert & Simpson, 2003). Not surprisingly, when addressing overall customer satisfaction, the results confirmed assurance and responsiveness as the most significant dimensions. Additionally, the authors ratified the SERVQUAL model as representative for the airline industry. Controversially with Sultan & Simpson (2000) and Gilbert & Wong (2003), expectations of service remains the same regardless nationality. Nevertheless, other demographic factors (income and occupation) influenced perceived service quality; this fact corroborates the results of An & Noh (2009) when differentiating onboard classes. The study originally englobes a measurement framework for three interlinked constructs in aviation industry: service quality, customer satisfaction and overall service value. Extending the research to a regional context (Europe), might eventually provide different perceptions of service quality.

<b>Author</b>	<b>Samples based on</b>	<b>Relevant attributes</b>	<b>Relation with my RQ</b>	<b>Findings / new insights</b>	<b>Missing gaps / further research</b>
<b>Sultan &amp; Simpson, 2000</b>	Nationality	Reliability	Measurement of service quality attributes in international aviation industry	Nationality plays a role when assessing the most valued attributes of the service SERVQUAL model in an international context	Extrapolate the study to two countries of a region (Europe) to identify which attributes Europeans value most
<b>Gilbert &amp; Wong, 2002</b>	Nationality Purpose of the travel	Assurance	Measurement of SERVQUAL attributes depending on expectations	In-depth adaptation of SERVQUAL model to airline industry	Measure of service perceptions based on the language used during the interactions. Expand the study to western markets to evaluate which attributes are most valued by passengers
<b>Chen &amp; Chang, 2005</b>	Ground and in-flight services	Tangibles Responsiveness Assurance	Service quality attributes related to expectations and experienced service delivery	Corroboration of a service gap Within a domestic context, employees' presence in the cabin was unvalued	Study the possible gap in an international and intercompany context Evaluate employee presence in this context
<b>An &amp; Noh, 2009</b>	Onboard class	Responsiveness Assurance	Confirmation of the relationship between service quality and customer satisfaction with the onboard service as context	Different perceptions of service quality depending on ticket class	Investigate which other attributes or characteristics of the service provided matters to passengers
<b>Chau &amp; Kao, 2009</b>	Nationality Onboard class	Assurance	SERVQUAL model optimal to measure airline industry services Relation between expectations and experienced service delivery	Nationality does not influence expectations of service quality	Extend the research in a regional context to investigate which attributes of service quality matter most to different European nationalities

Table 2.1. Summarized overview of the authors reviewed in this section including proposals for research.

In conclusion, the extensive service quality literature which refers to aviation industry has spotlighted the most relevant dimensions of service provision that matters to passengers, not without discrepancies. Interestingly, the analyzed studies have shown certain degrees of accordance related to the “assurance”

attribute. Conversely, the outcomes of the studies differ mainly according to geographical location and demographical factors. Furthermore, each study provides interesting findings to take into consideration (see the main findings in table 2.1). Nevertheless, to the best of the author knowledge, there is no study which specifically analyze whether the communicative aspects of airlines' services influence service quality and satisfaction. The demographical and geographical controversy represents the starting point of the present thesis in where the author will further explore this issues within two countries of a region (Spain and Denmark in Europe) assessing which service quality attributes of the onboard service matters most to Europeans when flying.

### 2.1.2. Perceived service quality

Customers' evaluations of services results in the comparison of expectations and perceptions of the service received (Grönroos, 1984, 1988). Perceived service quality is further defined by Parasuraman et al. (1988, p.15) as "*the consumer's judgement about the company overall excellence or superiority*"; it results from mixing customer expectations, standards and performances during the service delivery (Mudie & Pirie, 2006). Provision of quality and customer satisfaction are the ultimate goals of any service company; however, service quality is a complex topic to address.

For a proper understanding of the research question presented in the previous chapter (section 1.1), some definitions and backgrounds need to be explained. The author has chosen to examine the work of the influential authors of the concept "*(perceived) service quality*" as they have contributed to a large extend in the posterior research of the topic. Table 2.2 summarizes the analysis, presents the main insights and propose new arguments related with the purpose of this thesis.

<b>Author</b>	<b>S. Q. Model</b>	<b>S.Q. Dimensions</b>	<b>Relation to My RQ</b>	<b>New Insights</b>	<b>Further Research</b>
<b>Grönroos, 1984/1988</b>	"Nordic model"	Technical Functional - Professionalism and Skills Attitudes and Behavior Accessibility and Flexibility Reliability and Trustworthiness Recovery Reputation and Credibility	Definition of service quality is presented	First author to propose a service quality model	Several dimensions correspond to employees' attributes, however, their communication style is not mentioned, neither the language they speak. Interesting to research whether communication and language can be considered as a relevant dimension

<b>Parasuraman, Zeithaml &amp; Berry, 1985/1988</b>	SERVQUAL	Tangibles Reliability Responsiveness Assurance Empathy	The SERVQUAL model is the basis for the empirical measurement of service quality in airline industry	The broad applicability of the 5 dimensions to services Improve services Better understand customers	(especially in airline industry)
					Communication was englobed in the assurance and empathy dimensions. Interesting to investigate if communication is a relevant issue for airline customers.
<b>Johnston, 1995</b>	SERVQUAL revised	Access Aesthetics Attentiveness / helpfulness Availability Care Cleanliness Comfort Commitment Communication Competence Courtesy Flexibility Friendliness Functionality Integrity Reliability Responsiveness Security	Some new determinant proposed (communication) will be included in the measurement	Critic to SERVQUAL Presenting an extensive list of determinants to better understand and measure service quality	Apply communication dimension when measuring service quality in airline industry
<b>Brady &amp; Cronin, 2001 (based on Rust &amp; Oliver, 1994)</b>	"Three-component model"	Interaction Physical environment Outcome	A new dimension of SQ: Interaction of employees influences customers' perceptions	Nordic model and SERVQUAL model encompassed in one.	Interaction between employees and customers is mentioned but does not explain how this occurs neither which language is used.

Table 2.2. Summarized overview of the authors reviewed in this section including arguments to base this research.

In his early papers, Grönroos (1984, 1988) elaborated on the topic of service and quality, discussing the subjectivity and intangibility of services and the complex evaluation by customers. In an attempt of presenting a model to evaluate service quality, Grönroos (1984) presented the concepts of functional (how) and technical (what) quality, which affect the "image" the customer has and the consequent perception of quality. In his later work (1988), the author argued that perceived service quality *"is determined [...] by the gap between expected and experienced quality"* (ibid. p.12). Additionally, a list of service quality determinants was provided:



- *Professionalism and Skills;*
- *Attitudes and Behavior;*
- *Accessibility and Flexibility*
- *Reliability and Trustworthiness*
- *Recovery*
- *Reputation and Credibility*

(Grönroos, 1988)

Even though several dimensions correspond to employees' attributes, their communication style is not mentioned, neither the language they speak during the service encounter. Thus, the research can be extended to communication and language as possible influential determinants of service quality.

Another seminal model of service quality was presented by Parasuraman, Zeithaml & Berry (1985). Ten critical components of perceived service quality were identified based on discrepancies between expectations and perceptions of service quality (*Tangibles, Reliability, Responsiveness, Competence, Courtesy, Credibility, Security, Access, Communication, Understanding the customer*). The model was substantially revised in their later paper (1988), where the authors presented the SERVQUAL model of quality measurement through five main dimensions:

- *Tangibles*
- *Reliability*
- *Responsiveness*
- *Assurance*
- *Empathy*

(Parasuraman Zeithaml & Berry, 1988, page 23).

They favorably argued the broad applicability of the model to service industries, as a manner to improve services and to better understand of customers' expectations and perceptions of quality. Giving the usefulness of the model to several service settings and the fact that communication was later encompassed in the assurance and empathy dimensions, it will be pertinent to study whether communication can be considered a relevant attribute in airline industry services.

The SERVQUAL model was substantially altered by Johnston (1995) who identified a total of 18 determinants of service quality. Reviewing the extensive literature, the author provided a detailed list of determinants to attenuate the weakness of the above-mentioned model, as the five original SERVQUAL

dimensions might be insufficient to some service settings. Furthermore, the author pinpointed that the nature of the SERVQUAL measurement focused only in the importance, not "*on the relative impact of individuals or, collection of, determinants*" (ibid. p. 55). His research is relevant to consider because communication is included as main determinant to service quality. Therefore, for the purpose of this thesis, verbal communication (measured through important language attributes) will be included as a possible influential determinant in the empirical model.

In accordance with Johnston's (1995) critic to the global applicability of SERVQUAL in services, Brady and Cronin (2001) proposed a three-dimension model to measure service quality. Interestingly, the authors englobed the prominent models to date, arguing the need of attenuating the divergent service quality debate, and to present a "*single, comprehensive, multidimensional framework*" (Brady & Cronin, 2001, p. 44). Three main dimensions were distinguished in their service quality model: interaction, physical environment and outcome quality (each with three subdimensions). In an interesting turn, the authors used some of the SERVQUAL dimensions (reliability, responsiveness, empathy) not as determinants, but as descriptive factors of each subdimension (Brady & Cronin, 2001). The inclusion of interaction as a quality determinant is relevant to the present study; however, the authors do not explain how this interaction between employees and customers occurs neither the language spoken. Consequently, the analysis of these factors will be pertinent to further understand this interaction.

To summarize, (perceived) service quality has generated some polemic in the academic world since the concept was presented. Not surprisingly, the construct has been largely analyzed by multiple authors, being Grönroos and Parasuraman Zeithaml & Berry the most outstanding and influential. To classify the factors that influence customers' quality perceptions, and to provide a tool to measure such factors, different models and determinants has been proposed with distinctive degrees of relevancy. Taking into consideration the purpose of the present research, the author will pertinently extract the most relevant attributes of service quality measurement model for further analysis.

### **2.1.3. Customer satisfaction**

Matching customer perceptions of service quality and customer's expectations are crucial for attaining overall customer satisfaction during the service encounter (Baker, 2013). Customer satisfaction has become the target of any company or business (ibid.). Service companies need to be aware of what customers expect from the service experience to match their expectations (Mudie & Pirie, 2006); to achieve satisfactory experiences and to avoid dissatisfactory outcomes (Bitner, Booms & Tetreault, 1990). Satisfaction is defined

as a feeling, a judgment that the consumer elaborates when comparing service provision with expectations and perceptions (Oliver, 1997). Accordingly, satisfaction is the "*consumer fulfillment response*" (ibid. p. 8).

The relationship between customer satisfaction and service quality has been investigated by many influential authors (Parasuraman, Zeithaml & Berry, 1988; Cronin & Taylor, 1992; Bitner & Hubbert, 1994; Oliver, 1997; Brady & Cronin, 2001; Sureshchandar, Rajendran & Anantharaman, 2002; Baker, 2013). Nevertheless, the complexity of this relationship has brought disparity of opinions. To clarify the terms and to give new insights to this research, several seminal works will be further analyzed.

Considering the confusion in the literature, Cronin & Taylor's research (1992) about service quality measurement and the relationship between service quality and customer satisfaction is insightful for several reasons. Firstly, the authors joined the preceding SERVQUAL critics, and assessed empirically a performance-based model to measure service quality, SERVPERF. Secondly, the authors argued that perceived service quality lead to satisfaction and that service quality is an antecedent of customer satisfaction (ibid.). Nevertheless, the authors stated as limitation that "*perceived quality may play a bigger role (in comparison with satisfaction) in high-involvement service encounters*" (ibid. p. 65). Accordingly, further research in a high-involvement setting such as the airline service encounters proposed in the present thesis will help to determine this limitation.

As the research of Bitner & Hubbert (1994) distinguished, overall satisfaction is determined by all the experiences, perceptions and encounters the consumer has with the organization. The authors provided a general definition (perceived service quality, overall satisfaction, service encounter satisfaction). Interestingly, their analysis showed a distinction among the three constructs with a higher correlation between satisfaction and perceived service quality, whereas the satisfaction of single service encounters does not determine overall satisfaction. As the purpose of this thesis will be to analyze "single" service encounters from the customer perspective, it is suitable to investigate the degree of the relationship between service encounter satisfaction and overall satisfaction and observe the results.

In an attempt to lessen the ambiguity of the terms, Oliver (1997) addressed the differences and similarities of quality and satisfaction. The author acknowledged the distinction of the two concepts as postulated by Bitner & Hubbert (1994). In an interesting way, Oliver (1997) argued that some degree of participation is required to evaluate satisfaction, whereas quality can be measure through other people experiences. Moreover, quality refers to an overall long-term dimension while satisfaction results from a direct encounter. In the same way, the author pinpointed that satisfaction does not correlate necessarily with high levels of quality or the opposite. This relevant distinction need to be considered to further distinguish the reciprocal influence of quality and satisfaction in the present study.

An interesting approach of customer satisfaction measurement was presented by Sureshchandar, Rajendran & Anantharaman (2002). The authors suggested a multi-dimensional construct, referring to Bitner and Hubbert's (1994) ratification of SERVQUAL items as "*good predictors of overall service satisfaction*" (ibid. p. 366). Nevertheless, their statement contrast with the opinion of Cronin & Taylor (1992). However, contrary to Oliver (1997), their study inferred high dependency between service quality and customer satisfaction, where perceptions of quality and satisfaction levels increase or decrease accordingly. Consequently, following the purpose of this thesis, further research in this matter might help clarify this dependency.

Summarizing, multiple authors have addressed the characteristics and dependency of customer satisfaction and perceived service quality. Moreover, different arguments and methods have been used to conceptualize customer satisfaction in relation with service quality. Giving the dissimilarities in the results, the current study will further analyze the degree of dependency of this relationship in airlines service encounters.

*Since language/communication does not appear to be an influential determinant of service quality and customer satisfaction for the seminal academic environment, the next section will address language issues in services encounters to identify whether an influence exists.*

## **2.2. Language use in the service encounter**

As language is an important tool of communication (Marcella & Davies, 2004; Dawson, Madera & Neal, 2011), it matters for services for two main reasons: 1) language plays an influential role during the service encounter and 2) language serves to analyze consumer and employee behavior from a communicative perspective (Holmqvist & Grönroos, 2012). Accordingly, language has a direct effect on consumers' evaluations and perceptions of the service (ibid.). Not surprisingly, communication was depicted as a relevant determinant of service quality in Parasuraman, Zeithaml & Berry's (1985) and Johnston's (1995) studies (see section 2.1.2).

*This section will explore the concept of language use during service encounters from three different perspectives. Firstly, communication style and competence in languages of employees in different service settings will be reviewed. The subsequent section will address language use from the customer perspective. The final subsection will explore the issue of language in aviation industry since it represents the proposed context for analysis.*

### 2.2.1. Employee language and communication style

The service encounter is influenced by language and competence in languages of employees and customers alike (Holmqvist, 2009). The use of a common language in service settings is imperative to avoid misunderstandings and misinterpretations (Marschan-Piekkari, Welch & Welch, 1999; Holmqvist, 2009). However, mastering a language does not grant effective communication (Marschan-Piekkari, Welch & Welch, 1999; Marcella & Davies, 2004). To explore the use of language through the perspective of the company/employees will help to specify the aspects of the verbal encounter that influence perceptions of service quality. Furthermore, it is relevant to understand how and why quality is influenced by an (in)effective verbal communication in the service encounter.

Early work by Sparks (1994) showed the correlation between communication style and the performance perceptions of hotel reservationists. Customers evaluated the quality of the service on the way information is communicated (ibid.). The author's conclusion infers relevancy in terms of employee communicative competence and training to gain perceived service quality. Nevertheless, as the study does not mention in which language the service is provided or whether there are language disparities in the encounters, conclusive relations on how does language influence the quality of the service cannot be made.

The research taken by Mattsson & den Haring (1998) in the conference department of a hotel served to explore the communicative characteristics of service encounters. The authors argued the suitability of service encounters for measuring the communicative process (ibid.). As employees and customers' perspectives differed in the service encounter interaction, the behavior and activities of both has an influence on communication. Consequently, proper verbal communication style not only is influential in the perceptions of service quality, but also is necessary to improve it. However, the authors centered the attention in the overall dynamics of the communicative encounter; no insights from customers were evaluated as none interviews were carried. As a result, customer's quality perceptions regarding language used in the encounter are missing. The aim of this study is to further investigate this issue to help minimize this gap.

Sharma & Patterson's study (1999) about the impact of communication effectiveness and service quality on relationship commitment in financial services confirmed that "*effectiveness of communication is crucial to create trust and develop an impression of service quality*" (p.169). Furthermore, the authors enumerated the elements for an effective communication:

- *empathy and listening skills*

- *accurate explanations*
- *honesty about risks*
- *educate the client to encourage more informed decisions*

(Sharma & Patterson (1999 p.163)

Interestingly, they emphasized the influential role of communication effectiveness in the perceptions of (technical and functional) quality. In contrast with the aforementioned articles, in where hotel customers might be internationals, it is assumed that communication in financial services takes place between monolingual native speakers. In accordance, research on quality perceptions of monolingual/bilingual customers will additionally provide pertinent knowledge in the matter.

The cross-cultural and international study of the communicative impacts of language of a multinational company carried by Marschan-Piekkari, Welch & Welch (1999) accounted for the dimensionality of language. As an element of the communication process, language can represent a *barrier, a facilitator or a source of power* (ibid. p. 424). They stated that misunderstandings, inaccuracies and loss in verbal exchanges are caused mainly due to language barriers within multi-cultural employees. Despite the fact of using a common company language (English), limited language skills by the employees led to the above-mentioned negative effects (ibid.). It can be argued that language discrepancies within the organization may decrease the quality of the internal processes of the company and the consequent quality in service provided to customers. This study provides valuable views about the role of language in services; however, and, as the authors concluded, the extrapolation of the analysis from company to industry may further contribute with interesting insights.

Even though the work of Sundaram & Webster (2000) focused on the role of non-verbal communication in service encounters, their proposed model brings relevant insights concerning employees and customers' verbal communication. Perceived service quality is affected by the employees' verbal behavior in the interactions of the service encounter. Certainly, customers' evaluations of employees' friendliness, courtesy, empathy, competence, and credibility are influenced by verbal (and non-verbal) communication style of both the employee and the customer itself (ibid.). Interestingly, they argued about the influential role of communication in service quality; yet they erred in explaining the way communication has an influence on service quality. Consequently, how actual communication influences quality will be investigated in the current study.

Marcella & Davies (2004) assessed the use of customer language in international food and drink exportations. They argued convincingly the advantage of second language skills when dealing with non-English speaker customers, to gain competitive advantage and improve quality in their trade relationships. Nevertheless, only four of the 13 participating companies were conscious about the language concerns and had implemented "language strategies" within the organization (ibid.). Unfortunately, these few business strategies confirmed that language is not considered as a relevant element in the communication process. Nonetheless, this represents a convenient starting point to research the issue of language (and customer language use) in service transactions. Additionally, it will be interesting to analyze the results from the customer point of view.

The cross-cultural research of Dawson, Madera & Neal (2011) discussed several ways in enhancing communication effectiveness when language is an issue in the hospitality industry. Lack in language competency represent a determinant factor influencing the communication process. Moreover, the authors stated that *"language barriers create confusion, frustration, fear, helplessness and anxiety in those impacted by the communication gap"* (ibid. p.420). They argued in favor of multi-lingual competences and non-verbal cues to increase managerial effectiveness. In accordance with the proposition of the current research, language skills are influential and decisive in some service industries. A new interesting perspective of the study could be to analyze the language competences between multilingual/multicultural employees and customers.

<b>Author</b>	<b>Industry</b>	<b>Relation with my RQ</b>	<b>Provide new insights</b>	<b>Missing gaps / Further research</b>
<b>Sparks, 1994</b>	Hotel booking department	Quality of the service is evaluated on the way information is communicated	Employee communicative competence and training	Type of language used and/or language differences are not mentioned
<b>Mattsson &amp; Den Haring, 1998</b>	Hotel conference department	Proper verbal communication style is necessary to improve service quality	Behavior and activities of customers and employees during the encounter influences communication // communicative roles coming from behavioral cues	Customer evaluations missing
<b>Sharma &amp; Patterson, 1999</b>	Financial services	Communication effectiveness plays an influential role in the perceptions of service quality	The 4 elements of communication effectiveness (I can adapt them to aviation industry)	

<b>Marschan-Piekkari, Welch &amp; Welch, 1999</b>	Multinational company	How does language influence the communication process (here are within a company) can be related with employees of different nationalities	Language is a barrier or a facilitator -Language skills important to take into consideration	Extrapolate it to aviation industry
<b>Sundaram &amp; Webster, 2000</b>		Verbal communication has an influence on service quality	Their model // Corroborates that verbal behavior of employees and customers are important factors to measure/take into consideration in service encounters	They did not explain how is this influence
<b>Marcella &amp; Davies, 2004</b>	Exportations	Use of customer language is important to enhance quality and gain competitive advantage	Application of a language strategy within the company Customer language use reinforce relationships	Study from the customer point of view, how does the customer evaluate the use (or not) of his/her own language
<b>Dawson, Madera &amp; Neal, 2011</b>	Hospitality services	Language influences services	Bilingual competences and use of non-verbal tools in the service exchange	Extrapolate it to employee-customer perspective How does language differences/skills between employees and customers affect the service?

Table 2.3. Summarized overview of the authors reviewed in this section including proposals for research.

To summarize, the review of the articles of this subsection has proven that there is a relationship between communication and quality in service encounters. Additionally, verbal communication and language competences of employees exert a great influence over service quality and consequent customer satisfaction. Nevertheless, as presented in table 2.3, the peculiarities of how and why language influences quality perceptions are not addressed in the researches. Additionally, language diversity among employees and customers plays a determinant role as language can suppose a barrier of effective communication. Bilingual competences within the organization may help to minimize the possible negative effects of language diversity. Research in language use within an industry context is relevant to better understand these issues during the service encounter.



### 2.2.2. Customer language

As mentioned, language is an important element of the service encounter, which is influenced by the quality and outcome of the communication (Bitner et al., 1990; Sparks, 1994; Mattsson & den Haring 1998; Sharma & Patterson 1999; Mudie & Pirie 2006; Holmqvist, 2009; Wilson et al., 2012). In service contexts, the direct interaction between employees and customers requires effective verbal communication to enhance the perceptions of service quality (Parasuraman, Zeithaml & Berry, 1988; Bitner et al., 1990; Sparks, 1994; Sharma & Patterson 1999; Mudie & Pirie 2006; Holmqvist, 2009; Wilson et al., 2012; Holmqvist & Grönroos, 2012). Thus, the service encounter is influenced by language and competence in languages of employees and customers alike (Holmqvist, 2009). Accordingly, it is necessary to understand the role of language from the perspective of all the actors involved in the service encounter.

Despite its relevancy, language influence in service encounters have been ignored by the academic service literature. In attempting to minimize this gap, Holmqvist & Grönroos' essay (2012) about the significance of language for services, proposed several lines of investigation. Multilingualism in international service contexts and proper understanding during the communication process are the significant conclusions of their research. Based on the lack of research in defining the consequences of language difficulties during service encounters and the dependency between service quality perceptions and language use, the present study will address how levels of native language attachment and language ability of the customer influence the interactions during the service encounter (Holmqvist & Grönroos, 2012, p. 432).

The research of Holmqvist (2009 and 2011) in where the customers' bilingual aptitudes were tested during service encounters in different service settings, concluded that customers prefer to be served in their own language and that they have an emotional and cultural attachment to their native language. The results indicated that native language use is relevant (specially in high-involvement service encounters); besides, language is representative of personal identity (Holmqvist, 2011). These findings serve as proof for the main assumption of the present thesis, *language does influence customers' service perceptions*. However, further research in other non-bilingual locations and other service contexts will be pertinent. Additionally, other target samples (undergraduates of two bilingual countries in Holmqvist's study) will determine whether language preferences are based on demographical factors.

In a similar study, Holmqvist, Van Vaerenbergh & Grönroos (2014) investigated customers' willingness to communicate in a second language; the authors assumed that "perceived control" during the service encounter and proficiency of the language spoken, have a direct influence on the customer. The authors stressed the importance of native language use in uncertain situations in where the customer feels confused. Moreover, the understanding of language in international contexts is relevant, as the impact of language

differs among markets (ibid.). As the authors suggested, additional research in how bilinguals and monolinguals behave in second language interactions will be relevant. Additionally, extending the research to service contexts with different degrees of communicative interactions will outline customers' (second) language preferences.

These same authors have recently presented ten articles from scholars around the world in where the question of how language use influences customer perceptions of services was further explored (Holmqvist, Van Vaerenbergh & Grönroos, 2017). Nevertheless, the authors recommended additional research in the matter. In an interesting way, they classified the study of language issues before, during and after the service encounter. To narrow the research topic, the present study will focus on language influences *during* the service encounter from the customer perspective. Investigating the underlying dimensions of customers' language preferences will help to minimize the gap in the literature.

<i><b>Author</b></i>	<i><b>Relation with my RQ</b></i>	<i><b>Provide new insights</b></i>	<i><b>Missing gaps / Further research</b></i>
<i><b>Holmqvist, 2009, 2011</b></i>	Language does influence service perceptions	First language preferences in service encounters Emotional and cultural attachment to native language	Research in monolingual countries Research based on demographic factors (age/nationality)
<i><b>Holmqvist &amp; Grönroos, 2012</b></i>	Proposals for further research in language use in services	Service is affected by language. It is broadly overlooked	Research within service offered by airline companies
<i><b>Holmqvist, Van Vaerenbergh &amp; Grönroos, 2014</b></i>	Willingness to communicate in a second language is influenced by "perceived control" and language competences	Importance of native language in uncertain situations Importance of language in international contexts	How monolinguals/bilinguals behave in second language service encounters Service contexts with different degrees of communicative interactions
<i><b>Holmqvist, Van Vaerenbergh &amp; Grönroos, 2017</b></i>	Language influence in services	Evaluation of language use in 3 divisions: before, during and after the service encounter	Analysis of language during the service encounter in aviation context

Table 2.4. Summarized overview of the authors reviewed in this section including proposals for research.

A wrong assumption of nowadays marketers is to believe that customers and service employees speak the same language (Marcella & Davis 2004, Holmqvist & Grönroos 2012, Kelly, 2012). Accordingly, the lack of a common language or the lack of competence in a second language could cause problems in the service encounters. Unquestionably, communication depends on employees and customers' language competences, how skilled they are and their predisposition in talking in a foreign language. Moreover,

customers' native language preferences are highlighted in the studies presented in table 2.4. To summarize, the quality of the verbal communication in the service encounter will be determined by the above-mentioned factors, which will be the focus of analysis in the present research.

### **2.2.3. Language use in the airline industry**

The airline industry serves as suitable example to analyze language use in services, as service is the center of its activities. Nevertheless, as flight safety represents the most essential standard for airline companies, the analysis of language and verbal communication in the aviation context has mainly focused on technical and safety issues (Orasanu, Fischer & Davison, 1997; Helmreich, 1999; Rhoades & Waguespack, 1999; Drury & Ma, 2002; Krivonos 2007). Language/cultural barriers, interpersonal communication and methods of communication represent the center of attention for analysis between flight crew members, maintenance and/or air traffic controllers (ibid.). Unfortunately, the interactions of cabin crews within the passenger cabin have been left aside in the literature.

Communication failures represent the main cause of several fatal accidents described in the report of Orasanu, Fischer & Davison (1997). The authors remarked that "*Effective and efficient communication is especially critical in high risk environments that required coordination among team members*" (ibid. p. 2). The authors focused on the multicultural aspect of the industry in where English language is broadly used. Accordingly, communication effectiveness decreases when using a non-native language, which represents the main trigger for misunderstandings and inadequate communication between flight crews and air traffic controllers (ibid.).

In accordance, Drury & Ma (2002) argued that language and cultural diversity affect effective communication in the industry. Maintenance and inspection personnel are the target of their study, which ratified that errors occur due to language differences (ibid.). Consequently, language diversity and (lack of) skills ought not to be overlooked in a multicultural working place. The analysis of language diversity and verbal interactions within the passenger cabin is interesting for supporting the results of these researches.

Several authors analyzed passengers' attentiveness of cabin safety communications (Barkow & Rutenberg, 2002; Krivonos 2005; Parker 2006). Language differences among crews and passengers might represent a challenge to effective communication during safety briefings (Barkow & Rutenberg, 2002). This study ratifies the author assumption that language diversity influences negatively service interactions. Nonetheless, the authors research is based in safety briefings and emergency-related communications;

their research is vague in terms of specific language used and in the outcome and impact of intercommunication between cabin crews and passengers.

Effective communication is vital for aviation safety (Krivonos, 2005 and 2007). By presenting and analyzing flaws in communication during several flight stages, the author centered the attention in the verbal interactions of all the components involved. Additionally, the author pinpointed the use of English as an error-based factor. The need for further research in the impact of communication for aviation safety is emphasized, especially during emergency and evacuation scenarios (ibid.). Nevertheless, the author omits several important points in the matter: the cabin crew-passenger perspective and the language used in their interactions. Accordingly, the aim of the present study is to further investigate these issues.

As above-mentioned, the literature has suitably centered the attention in the technical and safety aspects of the (verbal) communication process of airlines. Despite the relevance of the topic, little attention has been given to the communication and its facets within the passenger cabin, in where relevant information exchanges take place. Therefore, the present thesis will further explore and investigate the influence of language in the interactions between cabin crews and passengers.

*In the next final section of the chapter, the author will present a summary of the literature reviewed, from where the hypotheses will be developed, and will introduce the empirical model subject to analysis.*

### **2.3. Service Quality, Customer Satisfaction and Language: summary, theoretical model and hypotheses formulation**

This chapter has focused the attention in reviewing the relevant state of knowledge of service quality, customer satisfaction and language issues within the context of aviation industry. The relationships and interactions of employees and customers are at the center of any service encounter; therefore, perceptions of service quality and customer satisfaction are shaped consequently. Moreover, the service encounter itself and customer's behavior are influenced by the language used during these interactions.

Onboard services provided by airline companies represent a suitable example to analyze service quality and customer satisfaction giving the high involvement levels of interaction that may take place (in-flight and emergency-related services). Additionally, the measurement of language diversity and communication peculiarities during a flight may further determine how passengers' perceptions of onboard service quality are affected by language.

*The purpose of this final section is to present a comprehensive summary of the reviewed literature and explain the main relevant findings and new insights related to the present research. Important excerpts of the articles and authors reviewed will be pointed out to serve as basis for the hypotheses development. Finally, a theoretical model will be proposed.*

### **2.3.1. Service quality and customer satisfaction**

Several authors have investigated the service quality attributes most valued by airline passengers in different geographical locations. Distinctive conclusions can be drawn: firstly, there exists a disparity in assessing which is the most relevant determinant of service quality; secondly, passengers' nationality play a role in the onboard service evaluations; thirdly, the focus of the study within two countries of a geographical region (i.e. Europe) is missing. These results validate the purpose of the present thesis which will try to differentiate which service quality attributes matters most for Europeans (mainly Spanish and Danish). The use of the SERVQUAL model to measure differences between expectations versus experiences/perceptions of the service received onboard have centered the attention of the studies of Sultan & Simpson (2000); Gilbert & Wong (2002); Chen & Chang (2005) and Chau & Kao (2009). The results brought up discrepancies in measuring the relevant attributes among passengers, whose nationality influenced perceptions of service quality.

The revision of the seminal models of service quality (Grönroos, 1984, 1998; Parasuraman, Zeithaml & Berry, 1985, 1988; Brady & Cronin, 2001) together with the critic work of Johnston (1995) generated some new insights in terms of addressing a proper model to measure service quality. Each author has tried to conceptualize the ambiguity of the construct by presenting or adding personal cues to the model. Grönroos' (1994) definition of perceived service quality is fundamental to further built a suitable model for analysis, which was complemented by the presentation of the SERVQUAL scale (Parasuraman, Zeithaml & Berry, 1985) to better understand customers and to improve services. The extensive reformation of SERVQUAL model taken by Johnston (1995) provides further in-depth determinants (such as communication); it serves as optimal example for applying communication when measuring service quality in the airline industry. Furthermore, Brady & Cronin's (2001) integrated model includes interaction between employees and customers as a significant attribute of service quality. Consequently, customers' perceptions of (verbal) communicative interactions will be introduced for analysis.

The relationship between service quality and customer satisfaction have been verified by distinctive authors. The level of dependency of this relationship is still undecided. Cronin & Taylor (1992) argued that perceived service quality leads to customer satisfaction. Bitner & Hubert (1994) proved a parallel level of relationship

between the two constructs; similarly, Oliver (1997) accounted for this relationship, however, he claimed that the degree of the relationship does not necessarily correlate, as high quality does not determine high satisfaction. Contrarily, Sureshchandar, Rajendran & Anantharaman (2002) study presented an equivalent dependency of the two constructs. To clarify this relationship, the present research will try to determine the degree in relationship between service quality and customer satisfaction in single (onboard) service encounters through the analysis of the proposed quality determinants.

### **2.3.2. Language use in services**

As pinpointed by Holmqvist & Grönroos (2012), there is a gap in the service literature in what concerns language use. Research in this area has a high relevancy due to the decisive role that language plays in the service interactions between employees and customers. Nevertheless, language issues are often overlooked and not fully valued for all the actors involved in the service encounter (Marcella & Davies, 2004).

New perspectives and understandings, proposed in the researches reviewed in section 2.2, help to expand and redefine the underlying assumptions of the proposed research; firstly, there exists a confirmation that employee language and verbal communication competence/effectiveness have an influence in service quality and customer satisfaction; secondly, research in how and why customers built perceptions of service quality based on communication and language influences needs exploring; and thirdly, further research in customer language preferences and research within an industry is missing.

The topic of employee communication style, behavior and verbal competences' affecting quality in service encounters has been addressed by several authors (Sparks 1994; Mattsson & Den Haring, 1998; Marschan-Piekkari, Welch & Welch, 1999; Sharma & Patterson, 1999; Sundaram & Webster, 2000). Moreover, language barriers and bilingual aptitudes of employees were considered influential in customers' perceptions of service quality (Marcella & Davies, 2004; Dawson, Madera & Neal, 2011). In addition to this, customer's attachment of native language use in service settings (Holmqvist, 2009, 2011); customer's native language preferences in uncertain service situations and language competences (Holmqvist, Van Vaerenbergh & Grönroos, 2014) represents the basis for analysis in the present research. As suggested by Holmqvist & Grönroos (2012), the question of whether customers' quality perceptions are affected by language and verbal communication is pertinent for further research. Consequently, how and why language influences the service encounter will be evaluated.

The language gap in the service literature can be extended to the airline industry, since, as far the author is concerned, there is no study which investigates the role of language and communications during the in-flight service of an airline company. Moreover, in the context of aviation industry, English use is paramount.

Several authors claimed that the use of English language was the main cause of errors (Orasanu, Fischer & Davison, 1997; Drury & Ma, 2002; Krivonos, 2005, 2007). Furthermore, language differences and multilingualism negatively affect communication effectiveness (ibid.). Unfortunately, studies covering multilingualism and English use within the passenger cabin are inexistent. The author of the present research points out the relevance of these issues and will further test the influence that languages exert in the interactions of passengers and cabin crews during the service encounter.

### 2.3.3. Theoretical Model and Hypotheses formulation

A modified SERVQUAL (Parasuraman, Zeithaml & Berry, 1988) model has been adapted to the present research to encompass all the relevant aspects regarding language and quality measurement (figure 2.1.). Following Holmqvist's research (2009, 2011), passengers' evaluation of their own language skills and language preferences, together with English use during the service encounter, are incorporated in the model. Some demographical aspects will be included to investigate whether a connection between passengers' backgrounds and language preferences exist (ibid.).

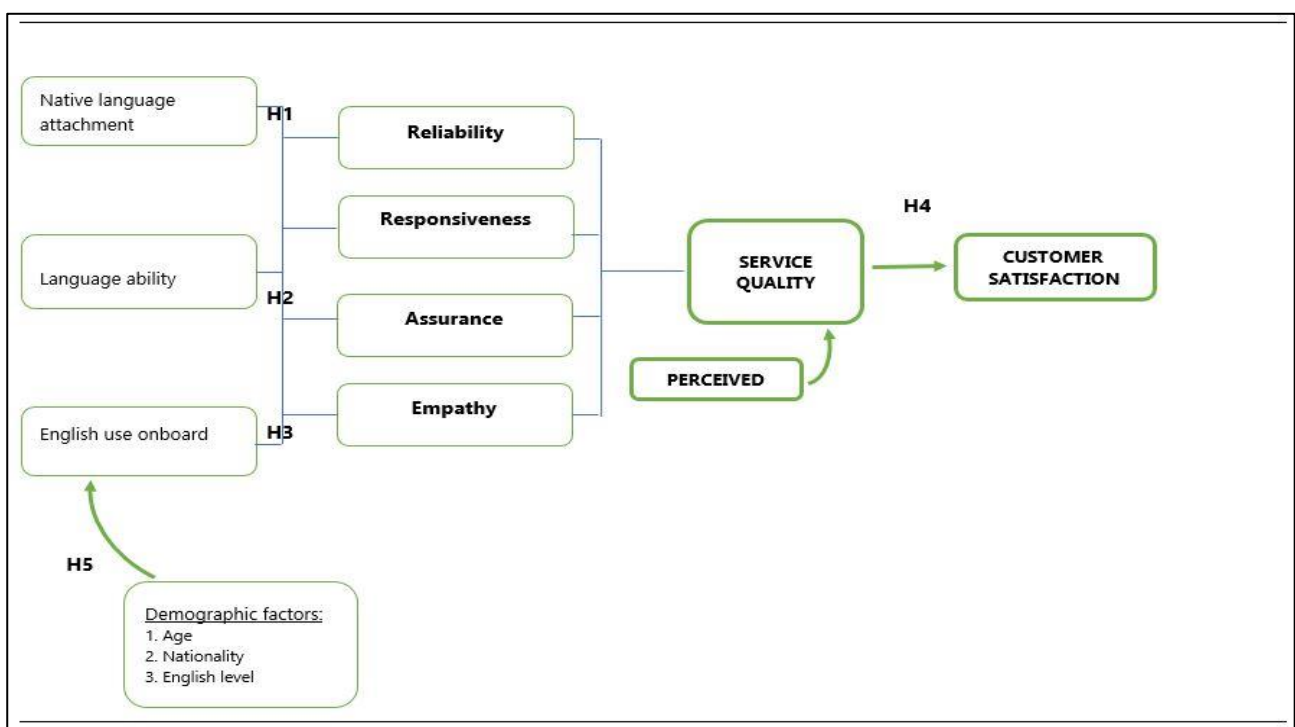


Figure 2.1. Integrated model based on Parasuraman, Zeithaml & Berry (1988), Chau & Kao (2009) and Holmqvist, Vaerenbergh & Grönroos (2014) – self-made.

The original SERVQUAL dimensions of Parasuraman, Zeithaml & Berry's (1998) model (excluding tangibles) have been incorporated and adapted to the airline industry (Chau & Kao, 2009). Moreover, the role of

language and communication has been considered in the service quality dimensions (Holmqvist, 2009; Holmqvist, Vaerenbergh & Grönroos, 2014).

Customers' experiences of the service provided are considered when analyzing service quality perceptions and consequent customer satisfaction. Grounded in the reviewed literature (Johnston, 1995; Gilbert & Wong, 2002) service quality attributes have been modified to match the purpose of the present research. The attributes are intended to measure the following aspects of the service:

---

**Reliability:** *refers to the trustworthiness and honesty of the employees. Aspects such as cabin crew performance, consistent cabin announcements and clear safety announcements in a language passengers can understand are included in this dimension.*

**Responsiveness:** *employees' prompt response and their disposition to help passengers represent the main factors of this dimension. Evaluations of employee guidance and assistance to passengers together with the service provided in a language that passengers can understand are the main features subject to analysis.*

**Assurance:** *implies confidence, trust and employees' competences and knowledge of their duties. Language abilities among employees is crucial to potentiate this dimension, which will be measured by the courtesy and behavior of the employees.*

**Empathy:** *this dimension refers to customization of the service. Individualized attention and mindfulness to each passenger. The use of the passenger language and the understanding of passenger needs are incorporated in this dimension.*

---

Based on the author assumptions and on the reviewed literature (section 2.1 and 2.2), language influences perceptions of service quality. Hypothesis 1, 2 and 3 intend to measure the relationship between the three proposed language dimensions of the service encounter (Native Language Attachment, Language Ability and English use) and Service Quality dimensions (Reliability, Responsiveness, Assurance and Empathy). The dependency of this relationship will further provide insights on how the service is affected by language during the service encounter between passengers and cabin crews. Consequently, the following hypotheses are developed:

**H1. There exists a relationship between Native Language Attachment and perceived 1) Reliability, 2) Responsiveness, 3) Assurance and 4) Empathy.**

**H2. There exists a relationship between Language Ability and perceived 1) Reliability, 2) Responsiveness, 3) Assurance and 4) Empathy.**



***H3. There exists a relationship between English use onboard and perceived 1) Reliability, 2) Responsiveness, 3) Assurance and 4) Empathy.***

As reviewed in section 2.1.3 of this chapter, satisfaction and service quality are generally related. Following the existing literature, it is assumed that the degree of correlation is high between the two constructs. Nonetheless, there are no studies which address how satisfaction of a single recent encounter is affected by language use in this encounter. Therefore, hypothesis 4 aims to measure the relationship between levels of satisfaction based on language:

***H4. There exists a relationship between Satisfaction and 1) Native Language Attachment, 2) Language Ability and 3) English use.***

Certain authors believe that demographical factors influence perceptions of language use in services (Holmqvist, 2009, 2011). Based on the author assumptions, nationality, age and English levels of passengers influence their perceptions and preferences of language use. Accordingly, hypothesis 5 is presented to investigate relationships and differences between demographical factors with the proposed language dimensions:

***H5. There exists a relationship between 1) Nationality, 2) Age and 3) English level with perceptions of a) Native Language Attachment, b) Language Ability and c) English use.***

To test these hypotheses, a research design with several research methods have been applied. The next chapter will describe these methods; moreover, valuable insights about the procedures followed will be outlined.

### 3. METHODOLOGY

This chapter will describe the research methods and design used in this research to answer the proposed research question. The concept of “research onion” introduced by Saunders, Lewis & Thornhill (2009) is a structured technique, applied in this research to explain the author’s underlying decisions of data collection methods. The author’s philosophy of science is reflected in the research question, furthermore, choices in research strategy and methods will be shaped consequently (ibid.). This chapter is divided in 6 sections which will further clarify the author’s methodological choices. The structure of the chapter is shown in figure 3.1.

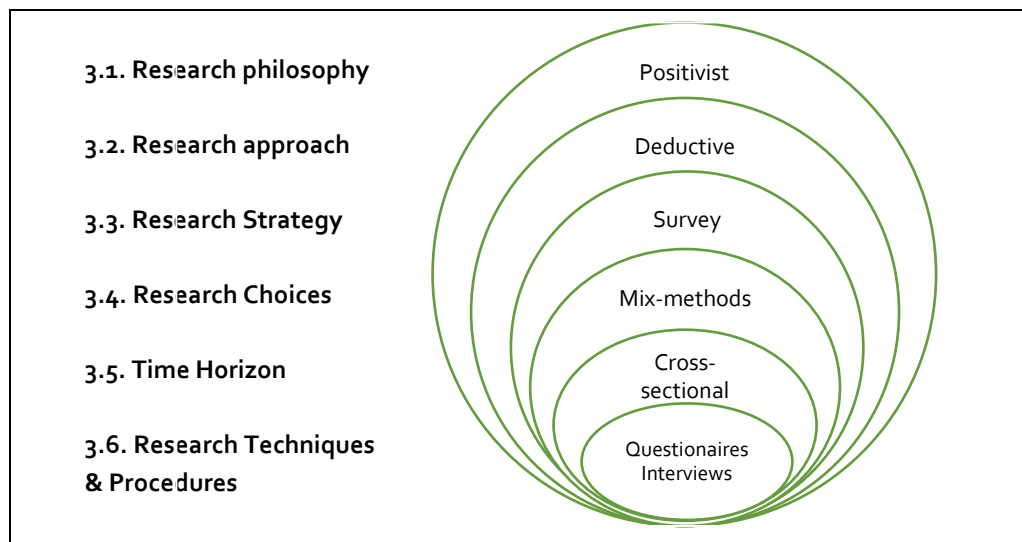


Figure 3.1. Own production based on (Saunders et al., 2009).

#### 3.1. Research philosophy

The author has adopted a positivist philosophy to conduct this research. The author has the epistemological assumption that knowledge is created by observing phenomena, subject to generalizations (Brotherton, 2008). The process of positivism consists in developing possible theoretical explanation (Chapter 2) and collecting empirical data (Chapter 5) to measure the validity of the theory proposed (section 2.3) (Brotherton, 2008). In accordance with Saunders et al. (2009), this research is based on existing theories which further determine several hypotheses. This philosophy follows the realist ontology, with objective and independent observations (Blaikie, 2010). Therefore, the research is not influenced by the author’s personal values or judgements.

### 3.2. Research approach

A deductive research approach has been implemented in this research, as its main purpose is 1) to find a relation between the concepts presented in the previous chapter (customers' demographical factors – customers and employees' language – dimensions of service quality), and, 2) to test the resulting theory by means of a set of hypotheses (section 2.3.3) (Blaikie, 2010). This approach has focused on testing existing theory and has followed several steps:

1. *to find a problem which needs to be explained or further examined,*
2. *to conduct a substantial review within the body of literature,*
3. *to deduce hypotheses based on an empirical model,*
4. *to test these hypotheses empirically and*
5. *to interpret the data analyzed to whether confirm or modify the theory*

(Brotherton, 2008; Saunders et al., 2009)

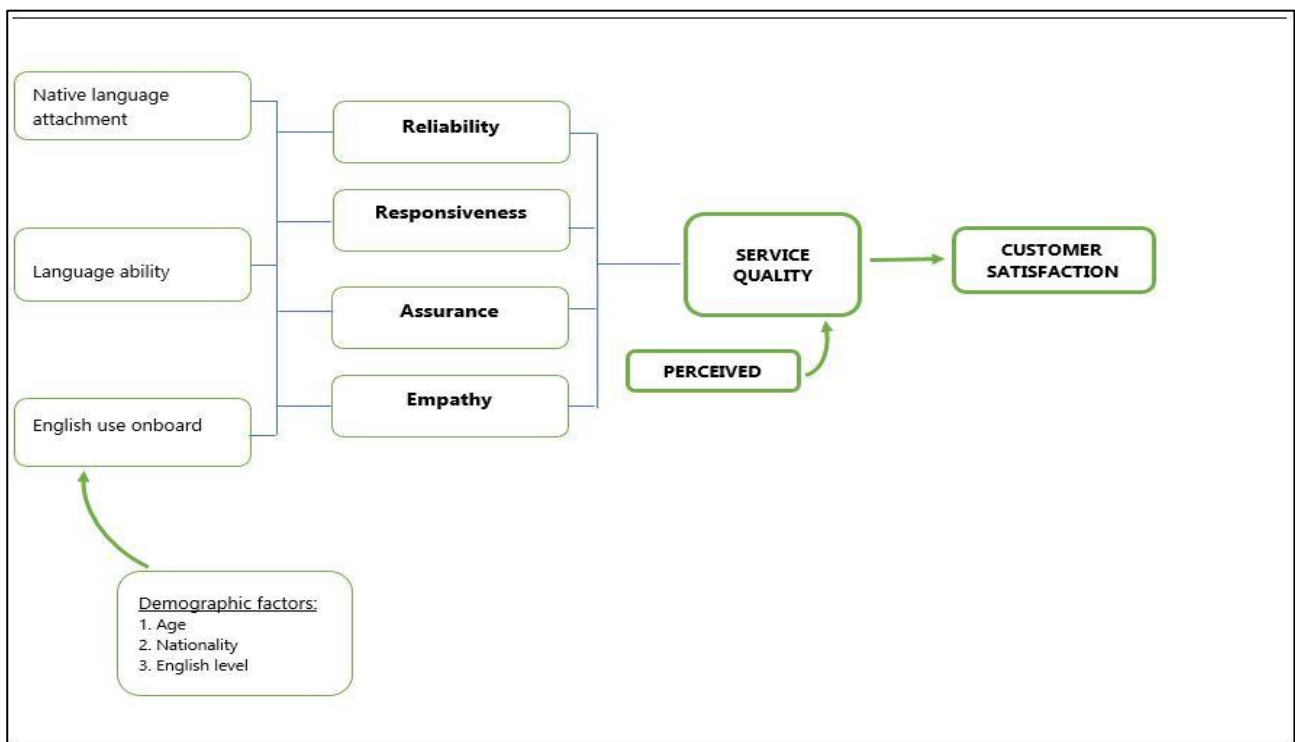


Figure 3.2. Integrated model based on Parasuraman, Zeithaml & Berry (1988), Chau & Kao (2009) and Holmqvist, Vaerenbergh & Grönroos (2014) – self-made.

The integrated model outlined in figure 3.2 is composed by some variables related within each other. The language attributes extracted from the research of Holmqvist (2009) and Holmqvist, Vaerenbergh &

Grönroos, (2014) are intended to measure the degree of dependency shared with the proposed service quality attributes (Parasuraman, Zeithaml & Berry, 1998) and with the consequent satisfaction levels (Bitner & Hubbert, 1994). Some demographical factors based on Chau & Kao research (2009) and Holmqvist (2009, 2011) are assumed to further exert influence on customers language perceptions.

The purpose of this research is to investigate the influence of language in service encounters onboard an aircraft and to further determine whether a relationship exists between several variables of passengers and the service quality dimensions of the service provided by cabin crews. Within this context, the most relevant literature has been reviewed and presented; subsequently, a set of hypotheses have been developed and tested. These hypotheses reflect the relationship between the variables of the proposed model which is shown in Figure 2.1 of the previous chapter.

### **3.3. Research strategy**

The main purpose of this paper is explanatory research, as the author seeks to identify, measure and explain cause-effect relationships between variables (Blaikie, 2010; Brotherton, 2008); consequently, a deductive approach is implemented.

The first strategy of data collection used is semi-structured interviews, with identical questions asked to all the respondents. Interviews allow the participant to elaborate in their interpretations of the observed phenomena; accordingly, the data obtained provide deeper knowledge (Kvale, 2007). The choice of conducting qualitative interviews in this research is necessary to obtain knowledge about how passengers interpret the presented research problem and to predict their behavior (ibid.).

The second strategy of data collection is survey (a self-administered questionnaire). Surveys are commonly used in the deductive approach, as it helps to collect bigger samples of quantitative data subject to quantitative analysis (Saunders et al., 2009); moreover, a properly conducted survey can provide reliable results which can be representative of the population; nevertheless, to confirm reliability, the author needs to ensure a good response rate (ibid.).

### **3.4. Research choices**

Not surprisingly, the author has chosen the use of mix methods in this research. Blaikie (2010) argues for the use of mix methods as it provides more comprehensive evidence; moreover, the use of mix methods is pertinent to corroborate findings in a research as qualitative data might help to better explain and

understand quantitative variables (Saunders et al., 2009). Following Blaikie (2010), embedded procedure is the choice of mixed research. Qualitative data serves as supplementary and will help to interpret the results of the quantitative study.

### **3.5. Time horizon**

As survey is the chosen research strategy, a cross-sectional study is applicable for this research. The data is only collected in a particular time (Fink, 2009; Saunders et al., 2009). Both the questionnaire and the interviews were conducted in a short period of time from the 3<sup>rd</sup> to the 23<sup>rd</sup> of July 2017.

### **3.6. Research techniques and procedures**

Data has been collected from primary and secondary sources. Secondary data (mainly journal articles) has been used in the previous chapter when reviewing the literature; besides, the author has relied on other secondary sources, such as relevant books and web pages, to gain deeper insights of the presented topics and to use them for further analysis. Primary data has been obtained from semi-structured interviews and a self-administered questionnaire.

*The following two sub-sections will cover in detail the study design of primary data collection. After a brief introduction of technique and sampling choices, description of the procedure will be presented. Finally, data quality issues will be discussed.*

#### **3.6.1. Design of interviews**

The use of a semi-structure one-to-one interview technique has been chosen with the aim of gaining more detailed and richer data, as it brings opportunity of explaining and elaborating on answers (Saunders et al., 2009).

A purposive based sampling has been adopted. Gender (male-female), nationality (Spanish-Danish) and age range (under 30 / 30-50 / more than 50) represent the selection criteria in the interview survey, with equal respondents for each category. With a total number of 10 participants, a certain saturation point was reached. All respondents must fulfill one requirement: to have travelled by plane at least twice (return trip) in the last 6 months. Face- to-face interviews were carried in Denmark; whereas, electronic online interviews through Skype were carried with the Spanish participants. All interviews were audio-recorded and have been attached in a USB flash-drive (Appendix 2). In the analysis section, the quotations of the interviewees in Spanish and Danish have been translated to English, adding the minute frame in brackets.

One pilot interview was conducted in Spanish and in Danish to assess clarity and to refine the questions asked (Saunders et al., 2009). Both respondents are frequent travelers and with certain knowledge in the matter discussed. Some changes were made in the order of the questions and others were added (i.e. Q13, Q14, Q16, Q18). Moreover, language and grammar mistakes were also subject to revision in the Danish pilot test interview.

All the interviews followed the same interview guide (see table 3.1. and appendix 1), having the possibility of choosing between three languages (English – Spanish – Danish). After a brief presentation of the interviewer and the purpose of the interview itself, some personal introductory questions were asked to classify the respondents according to the above-mentioned criteria. New knowledge about passengers' language preferences has been gained by covering three main topics: expectations and experiences; positive and negative evaluations and overall perceptions.

<i><b>Variables</b></i>	<i><b>Attributes</b></i>	<i><b>Items</b></i>
<i><b>Expectations / Experiences</b></i>	Overall expectations prior flying	Q8-Q9
<i><b>Positive / Negative Evaluations</b></i>	Passenger language preferences	Q10-Q16
	Language safety issues	
	Employee language level	
<i><b>Overall feelings</b></i>	Overall satisfaction	Q17-Q19
	Overall language choices	

Table 3.1. Outlined overview of the interview guide.

The quality of the data gathered with qualitative interviews is tested by its validity, reliability and generalizability. Reliability tests are used to minimize errors and bias (Yin, 2009), and refers to the possibility of gaining the same results if the study is repeated (Saunders et al., 2009; Yin, 2009). According to Saunders et al. (2009), the nature of the semi-structured interviews represents a threat to its reliability, as the probability of obtaining same results depends on the (subjective) experiences of the interviewees. To overcome this issue and ensure reliability, the research has been conducted thoroughly, operationalizing most of the steps, and the procedures followed have been well documented (Yin, 2009). Moreover, the author has followed the suggestions of Alshenqeeti (2014) for gaining higher validity: the interview was pilot tested; leading questions were avoided; notes were taken and clarification for some responses were asked.

The main shortcoming of qualitative semi-structured interviews is the difficulty of generalize the findings. Nevertheless, as the author has proven the relationship between the purpose of the research with existing theory, the scope of the results has a "broader theoretical significance" than the theory which is based on

(Marshall & Rossman, 1999, cited in Saunders et al., 2009). Furthermore, the validity of the interviews is gained by clarifying the questions, probing the meaning of the responses and discussing the topics covered from several perspectives (Saunders et al., 2009). Moreover, the validity of the study increases by reducing the interviewer bias, such as attitude and subjective views, avoid seeking preconceived answers, avoid misperceptions and misunderstandings of what is being asked (Cohen et al., 2007, mentioned in Alshenqeeti, 2014).

### **3.6.2. Design of survey questionnaire**

A self-administered online questionnaire was the technique chosen to gather primary information about passengers' perceptions of the service received and the language used in a recent flight. Sample size, characteristics of the respondents, provision of unbiased answers and type of questions has influenced the choice of this type of survey (Saunders et al., 2009).

A stratified sampling technique was used to ensure that the categories were proportionated and well represented in the sample (Blaikie, 2010). A total of 177 questionnaires were gathered, with 169 considered as valid responses. Missing values in the responses were not disregarded, however, missing demographic values such as gender or nationality were regarded as not valid response. As the questionnaire was distributed online, it is not possible to measure the response rate of such (Saunders et al., 2009).

The questionnaire is divided in four parts. The first demographical and personal questions are asked to gain knowledge about the passengers' background and travel choices, the questions are asked through a multi-choice-simple category scale. The second part encompasses a total of 12 closed-ended questions, in where respondents are asked to rate the level of agreement or disagreement. Four SERVQUAL dimensions (Reliability, Responsiveness, Assurance and Empathy) (Parasuraman, Zeithaml, & Berry, 1988) are encompassed in the 12 items, which serve to measure the importance of service quality and how well the airline employees' have performed. Language perceptions are measured in section three. Passengers' language abilities and preferences (Holmqvist, 2009; Holmqvist 2011; Holmqvist, Van Vaerenbergh, & Grönroos, 2014), together with their assessment of language quality and English use (Krivonos, 2005, Krivonos 2007), are covered in the next 6 items. To englobe the questionnaire, three items are presented in section four to evaluate the overall satisfaction with the service and the company (Bitner & Hubbert, 1990, Oliver, 1997; Sureshchandar, Rajendran & Anantharaman, 2002). Table 3.2. summarizes the questions with the service quality dimensions and measured attributes.

<i><b>Variables</b></i>	<i><b>Attributes</b></i>	<i><b>Items</b></i>
<i><b>Reliability</b></i>	Cabin announcements	Q9-Q11
	Trustworthy service	
	Safety issues	
<i><b>Responsiveness</b></i>	Prompt service	Q12-Q14
	Willingness to help	
	Handle of complaints/demands in passenger language	
<i><b>Assurance</b></i>	Courtesy	Q15-Q17
	Confidence	
	Suitable language	
<i><b>Empathy</b></i>	Passenger language	Q18-Q20
	Personal attention	
	Understand passenger needs	
<i><b>Language</b></i>	Expectation in language used	Q21-Q26
	English level	
	Native language preferences	
	Language convenience	
<i><b>Overall satisfaction</b></i>	Service quality	Q27-Q29

Table 3.2. Outlined overview of the survey questionnaire (Appendix 3).

The respondents' answers were measured in a seven-point Likert scale, with a "no answer" option included; the response options are outlined below.

1)	<i>Strongly disagree</i>
2)	<i>Mostly disagree</i>
3)	<i>Slightly disagree</i>
4)	<i>Neither agree nor disagree</i>
5)	<i>Slightly agree</i>
6)	<i>Mostly agree</i>
7)	<i>Strongly agree</i>

The questionnaires were prepared and electronically distributed in three languages (English – Spanish – Danish) giving the opportunity to freely chose the most suitable for each respondent. This choice can bring further insights to language preferences according to demographical factors. The option of randomize the order of the subquestions was chosen. The questionnaire was available online since the 3<sup>rd</sup> of July 2017 and was open for responses for 3 weeks.



A pilot test of the survey questionnaire is required to assure language clarity, proper understanding of the questions and structure of the questionnaire (Fink, 2009). Moreover, assessments in the validity and reliability of the data collected are also obtained (Saunders et al., 2009). A total of ten questionnaires were distributed among peer students (for the English version), family members and colleagues (for the Spanish and Danish version) with the purpose of detecting any flaws in the questionnaire design, question formulation and clarity of the instructions to complete the survey (Fink, 2009; Saunders et al., 2009). Some corrections were made after receiving the piloted questionnaires. Further description in the introduction and in part 1 was added; additionally, some items were transfer from the reliability dimension to language dimension (Q25- Q26) to clarify the statements; moreover, corrections in grammar and expressions used in the Danish version were made to give a sense of “familiarity” to the statements.

The data obtained from all the responses have been processed by using IBM SPSS 24 statistical software and further analyzed and interpreted accordingly. The results have been presented in writing form, with the complimentary use of graphs, tables and charts (Fink, 2009).

The survey questionnaire data quality is measured in terms of its reliability and internal validity. Accurate and consistent collection of data need to be achieved by the formulation of the questions and the structure of the questionnaire (Saunders et al., 2009). Foddy (1994, cited in Saunders et al., 2009) determines four stages to gain reliability and validity:

- *Researcher is clear about the data required and design questions*
- *Respondents decodes questions in the way the researcher intended*
- *Respondents answers the questions*
- *Researcher decodes the answers in the way the respondents intended*

(Foddy, 1994, cited in Saunders et al., 2009, p.372)

Reliability of a questionnaire is assessed by its consistency and robustness; regardless time and conditions, the questionnaire ought to provide the same findings (Saunders et al., 2009). A common statistical method used to assess internal consistency is Cronbach’s coefficient Alpha. The measures obtained will be outlined in chapter 5. Analysis.

Validity evidence can be gained by the content, predictivity and intent (construct) of the questionnaire (Saunders et al., 2009). Content validity is attained with the support of several authors in the use of SERVQUAL as a suitable tool to measure service quality in the airline industry (Sultan & Simpson, 2000;

Gilbert & Chen, 2002; Chau & Kao, 2009); therefore, part two of the questionnaire (Appendix 3) is based in the SERVQUAL scale items. Moreover, the literature about language use in services (Holmqvist & Grönroos, 2012; Holmqvist et al., 2014) and language use in aviation (Krivonos, 2005, 2007), has contributed to the formulation of the questions in part three of the questionnaire (Appendix 3). Predictive validity will be measured in chapter 5. Analysis, by testing the correlation between the different variables. Finally, construct validity is gained by verifying the intention of the questions. The purpose of the questionnaire is to measure passengers' language perceptions and preferences when travelling; the survey questions have been designed and formulated accordingly.

External validity is the goal of any quantitative research. Generalizations about the population can be further made if the data is normally distributed. Chapter 5, section 4 will assess the normality of the sample; consequently, the external validity of the paper will be evaluated to determine whether the results can be applicable to other research settings.

The research techniques and procedures above explained will be further developed in the next two chapters. Qualitative and quantitative analysis of the data gathered will be presented in chapter 4 and 5, respectively.

## 4. QUALITATIVE ANALYSIS

In this chapter, the author will analyze, interpret and discuss the qualitative data gathered through the interviews (Appendix 1). The purpose of the interviews is to gain new and deeper knowledge about passengers' language preferences in air travel and the consequent perceptions of service quality. The interviews have been attached in a USB-drive; the characteristics of each interview can be found in Appendix 2. The analysis of the interviews is divided in four sections. The first part will present some general demographical aspects of the respondents. The next section will examine which service quality dimensions matter most for the interviewee. Language perceptions will be discussed in section three. Finally, section four will analyze the possible differences between nationalities (Spanish – Danish).

The process followed to analyze qualitative data is based on categorization and pattern matching (Saunders et al., 2009; Bui, 2014). Firstly, data has been collected based on the research question, objectives and the proposed framework of the research. Secondly, access to meaningful knowledge was obtained through the selected sampling. Moreover, the literature review has shaped the questions asked, and the consequent categories for analysis (*native language attachment*, *language ability* and *English level*). These categories have provided with patterns to search for in the whole data (ibid.). A certain saturation point was observed when identifying patterns such as broad use of English when travelling; misunderstandings due to lack language skills; native language preference when technical language is required; non-verbal language use or written language when language is a barrier of communication.

### 4.1. Demographics of the respondents

Age, nationality and English level represent the predictive variables which are assumed to affect language preferences and perceptions of the service onboard. According with the author premises of qualitative research explained in section 3.6.1, the respondents are classified by nationality and age range. A total of 10 interviews were carried out, with minimum one interview per age range and with equal responses for both nationalities. Regarding gender, a certain female overrepresentation is observed (4 males – 6 females). Moreover, respondents' English level also differed. This representation is considered appropriated to obtain different approaches and opinions of the topic. To create a clear overview of the respondents, table 4.1. summarizes the most relevant information.

	<i>R1(m)</i>	<i>R2(f)</i>	<i>R3(f)</i>	<i>R4(m)</i>	<i>R5(f)</i>	<i>R6(f)</i>	<i>R7(m)</i>	<i>R8(f)</i>	<i>R9(m)</i>	<i>R10(f)</i>
<b>Age</b>	20	34	41	65	55	29	39	37	65	62
<b>Nationality</b>	ES	ES	ES	ES	ES	PL/DK	DK	RU	DK	DK
<b>English level</b>	Low	Good	Medium	No	No	V.Good	V.Good	V.Good	Medium	Low

Table 4.1 Overview of the interview respondents.

## 4.2. Service quality perceptions

In the first questions respondents were asked to choose the most valuable aspect(s) of their recent flight (Question 8, Appendix 1). Several options were given: “good service”, “attentive employees”, “safety issues”, “employees use your own language”, “good value for money”, “comfortable seats” ... The factors were provided randomized and are considered the most representative aspect for each SERVQUAL dimension that generates perceptions of service quality during the service encounter onboard an aircraft. The participants ranked the responses according to their expectations when flying.

The results show that participants of both nationalities give great importance to *perceived responsiveness*. Eight of the respondents ranked attentive and helpful cabin crews, with prompt service delivery as the one of the most important features. The interviewees expect to encounter an attentive service, with good disposition and helpful cabin crews (R2, R3, R4, R5, R7, R8, R9, R10).

The second next relevant dimension is *perceived empathy*, individualized attention from the cabin crews with ability of using passenger language (R2, R4, R5, R6, R7, R8, R9). Moreover, a proper verbal communication when travelling is important for some respondents (R5, R6, R7), so understanding what cabin crews are saying is imperative for them. Other respondents felt surprised about the fact that the language used onboard did not match with most of the passengers’ nationality: Spanish travelling from Marrakech to Madrid (R4) or English travelling from Frankfurt to Zagreb (R2).

Perceived reliability, with trustworthy and honest employees, is mentioned as relevant by half of the interviewees (R1, R6, R7, R8, R10). The respondents expect a proper safety performance and clear cabin announcements of the cabin crew.

These findings infer how passengers perceived service quality when flying. Responsiveness of cabin crew is what interviewers value most of the service provided onboard. It is noteworthy to mention the difference with the reviewed service quality literature in aviation (table 2.1. in section 2.1.1), that observed other preferences in the dimensions of service quality. These differences can occur due to the geographical location and nationality of the respondents in the other researches. Furthermore, onboard class and service

concept is hardly mentioned during the interviews. Only three respondents mentioned something in this regard (R2, R6, R8). Conclusively, the analysis of the quantitative data will determine whether comparisons can be made.

### **4.3. Language use perceptions**

The data obtained by the interviews concerning language issues has been grouped in three categories: "*native language attachment*", "*language ability*" and "*English use*". Derived from the purpose of the present research (section 1.1.) and the reviewed literature (section 2.2.), these categories help to further recognize relationships between the data (Saunders, Lewis, & Thornhill, 2009).

#### **4.3.1. Native language attachment**

Attachment to native language is specially observed in the Spanish respondents, who prefer to be served in their first language: "*better in my own language*" (R1, R3, R4, R5). Accordingly, the Spanish participants shows a greater dependency to their native language to communicate with. Nonetheless, in difficult situations where a more "technical language" is required to communicate with, *all respondents*, including Danish nationals, show levels of attachment to their first language. Terms such as "*fragile*", "*unprotected*", "*nervous*", "*lost*", "*unsecure*" were named by the participants when not being able to use their native language in these circumstances.

These findings corroborate the findings Holmqvist, Van Vaerenbergh and Grönroos (2014): the use of own native language is preferential in uncertain situations, where the customer feels confused (section 2.2.2). Furthermore, these results complement the study of Holmqvist (2009, 2011) that stressed out customers' first choice of native language in services (section 2.2.2). Additionally, it has been verified that customers of monolingual markets (Spain) have an attachment to their native language. Nonetheless, respondents with language skills also prefer their native language: "*you feel less stressful and more secure*" (R3, 8'09'') and because "*it is easier to react to your own language*" (R8, 7'17'').

#### **4.3.2. Language ability**

Competence in languages of passengers and cabin crews also affect language use perceptions and preferences onboard. Generally, there is a pattern between passengers' language skills and detachment to native language; in the same way, there exists a correlation between passengers' lack of language skills and attachment to native language, having these respondents a slightly negative preconception when travelling (R4, R5).

Respondents with certain levels of English and/or other languages considered unimportant the use of their native language when flying (R1, R2, R3, R6, R7, R9, R10). Generally, these respondents do not mind not being able to speak their language and they focus more on the service they received by cabin crews: *"I don't mind as long as the rest is ok"* (R2, 12'01''). On the contrary, some Spanish respondents (R1, R4, R5) stressed out the problems related with lack of language skills. Poor English level and not being able to express yourself freely, were mentioned by the interviewees with a negative connotation: *"when travelling and not being able to communicate yourself you feel bit isolated, [...] it's a problem"* (R4, 10'38'').

Regarding language used by cabin crews, several facets were commented in the interviews. Firstly, as respondents 3, 7 and 9 pointed out, cabin crews ought to have language competences, good English level and *"should be better in their pronunciation and how they express themselves [in English]"* (R3, 9'47''). Additionally, the language used by cabin crews exerts better perceptions of the service provided if it matches passenger language (R4, R5, R6, R8). On the contrary, respondents 2 and 4 showed confusion when the language used onboard differed from their expectations. Consequently, most of the respondents would rather choose an airline company whose employees spoke native language (R1, R3, R4, R5, R7, R8). Nevertheless, and language apart, all respondents agreed on the good performance of their respective cabin crews, showing high levels of satisfaction with the general service they received. Almost all the respondents would not mind travelling again with the same company.

Lastly, the need of matching the language of the passengers with the language used onboard, especially in the inbound flight<sup>1</sup>, was pointed out by several respondents (R1, R3, R4, R5, R6, R7). Respondent 5 stated: *"when travelling to your home country, or where the flight goes, I reckon someone [who speaks Spanish] ought to be there, it is necessary"* (2'48''); similarly, respondent 7 mentioned: *"since Denmark was the destination, so that would have been better that minimum one cabin crew could talk Danish"* (8'20'').

These findings confirm the reviewed literature (section 2.2.1) concerning employee language and communication style (Marcella & Davies, 2004; Mattson & Den Haring, 1998; Sharma & Patterson, 1999; Sparks, 1994). The use of customer language and a proper verbal communication style is important to enhance service quality (ibid.). The results pointed out that employee communicative competences exert influence in passengers' perceptions of the flight, additionally, the use of customer language by the employees reinforces the service; moreover, passenger own language skills affect their perceptions of the service. Despite language barriers, respondents were satisfied with the overall service cabin crews provided, even in another language, and were willing to travel again with the same company. Nonetheless, it remains

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<sup>1</sup> Inbound flight: arrival flight to the airport of destination.

unclear if this specific flight experience affects overall satisfaction with the airline company (Bitner & Hubert, 1994).

#### 4.3.3. English use

English is considered by many of the interviewees as a conventional characteristic when flying internationally (R2, R4, R6, R7, R8, R9, R10); moreover, when asked about expectations of language used onboard, most of the respondents recognized the great scope English language has, and did not expect that their native language was used onboard: *"today is more international everything, English is the main language [when travelling]"* (R9, 2'02'').

It is interesting to mention that some respondents (R2, R3, R5, R6, R7) showed concerns about the use of English, age of passengers and lack of English skills. These issues arise when older people travel and do not speak another language. In these encounters, the use of English is not valid, their needs differ and their perceptions of the flight change.

The fact that English is used onboard represents a problem for many respondents (R1, R2, R3, R4, R5, R7). They appealed to possible misunderstandings and English as a barrier for a proper communication. Respondent 2 gave an interesting opinion: *"the problem with the language is not the information you get, but what would happen if something happened, how people with language problems communicate and follow instructions"* (R2, 8'52''). Additionally, respondents 3 and 7 pinpointed the poor level of English of the Spanish cabin crews, *"they are very bad at English"* (R3, 10'04'').

Interestingly, several of the respondents mentioned the use of non-verbal language to shorten the language barrier (R1, R2, R3, R4, R5, R6, R8). Following verbal English instructions with the safety onboard cards and making yourself understood with sign language counter for the lack of English skills. When the lack of language abilities are present *"you try to make yourself understand [...] with signs and willingness and with the good will, is what matters"* (R5, 5'58''). These remarks match with the conclusion of Dawson, Madera & Neal (1999) that recommend the use of non-verbal cues to shorten the communication gap (section 2.2.1).

Furthermore, these findings validate the airline industry literature concerning English use (Orasanu, Fischer & Davison, 1997; Drury & Ma, 2002; Krivonos 2007) (section 2.2.3). The fact that English is used internationally in the airline industry represents a problem, especially among passengers with lack of English skills. Moreover, the use of English language is regarded as a barrier for proper communication between respondents and cabin crews (Marschan-Piekkari, Welch & Welch, 1999). Age and English level are the main factors that respondents assign as trigger of misunderstandings and inaccuracies during the verbal

exchanges in the service onboard. The quantitative analysis will further investigate and establish statements about this issue.

#### **4.4. Nationalities general perceptions**

A clear distinction has been shaped during the interviews in respect of the nationality and the age of the participants. There exists a certain attachment to native language among the Spanish respondents, who have lower English levels in general. On the contrary, their Danish counterparts show lower levels of attachment for their language when travelling. This is mainly due to the English level of Danish nationals, who, overall have better language skills: *"in general, I think Danish people have better skills, better English ability"* (R7, 8'54''). However, all the respondents display greater levels of native language attachment in uncertain situations, such medical problems, where a more technical language is required to communicate with.

Accordingly, several conclusions can be observed: native language attachment has a positive relationship with passengers' low English level; native language attachment has a negative relationship with passengers' high English level; and native language attachment has a positive relationship with the type of language required (technical).

For most of the respondents in all age ranges, employee language ability is considered important. Nonetheless, several distinctions are made: employee use of passenger language (Spanish) is relevant among the Spanish nationals; whereas, Danish speakers required cabin crew with good level of English. Moreover, respondents, travelling with Spanish crews, stressed the necessity of being better in English (R1, R3, R7). Conclusively, employee language ability has a positive relationship with passengers' perceptions of the service; besides, employee use of passenger language has a positive relationship with passenger nationality.

All the interviewees acknowledged the use of English onboard while travelling as English is considered the universal, international language. However, some of the respondents pointed out the requirement of cabin crew's language use accordingly with passengers' nationalities (R1, R2, R4, R5, R7). As a conclusion, it can be stated that English use onboard has a positive relationship with passengers' higher language ability. On the contrary, English use onboard has a negative relationship with passengers' lower language ability.

Furthermore, several respondents (R1, R2, R3, R4, R5, R6, R8), especially Spanish nationals, mentioned the use of body language or written language as principal aid to communicate with, in situations where the lack of English skills are present.



All things considered, all interviewees would choose the same airline company to travel with in the future. The overall feelings of satisfaction with the company do not rely on their single encounter with the company, nor with the language issues encountered. Regardless this indifference with language use onboard, several respondents would prefer to travel with a company whose employees spoke their own language (R1, R3, R4, R5, R8).

The analysis of the interviews has brought relevant suppositions about passengers' language preferences when travelling. These results may supplement with deeper information to the quantitative analysis of the surveys, which will be presented in the next chapter.

## 5. QUANTITATIVE ANALYSIS

In this chapter, the quantitative data collected through the online surveys (Appendix 3) will be statistically analyzed using IBM SPSS 24 software. The results and tables extracted from the program are shown in Appendix 4. Several statistical tests will be used to measure possible relationships between variables and differences between groups (Spanish-Danish respondents). The chapter is divided in 5 sections: the first section will provide some demographical aspects of the sample. Descriptive statistics are presented and discussed in the next section. Section 3 and 4 will assess for the reliability and normality of the data respectively. Finally, the last section will test and validate the proposed hypotheses.

### 5.1. Demographics of the sample

A self-administered online questionnaire has been used to collect the data in mainly 2 locations: Spain and Denmark. A hyperlink was provided with instructions to follow. A total of 177 filled-in questionnaires were obtained, of which 169 were considered valid responses (all questions completed). Considering the two main groups, 83 of the respondents were Spanish nationals (49%) and 72 were Danish (43%); some other nationalities answered the questionnaire, representing the 8% of the sample. Giving the fact that this research focus on finding differences of Spanish and Danish passengers and due to the low percentage level of "other nationalities" responses, the author has decided not to include them in the statistical analysis. The profiles of the respondents are shown in table 5.1. The respondents gender is distributed as follows: 85 are females and 70 males. Age varied, with a clear distinction of the range 30-50 years, with a total of 78 responses; followed by those less than 30 years (43); and 34 respondents from more than 50 years.

Apart from the total number of responses of each nationality (11 more in the Spanish group), it is also noteworthy to mention the differences in the level of English spoken by the respondents. Spanish nationals show diverse lower English levels, with respectively 19 people talking low English and 17 not being able to speak English. On the contrary, Danish nationals show better English skills with zero responses in both low and "I don't speak" English level.

<i>Respondent groupings</i>		<i>Total Spanish</i>	<i>Total Danish</i>	<i>Valid Responses</i>	<i>%</i>
<b>Gender</b>	Male	35	35	70	45%
	Female	48	37	85	55%
<b>Age</b>	Under 30	24	19	43	28%
	30-50	39	39	78	50%
	More than 50	20	14	34	22%
<b>Nationality</b>	Spanish	-	-	83	49%
	Danish	-	-	72	43%
	Other	-	-	14	8%
<b>Education level</b>	Primary School	8	2	10	6,5%
	Secondary School	12	19	31	20%
	Academy Profession Degree	21	20	41	26,5%
	Bachelor Degree	12	10	22	14,5%
	Master Degree	27	20	47	30%
	Doctoral Degree	3	1	4	2,5%
<b>English level</b>	Fluent	27	48	75	49%
	Medium	20	24	44	28%
	Low	19	0	19	12%
	Don't speak	17	0	17	11%
<b>Frequency of travel</b>	2 times	43	45	88	57%
	4 times	11	9	20	13%
	More than 4	29	18	47	30%
<b>Reason of travel</b>	Business	5	6	11	7%
	Leisure	44	45	89	58%
	Visiting friends/family	19	11	30	19%
	Several	15	10	25	16%
<b>Type of airline company</b>	Low cost	41	33	74	48%
	Network	12	19	31	20%
	Charter	12	12	24	15,5%
	Several	17	8	25	16%
	Don't remember	1	0	1	0.5%

Table 5.1. Profile of the respondents

Nationality, age and English levels of the respondents are the selected demographical aspects to measure language perceptions during a flight, which will be analyzed in section 5.5.2 of this chapter. A visual differentiation of the two nationalities are displayed in the graphs below.

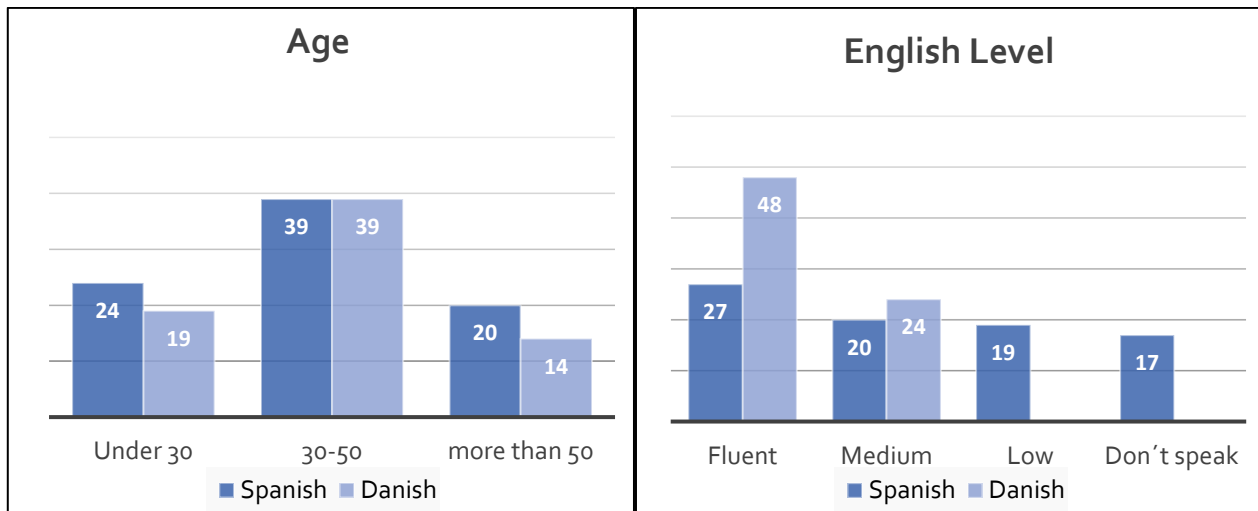


Figure 5.1 Age groups and English levels of the respondents divided by nationality.

## 5.2. Descriptive statistics

The use of descriptive statistics is for providing a better understanding of the measures and the sample. Moreover, descriptions and comparisons of the data are presented (Saunders, Lewis, & Thornhill, 2009). In the online questionnaire (Appendix 3), several types of data are collected: demographical questions (independent variable) regarded as categorical data, are gathered in questions Q1 to Q8; Q9 to Q34 are intended to gather continuous data. Attributes of service quality (dependent variable), perceptions of language used (independent variable) and overall satisfaction (dependent variable) are measured throughout this type of data.

Figure 5.2 exhibits the mean value of each variable. The data is split in the two nationality groups to make visual comparisons and find differences between Spanish and Danish passengers; the SPSS output for descriptive statistics can be found in Appendix 4, table 8.1. Results show a distinction in assessing which service quality dimension and which language perception are more relevant for each nationality.

Regarding how passengers experience perceptions of service quality, 21 sub items were presented to the questionnaire respondents. The range of scores was 8 (minimum 1, maximum 8). The results show a clear difference in the mean scores between the two groups: Spanish nationals rank highest "*perceived Assurance*" (5.50), with a standard deviation of 1.56; on the contrary, Danish show higher perceptions in "*Reliability*" (6.20), with a standard deviation of 1.09. Both nationalities rank lowest *perceived Empathy* (Spanish: M=4.50, SD=1.77 and Danish: M=4.45, SD=1.55). These results imply that Spanish passengers feel confident and safe with their respective cabin crew performance, whereas Danish passengers experience better performance of their cabin crews in safety related issues. The lower score in perceived Empathy may be due to the

standardization and internationalization of the onboard service in airline companies nowadays; customized and individualized passenger service is rare, especially in low cost carriers.

Considering language perceptions onboard, disparities are also found; Spanish have more positive, higher attachment to their native language ( $M=4.96$ ,  $SD=1.64$ ); whereas Danish score highest in Language Ability ( $M=6.07$ ,  $SD=1.33$ ) as they have better language skills in general. It is interesting to mention the lowest scores, opposite for both nationalities: Spanish nationals rank lowest in Language Ability ( $M=4.42$ ,  $SD=2.16$ ); on the contrary, Danish rank lowest in Native Language Attachment ( $M=3.97$ ,  $SD=2.15$ ). These results are understandable, giving the fact that Danish nationals have better language ability. For the overall satisfaction, Danish nationals ( $M=5.52$ ,  $SD=1.35$ ) are more satisfied than Spanish ( $M=5.06$ ,  $SD=1.67$ ) with the overall service they received.

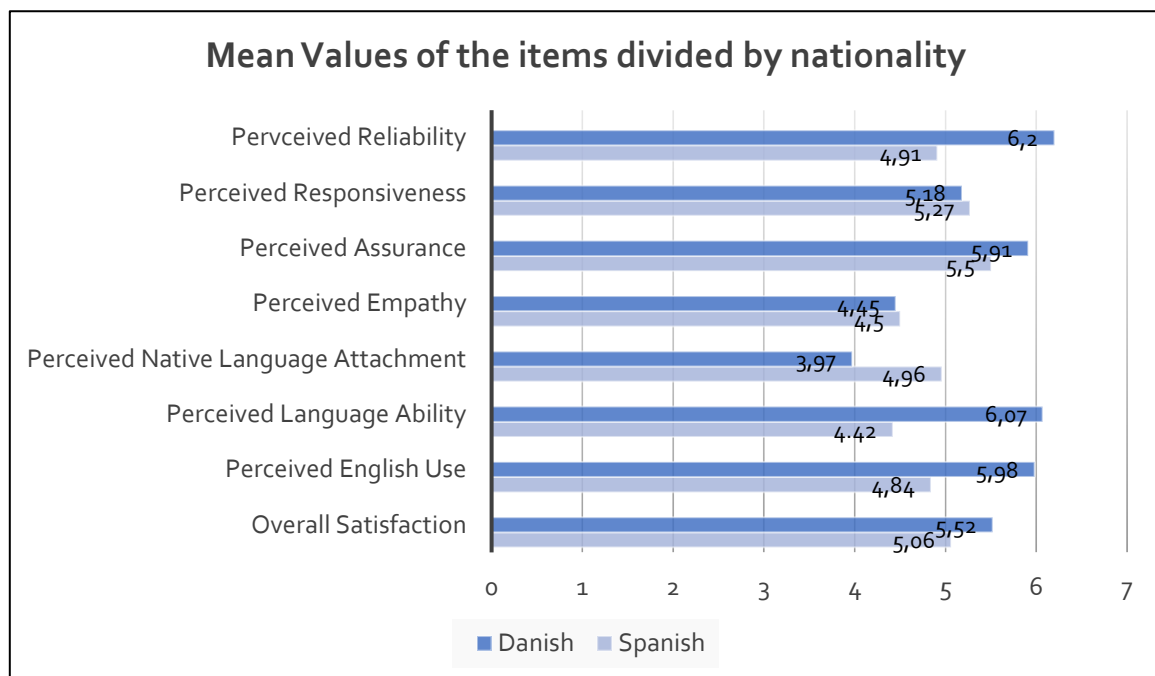


Figure 5.2 Mean Values of the items divided by nationality

### 5.3. Reliability testing

As explained in section 3.6.2, reliability of the online questionnaire was tested in the pilot study to look for misunderstandings and inconsistencies. Likewise, reliability is tested by its internal consistency, which means “*the degree to which the items that make up the scale are all measuring the same underlying attribute*” (Pallant, 2010); the Cronbach Alpha coefficient is performed for this purpose. DeVellis (2003, mentioned in Pallant, 2010) considered that the coefficient ought to be above 0.7; according to the research carried by

Chau & Kao (2009), the overall Cronbach coefficient for service quality dimensions is above 0.9. In the current study, the coefficient reached 0.91 (Appendix 4, table 8.2), showing good internal consistency.

#### **5.4. Normality testing**

Prior to choose the proper statistical techniques, the data need to be verified for normality. Skewness, kurtosis (Appendix 4, table 8.1) and Kolmogorov-Smirnov test (Appendix 4, table 8.3) are applied to determine whether the data is normally distributed.

The normality test was run with the sample split according to nationality. The results show negative skewness, the values are clustered in the right-hand side scores of the graph, which means the sample is not normally distributed. Moreover, there are some Kurtosis values below 0, this indicates that there are too many cases in the extremes. When running the Kolmogorov-Smirnov test of normality, the results indicate significant values of  $p < 0.05$ , further suggesting that the data is not normally distributed.

According with the tests results, the data is non-parametric as it does not follow a normal distribution. Therefore, non-parametric statistical procedures will be applied to test the hypotheses.

#### **5.5. Hypotheses testing**

The hypotheses proposed seek to explain the possible relationships among customers' perceptions of service quality and language dimensions during the onboard service encounter. Moreover, considering the three proposed language dimensions (Native Language Attachment, Language Ability and English use), differentiations among age ranges, nationality and English level of passengers will be further tested. The results of the statistical analysis will be presented in the next three sections.

##### **5.5.1. Correlations**

The most suitable test to measure correlations of large non-parametric data is Spearman's rho. The test will help to determine the strength and direction of the relationship between the variables tested: service quality and language dimensions (Pallant, 2010). Furthermore, to evaluate the strength of the relationship, the coefficient of determination developed by Cohen (1988, cited in Pallant, 2010) will be used as reference.

Positive correlations between these variables will indicate that Native Language Attachment and Language Ability of the passengers, together with their perceptions of English use onboard, will have an influence on

the perceptions of Service Quality. The value of the correlation coefficient will indicate the strength of this relationship (*small:  $r=.10$  to  $.29$ ; medium:  $r=.30$  to  $.49$ ; large  $r=.50$  to  $1.0$* ) (Cohen, 1988, cited in Pallant, 2010). The coefficient of determination will determine how much variance two variables share. Differentiation between nationalities is pertinent to further present possible differences between Spanish and Danish nationals. Appendix 4, table 8.4 shows a detailed presentation of the results extracted from the SPSS output.

***H1. There exists a relationship between Native Language Attachment and perceived 1) Reliability, 2) Responsiveness, 3) Assurance and 4) Empathy.***

The results show a positive strong relationship between Native Language Attachment and perceptions of Reliability ( $r= .445$ ), Responsiveness ( $r= .699$ ), Assurance ( $r= .517$ ) and Empathy ( $r= .572$ ) among the Spanish respondents; with non-significant levels of  $p= .000$ . On the other hand, Danish nationals show different levels in this relationship with correlation coefficients of  $r= .205$  in Reliability;  $r= .499$  in Responsiveness;  $r= .235$  in Assurance and  $r= .426$  in Empathy; with non-significant levels of  $p< .05$ , except for perceived Reliability ( $p= .08$ ). This indicates very small/nonexistent relationship between Reliability and Native Language Attachment among the Danish respondents.

Conclusively, onboard service quality is positively influenced by passengers' Native Language Attachment. In general, Spanish respondents show higher levels of Native Language Attachment than Danish; accordingly, they have better and higher perceptions of the service when they encounter cabin crews speaking their native language.

Total Perceptions of Native Language Attachment	Spearman's rho coefficient		Strength of the relationship		Coefficient of determination	
	Spanish	Danish	Spanish	Danish	Spanish	Danish
Total perceived Reliability	.445**	.205	Medium	Small	20%	4%
Total perceived Responsiveness	.699**	.499**	Large	Large	49%	25%
Total perceived Assurance	.517**	.235*	Large	Small	27%	5%
Total perceived Empathy	.572**	.426**	Large	Medium	33%	18%

\*\* Correlation is significant at the 0.01 level (2-tailed).

\*Correlation is significant at the 0.05 level (2-tailed).

Table 5.2 Correlation coefficients between Total Perceptions of Native Language Attachment and Service Quality dimensions.

***H2. There exists a relationship between Language Ability and perceived 1) Reliability, 2) Responsiveness, 3) Assurance and 4) Empathy.***

The relationship between Language ability and perceptions of service quality pinpoints relevant differences between Spanish and Danish respondents. For Spanish nationals, there exists a medium/small relationship between Language Ability and perceived Reliability ( $r = .446$ ); perceived Responsiveness ( $r = .218$ ); perceived Assurance ( $r = .153$ ) and perceived Empathy ( $r = .258$ ). Except from perceived Assurance ( $p = .16$ ), non-significant levels of  $p < .05$  are encountered. Interestingly, the correlation coefficients of Danish nationals are very small (perceived Reliability,  $r = .175$ ; perceived Responsiveness,  $r = .151$ ; perceived Assurance,  $r = .155$  and perceived Empathy,  $r = .131$ ), all with significant levels of  $p > 0.5$ . These results suggest that there is no relationship between Language Ability and perceptions of service quality for Danish nationals.

Conclusively, it can be stated that in general, perceptions of service quality are not influenced by the language ability of the passengers; however, for Spanish nationals, perceptions of service quality are slightly more affected by their language ability.

Total Perceptions of Language Ability	Spearman's rho coefficient		Strength of the relationship		Coefficient of determination	
	Spanish	Danish	Spanish	Danish	Spanish	Danish
Total perceived Reliability	.446**	.175	Medium	Small	20%	3%
Total perceived Responsiveness	.218*	.151	Small	Small	4%	2%
Total perceived Assurance	.153	.155	Small	Small	2%	2%
Total perceived Empathy	.258*	.131	Small	Small	7%	2%

\*\* Correlation is significant at the 0.01 level (2-tailed).

\*Correlation is significant at the 0.05 level (2-tailed).

Table 5.3 Correlation coefficients between Total Perceptions of Language Ability and Service Quality dimensions.

***H3. There exists a relationship between English use onboard and perceived 1) Reliability, 2) Responsiveness, 3) Assurance and 4) Empathy.***

The results show a large/medium relationship between perceptions of English use onboard and perceptions of service quality for the Spanish respondents at the non-significant level of  $p = .000$  (perceived Reliability,  $r = .554$ ; perceived Responsiveness,  $r = .404$ ; perceived Assurance,  $r = .396$  and perceived Empathy,  $r = .423$ ). For Danish nationals, almost all the service quality dimensions are moderately influenced by the perceptions of English use onboard (perceived Reliability,  $r = .167$ ; perceived Responsiveness,  $r = .455$ ; perceived



Assurance,  $r = .395$  and perceived Empathy,  $r = .364$ ), with non-significant levels of  $p < .05$ . Interestingly, the most notable difference is observed in perceived reliability (Spanish,  $r = .554$ ; Danish,  $r = .167$ ), which intends to measure the trustworthiness, effectiveness and clearness of the cabin crew announcements in language passengers can understand. These results may be due to the better English levels and language skills, Danish nationals have in general.

Conclusively, passengers' perceptions of service quality are certainly influenced by the English used onboard. Nonetheless, Spanish responses shows a higher relationship.

Total Perceptions of English Use	Spearman's rho coefficient		Strength of the relationship		Coefficient of determination	
	Spanish	Danish	Spanish	Danish	Spanish	Danish
Total perceived Reliability	.554**	.167	Large	Small	30%	2%
Total perceived Responsiveness	.404*	.455**	Medium	Medium	16%	20%
Total perceived Assurance	.396**	.395**	Medium	Medium	15%	15%
Total perceived Empathy	.423**	.364**	Medium	Medium	18%	13%

\*\* Correlation is significant at the 0.01 level (2-tailed).

\*Correlation is significant at the 0.05 level (2-tailed).

Table 5.4 Correlation coefficients between Total Perceptions of English use and Service Quality dimensions.

Summarily, Spanish and Danish have shown differences in how language influences the perceptions of service quality. For Spanish nationals, hypotheses 1, 2 and 3 have been accepted: there exists a relationship between Native Language Attachment, Language Ability and English use with perceived Reliability, Responsiveness, Assurance and Empathy with non-significant levels of (at least)  $p < .05$ . Consequently, perceptions of service quality are shaped according to language. Considering Danish respondents, disparities are found: hypothesis 1 and 3 are generally accepted as there exists a relationship between Native Language Attachment and English use with perceived Responsiveness, Assurance and Empathy; however, Language Ability does not have an influence on perceptions of service quality (significant levels higher than .05), this means that hypothesis 2 is rejected within the Danish group. Accordingly, generalizations about the relationship between language and service quality perceptions ought to be cautious among the Danish respondents.

***H4. There exists a relationship between satisfaction and 1) Native Language Attachment, 2) Language Ability and 3) English use.***

The results of the correlation test (Appendix 4, table 8.4) between satisfaction and language dimensions show, in general, a medium positive relationship for both Spanish (Native Language Attachment  $r = .464$ ,  $p < .05$ ; Language Ability  $r = .172$ ,  $p > .05$ ; English Use  $r = .446$ ,  $p < .05$ ) and Danish (Native Language Attachment  $r = .321$ ,  $p < .05$ ; Language Ability  $r = .262$ ,  $p < .05$ ; English Use  $r = .329$ ,  $p < .05$ ). It is noteworthy to mention the lack of relationship between language ability and satisfaction for Spanish passengers. These results imply that levels of satisfaction of both nationalities are influenced by language; despite that Spanish are higher satisfied in perceptions of Native Language Attachment and English use; Danish passengers feel higher satisfied for their perceptions of Language Ability. Accordingly, hypothesis 4 is accepted among the two groups.

Overall Satisfaction	<i>Spearman's rho coefficient</i>		<i>Strength of the relationship</i>		<i>Coefficient of determination</i>	
	<i>Spanish</i>	<i>Danish</i>	<i>Spanish</i>	<i>Danish</i>	<i>Spanish</i>	<i>Danish</i>
Total perceptions of Native Language Attachment	.464**	.321**	Medium	Medium	21%	10%
Total perceptions of Language Ability	.172	.262*	Small	Small	3%	7%
Total perceptions of English Use	.446**	.329**	Medium	Medium	20%	11%

\*\* Correlation is significant at the 0.01 level (2-tailed).

\*Correlation is significant at the 0.05 level (2-tailed).

Table 5.5 Correlation coefficients between Overall Satisfaction and the proposed Language dimensions

These results relate to the findings extracted from the interviews (section 4.4) in where differences were also apparent: Spanish passengers showed higher levels of satisfaction according to use of passenger language onboard. On the other hand, Danish nationals' language ability lead to higher levels of satisfaction when travelling.

The correlation analysis has drawn several important conclusions: there is a clear distinction between Spanish and Danish passengers in what refers to perceptions of service quality based on language. Accordingly, language influences the perceived quality and overall satisfaction of the service onboard depending on nationality. Generally, Spanish passengers' perceptions of the service are highly affected by the three proposed language dimensions based on the previous literature reviewed (section 2.2). These findings make a significant contribution to the airline industry service quality literature (section 2.1).

### 5.5.2. Differences

Non-parametric T-test and One-way analysis of variance are chosen to explore possible differences among groups of an independent categorical data (Nationality, Age and English levels) with a dependent continuous data (Native Language Attachment, Language Ability and English Use). Mann-Whitney U Test will be run to measure how Spanish and Danish nationals differ in terms of the dependent variables proposed. Kruskal-Wallis Test is suitable when more than 2 groups are being tested (Pallant, 2010), in this case age and English levels of the respondents. Levels of  $p \leq .05$  will show statistically significant differences between the groups. Further differentiations between Spanish and Danish remains pertinent to better compare the results of the two nationalities.

#### ***H5.1. There exists a relationship between Nationality and perceptions of a) Native Language Attachment, b) Language Ability and c) English use.***

The Mann-Whitney U test (Appendix 4, tables 8.5 and 8.6) shows a significant difference ( $p < .05$ ) between the two nationality groups in all the dependent variables: Native Language Attachment (Spanish:  $Md=5.5$ ,  $n=83$ ; Danish:  $Md=4$ ,  $n=72$ ); Language Ability (Spanish:  $Md=4.5$ ,  $n=83$ ; Danish:  $Md=7$ ,  $n=72$ ) and English used (Spanish:  $Md=5.5$ ,  $n=83$ ; Danish:  $Md=6.5$ ,  $n=72$ ). It is relevant to mention that Spanish passengers shows higher levels of Native Language Attachment, whereas Danish have higher levels of Language Ability and understanding of English use onboard.

These results corroborate the author assumptions of differences between nationalities and language perceptions. Furthermore, these findings match with the interviews analysis explained in section 4.3.1, in where Spanish interviewees also showed higher levels of Native Language Attachment and Danish showed higher levels of language skills with the consequent better understanding of English use onboard.

Report				
Nationality		Total Perceptions Native Language Attachment	Total Perceptions Language Ability	Total Perceptions English use
1 Spanish	N	83	83	83
	Median	5,5000	4,5000	5,5000
2 Danish	N	72	72	72
	Median	4,0000	7,0000	6,5000
Total	N	155	155	155
	Median	4,5000	6,0000	5,5000

Table 5.6 Median values of the two nationalities according to the dependent variables

***H5.2. There exists a relationship between Age and perceptions of a) Native Language Attachment, b) Language Ability and c) English use.***

The Kruskal-Wallis one-way between groups test (Appendix 4, table 8.7) show that there *only* exists a statistical significant difference at the  $p < .05$  level among Spanish respondents in Perceptions of Native Language Attachment for the 3 age groups:  $F(2, 80) = 7.09$ ,  $p = .00$ ; and in Perceptions of Language Ability for the 3 age groups:  $F(2, 80) = 8.10$ ,  $p = .00$ . For the rest of the variables, the significant level is above .05 (Appendix 4, table 8.7), meaning that no differences are encountered and assumptions are not met.

Further comparisons within groups can be only made if significant differences are found (Pallant, 2010). The results of the post-hoc Tukey test (Appendix 4, table 8.8) show that, for total perceptions of Native Language Attachment and total perceptions of Language Ability, there are significant differences between respondents more than 50 with respondents of the other age groups (less than 30 and from 30 to 50).

ANOVA							
Nationality			Sum of Squares	df	Mean Square	F	Sig.
1 Spanish	Total Perceptions Native Language Attachment	Between Groups	38,481	2	19,240	7,094	,001
		Within Groups	216,983	80	2,712		
		Total	255,464	82			
	Total Perceptions Language Ability	Between Groups	64,611	2	32,306	8,103	,001
		Within Groups	318,955	80	3,987		
		Total	383,566	82			

Table 5.7 Excerpt of the results of the non-parametric one-way ANOVA analysis.

These results infer that Spanish passengers of more than 50 years old have a different Native Language Attachment and different Language Ability than passengers below that age. Furthermore, Spanish passengers of all age ranges make no distinction in perceptions of English use onboard. For Danish passengers, age does not influence their perceptions of language.

***H5.3. There exists a relationship between English level and perceptions of a) Native Language Attachment, b) Language Ability and c) English use.***

To measure the impact of passenger's English Levels on Native Language Attachment, Language Ability and English used, a one-way between groups analysis of variance is conducted (Appendix 4, table 8.9). These results indicate that there *only* exist differences among the Spanish respondents in their perceptions of Language Ability ( $F(3, 79) = 16.4$ ,  $p = .00$ ) and English use ( $F(3, 79) = 4.5$ ,  $p = .00$ ), depending on their English levels (fluent, medium, low, do not speak).

Multiple comparisons between English level groups are made in the post-hoc Tukey test (Appendix 4, table 8.10). The test indicates that, for total perceptions of Language Ability and English use onboard, there are some significant differences between fluent and low/'do not speak' English levels among Spanish passengers. Furthermore, in total perceptions of Language Ability there also exists a difference between medium and do not speak English levels.

ANOVA							
Nationality			Sum of Squares	df	Mean Square	F	Sig.
1 Spanish	Total Perceptions Native Language Attachment	Between Groups	18,298	3	6,099	2,032	,116
		Within Groups	237,166	79	3,002		
		Total	255,464	82			
	Total Perceptions Language Ability	Between Groups	147,585	3	49,195	16,469	,000
		Within Groups	235,981	79	2,987		
		Total	383,566	82			
	Total Perceptions English use	Between Groups	32,432	3	10,811	4,525	,006
		Within Groups	188,743	79	2,389		
		Total	221,175	82			

Table 5.8 Excerpt of the results of the non-parametric one-way ANOVA analysis.

Accordingly, Danish passengers' English skills does not influence their perceptions of Native Language Attachment, Language ability and English use onboard. Moreover, levels of Native Language Attachment of Spanish passengers are not influenced by their English level.

The non-parametric T-test and One-way analysis of variance have shown several conclusions: generally, there is a relationship between nationality and perceptions of language use onboard, further differences are found within the groups; consequently, hypothesis 5.1 is widely accepted. On the contrary, the results show different relationships between age and English levels among the two groups. Consequently, hypotheses 5.2 and 5.3 are accepted by the Spanish group and rejected by the Danish.

To sum up, it is relevant to mention that no other study has measured these influences. Based on the literature reviewed about language (section 2.2) and on Chau & Kao (2009) study (section 2.1.1), these findings contribute to the reinforcement of the perceptions that passengers have on language based on their nationality, age and English level during air service encounters.

### 5.5.3. Summary of the hypotheses testing

The 5 main hypotheses extracted from the model (section 2.3) are intended to answer the research questions proposed in section 1.1. Their purpose is to measure language influence in several constructs: hypotheses 1, 2 and 3 measure language with service quality dimensions; hypothesis 4 tests language with satisfaction; and hypothesis 5 measures language preferences based on demographical factors.

Overall, the data obtained from the quantitative analysis support that there exists an influence between language and perceptions of quality in the service passengers received. Nonetheless, this influence is higher among Spanish nationals.

The next tables present a visual summary of the 5 hypotheses. To add clarity in the interpretation of the results, the sub hypotheses are presented separately, differentiating Spanish and Danish respondents.

<i>Hypothesis Summary</i>	<i>Spanish</i>	<i>Danish</i>
<b>H1.1</b> There exist a relationship between Native Language Attachment and Reliability	Accepted	Rejected
<b>H1.2</b> There exist a relationship between Native Language Attachment and Responsiveness	Accepted	Accepted
<b>H1.3</b> There exist a relationship between Native Language Attachment and Assurance	Accepted	Accepted
<b>H1.4</b> There exist a relationship between Native Language Attachment and Empathy	Accepted	Accepted

<b>H2.1</b> There exists a relationship between Language Ability and Reliability	Accepted	Rejected
<b>H2.2</b> There exists a relationship between Language Ability and Responsiveness	Accepted	Rejected
<b>H2.3</b> There exists a relationship between Language Ability and Assurance	Rejected	Rejected
<b>H2.4</b> There exists a relationship between Language Ability and Empathy	Accepted	Rejected

<b>H3.1</b> There exists a relationship between English use and Reliability	Accepted	Rejected
<b>H3.2</b> There exists a relationship between English use and Responsiveness	Accepted	Accepted
<b>H3.3</b> There exists a relationship between English use and Assurance	Accepted	Accepted
<b>H3.4</b> There exists a relationship between English use and Empathy	Accepted	Accepted

<b>H4.1</b> There exists a positive relationship between Satisfaction and Native Language Attachment	Accepted	Accepted
<b>H4.2</b> There exists a positive relationship between Satisfaction and Language Ability	Rejected	Accepted
<b>H4.3</b> There exists a positive relationship between Satisfaction and English Use	Accepted	Accepted

<b>H5.1a</b> There exists a relationship between Nationality and Native Language Attachment	Accepted
<b>H5.1b</b> There exists a relationship between Nationality and Language Ability	Accepted
<b>H5.1c</b> There exists a relationship between Nationality and English Use	Accepted

<b>H5.2a</b> There exists a relationship between Age and Native Language Attachment	Accepted	Rejected
<b>H5.2b</b> There exists a relationship between Age and Language Ability	Accepted	Rejected
<b>H5.2c</b> There exists a relationship between Age and English Use	Rejected	Rejected

<b>H5.3a</b> There exists a relationship between English Level and Native Language Attachment	Rejected	Rejected
<b>H5.3b</b> There exists a relationship between English Level and Language Ability	Accepted	Rejected
<b>H5.3c</b> There exists a relationship between English Level and English Use	Accepted	Rejected

This chapter has covered the statistical analysis of the model proposed, with the consequent acceptance or rejection of the hypotheses. The next (and final) chapter will try to answer the research question and subquestions by summarizing the qualitative and quantitative findings; managerial suggestions and bases for further research will be presented subsequently.

## 6. CONCLUSION

This research has explored the role that language play in the perceived service quality in the European airline industry. The study has concentrated its focus on air travelers of two main locations, Spain and Denmark. The results find a clear distinction between the two nationalities in their perceptions of service quality and language dimensions during the service encounter onboard an aircraft.

Service quality dimensions have been evaluated to measure the influence of language in service encounters; accordingly, a modified definition of each SERVQUAL attribute (subject to study) was presented. Personal assessment and language preferences when flying centered the attention in the face-to-face and online interviews; respondents showed their inclinations and expectations of the service by classifying the most relevant attribute of service quality they expect to encounter when travelling. On the other hand, the survey questionnaire aimed to gather actual perceptions and experiences of passengers: respondents were asked to deeply evaluate levels of Reliability, Responsiveness, Assurance and Empathy according to their last air travel experience. Interestingly, good levels of Responsiveness and Empathy are considered a must when flying, for both nationalities. Respondents prefer attentive and willing cabin crews, providing a personalized service, preferably in passengers' language. However, when assessing their last flight, perceived Empathy is ranked lowest by both groups. Passengers have not received a customized service based on their specific needs.

These adapted SERVQUAL dimensions have been combined with the proposed language attributes (Native Language Attachment, Language Ability and English use) to look for possible relationships between them. Differences between groups based on relevant demographical factors are further analyzed. The analysis of the data obtained by the above-mentioned methods are intended to answer the research question and subquestions.

The results confirm that language *does* influence the perceived service quality and consequent satisfaction in air travel in several ways. Perceptions of Native Language Attachment, Language Ability and English use of both passengers and cabin crews exert this influence in the service encounter onboard an aircraft. Moreover, passengers' nationality, age, and English levels have a further impact in language use. Additional differentiations between Spanish and Danish passengers are found.

Native Language Attachment strongly influences perceptions of service quality. Nationality and language competences of passengers play an important role in this language dimension. Spanish nationals show higher levels of Native Language Attachment in general; primarily, they prefer to be served in their own



native language when travelling in an efficient and prompt service. Perceptions of Reliability, Responsiveness, Assurance and Empathy are shaped accordingly: a Spanish passenger will better assess quality if the verbal interactions with cabin crews are in Spanish. On the contrary, Danish passenger would evaluate service equally, regardless the language spoken onboard. On the other hand, both nationalities show high levels of Native Language Attachment in hypothetical difficult situations (such medical problems), where a more technical or specific language is required. Consequently, misconceptions in evaluating the “quality” of these difficult situations will be present, if the language used differs from the native language of the passenger.

The service is further influenced by the Language Ability of both passengers and cabin crews. In general, Spanish nationals show lower language ability; on the contrary, Danish have better language skills, especially higher English levels. Nonetheless, perceptions of service quality have a minor relationship with language ability for both nationalities. Still, Spanish passengers with low or no language competences consider problematic the lack of proper communication when travelling. Accordingly, this type of passengers will have a slightly negative image of quality onboard. Moreover, language competences of cabin crews also exert an influence of passengers’ perceptions of the service: cabin crews need to have good English level and communicate clear and effectively, preferably in passenger own language.

English use onboard also affects perceptions of service quality. Even though all passengers acknowledge the use of English as international within the aviation industry, the broad implementation of English represents a problem for many. The use of English when flying lead to improper verbal communication and misunderstandings; the onboard service is affected consequently. Especially among Spanish passengers and passengers with lack of language competences, perceptions of Reliability, Responsiveness, Assurance and Empathy are damaged. The supplementary use of written language (safety onboard cards in the seat pocket) or body language (cabin crews’ visual instructions during safety demonstration) will help to minimize this verbal disadvantage during the onboard service interactions.

The integrated model aims to further assess possible relationships between satisfaction and language use onboard. The findings show how satisfaction levels have a different dependency with the three language dimensions, which further vary according nationality. Not surprisingly, Spanish passengers show a higher correlation between satisfaction and Native Language Attachment than their Danish counterparts. The higher the use of customer language (Spanish), the higher the levels of satisfaction. Contrarily, there is no relationship between Language Ability and satisfaction of the Spanish passengers. On the other hand, Danish passengers show certain levels of correlation between satisfaction and Language Ability. The higher

the language ability of the passengers, the more satisfied passengers will feel. Moreover, English use onboard also exerts an influence in the levels of satisfaction, which slightly differ between nationalities. All in all, passengers feel satisfied with the service they received despite language barriers; satisfaction levels mostly rely on the competent service provided by cabin crews. Nonetheless, satisfaction levels increase according to employee use of passenger language. It is noteworthy to mention that based on the results of this research, satisfaction does not depend on high levels of service quality, nor it is built from one single encounter.

Certain demographical factors were chosen to validate their influence in customers language perceptions and preferences during the service encounter. Perceptions of service quality will be affected consequently according to passengers' nationality, age and English levels. Important distinctions between the two nationalities are drawn. As shown, Spanish have higher levels of Native Language Attachment; on the contrary, Danish show higher levels of Language Ability and understanding of English use onboard. Considering age, only Spanish nationals showed relevant differences among the three age groups: passengers of more than 50 years show the highest levels of Native Language Attachment and Language Ability, when compared with the rest of the age groups. Similarly, only Spanish passengers with higher English levels (fluent and medium) have different perceptions of English use and Language Ability onboard than passengers with low or none English skills. Not surprisingly, none of the demographical factors proposed affect Danish passengers' language preferences due to the good English levels and better Language Ability Danish nationals have in general.

As it has been proved that language influences perceptions of the service and consequent satisfaction levels, is interesting to measure customers choices of service provider and willingness to return based on their satisfaction. Overall, passengers selection of airline company and willingness to return do not depend on the language spoken onboard. Other considerations such as service, price or time of departure are more relevant. However, passengers with lack of Language Ability and with certain levels of Native Language Attachment, would rather chose a company whose employees speak passenger own language. Despite of language use and different satisfaction levels, there exists a certain loyalty with the airline company and its employees. Most of the passengers, especially Danish, would like to travel again with the same company.

Summarily, this research paper has served to address the language gap in the service quality literature; besides it has been introduced to the context of the aviation industry. Empirical evidence has proven how service quality is indeed affected by language. The results of this research provide useful insights for both

managers and industry to consider. Consequently, managerial suggestions are explained in the next section. Moreover, bases for future research are further proposed.

### **6.1. Managerial implications**

Language use in aviation has been erroneously overlooked. Service managers in the airline industry need to understand and acknowledge the role language plays during the onboard service encounter. To potentiate perceptions of service quality, several propositions ought to be taken into consideration.

Airline companies should bear in mind the nationality of the passengers of each flight and schedule crews accordingly. To keep passengers reassured about the good service the company provides and to increase levels of empathy onboard, one native or bilingual cabin crew (at least) should be present in the in-bound flight. In a certain way, passengers with attachment to their native language or passengers with poor language abilities, will be able to communicate freely and flawlessly. Consequently, language barriers and misunderstandings could be avoided.

Cabin crews' responsiveness is desirable among passengers. Recruitment of cabin crews with better English level and with language competences will reduce problems in verbal communication. To help with this matter, companies could fund language courses for their employees to improve their language skills in general. Following these proposals, passengers' empathy perceptions could rise.

Good levels of reliability are relevant for passengers. Clear and concise formulation of safety and service announcements over the public-address system in the cabin is crucial to attract passenger attention and to reduce misunderstandings. Moreover, cabin crews ought to speak in a paced tone; being preferable a person, not a recorded tape to address to the passengers. Continuous inspections and proper maintenance of the cabin intercom are required.

Written instructions in several languages (not only English) are necessary to minimize the language gap onboard any aircraft. In this way, passengers can follow the visual instructions with a suitable explanation in their own language. This is especially important in cases of explaining possible emergency situations.

To conclude, the economic cost cannot be overlooked when implementing these suggestions; however, the industry can increase perceptions of service quality and benefit from customer satisfaction and retention in the long term.

## 6.2. Further research

This study includes for the first time the influence of language in the service provided by airline companies in two European locations. A further research between other countries of Scandinavia and the Mediterranean region will help to determine whether language affects similarly perceptions of service quality in other countries; besides further generalizations about nationalities and/or regions could be made.

Some clues were provided in the interviews about expected service of passengers, it would be interesting to further examine differences between expected service and experienced service of the same group – prior and post air travel. By analyzing the consequent service gap will further provide better managerial implications for the industry.

Passengers would prefer their own language to communicate with depending on the technicality of the language required, additional research based on the uncertainty of a high-risk situation will be pertinent to further assess passengers' language preferences. Moreover, the use of their native language encouraged some respondents to be willing to communicate and better explain themselves. Some other language dimensions could be additionally examined, such as passengers' willingness to communicate in a second language or language as representative of cultural identity.

The role of non-verbal communication between cabin crews and passengers is also relevant for analysis to better measure customers' overall evaluation of onboard service quality.

The relevancy of language during the service encounter has been proved; conclusively, language influence in other service settings (travel guides, hospitality industry, restauration) with direct interactions between employees and customers will be interesting for analysis.

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## 7. APPENDICES

### APPENDIX 1: INTERVIEW QUESTIONNAIRE\_English

**About this research:** I want to find out how does language influence the experienced and perceived service when flying. I am particularly interested in investigating passengers' language preferences in the service encounter. I am also interested in knowing if the use of native language or the knowledge of a second language affects your perceptions of the service you receive onboard. I will use the results to present possible managerial implications.

I am going to record this conversation and I will only use it for my academic analysis.

Thank you very much for your collaboration!

#### PART 1: PERSONAL QUESTIONS

Q1 Name

Q2 Nationality

Q3 Age

Q4<sub>a</sub> Do you speak a second language?

<sub>b</sub> How fluent you are?

Q5<sub>a</sub> Have you travel by plane in the last 6 months?

<sub>b</sub> How many times?

<sub>c</sub> Which was the route?

Q6 Company name?

Q7 Which language(s) was/were used onboard?

#### PART 2: EXPECTATIONS vs. EXPERIENCES

Q8 What do you value most when you fly? (i.e.)

- good service
- attentive employees
- employees use your language
- safety issues
- good value for money
- ...

Q9 Giving the fact that you travelled to/from your home country (*refer to Q5<sub>c</sub>*), did you expect that the employees of this company could speak your own language (*refer to Q2*)?

→ YES, why?

→ NO, why not?

### **PART 3: POSITIVE vs. NEGATIVE EVALUATIONS**

→ YES, why?

Q10<sub>a</sub> How did you feel when the employees addressed to you in (refer to Q7)?

Q11<sub>a</sub> How did you react to the fact that you could not use your own language (refer to Q2)?

Q12<sub>a</sub> when you travel, how important is for you that you can use your own language (refer to Q2) to communicate?

→ NO, why not?

Q10<sub>b</sub> If I have understood you right, you do not mind being addressed in in (refer to Q7) by the employees of this company?

Why not?

Q11<sub>b</sub> and you would not mind not to use your own language (refer to Q2)?

Q12<sub>b</sub> If I have understood you right, when you travel, is not important for you that you cannot use your own language (refer to Q2) to communicate?

Why not?

Q13 The safety instructions are normally announced in English, how confident/sure you are when following these instructions in English?

Q14 If you had a medical problem and needed assistance, how confident/sure would you be explaining your issues with the cabin crew?

Q15 How do you think cabin crews can perform their duties in English? (*refer to Q7*)

Q16 Do you think they are good enough in languages to assist you?

### **PART 4: OVERALL FEELINGS**

Q17 In general, how satisfied / dissatisfied did you feel with the service you got from the cabin crew?

Q18 Would you travel with this company again (*refer to Q6*)?

Q19 If you could choose an airline company to travel, regardless price or time, would you rather choose one whose employees spoke and understood your own language (*refer to Q2*)?

We have finished! Thank you very much!

## APPENDIX 2: INTERVIEWEES OVERVIEW (attached USB-drive)

(General demographics; duration of the interview; airline company, route and language used onboard)

<b>Respondent 1, R1:</b>	male, 20 years old, Spanish (10' 39")  Ryanair. Zaragoza-London-Zaragoza. Spanish/English.
<b>Respondent 2, R2:</b>	female, 34 years old, Spanish (13' 13")  Lufthansa. Madrid-Frankfurt-Zagreb-Munich-Madrid. English/German.
<b>Respondent 3, R3:</b>	female, 41 years old, Spanish (12' 41")  Vueling. Copenhagen-Barcelona-Sevilla. Spanish/English.
<b>Respondent 4, R4:</b>	male, 65 years old, Spanish (14' 31")  Ryanair. Madrid-Marrakech-Madrid. English.
<b>Respondent 5, R5:</b>	female, 55 years old, Spanish (8' 20")  SAS. Barcelona-Copenhagen-Barcelona. Danish/English.
<b>Respondent 6, R6:</b>	female, 29 years old, Danish-Polish (9' 56")  Norwegian. Copenhagen-Krakow-Copenhagen. Swedish/English.
<b>Respondent 7, R7:</b>	male, 39 years old, Danish (12' 21")  Vueling. Copenhagen-Barcelona-Copenhagen. Spanish/English.
<b>Respondent 8, R8:</b>	female, 37 years old, Russian (12' 39")  Qatar Airways. Copenhagen-Doha-Copenhagen. English/Russian.
<b>Respondent 9, R9:</b>	male, 65 years old, Danish (6' 29")  Norwegian. Copenhagen-Rom-Copenhagen. Danish/English.
<b>Respondent 10, R10:</b>	female, 62 years old, Danish (6' 41")  Norwegian. Copenhagen-Rom-Copenhagen. Danish/English.

## APPENDIX 3: SURVEY QUESTIONNAIRE\_English

**About this survey:** I want to find out passengers' language preferences during the service encounter onboard an airplane. I am interested in knowing if the use of your native language by crews or your knowledge of a second language (English) affect your perceptions of the service you receive onboard.

The survey will be anonymous and I will analyze the results for academic purposes only.

When answering the questions, please have in mind a recent flight trip.

Thank you very much!

**SECTION 1:** This section will ask about some demographic aspects, I am asking these personal questions so that I can look for connections between people's backgrounds and their language preferences.

Q1>**Gender:** ☐ Male ☐ Female

Q2>**Age:** ☐ under 30 ☐ 30-50 ☐ more than 50

Q3>**Nationality:** \_\_\_\_\_

Q4>**Education:**

☐ Primary school

☐ Bachelor degree

☐ Secondary school / High school

☐ Master degree

☐ Academy Profession degree

☐ Doctoral degree

Q5>**English level:**

☐ Fluent

☐ Medium

☐ Low

☐ Don't speak

Q6>**Frecuency of travel in the past 6 months?** (one way and return = 2 times)

☐ 2 times

☐ 4 times

☐ more than 4 times

Q7>**Reason of travel?**

☐ Business

☐ Leisure

☐ Visiting friends/family

☐ Several

Q8>**Type of airline company** (Low cost such as Ryanair, EasyJet, Norwegian, Vueling // Network: SAS, Iberia, Lufthansa, Emirates... // Charter: when you buy an all-inclusive holiday package)

☐ Low cost

☐ Network

☐ Charter

☐ Several

☐ Don't know

**SECTION 2:**

Please indicate your level of agreement in the following statements (1 totally disagree – 7 totally agree)

[Reliability]	1	2	3	4	5	6	7	N/A
Q9 The cabin announcements during the flight are broadcasted clearly and effectively								
Q10 The cabin announcements to the passengers during the flight are broadcasted in a language I can understand								
Q11 The cabin safety demonstration (demo) announcements are performed in a language I can understand								

[Responsiveness]	1	2	3	4	5	6	7	N/A
Q12 The cabin crew welcomes me in my own language								
Q13 The service offered by cabin crew is efficient								
Q14 The cabin crew are always willing to help me								

[Assurance]	1	2	3	4	5	6	7	N/A
Q15 The cabin crew are courteous with me								
Q16 The behavior of the cabin crew give me confidence								
Q17 I feel safe travelling with this airline								

[Empathy]	1	2	3	4	5	6	7	N/A
Q18 The cabin crew understands and speaks my native language								
Q19 The cabin crew understands my specific needs								
Q20 The cabin crew gives me individual and personalized attention								

**SECTION 3:**

Please indicate your level of agreement in the following statements (1 totally disagree – 7 totally agree)

[English – Language use]	1	2	3	4	5	6	7	N/A
Q21 I can use my own language when flying from/to my home country with this company								
Q22 The level of English of the cabin crew is appropriated to perform their duties								
Q23 I understand when I hear the cabin safety announcements in English								
Q24 I do not mind when the cabin crew addresses me in English								
Q25 I feel comfortable when talking in English/second language when I travel								
Q26 I prefer to be served in my own native language when I travel								

**SECTION 4:**

Please indicate your level of agreement in the following statements (1 totally disagree – 7 totally agree)

[Overall customer satisfaction]	1	2	3	4	5	6	7	N/A
Q27 Overall, I feel the airline offers high quality services to passengers								
Q28 Overall, I feel satisfied with the service I have received								
Q29 Overall, I would like to travel with this company again								

## APPENDIX 4: STATISTICAL RESULTS FROM SPSS

Table 8.1. Descriptive statistics for all responses divided by nationality.

Descriptive Statistics										
		N	Minimum	Maximum	Mean	Std. Deviation	Skewness		Kurtosis	
Nationality	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic	Std. Error	Statistic	Std. Error
1 Spanish	Total Perceived Reliability	83	1,00	7,00	4,9157	1,97803	-,409	,264	-,1322	,523
	Total Perceived Responsiveness	83	1,00	7,33	5,2689	1,66638	-,674	,264	-,737	,523
	Total Perceived Assurance	83	1,00	7,00	5,5059	1,56965	-,977	,264	-,006	,523
	Total Perceived Empathy	83	1,00	8,00	4,4981	1,77669	-,213	,264	-,887	,523
	Total perceptions Native Language Attachment	83	1,00	7,00	4,9634	1,64233	-,555	,264	-,607	,523
	Total Perceptions Language Ability	83	1,00	8,00	4,4277	2,16278	-,188	,264	-,1366	,523
	Total Perceptions English use	83	1,00	7,00	4,8499	1,76505	-,503	,264	-,809	,523
	Overall Satisfaction	83	1,00	7,00	5,0641	1,67317	-,665	,264	-,434	,523
	Valid N (listwise)	83								
2 Danish	Total Perceived Reliability	72	1,00	7,00	6,2090	1,09116	-,3183	,283	13,113	,559
	Total Perceived Responsiveness	72	2,00	7,33	5,1799	1,38494	-,409	,283	-,720	,559
	Total Perceived Assurance	72	2,00	7,33	5,9121	1,16429	-1,065	,283	,857	,559
	Total Perceived Empathy	72	1,00	8,00	4,4579	1,55226	-,067	,283	-,397	,559
	Total Perceptions Native Language Attachment	72	1,00	8,00	3,9722	2,15735	,093	,283	-1,192	,559
	Total Perceptions Language Ability	72	1,50	7,00	6,0764	1,33917	-1,507	,283	1,610	,559
	Total Perceptions English use	72	2,50	8,00	5,9861	1,28088	-,940	,283	,125	,559
	Overall Satisfaction	72	1,00	7,00	5,5229	1,35530	-1,008	,283	,964	,559
	Valid N (listwise)	72								



Table 8.2. Cronbach Alpha Coefficient reliability test for all responses.

Case Processing Summary				Reliability Statistics		
		N	%	Cronbach's Alpha Based on Standardized Items		
Cases	Valid	147	94,8	Cronbach's Alpha	Items	N of Items
	Excluded <sup>a</sup>	8	5,2	,918	,928	21
	Total	155	100,0			

a. Listwise deletion based on all variables in the procedure.

Table 8.3. Kolmogorov-Smirnov test of normality all responses divided by nationality.

Tests of Normality							
Nationality		Kolmogorov-Smirnov <sup>a</sup>			Shapiro-Wilk		
		Statistic	df	Sig.	Statistic	df	Sig.
1 Spanish	Total Perceived Reliability	,198	83	,000	,861	83	,000
	Total Perceived Responsiveness	,164	83	,000	,892	83	,000
	Total Perceived Assurance	,178	83	,000	,860	83	,000
	Total Perceived Empathy	,105	83	,024	,965	83	,024
	Total Perceptions Native Language Attachment	,151	83	,000	,922	83	,000
	Total Perceptions Language Ability	,124	83	,003	,910	83	,000
	Total Perceptions English use	,145	83	,000	,926	83	,000
	Overall Satisfaction	,146	83	,000	,916	83	,000
2 Danish	Total Perceived Reliability	,234	72	,000	,651	72	,000
	Total Perceived Responsiveness	,126	72	,007	,951	72	,007
	Total Perceived Assurance	,186	72	,000	,870	72	,000
	Total Perceived Empathy	,123	72	,009	,979	72	,267
	Total Perceptions Native Language Attachment	,110	72	,030	,920	72	,000
	Total Perceptions Language Ability	,296	72	,000	,735	72	,000
	Total perceptions English use	,202	72	,000	,885	72	,000
	Overall Satisfaction	,151	72	,000	,897	72	,000

a. Lilliefors Significance Correction



Table 8.5. Mann-Whitney Test for differences between nationality\_ Ranks and Test Statistics

Ranks				
	Nationality	N	Mean Rank	Sum of Ranks
Total Perceptions Native Language Attachment	1 Spanish	83	86,46	7176,50
	2 Danish	72	68,24	4913,50
	Total	155		
Total Perceptions Language Ability	1 Spanish	83	61,97	5143,50
	2 Danish	72	96,48	6946,50
	Total	155		
Total Perceptions English use	1 Spanish	83	64,55	5357,50
	2 Danish	72	93,51	6732,50
	Total	155		
Test Statistics <sup>a</sup>				
	Total Perceptions			
	Native Language Attachment	Total Perceptions Language Ability	Total Perceptions English use	
Mann-Whitney U	2285,500	1657,500	1871,500	
Wilcoxon W	4913,500	5143,500	5357,500	
Z	-2,534	-4,902	-4,051	
Asymp. Sig. (2-tailed)	,011	,000	,000	

a. Grouping Variable: Nationality

Table 8.6 Means to report Median values

Report				
		Total Perceptions		
Nationality		Native Language Attachment	Total Perceptions Language Ability	Total Perceptions English use
1 Spanish	N	83	83	83
	Median	5,5000	4,5000	5,5000
2 Danish	N	72	72	72
	Median	4,0000	7,0000	6,5000
Total	N	155	155	155
	Median	4,5000	6,0000	5,5000

Table 8.7 Anova One-way Test for differences among age of all respondents divided by nationality

			ANOVA				
Nationality			Sum of Squares	df	Mean Square	F	Sig.
1 Spanish	Total Perceptions Native Language Attachment	Between Groups	38,481	2	19,240	7,094	,001
		Within Groups	216,983	80	2,712		
		Total	255,464	82			
	Total Perceptions Language Ability	Between Groups	64,611	2	32,306	8,103	,001
		Within Groups	318,955	80	3,987		
		Total	383,566	82			
	Total Perceptions English use	Between Groups	5,062	2	2,531	,937	,396
		Within Groups	216,113	80	2,701		
		Total	221,175	82			
2 Danish	Total Perceptions Native Language Attachment	Between Groups	17,202	2	8,601	1,895	,158
		Within Groups	313,242	69	4,540		
		Total	330,444	71			
	Total Perceptions Language Ability	Between Groups	4,075	2	2,037	1,141	,326
		Within Groups	123,255	69	1,786		
		Total	127,330	71			
	Total Perceptions English use	Between Groups	5,041	2	2,521	1,561	,217
		Within Groups	111,445	69	1,615		
		Total	116,486	71			

Table 8.8 Age groups multiple comparisons\_ post hoc test\_ Tukey

Multiple Comparisons								
Tukey HSD								
Nationality	Dependent Variable	(I) Age	(J) Age	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
							Lower Bound	Upper Bound
1 Spanish	Total Perceptions	1 less than 30	2 30-50	-,46635	,42727	,522	-1,4867	,5540
			3 more than 50	-1,81250*	,49862	,001	-3,0033	-,6217
	Native Language Attachment	2 30-50	1 less than 30	,46635	,42727	,522	-,5540	1,4867
			3 more than 50	-1,34615*	,45295	,011	-2,4278	-,2645
		3 more than 50	1 less than 30	1,81250*	,49862	,001	,6217	3,0033
			2 30-50	1,34615*	,45295	,011	,2645	2,4278
	Total Perceptions Language Ability	1 less than 30	2 30-50	-,58654	,51803	,497	-1,8236	,6506
			3 more than 50	1,61667*	,60454	,024	,1730	3,0604
		2 30-50	1 less than 30	,58654	,51803	,497	-,6506	1,8236
			3 more than 50	2,20321*	,54916	,000	,8918	3,5147
		3 more than 50	1 less than 30	-1,61667*	,60454	,024	-3,0604	-,1730
			2 30-50	-2,20321*	,54916	,000	-3,5147	-,8918
	Total Perceptions English use	1 less than 30	2 30-50	-,45994	,42641	,530	-1,4782	,5584
			3 more than 50	,07083	,49762	,989	-1,1175	1,2592
		2 30-50	1 less than 30	,45994	,42641	,530	-,5584	1,4782
			3 more than 50	,53077	,45204	,472	-,5487	1,6103
		3 more than 50	1 less than 30	-,07083	,49762	,989	-1,2592	1,1175
			2 30-50	-,53077	,45204	,472	-1,6103	,5487
2 Danish	Total Perceptions	1 less than 30	2 30-50	-,31984	,59610	,854	-1,7477	1,1080
			3 more than 50	-1,40226	,75047	,156	-3,1999	,3953
	Native Language Attachment	2 30-50	1 less than 30	,31984	,59610	,854	-1,1080	1,7477
			3 more than 50	-1,08242	,66383	,240	-2,6725	,5077
		3 more than 50	1 less than 30	1,40226	,75047	,156	-,3953	3,1999
			2 30-50	1,08242	,66383	,240	-,5077	2,6725
	Total Perceptions Language Ability	1 less than 30	2 30-50	,53779	,37392	,327	-,3579	1,4335
			3 more than 50	,54511	,47075	,482	-,5825	1,6727
		2 30-50	1 less than 30	-,53779	,37392	,327	-1,4335	,3579
			3 more than 50	,00733	,41641	1,000	-,9901	1,0048
		3 more than 50	1 less than 30	-,54511	,47075	,482	-1,6727	,5825
			2 30-50	-,00733	,41641	1,000	-1,0048	,9901
	Total Perceptions English use	1 less than 30	2 30-50	,62551	,35556	,191	-,2262	1,4772
			3 more than 50	,35902	,44763	,703	-,7132	1,4312
		2 30-50	1 less than 30	-,62551	,35556	,191	-1,4772	,2262
			3 more than 50	-,26648	,39596	,780	-1,2149	,6820
		3 more than 50	1 less than 30	-,35902	,44763	,703	-1,4312	,7132
			2 30-50	,26648	,39596	,780	-,6820	1,2149

\*. The mean difference is significant at the 0.05 level.

Table 8.9 Anova One-way Test for differences among English levels of all respondents divided by nationality

ANOVA							
Nationality			Sum of Squares	df	Mean Square	F	Sig.
1 Spanish	Total	Between Groups	18,298	3	6,099	2,032	,116
	Perceptions	Within Groups	237,166	79	3,002		
	Native Language Attachment	Total	255,464	82			
	Total	Between Groups	147,585	3	49,195	16,469	,000
	Perceptions	Within Groups	235,981	79	2,987		
	Language Ability	Total	383,566	82			
	Total	Between Groups	32,432	3	10,811	4,525	,006
	Perceptions	Within Groups	188,743	79	2,389		
	English use	Total	221,175	82			
2 Danish	Total	Between Groups	2,377	1	2,377	,507	,479
	Perceptions	Within Groups	328,068	70	4,687		
	Native Language Attachment	Total	330,444	71			
	Total	Between Groups	,210	1	,210	,116	,735
	Perceptions	Within Groups	127,120	70	1,816		
	Language Ability	Total	127,330	71			
	Total	Between Groups	1,174	1	1,174	,712	,402
	Perceptions	Within Groups	115,313	70	1,647		
	English use	Total	116,486	71			

Table 8.10 English Level groups multiple comparisons\_ post hoc test\_ Tukey

Multiple Comparisons								
Tukey HSD								
Nationality	Dependent Variable	(I) English level	(J) English level	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
							Lower Bound	Upper Bound
1 Spanish	Total Perceptions Native Language Attachment	1 Fluent	2 Medium	-,62778	,51117	,611	-1,9694	,7138
			3 Low	-1,01462	,51884	,214	-2,3763	,3471
			4 Don't speak	-1,16013	,53645	,143	-2,5681	,2478
		2 Medium	1 Fluent	,62778	,51117	,611	-,7138	1,9694
			3 Low	-,38684	,55508	,898	-1,8437	1,0700
			4 Don't speak	-,53235	,57158	,788	-2,0325	,9678
		3 Low	1 Fluent	1,01462	,51884	,214	-,3471	2,3763
			2 Medium	,38684	,55508	,898	-1,0700	1,8437
			4 Don't speak	-,14551	,57845	,994	-1,6637	1,3727
		4 Don't speak	1 Fluent	1,16013	,53645	,143	-,2478	2,5681
			2 Medium	,53235	,57158	,788	-,9678	2,0325
			3 Low	,14551	,57845	,994	-1,3727	1,6637
	Total Perceptions Language Ability	1 Fluent	2 Medium	1,28148	,50989	,066	-,0568	2,6197
			3 Low	2,19201*	,51754	,000	,8337	3,5503
			4 Don't speak	3,62854*	,53511	,000	2,2241	5,0330
		2 Medium	1 Fluent	-1,28148	,50989	,066	-2,6197	,0568
			3 Low	,91053	,55369	,360	-,5427	2,3637
			4 Don't speak	2,34706*	,57015	,001	,8507	3,8434
		3 Low	1 Fluent	-2,19201*	,51754	,000	-3,5503	-,8337
			2 Medium	-,91053	,55369	,360	-2,3637	,5427
			4 Don't speak	1,43653	,57700	,069	-,0778	2,9509
		4 Don't speak	1 Fluent	-3,62854*	,53511	,000	-5,0330	-2,2241
			2 Medium	-2,34706*	,57015	,001	-3,8434	-,8507
			3 Low	-1,43653	,57700	,069	-2,9509	,0778
	Total Perceptions English use	1 Fluent	2 Medium	1,00833	,45601	,129	-,1885	2,2052
			3 Low	1,51754*	,46285	,008	,3028	2,7323
			4 Don't speak	1,33333*	,47857	,033	,0773	2,5894
		2 Medium	1 Fluent	-1,00833	,45601	,129	-2,2052	,1885
			3 Low	,50921	,49518	,733	-,7904	1,8088
			4 Don't speak	,32500	,50990	,920	-1,0133	1,6633
		3 Low	1 Fluent	-1,51754*	,46285	,008	-2,7323	-,3028
			2 Medium	-,50921	,49518	,733	-1,8088	,7904
			4 Don't speak	-,18421	,51603	,984	-1,5386	1,1701
		4 Don't speak	1 Fluent	-1,33333*	,47857	,033	-2,5894	-,0773
			2 Medium	-,32500	,50990	,920	-1,6633	1,0133
			3 Low	,18421	,51603	,984	-1,1701	1,5386

\*. The mean difference is significant at the 0.05 level.