



Effective Airport Signage

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Summary

In public places, messages of communication are established through signs and spoken announcements. These messages need to be transmitted to readers and listeners successfully in order to supply the audience with information about where to go or what to do. In the international environment of airports, messages in signage are provided in English and visual signs. So far, research has tended to focus on the design and implementation of signs, rather than on the use of language or visual information in these signs. This study examines the effectiveness of the information, focusing on the varieties of English and use of pictograms. Surveys were conducted at three European airports; one native English airport and two non-native English airports. The participants were passengers or visitors with different first languages. They were asked to assess the language and pictograms in the signs of the specific airports. The results show that non-standard English language were understood and accepted by most respondents but did not achieve a higher effectivity than Standard English varieties; however, some Standard English varieties were less effective than others. In addition, Pictograms that were accompanied by text were the least effective, and most effective when the language next to the pictogram was unambiguous and had a connection to the meaning of the pictogram.

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Introduction

Medium-sized to larger international airports can be similar to cities; for example, there are shops, restaurants, police and medical help. Some airports even offer sleeping facilities beyond passport control. Large numbers of people visit airports every day and need to be able to find their way, whether this is to the gate or to use facilities. In the international communication of airports, English is often used as the Lingua Franca (LF), alongside a local language. In addition to the language, visual information is present, such as pictograms. Following passengers' complaints about the signage in U.S. airports, researchers drew conclusions based on the design and location of signs (Andre, 1991; O'Neill, 1991). The language content and visual signs were not considered, whilst these are vital factors in effective guidance information. This leads to the question: how effective is the use of English and visual information at airports? Research was conducted to answer this question and is reported in this thesis. The thesis starts with an overview on theory about communication in the English language, by visual signs, and the specific communication of airports. This is followed by the methodology section in which the selected airports, the survey design and implementation are discussed. After that, the results of the surveys are compared, used to evaluate and to determine the effectiveness of the textual and visual information at airports. The thesis concludes with recommendations for further research and for international airports.

This study will also shed light on English as an International Language, as the English on the signage is aimed at an international audience, ranging from people with English as a first language to people with English as a foreign language (EFL). In regard to airport signage, if less effective communication is identified, changes can be made to achieve stronger communication. This would improve passengers experience and leave a good impression with visitors. Moreover, it would also be relevant in other public places where there is an international audience, such as train stations, universities, museums, etcetera.

1. Verbal and Visual Communication

People communicate in various ways, through speech or writing, but also by using certain signals, called signs. Signs are “everything that, on the grounds of previously established social convention, can be taken as something else” (Eco in Abdullah & Hübner, 2007, p.12), and these can be categorised into auditory (what is heard), visual (what can be seen) or tactile (what is felt) signs (Morris, 1938). Examples of these are an alarm clock (auditory sign), body language (visual sign), and a handshake (tactile sign) (Abdullah & Hübner, 2007). There are three levels that can be analysed in signs: the syntactic, semantic and pragmatic levels (Morris, 1938). The syntactic level of the sign how it sounds, feels or looks, the semantic level is the meaning of the sign, and the pragmatic level is what is intended by the sign and interpreted by the receiver. In addition, visual signs have another level, the sigmatic level, which is the relationship between the sign, what someone sees, and the signified, what it means (Abdullah & Hübner, 2007).

In the following sections, the focus will be on language, namely the English language, and pictograms. The latter belongs to the category of visual signs. These are two components of airport signage. In the English-speaking world, there are more non-native speakers (NNSs) than native speakers (NSs) (Crystal, 2006) and English is often used in cross-cultural communication; therefore, factors that could affect comprehension in the communication between natives and non-natives will be discussed. In addition, the previously described four levels within signs will be further explained in relation to pictograms. Moreover, the background of airport pictograms and airport communication will be discussed as well.

1.1. Language in communication: English

1.1.1. Native English Speakers

“The first language a human being learns to speak is his *native language*; he is a *native speaker* of this language” (Bloomfield, 1933, p. 43). Native speakers (NSs) of English

are people who learn English as their first language (L1). Languages that are learnt later in life are second languages (L2). There are many varieties of English which belong to the category native speaker's English; examples include, New Zealand English, American English, Australian English and British English. The last refers to the English spoken in England, and thus, could also be called "England English" (Algeo in Hansen, 1997, p. 61). The countries these languages are spoken in, are part of Kachru's (1985) inner circle, in which, traditionally, English is a first language and English speakers are monolingual.

There are many accents and dialects in English, and pronunciation, grammar and vocabulary can therefore differ. With vocabulary, for example, the word *candyfloss* is British English, but Americans say *cotton candy* and Australians say *fairy floss*. Identical words can also have a different meaning, for instance, the word *pants* meaning 'underwear' in British English, and 'trousers' in American English. A different knowledge of these words could lead to misunderstandings between NSs, but also between a NS and a non-native speaker (NNS). It could be, for example, that a NS uses slang words, or other vocabulary or structures unknown to the NNS. In intercultural contexts, such as airports, these differences should be taken into account when speakers with other first languages and varieties interact.

1.1.2. International English and Euro-English

According to Seidlhofer (2012), the name English as an International Language (EIL), or the shorter, International English, emphasises the communicative function it possesses and shows that it is not "one clearly distinguishable, unitary variety" (p. 8). Hansen (1997) mentions, that there is not one definition of EIL. EIL refers, among other things, to varieties of English that are used in technical environments, for instance, Aviation English (AVE) and to other Englishes, spoken in outer circle countries, such as the English spoken in Jamaica (Kachru, 1985). Outer circle countries are nations in which the English language is a second language (ESL), used in many domains. It may be an official language of the country and

people may use it in everyday language. This shows that EIL is a term used for different Englishes, however, they are not part of the same EIL. The definition this thesis will adopt is “the function of this language as an international Lingua Franca” (Hansen, 1997, p. 63), i.e. English as a Lingua Franca (ELF), and its divergence from Standard English varieties in grammar and vocabulary.

Euro-English is a term used by some for the English spoken between EU nationals other than British and Irish citizens (Carstensen in Mollin, 2007). It is the subject of an ongoing debate on whether this can be called a variety of English (Modiano, 2003; Mollin, 2007). Nevertheless, particular characteristics are emerging within this English language use. In grammar, for example, “I know him for a long time” (Murray, 2003, p. 151) shows the use of a present tense instead of the Standard English present perfect *I have known him*. In lexis an example of this is the word *actual*, which is used instead of the word ‘current’ (Ferguson 1992, p. xvii). The former is a false cognate, or ‘false friend’, of the French word *actuel* (Van Dale, 2008) or the Dutch word *actueel*, which translated mean ‘current’.

The usage of *actual* is an example of language interference, which is when a person applies knowledge of their first language onto the other language, the target language (Lightbown & Spada, 2010). This can help in using the target language correctly, this is when the same structure is present in the target language, but it can also result in diverging from Standard English structures. Sometimes it can be unclear if these other structures in the expanding circle, where English is a foreign language rather than a second language (Kachru, 1985), can be taken to be a form of English that is emerging, or as English learner errors (Edwards, 2016). Regardless of this, the importance in cross-cultural communication is that the English used should be intelligible for speakers with a different language background (with an adequate level of English); however, this is not always the case in EIL and Euro-English. As with the previous example of *actual*, EU nationals that have the same word and

meaning in their native language (such as French and Dutch) could understand what is meant, but for others it could lead to incomprehension or misunderstanding.

1.2. Visual signs in communication: pictograms

Pictograms can be recognized faster than words and are easier to read at a distance than written text, but this only applies when they are understood correctly (Tijus, Barcenilla, Cabon de Lavalette & Meunier, 2007). In practice, not all pictograms are easily understood by everyone and can sometimes even be wrongly interpreted. There are four levels within pictograms and visual signs in general, that have an influence on the extent to which they are understood (Abdullah & Hübner, 2007).

Semantics describes the connection between sign and meaning and what the receiver, the person who sees the pictogram, understands. This relies on the culture, knowledge, social environment of the receiver, and the surroundings of where the pictogram is placed (Abdullah & Hübner, 2007). Correct understanding would therefore be established when the receiver has the same repertoire (knowledge) as the sender, the one who produced the pictogram. Misunderstanding or incomprehension happens at the semantic level, when the context is not clear, for example, it does not seem to fit into the surroundings, or there is no alignment in repertoire.

Sigmatics describes “the sign’s relation to what is signified” (Abdullah & Hübner, 2007, p.14). Sometimes the sign bears a close resemblance to what it signifies and other times it is diverging. A sign can be classified into three types: *icons*, *symbols* and *indices*. An *icon* is a pictorial sign, an illustration, which is an exact image of what it designates, and might be easier understood regardless of differences in language backgrounds; for example, an image of a bicycle, which means ‘cycle path’. A *symbol* is completely abstract, and the meaning needs to have been agreed upon by the sender and receiver to be understood; for instance, the letter *H* for ‘hospital’. *Index* signs can be in the form of an *icon* or *symbol* but are connected

to space or time; for example, a traffic sign with a red cross and circle means that parking is not allowed, and the location of the sign indicates that the prohibition is in effect in that area.

Syntactics or syntax focuses on the visual aspects of the sign, for example, form, colour, material, etcetera (Abdullah & Hübner, 2007). It should be simple in order to have meaning easily and quickly extracted from the sign. Furthermore, the colour of a sign can also represent a meaning, in that case the colour is also a symbol; for instance, the colour red is used to indicate danger.

Pragmatics describes the effect and the interpretation of the sign on the receiver. The function of the sign can be imperative, to evoke emotion (to have the receiver respond in a certain way) or to give information (and the person can choose what to do with this information) (Abdullah & Hübner, 2007). How this will be interpreted by the receiver is key to the success of the communicated message. An open interpretation leads to misunderstanding and can happen when there is no previous concordance established between sender and receiver, when sender and receiver have different repertoires, or when the pictogram does not correspond to its surroundings, in other words, is used incorrectly.

The first airport pictograms were established in Germany in 1968 by the ADV (Arbeitsgemeinschaft Deutscher Verkehrsflughäfen/Association of German Airports) (Abdullah & Hübner, 2007). The American Graphic designer team AIGA created a group of pictograms that functioned as the standard set of symbols that, even in a different style, would be globally recognised in 1974 (Annink & Bruinsma, 2008). According to Mijksenaar (2012), the designer of the Schiphol Airport signage, “symbols are intended as an aid for passengers who have trouble reading Dutch or English, as well as for those with a low level of literacy” (p. 19). Pictograms, therefore, are an international language on their own.

1.3. Airport communication

International airports are public spaces that often have a complex floor plan; there are many places, such as gates and facilities, to which passengers navigate. The higher its complexity, the more signage is needed (O'Neill, 1991). Significantly, research showed (O'Neill, 1991) that the wayfinding performance of participants in complex floor plan locations was “equivalent to, or significantly poorer than” (p. 553) participants who were in simple floor plan locations without signage. This revealed that there are ineffective elements in the signage that should be prevented to increase wayfinding performance in complex building layouts.

As a result of unsatisfied passengers at U.S. airports, research was conducted to discover these ineffective elements. It focused and gave recommendation on the design and positioning of guidance information (Andre, 1991). It also identified that if there were more than one message in a sign, it would increase the sign's complexity, and this could easier lead to unclear communication (Kantowitz et al., 1990). Whether or not the use of language or visual information affected communication, was not considered.

International airports are places which often accommodate large numbers of passengers with various L1s. To communicate with these passengers, airports present information in English and in pictograms. The fact that there are so many varieties of English requires choices to be made to ensure effective international communication. No research has been conducted that considers the effectiveness of communication through airport pictograms. In general, pictograms are regarded as a fast way to transfer messages but only if they are understood, which is never universally understood. It is therefore important that not only factors such as design and positioning are considered in assessing the effectiveness of signage, but also the use of language and visual information.

2. Methodology

2.1. Aim of Research Project

In this chapter of the thesis, the methodology will be set out. Based on the previous literature review and the great need for effective signage in complex settings such as airports, the following research question has been generated: how effective is the use of English and visual information at airports? In order to answer this question, surveys were distributed at three different airports which were filled in by passengers and visitors with various L1s. The participants had to give an assessment of the airport signs. Their responses will be compared to determine what uses of English and pictograms are successful or impede understanding. If they indicate to be distracted or the meaning is not (immediately) clear, this could then suggest which signs do not achieve the required effectiveness. Based on those responses conclusions will be drawn on which choices in language and visual information work most or least effectively. The hypothesis is that uses of English that differ from Standard English will lead to more misunderstandings for most native speakers. Furthermore, pictograms without text will not be understood by all respondents. In the following sections, the selected airports and the design and implementation of the survey will be further discussed.

2.2. The Selected Airports

The airports that will be considered are two airports in non-native English-speaking countries, namely Schiphol Airport in the Netherlands, (Warsaw) Chopin Airport in Poland, and an airport in a native English-speaking country, Manchester Airport in England. Compared to Schiphol and Chopin Airport, Manchester Airport is not a capital airport but a regional one. It is nonetheless an important player in international air traffic, connecting the north west of England to numerous places in the world.

The signs at these airports are for NSs and NNSs of English who do not have knowledge of Dutch at Schiphol or Polish at Chopin airport. People who do have knowledge of these languages can make use of that language instead of English, if this is present on the sign. The pictograms are intended for people who do not have knowledge of either language.

2.2.1. Warsaw Chopin Airport

Chopin Airport is the largest airport in Poland and compared to other European airports, has the most connections to other European capitals (Turner, 2015). Nearly every large European airline operates at this airport. The pictograms are based on the internationally standardised set of symbols created by AIGA and in this airport, in some cases, are not accompanied by text. Both Polish and English are present on the signs, and in that order. The use of English in Poland significantly changed in the last decades and is still in development. Following communism, education in the English language started to bloom, and in 2012, 89 % of students were reported to be learning English (Główny Urząd Statystyczny in Kasztalka, 2014). As a country in the expanding circle, English is only used in international environments, traces of its development can in some cases still be seen.

2.2.2. Schiphol Airport

Schiphol Airport was built in 1917 and is, with 322 direct flights, a considerable international airport (Schiphol, n.d.). In addition, Schiphol is an important hub for passengers on connecting flights (Mijksenaar, 2012), but 33% of passengers are still Dutch (Schiphol, n.d.). The pictograms at Schiphol Airport are from the internationally standardized set of symbols and some extra pictograms have been added by the design agency Mijksenaar (Mijksenaar, 2012). All pictograms are accompanied by text. Significantly, the language on the signs is primarily in English, and the Dutch translation often in a smaller print beneath it. Thereby, Schiphol is one of the few airports that does not have the local language on each sign (Stichting Taalverdediging in Edwards, 2016). The reason for this is that the Schiphol Group believes that most Dutch nationals understand English well enough to be able to understand the signs (Mijksenaar, 2012). This belief is based on the usage of English in the Netherlands, which is also used in other domains next to cross-cultural communication, for example, in education and in business (Piketh in Edwards, 2016); therefore, in some areas, it

exceeds the EFL usage and can be seen as an ESL (Edwards, 2016). According to Gerritsen et al. (2016), English in the Netherlands, however, maintains its position in the expanding circle.

2.2.3. Manchester Airport

Manchester Airport was built in 1929 (MAG Manchester Airport, n.d.) and is located in the north-west of England. In 2017, nearly 27.8 million passengers passed through this airport; the most this airport has seen (Blake, 2018). Signs in the airport are mainly with text and not always with pictograms. As an airport in a native English-speaking country, Manchester Airport communicates through British English on signs in the airport. This means that there are words such as ‘coach’, ‘pay station’, ‘car park’, ‘luggage’, and ‘pushchairs’, as well as words with British spelling as in ‘enquiries’ and ‘storey’.

2.3. Design and implementation of the survey

Data was collected through surveys that were filled in by passengers and visitors at all three airports. By asking questions in the form of a survey, the answers would give descriptive insight into the situation at hand: the participants give responses without the researcher influencing the data (Kothari, 2004), and it would create a valid source in showing what people think and know (‘t Hart et al., 1996). The surveys which were used at all airports can be found on pages 42-60.

2.3.1. Survey

The survey consisted of three sections. The first section, elicited information about the respondents. In the second section, the participants’ knowledge of airport pictograms was asked. The third section consisted of pictures of signs at the airports that had textual and/or visual information, which participants had to assess.

Section 1: Background information

In this section, the questions ‘What is your nationality?’ and ‘What first language(s) do you speak?’ were asked to determine whether English is an L1 or L2 of the respondent. The remaining questions were:

- What is your age?
- How often do you fly?
- How often do you use English?
- Where do you use English?
- Please rate your level of English on a scale from 1 to 5 (1: elementary; 2: low intermediate; 3: high intermediate; 4: advanced; 5: proficient)

These questions were asked to give information about the level of familiarity people have with the language and pictograms found at airports, which could help them with recognising and understanding the signs. Their command of the English language was asked to determine whether the NNS’s’ knowledge of English could say something about how they understand or see differences in English.

Section 2: Knowledge of airport pictograms

In this section, eight images of pictograms were shown, and the respondent had to assign it a meaning. This is to see whether the meanings of the pictograms are understood independently of any text. All the pictograms can be found at the airports; they might be slightly altered in their look but have the same basic form. One significant difference is the pictogram for baby care, which is a baby bottle at Schiphol airport but a pictogram of a baby with a diaper at Chopin Airport and Manchester Airport. This is therefore also different in the surveys per airport.

Section 3: Signs at the airport

In this part of the survey, eight pictures of signs that could be found at the designated airports were selected. The following questions were asked:

1a. Do you see any errors or anything unusual in the sign?

- Yes | • No

1b. If yes, is it distracting?

- Yes | • No

2. The meaning of the sign is

- Immediately clear
- Not immediately clear
- Not clear

3. If the meaning is not (immediately) clear, could you explain why?

If a sign had a pictogram and no text, only questions 2 and 3 were included, for example for 'lost luggage':



If respondents indicate that the errors or something unusual they see is distracting, it could suggest that this influences the speed of how the signs are read. In addition, if the meaning of the sign is not (immediately) clear this could indicate that in terms of communication the sign is not as successful as it should be.

2.3.2. Pilot survey

A pilot survey was first conducted to determine if any parts in the survey needed to be changed to avoid problems with invalid data due to wrong or unclear questioning. Upon seeing that nationality did not always give information about what language the person spoke as a L1 (i.e. Dutch nationality but raised bilingual), the question was changed into asking for information about the first language instead. However, after carrying out the survey for the first time in Warsaw, the question about nationality was added again as it was perceived to be important to also know what variety of L1 the person speaks (i.e. British English as opposed to American English), which could be useful in the analyses of the results.

2.3.3. Sample collection

For the section in the survey about the knowledge of airport pictograms (section 2), the most vital pictograms for navigating an airport were selected, such as ‘passport control’. In addition, the ‘baby care’ pictogram was included, which is of importance for parents and guardians. It has also been added as this pictogram differs in the airports in this study.

For the last section (section 3), photos were taken of signs at the airports, excluding the signs inside some of the restricted passenger areas. Some of photos of the selected signs that featured in the survey were taken from the internet, because it was not possible to take a photo of these at the airport. All signs were chosen based on textual information that included errors or differences in varieties, or visual information consisting of pictograms with (possible) ambiguous meanings. Examples of errors that were found included lexical errors such as ‘paystation’ at Manchester Airport and ‘cash machine’ for a car park pay station at Chopin Airport. Examples of different varieties were the British English ‘oversized luggage’ at Chopin Airport and the American English ‘odd-size baggage’ at Schiphol Airport. In addition, some of the pictures at Manchester Airport were also chosen based on the differences in the signs with the other airports, such as ‘coaches’ as opposed to ‘coach’ in Poland. Furthermore, signs with pictograms that were chosen were high in abstractness or could have multiple meanings if not being part of the receiver’s repertoire. Moreover, Mijksenaar (2012) claims that “symbols alone are seldom satisfactorily unambiguous and self-explanatory” (p. 19); thus, pictograms that were not accompanied by text were also

chosen. An example of this is the ‘car rental’ pictogram:



. Whether or not the message of the textual or visual information has been transferred well, as indicated by the respondents, will be considered in order to conclude to what extent these uses are effective.

2.3.4. Setting and Sample group

The surveys were filled in by passengers and visitors who were asked randomly, mainly in the departures hall of the airports in the beginning of the year of 2018. Some of the people who were asked could not or did not fill in the survey because they did not have time, did not want to participate or did not speak English. A total of twenty people at each airport participated, who were speakers of Polish, Dutch, English, and other languages. Exact languages and numbers can be found in the appendices on page 61, 65 and 69.

In Warsaw, 65% of the 20 respondents reported that they flew more than six times a year. None of the respondents said they use English rarely or sometimes and nobody rated their level under average.

In Amsterdam, most of the 20 respondents, 35%, reported that they flew four to six times a year, which is followed by 30% of the respondents who reported that they flew once or less in a year. 9 out of 20 respondents use English often and 7 out of 20 use English always. Most participants also rated themselves highly, nine indicating proficient and seven advanced.

In Manchester, only 20% of the respondents reported that they flew once a year or less; the other 80% were evenly spread over the other categories. Among the respondents was a British Punjabi speaker who rated her English with advanced and indicated she uses it at home only.

2.3.5. The analysis

The Manchester airport signs are used as an example of a native English variety and compared to similar signs at the other two airports. Signs with the same function, such as baggage reclaim, currency exchange, customs, and car park pay station, were asked about in the questionnaires at all three airports. Two different varieties of English were also researched in the sign for non-standard luggage ('oversized' or 'odd-size) at the two non-native English airports.

2.3.6. Limitations

The sample and the data collection took place at three different airports and therefore, it was not possible to first have all the pictures of the signs, and then select which were most suitable. The Chopin Airport survey was designed first, and the Schiphol and Manchester Airport surveys followed. Thus, to be able to compare the same signs, most of the selected photographs at the two airports were based on what was seen at Chopin Airport. Not all the same signs could be found; therefore, these were replaced by signs that had a similar function. For example, at Manchester Airport, there was no sign for baggage reclaim, but the passage led immediately to the baggage reclaim area with signs only stating carousel. If there were no signs with a similar function, signs that showed different errors or something unusual were chosen.

At Schiphol, all areas for passengers only and the restricted departure areas at the other airports were not entered. Some of the signs that could not be photographed were taken from the internet.

The qualitative side of the survey makes it more difficult to analyse a large group of people; therefore, a small sample of twenty respondents per airport was chosen. According to 't Hart et al. (1996), a large sample group has a higher reliability, as it will have more precise results. This will be taken into account in the analysis.

3. Results and Analysis

In this chapter, the results of the survey about the respondents' knowledge of airport pictograms (section 2 of the survey) and assessment of the signs at the airports (section 3 of the survey) are shown. In the analysis of the signs, the results of all three airports are compared to each other, with a focus on different varieties, errors and use of pictograms.

3.1. Knowledge of Airport Pictograms

In table 1 below, the answers for the pictograms that the respondents gave at every airport are categorised as either they understood the meaning ('yes') or they did not understand the meaning ('no'). In the 'yes' category, responses that were identical or close to the meaning were grouped together, and in the 'no' category, the remaining responses such as the ones that seemed to refer to other (possible) meanings, or when respondents left it blank, were also grouped together. At Chopin Airport and Schiphol Airport, about 75% of the pictograms were understood; at Manchester this was slightly less, namely 63% of the pictograms. At all airports, 'taxi rank', and 'train station' were clearest to the highest number of respondents; the icon of these vehicles seemed to be easily recognised and infers a closed interpretation, thus is the least ambiguous. This is followed by the 'departures' and arrivals' at Chopin Airport and Schiphol Airport. In this way, most of the respondents show to have the required repertoire that is linked to the images of a plane landing or taking off. None of the pictograms, however, are perfectly understood by everyone.

Pictogram	Chopin Airport		Schiphol Airport		Manchester Airport	
	Yes	No	Yes	No	Yes	No
Passport control	14	6	12	8	9	11
Baggage storage/lockers	10	10	12	8	6	14
Baggage reclaim	5	15	11	9	9	11
Departures	20	0	18	2	14	6
Arrivals	18	2	18	2	13	7
Baby care	15	5	11	9	13	7
Taxi rank	20	0	19	1	18	2
Train station	18	2	20	0	18	2
Total yes/no	120	40	121	39	100	60
Total responses	160		160		160	

Table 1. Respondents' knowledge of airport pictograms.

3.2. Signs at the Airports

In this section, the results of similar signs at the airports will be shown. Sometimes signs are compared in pairs; this is because not all signs with the same information could be found at each airport, or they are paired to focus on two specific differences only.

Chopin Airport, Schiphol Airport and Manchester Airport

The tables below show the responses to the four signs for baggage reclaim, currency exchange, customs, and car park pay station. The first three columns indicate the answer (or N/A= no answer) to the question of whether the respondent saw any errors or anything unusual. The three columns in the middle show whether they found this distracting. This was only required when they answered yes to the first question. The last three columns show whether the meaning of the sign was clear.

Below are the images for 'baggage reclaim'; the results of the survey are in table 2.1.



Chopin Airport



Schiphol Airport



Manchester Airport

	Errors/ Unusual?			Distracting?			Clear?			
	No	Yes	N/A	No	Yes	N/A	Yes	Not imm.	No	N/A
Chopin	12	8	0	3	5	0	12	8	0	0
Schiphol	13	6	1	2	3	1	11	3	2	4
Manchester	10	5	5	3	2	0	14	3	1	2

Table 2.1. Baggage reclaim signs

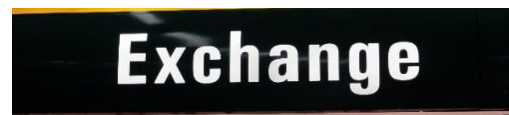
At Chopin Airport, the ‘baggage claim’ is an American English word and the ‘baggage hall’ at Schiphol Airport is, according to the Collins dictionary (n.d.), a rarely used word in British English. The ‘carousel’ sign at Manchester Airport was not clear for only one of the respondents. The rest of the 53 respondents did not indicate having any problems with the different varieties. There were also other reasons respondents indicated not finding the signs clear; for example, at Chopin Airport, 5 out of 20 participants gave as a reason the pictogram for the currency exchange, which was an image of cash, as this did not have a relation to what else was on the sign. In addition, all other pictograms on the sign were accompanied by text, making the currency exchange pictogram more ambiguous. At Schiphol, 2 out of 5 respondents did not (immediately) understand the location and meaning of the emergency exit sign.

Below are the images for ‘currency exchange’; the results of the survey are in table

2.2.



Chopin Airport



Schiphol Airport



Manchester Airport

	Errors/ Unusual?			Distracting?			Clear?			
	No	Yes	N/A	No	Yes	N/A	Yes	Not imm.	No	N/A
Chopin	18	2	0	0	1	1	16	1	1	2

Schiphol	19	0	1	0	0	0	14	3	0	3
Manchester	16	0	4	0	0	0	16	0	0	4

Table 2.2. Currency exchange signs

At the two airports which are located in non-native English speaking countries, the International English usage of ‘exchange’ was different from the usage at Manchester Airport, which was the complete ‘currency exchange’. In Manchester, this provided clarity for all sixteen respondents, as opposed to five respondents at the other airports. At Schiphol Airport, a native and a non-native respondent did not find the meaning immediately clear, as it did not say what exactly could be exchanged. At Chopin Airport, only one non-native speaker said that the sign “could have ‘currency’ in there”, but he/she did not have problems with understanding the meaning. It could be that the pictogram for ‘currency exchange’ supplied the meaning of what could be exchanged. It is important to note that the not (immediately) clear responses could also be based on the ‘travel agency’ sign, which is next to this sign.

Below are the images for ‘customs’; the results of the survey are in table 2.3.



Chopin Airport



Schiphol Airport



Manchester Airport

	Errors/ Unusual?			Distracting?			Clear?			
	No	Yes	N/A	No	Yes	N/A	Yes	Not imm.	No	N/A
Chopin	12	8	0	1	7	1	6	4	6	4
Schiphol	13	6	1	1	3	2	8	3	3	6
Manchester	12	5	3	2	2	1	13	5	1	1

Table 2.3. Customs signs

At Schiphol Airport, 4 of the 20 respondents said they were not familiar with “tax free validation” and this hindered their understanding of what it meant. One of these was an Irish respondent who commented he would not call it ‘tax free validation’ but ‘duty free’. This could imply that this language use is less familiar in Irish English and also perhaps in British English, as a British respondent pointed out she did not know what she would do here. This also provided unclarity for two other non-native English speaking participants; only one was able to guess the right meaning, and the other said that he had never seen such a sign before.

At Manchester Airport, two native respondents and one other non-native respondent, indicated that the two activities together on one sign were confusing, as these seemed to be two different things. This sign was not clear at all to only one person, as opposed to three at Schiphol Airport.

At Chopin Airport, one non-native participant did not understand ‘customs’; however, this person did indicate that the meaning was clear for ‘customs clearance’, which was another sign at this airport, and will be later discussed for table 2.8. This unclarity in the sign could be explained by the mismatch in text and context; the text is next to a pictogram of a church, which another non-native respondent commented on, saying that he/she did not understand the connection between ‘customs’ and ‘church’. Other reasons this sign was not (immediately) clear for the other 8 out of 10 respondents was that they did not understand

some of the pictograms; for example, ‘meeting point’ and the ‘flight tickets sale point’ pictograms. In addition, other respondents said there was too much information on the signs.

Below are the images for ‘car park pay station’; the results of the survey are in table

2.4.



Chopin Airport



Schiphol Airport



Manchester Airport

	Errors/ Unusual?			Distracting?			Clear?			
	No	Yes	N/A	No	Yes	N/A	Yes	Not imm.	No	N/A
Chopin	12	7	1	3	4	4	8	5	1	6
Schiphol	18	1	1	0	1	0	15	2	0	3
Manchester	15	2	3	1	2	0	13	3	0	4

Table 2.4. Car park pay station signs

At Chopin Airport, the unusual usage of ‘cash machine’ for a car park pay station could be an error, transferred from *kasy parkingowe*, which means ‘parking cash register’. In cross-cultural communication, this use of ‘cash machine’ is applied to express that it is a machine that can only accept cash, and for this reason it can also be treated as International

English, or perhaps Euro-English, as it is established at a European airport. The two visual signs, the ‘P’ symbol for parking and the money icon, illustrate this meaning. 4 out of 7 respondents, who were non-native speakers, indicated that ‘cash machine’ did not relate to parking and the meaning was therefore not immediately clear. Three others, also non-native respondents, commented by saying that they were confused by the visual signs; this could be because for them the ‘P’ and ‘cash machine’ did not match. None of the three native English speakers detected an error.

At Schiphol Airport, *paypoint* is a British English word, but normally written as two separate words. None of the 20 respondents had difficulty with understanding this word or the ‘P’ symbol. The only comment one respondent made was related to the arrow in the signage, which confused him in thinking both payment options were in the same direction; however, this is not the case. The automatic pay points are where the sign is; there is no arrow pointing this out, and further down, the cash payment pay points are located.

At Manchester Airport, ‘paystation’ and ‘pay parking here’ can be found together but the one sign is not directly under the other. One British respondent said that “paystation does not clearly indicate what someone would be paying for”. Not all pay stations at the airport have the ‘pay parking here’ sign on them, and the pictogram next to it does not illustrate that it is for parking. In addition, pay station should be written as two separate words; none of the respondents commented on this.

Chopin Airport vs. Manchester Airport & Schiphol Airport vs. Manchester Airport

Manchester Airport sign (1) can be compared to a sign in Warsaw and to one in Amsterdam; therefore, they are put together in table 2.5. In addition, Manchester Airport sign (2) is also compared to the Chopin Airport sign. This is to discuss the use of the Standard English ‘trains’, as opposed to the International English use of ‘train’.

Below are the images for ‘coaches’, ‘trains’ and ‘hotel’; the results of the survey are in table 2.5.



Manchester Airport (1)



Chopin Airport



Schiphol Airport



Manchester Airport (2)

	Errors/ Unusual?			Distracting?			Clear?			
	No	Yes	N/A	No	Yes	N/A	Yes	Not imm.	No	N/A
Man. (2)	11	4	5	1	2	1	15	0	1	4
Chopin	14	6	0	3	3	4	7	5	3	5
Man. (1)	15	1	4	0	1	0	16	1	0	3
Schiphol	10	10	0	2	7	1	11	5	3	1

Table 2.5. Coaches, trains and hotel signs

The ‘train’ and ‘coach’ of Chopin Airport were not indicated as errors by anyone; the use of singular nouns seemed to be accepted by natives and non-natives alike. In Manchester (2), ‘trains’ are equally well understood. In Warsaw, 3 out of 8 of the respondents, who were non-native speakers, said that they did not find the meaning (immediately) clear because of the word ‘coach’ in relation to the image of a bus. Moreover, one non-native English-speaking respondent said that it should say bus station. The British English word ‘coach’ and its meaning is thus not a familiar word for these non-native speakers. At Manchester Airport, none of the respondents said that they did not understand the word ‘coaches’.

At Schiphol, 5 out of 20 respondents did not think that only a name of a hotel and pictogram in the signage was clear; for example, the meaning of ‘CitizenM’ was not known to many respondents and this was distracting, whereas, in Manchester, there was no confusion about the meaning of the ‘Radisson hotel’. It could be that the Radisson is more widely known as a hotel than CitizenM; for people who are not familiar with this hotel, mentioning ‘hotel’ could help, as this is a universal word. At Schiphol, only one non-native respondent commented on the non-standard English collocation in the ‘coffee and pie bar’ sign. He thought it was unusual and he said he did not know what a “pie bar” was.

Chopin Airport vs. Manchester Airport

The tables below show the responses for signs with pictograms only, and for ‘car rental’, which show an example of a pictogram with text and without text at Chopin Airport and Manchester Airport.

Below are the images for pictogram only signs; the results of the survey are in table 2.6.



Lost luggage



Lift

	Clear?			
	Yes	Not imm.	No	N/A
Chopin	11	4	4	1
Manchester	9	4	6	1

Table 2.6. Pictograms only signs

At both airports, the use of only pictograms led to a high number of respondents for whom the meaning was not (immediately) clear, in total 18 out of 40. At Chopin, 2 out of 4 that had the ‘not immediately clear’ box ticked guessed the meaning correctly. The ‘lost luggage’ pictogram gave perhaps more of a closed interpretation than the ‘car rental’ also at this airport (see table 2.7). At Manchester Airport, more respondents, 10 out of 20, indicated that the meaning was not (immediately) clear. The reason for this is the seemingly two different directions of the arrows, which led to confusion.

Below are the images for ‘car rental’; the results of the survey are in table 2.7.



Chopin Airport



Manchester Airport

	Errors/ Unusual?			Distracting?			Clear?			
	No	Yes	N/A	No	Yes	N/A	Yes	Not imm.	No	N/A
Chopin	-	-	-	-	-	-	6	5	8	1
Manchester	12	5	3	0	4	1	14	4	0	2

Table 2.7. Car rental signs

At Chopin Airport, 13 out of 20 respondents did not(immediately) understand what this pictogram meant. They gave possible meanings, such as parking with secure parking or the correct ‘car rental’. This illustrates that the pictogram is not in every persons’ repertoire and enables an open interpretation. At Manchester Airport, none of the respondents had difficulty with understanding the ‘car rental bus’, which has the same pictogram as in Warsaw, but differs in that it is also written in text. The respondents who said the meaning was not immediately clear based this on the emergency exit sign. They indicated they did not understand what this sign meant.

Chopin Airport and Schiphol Airport

The table below show the responses for the signs for non-standard luggage at Chopin Airport and Schiphol Airport; the results of the survey are in table 2.8.



Chopin Airport

Schiphol Airport

	Errors/ Unusual?			Distracting?			Clear?			
	No	Yes	N/A	No	Yes	N/A	Yes	Not imm.	No	N/A
Chopin	14	3	3	0	2	1	12	3	1	4
Schiphol	13	7	0	2	3	2	15	1	1	3

Table 2.8. Non-standard luggage signs

None of the respondents in Warsaw commented on the language use of ‘oversized luggage’, whereas in Amsterdam this was the case with ‘odd-size baggage’. Odd size baggage’ (without a hyphen) is the American English variety, as this is also used at JFK (JFK International Air Terminal, n.d.); This variety was unfamiliar to some of the participants and

was indicated to not be (immediately) clear. An Irish respondent did not find the ‘odd-size’ in ‘odd-size baggage’ to be a good word, as “all baggage could be considered odd-size”. He said he would have expected to see “oversized baggage”. One of the non-native respondents did not see this as the appropriate word either; he was more used to seeing “unusual luggage” in England, where he lives. Furthermore, in Warsaw, one respondent remarked on the omitted arrow next to the oversized luggage; however, the arrow is on the other side, next to the ‘customs clearance’ sign. This demonstrates that this way of indicating directions can be confusing. In addition, the meaning of ‘customs clearance’ was not understood by one non-native speaker, which should be mentioned as this another example of a ‘customs’ sign.

Instructions at Schiphol

The table below show the responses for two instruction signs at Schiphol Airport; the results of the survey are in table 2.9.



Keep distance



Release red handle

	Errors/ Unusual?			Distracting?			Clear?			
	No	Yes	N/A	No	Yes	N/A	Yes	Not imm.	No	N/A
Keep distance	17	2	1	0	1	1	17	0	0	3
Release red handle	10	9	1	3	4	2	11	6	1	2

Table 2.9. Instruction signs

For the ‘keep distance’ sign, two native speakers indicated that they saw an error or an unusual element; however, it did not interfere with meaning for them. Only one of them indicated that it was distracting. For the rest, that is 17 respondents, the meaning was clear; three respondents did not fill in an answer. This is a higher number than for the ‘release red handle’ sign, which was difficult to understand for 7 of the 18 respondents. It was mainly the usage of the red handle and the case of overload which were said to be confusing. None of the respondents commented on the usage of the British word ‘travelator’.

4 Discussion

To consider the effectiveness of airport signs, the focus will be on the differences in the varieties of English and visual information at airports and on concluding how effective these uses are in their international contexts. The discussion will show that there are many aspects that influence the effectivity of signs at the airports. It will show, for example, that in different situations, the use of the same variety can sometimes impede understanding, based on how familiar people are with certain structures. In addition, pictograms are less effective when there is no text surrounding them.

In regard to the varieties of English, the results of the native English varieties of ‘baggage reclaim’ show that both ‘baggage claim’ and ‘baggage hall’ were the most effective; however, another native English variety, which was ‘carousel’, was less well understood and shows this use is not effective. It might had been better understood if it was seen in context, surrounded by the luggage carousels; however, compared to the other airports, this was the

only sign that did not have a pictogram or the word baggage in there. If these were present, they might have aided with understanding. In addition, the usage of the British English 'coach' was less effective in Poland than it was in England. It could be that the respondents in England were more accustomed to seeing the word 'coaches' as they were used to a British English language environment and that in Poland, the respondents were more familiar with the American English variety as they preferred calling it 'bus'. In contrast to 'coach', the results for the 'non-standard luggage' sign have showed that the British English 'oversized luggage' in Warsaw was more effective than the American English 'odd-size baggage' in Amsterdam. This was because of the unfamiliar nature of this variety for some of the participants. There were no Americans among the respondents in Warsaw to give more insight into their understanding of the 'oversized luggage'. Based on these results, the Chopin Airport sign was most clear in language.

In the results of the EIL or Euro-English usage, the majority of respondents showed to accept the EIL usage of 'exchange' for the 'currency exchange' sign; however, it was still less effective than 'currency exchange' in Manchester, which indicated more clearly that currency could be exchanged. The same applied to 'customs'. The fewest number of participants indicated having problems with the meaning of the native English 'custom clearance' in Warsaw, and this was therefore most effective. The least effective was the perceived unusual language of 'tax free validation' in Amsterdam; this hindered intelligibility for both natives and non-natives. Thus, native English varieties were better understood than EIL or Euro-English.

There were also different uses of English varieties in the 'car park pay station' signs, which at the same time were accompanied by pictograms and which together led to a more effective or less effective sign. The least effective sign was the 'cash machine' sign at Chopin Airport. A large number of respondents did accept this non-standard language use, but for

some respondents the language or its combination with the pictograms was unclear. The pictogram next to the British English use of 'paystation' in Manchester also did not give a clear meaning. In Amsterdam, the 'automatic paypoint' sign was most effective as the meaning of the language and the relation to the 'P' symbol was completely clear.

In visual information, the results about the respondents' knowledge of pictograms showed that respondents had difficulties recognising and naming the 'baggage reclaim' pictogram; however, in the actual airport signs, the combination of text (with 'baggage') and pictogram did not create any incomprehension. This could mean that participants were not able to say it in English or it could indicate that pictograms cannot carry meaning alone. In addition, when text accompanied some pictograms but not all pictograms in the sign, it also influenced the understanding of that text, as shown for the custom's sign in Warsaw (table 2.3). This demonstrates that if both pictograms and text are provided, they should have a connection to each other. Other examples of text accompanying pictograms, were the 'hotel' signs in Amsterdam and Manchester. Schiphol Airport's sign was the least effective; the icon of a bed did not supply everyone with the meaning of hotel, which was omitted in the text of 'CitizenM'. In Manchester, the text was less ambiguous and therefore most effective; it mentioned that it was a hotel and thus did not rely only on the meaning of the pictogram, or someone's familiarity with the name of the hotel.

Sometimes Manchester Airport, but predominantly Chopin Airport, used pictograms only. What was communicated was difficult to understand for a large number of respondents. Some meanings of the pictograms in the signage, however, were more easily understood than others. An example of this was the 'lost luggage' pictogram, which had a higher rate of being understood than the 'lift' pictogram in Manchester. This could be because it enabled a more closed interpretation than the 'lift' because the arrows in the 'lift' pictogram clouded the context that the respondents needed to understand the sign. The 'emergency exit' sign that

was next to the 'baggage hall' sign at Schiphol, was not (immediately) understood by fewer respondents than with the sign next to the 'car rental' sign at Manchester Airport. This is possibly because the pictogram in this sign differed in form from the Schiphol sign; whereas at Schiphol Airport, a person is clearly running through a door, at Manchester Airport, this door is less clear because of its large shape. This difference in syntactics (form) can influence understanding.

Sometimes the design of the visual information in signs led to confusions; for example, in Warsaw, the high number of pictograms in the 'customs' sign decreased its intelligibility. The same applied to unclear directions caused by arrows. This happened when there was only one arrow for both the 'oversized luggage' and 'customs' clearance' signs in Warsaw. Contrastingly, in the 'paypoint' sign in Amsterdam, there were two facilities, but the arrow only applied to one. This confusion was prevented when there were arrows for each facility in the sign, such as in Manchester (table 2.7), or marked by colour, such as in Amsterdam (table 2.1).

Furthermore, in language, there were also other elements that emerged showing to reduce the effectivity in signs. In Manchester this was the combined but seemingly different information ('goods to declare' and 'customs enquiries') in the 'customs' sign. The language use in the instructions at Schiphol Airport seemed to not be effective or less effective because of the variety used, but because of the clarity of instructions. The most effective was the 'keep distance' sign and the least effective the 'release red handle' sign (2.9). This seemed to be because the images in the 'keep distance' sign illustrated simple instructions and clarified the text; whereas in the 'release red handle' sign the instructions included more complex actions and thus required more information to be better understood.

The results show that some different structures in English, which could be considered as errors or in some cases as EIL or Euro-English, are not always viewed as distracting by

respondents, spotted or not (immediately) understood. This is illustrated by NS or high proficient NNSs of English who do not tick these boxes at the ‘cash machine’ for car park pay station, ‘exchange’, ‘paystation’, as one word, ‘coffee and pie bar’, and singular words rather than plural such as ‘coach’ and ‘train’. This shows that NSs as much as NNSs often accept and understand these divergent structures. When these uses were not understood, was because the meaning was ambiguous or unusual. Overall, EIL or Euro-English structures were less well understood than native English varieties; however, in some cases also the native English varieties impeded understanding. This was because some uses were less familiar, and this could have been prevented by using a variety of English which is more widely known. In addition, for all English structures, effectiveness showed to be reduced when the text did not have a clear reference to what it referred to, such as ‘carousel’ without ‘baggage’ or ‘CitizenM’ without ‘hotel’, which required more knowledge from the recipients.

The results for the visual information showed that when there is an unambiguous text next to the pictogram it achieved the highest effectiveness; however, this was not the case if it was an arrow that did not show a clear connection for what it was directing in the sign. In addition, if some pictograms were accompanied by text and others were not, it made the pictogram or the text more unclear. Furthermore, pictograms without text were difficult to understand but some pictograms occurred more often in people’s repertoire or offered close interpretations. If the form of the pictogram differed from the standard form, the pictogram could be more difficult to recognise. In addition, signs consisting of many pictograms at once, could make a sign unreadable.

5 Conclusion

As a native English-speaking airport, Manchester Airport communicates through British English on signs at the airport. The non-native English-speaking airports, Schiphol and Chopin Airport, both communicate through British and American English, but they also use

structures that differ from Standard English. NSs did not often have problems with understanding these structures. Overall, all these different varieties were intelligible for most participants, but not always for everyone. In some cases, the varieties used were not familiar or less familiar to people, regardless of their English proficiency, and this could lead to incomprehension. Sometimes pictograms and/or words that referred to the facility, could prevent this incomprehension, leading to more successful communication; When the Standard English meaning of a word differed from the International English meaning, however, pictograms could also lose their effectiveness.

This ambiguity in meaning could be found in visual information as much as in language. A difference in the syntactics of a standard pictogram could influence the understanding. Signs were less effective when there were pictograms without text; this required a repertoire or closed interpretation when this was not present or not possible. If text was provided, it only proved to be most effective when the meaning was immediately clear; for example, the meaning of one word could be too broad, such as 'exchange' or too specific and not known, such as 'CitizenM'. In addition, signs with text for some but not all pictograms decreased the effectiveness of the pictograms without text or decreased the intelligibility of the text which was present. Generally, pictograms that were used as illustration to the text, were most effective.

Correct use of visual signs such as arrows are also an important factor in effective communication. Less effective signage had a missing arrow, more than one arrow pointing in different directions relating to the same information, or an arrow that seemed to relate to one facility but in fact related to more facilities. Arrows were effective when they avoided this ambiguity by being indicated for each facility or being marked by a colour.

There are many aspects in the language and in visual information that affect the effectivity in the signage of airports. Some language structures were unusual and unfamiliar and were

therefore more difficult to understand. Clear language consisted of familiar, correct, clear reference and in its complete form. In regard to visual information, pictograms next to this type of language, were the most effective. Uses of pictograms only or unclear directions of arrows, decreased the meaning of these signs.

6 Limitations and Recommendations

This research project focused on varieties of English and usage of visual information at airports; only one British English airport was researched as a native English-speaking airport and two other European Airports for non-native English-speaking airports. For further research, a higher number of international airports, native and non-native English-speaking airports, should be researched to be able to reach a more general conclusion. In addition, for the native English-speaking airports, it is recommended to include other English varieties next to British English to determine whether there is a difference in how well people with different L1s understand various English varieties. Inner circle varieties, such as American English, should be considered, but countries from the outer circle, such as India or Jamaica, would be interesting to include as well. This could then shine a light on how other International English varieties are understood and if these varieties can be used at any airport as it is for an international community. Another recommendation that can be made is the further investigation of pictograms and their recipients; to what extent are passengers using these to navigate the airport? This is especially important for the passengers who do not understand English. In relation to the survey, some adjustments would perhaps show a better understanding of the effectivity of signs. For some pictures of signs, for example, only one aspect of the sign, such as one message in an English variety, could be included. This would provide a more targeted assessment than if there are more messages in a sign. In addition, it could also give more insight if respondents were asked to explain what error or unusual usage they had seen, or that in signs with only pictograms they were asked to assign it a meaning to

determine whether they fully understood its meaning. Furthermore, similar signs of different airports could also be compared in the surveys. Respondents could then give their opinion about which of the signs is most effective for them. Those results could be used to compare to the results of this study, to reach a more in-depth conclusion.

For the airports in this study, some recommendations can also be made. The use of pictograms only impedes understanding; therefore, it is preferable if pictograms are always accompanied by text. This should also include texts which are free from ambiguity and directions should be clearly indicated by arrows; this could be done by putting facilities which are in the same direction under each other instead of next to each other, showing which facilities it applies to with colour coding, and drawing a line in between facilities with different directions.

In addition, language choices should be made which are understood by most people; for example, the British word 'coach' presented some difficulties in a non-British country and could have been better understood if it would say 'bus' instead. Non-pluralization of these words did not have any influence on meaning and could be used. This shows that some other varieties such as inner circle varieties can also be used at airports.

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Appendices

Appendix A: Surveys

Airport communication

Background Information

What first language(s) do you speak? _____

What is your age? 18-24 25-40 41-55 56-69 70+

How often do you fly?

About once a year or less 2 to 3 times a year 4 to 6 times a year More than 6 times a year

How often do you use English?

Rarely	Sometimes	Often	Most of the time	Always
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Where do you use English?

At work/school/university Online/ on social media Other: _____
 On holiday/vacation At home

Please rate your level of English on a scale of 1 to 5 (1 is very low, 5 is very high)

1	2	3	4	5
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Airport signs: Pictograms

When you see these symbols at the airport, what do you think it stands for? For example,



means LIFT/ Elevator.



Please turn the page.

Airport signs: Signs at Chopin Airport

Please have a look at the English language and symbols in these pictures and tick the boxes.

Photo 1



Do you see any errors or anything unusual in the sign?

Yes | No

If yes, is it distracting?

Yes | No

The meaning of the sign is

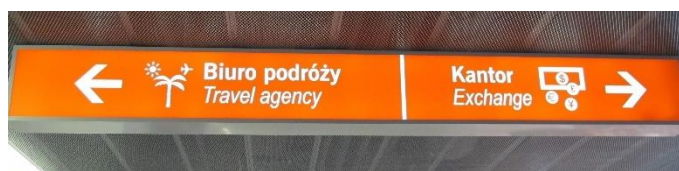
Immediately clear

Not immediately clear

Not clear

If the meaning is not (immediately) clear, could you explain why?

Photo 2



Do you see any errors or anything unusual in the sign?

Yes | No

If yes, is it distracting?

Yes | No

The meaning of the sign is

Immediately clear

Not immediately clear

Not clear

If the meaning is not (immediately) clear, could you explain why?

Survey continues on page 3.

Photo 3



Do you see any errors or anything unusual in the sign?

Yes | No

If yes, is it distracting?

Yes | No

The meaning of the sign is

Immediately clear

Not immediately clear

Not clear

If the meaning is not (immediately) clear, could you explain why?

Photo 4



Do you see any errors or anything unusual in the sign?

Yes | No

If yes, is it distracting?

Yes | No

The meaning of the sign is

Immediately clear

Not immediately clear

Not clear

If the meaning is not (immediately) clear, could you explain why?

Please turn the page.

Photo 5



Do you see any errors or anything unusual in the sign?

Yes | No

If yes, is it distracting?

Yes | No

The meaning of the sign is

- Immediately clear
 Not immediately clear
 Not clear

If the meaning is not (immediately) clear, could you explain why?

Survey continues on page 5.

Photo 6



Do you see any errors or anything unusual in the sign?

Yes | No

If yes, is it distracting?

Yes | No

The meaning of the sign is

Immediately clear

Not immediately clear

Not clear

If the meaning is not (immediately) clear, could you explain why?

Photo 7



The meaning of the sign is

Immediately clear

Not immediately clear

Not clear

If the meaning is not (immediately) clear, could you explain why?

Please turn the page.

Photo 8



The meaning of the sign is

- Immediately clear
- Not immediately clear
- Not clear

If the meaning is not (immediately) clear, could you explain why?

Thank you very much for filling in this survey.

Maria Renema m.a.renema@students.uu.nl

Premaster student of Intercultural Communication at the University of Utrecht

Airport communication

Background Information

What is your nationality? _____

What first language(s) do you speak? _____

What is your age? 18-24 25-40 41-55 56-69 70+

How often do you fly?

About once a year or less 2 to 3 times a year 4 to 6 times a year More than 6 times a year

How often do you use English?

Rarely	Sometimes	Often	Most of the time	Always
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Where do you use English?

At work/school/university Online/ on social media Other: _____
 On holiday/vacation At home

Please rate your level of English on a scale of 1 to 5 (1 is very low, 5 is very high)

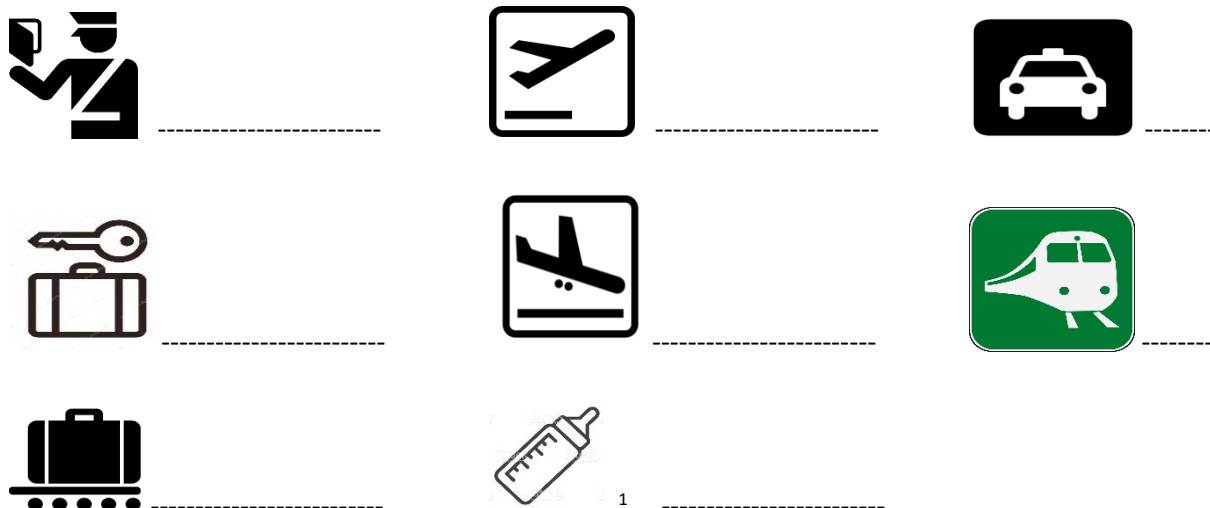
1	2	3	4	5
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Airport signs: Pictograms

When you see these symbols at the airport, what do you think it stands for? For example,



means LIFT/ Elevator.



Please turn the page.

Airport signs: Signs at Schiphol Airport

Please have a look at the English language and symbols in these pictures and tick the boxes.

Photo 1²



Do you see any errors or anything unusual in the sign?
 Yes | No

If yes, is it distracting?
 Yes | No

The meaning of the sign is
 Immediately clear
 Not immediately clear
 Not clear

If the meaning is not (immediately) clear, could you explain why?

¹ The actual pictogram at Schiphol Airport is slightly different. The bottle is upside down but this could not be found online. It is not expected that this interferes with meaning.

² Barryborsboom. (2009, January 28). The Design of Airport Signage [Blog post]. Retrieved from <https://barryborsboom.wordpress.com/2009/01/28/the-design-of-airport-signage/>

photo 2



Do you see any errors or anything unusual in the sign?

Yes | No

If yes, is it distracting?

Yes | No

The meaning of the sign is

Immediately clear

Not immediately clear

Not clear

If the meaning is not (immediately) clear, could you explain why?

Survey continues on page 3.

Photo 3



Do you see any errors or anything unusual in the sign?

Yes | No

If yes, is it distracting?

Yes | No

The meaning of the sign is

Immediately clear

Not immediately clear

Not clear

If the meaning is not (immediately) clear, could you explain why?

Photo 4



Do you see any errors or anything unusual in the sign?

Yes | No

If yes, is it distracting?

Yes | No

The meaning of the sign is

Immediately clear

Not immediately clear

Not clear

If the meaning is not (immediately) clear, could you explain why?

Please turn the page.

Photo 5



Do you see any errors or anything unusual in the sign?

Yes | No

If yes, is it distracting?

Yes | No

The meaning of the sign is

Immediately clear

Not immediately clear

Not clear

If the meaning is not (immediately) clear, could you explain why?

Photo 6



Do you see any errors or anything unusual in the sign?

Yes | No

If yes, is it distracting?

Yes | No

The meaning of the sign is

Immediately clear

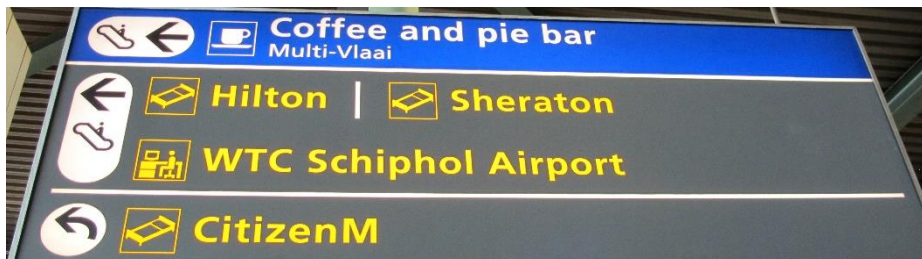
Not immediately clear

Not clear

If the meaning is not (immediately) clear, could you explain why?

Survey continues on page 5.

Photo 7



Do you see any errors or anything unusual in the sign?

Yes | No

If yes, is it distracting?

Yes | No

The meaning of the sign is

Immediately clear

Not immediately clear

Not clear

If the meaning is not (immediately) clear, could you explain why?

Photo 8³

Do you see any errors or anything unusual in the sign?

Yes | No

If yes, is it distracting?

Yes | No

The meaning of the sign is

Immediately clear

Not immediately clear

Not clear

If the meaning is not (immediately) clear, could you explain why?

Thank you very much for filling in this survey.

Maria Renema m.a.renema@students.uu.nl

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³ J.C. Lind Bike (2018, January 25). On this day 2008... [blog post]. Retrieved from <https://jclindbikes.com/tag/odd-size-baggage/>

Airport communication

Background Information

What is your nationality? _____

What first language(s) do you speak? _____

What is your age? 18-24 25-40 41-55 56-69 70+

How often do you fly?

About once a year or less 2 to 3 times a year 4 to 6 times a year More than 6 times a year

How often do you use English?

Rarely Sometimes Often Most of the time Always

Where do you use English?


At work/school/university Online/ on social media Other: _____

On holiday/vacation At home

Please rate your level of English on a scale of 1 to 5 (1 is very low, 5 is very high)

1 2 3 4 5

Airport signs: Pictograms

When you see these symbols at the airport, what do you think it stands for? For example,  means restaurant.

















Please turn the page.

Airport signs: Sign at Manchester Airport

Please have a look at the English language and symbols in these pictures and tick the boxes.

photo 1⁴



Do you see any errors or anything unusual in the sign?

Yes | No

If yes, is it distracting?

Yes | No

The meaning of the sign is

- Immediately clear
 Not immediately clear
 Not clear

If the meaning is not (immediately) clear, could you explain why?

Photo 2⁵



Do you see any errors or anything unusual in the sign?

Yes | No

If yes, is it distracting?

Yes | No

The meaning of the sign is

- Immediately clear
 Not immediately clear
 Not clear

If the meaning is not (immediately) clear, could you explain why?

⁴ Alamy. (2011). Baggage reclaim at HM UK border [web page]. Retrieved from <http://www.alamy.com/stock-photo-baggage-reclaim-at-hm-uk-border-agency-manchester-airport-81429150.html>

⁵ Barber. (2013, April 23). Barber and Travelex – some photos from Manchester Airport [blog post]. Retrieved from <https://barberdesign.co.uk/blog/travelex-manchester-airport/>

Survey continues on page 3.

Photo 3



Do you see any errors or anything unusual in the sign?

Yes | No

If yes, is it distracting?

Yes | No

The meaning of the sign is

- Immediately clear
 Not immediately clear
 Not clear

If the meaning is not (immediately) clear, could you explain why?

Photo 4



The meaning of the sign is

- Immediately clear
 Not immediately clear
 Not clear

If the meaning is not (immediately) clear, could you explain why?

Please turn the page.

photo
5

Do you see any errors or anything unusual in the sign?

 Yes | No

If yes, is it distracting?

 Yes | No

The meaning of the sign is

 Immediately clear Not immediately clear Not clear

If the meaning is not (immediately) clear, could you explain why?

Photo 6



Do you see any errors or anything unusual in the two signs?

 Yes | No

If yes, is it distracting?

 Yes | No

The meaning is

 Immediately clear Not immediately clear Not clear

If the meaning is not (immediately) clear, could you explain why?

Survey continues on page 5.

Photo 7



Do you see any errors or anything unusual in the sign?

Yes | No

If yes, is it distracting?

Yes | No

The meaning of the sign is

- Immediately clear
 Not immediately clear
 Not clear

If the meaning is not (immediately) clear, could you explain why?

Photo 8⁶



Do you see any errors or anything unusual in the sign?

Yes | No

If yes, is it distracting?

Yes | No

The meaning of the sign is

- Immediately clear
 Not immediately clear
 Not clear

If the meaning is not (immediately) clear, could you explain why?

⁶ Hawkes, S. (2017). 5K MORE AT PORTS Almost 5,000 extra HM Revenue & Customs staff will be needed to prepare for Brexit. *The Sun*. Retrieved from <https://www.thesun.co.uk/news/4468973/brexit-hm-revenue-customs-staff-5000/>

Thank you very much for filling in this survey.

Maria Renema m.a.renema@students.uu.nl

Premaster student of Intercultural Communication at the University of Utrecht

Appendix B: Results

i. Warsaw Chopin Airport (C.A.)*Background information of the respondents*

First language	
Chinese	1
Polish	8
Bulgarian	1
Romanian	1
Russian	1
Swedish	1
French	1
Kyrgyz	1
English	3
Danish	1
Spanish	1

Table 3.1.1. L1s at Chopin Airport (C.A.)

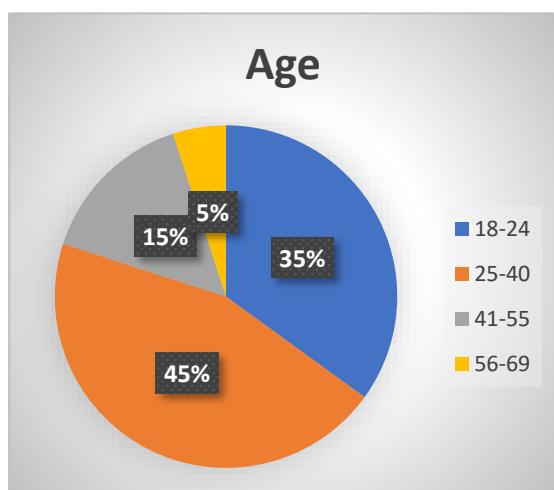


Chart 1.1.1. Age of respondents at C.A.

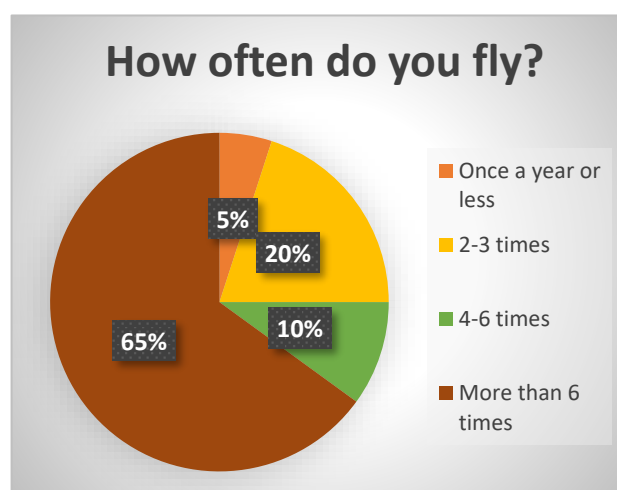


Chart 1.1.2. Number of flights a year of respondents at C.A.

Table 3.1.2, 3.2.2. and 3.3.2. show the responses about the use of English of the respondents.

They could indicate how often they use English and where. For the location they could tick more than one boxes.

	Work/Uni	Holiday	Online	Home
Often	7	9	5	0
Most of the time	6	6	4	1
Always	4	3	3	3

Table 3.1.2. The use of English of respondents at C.A.

No one rated themselves as a basic or lower intermediate user of English, therefore this does not show in the graph.

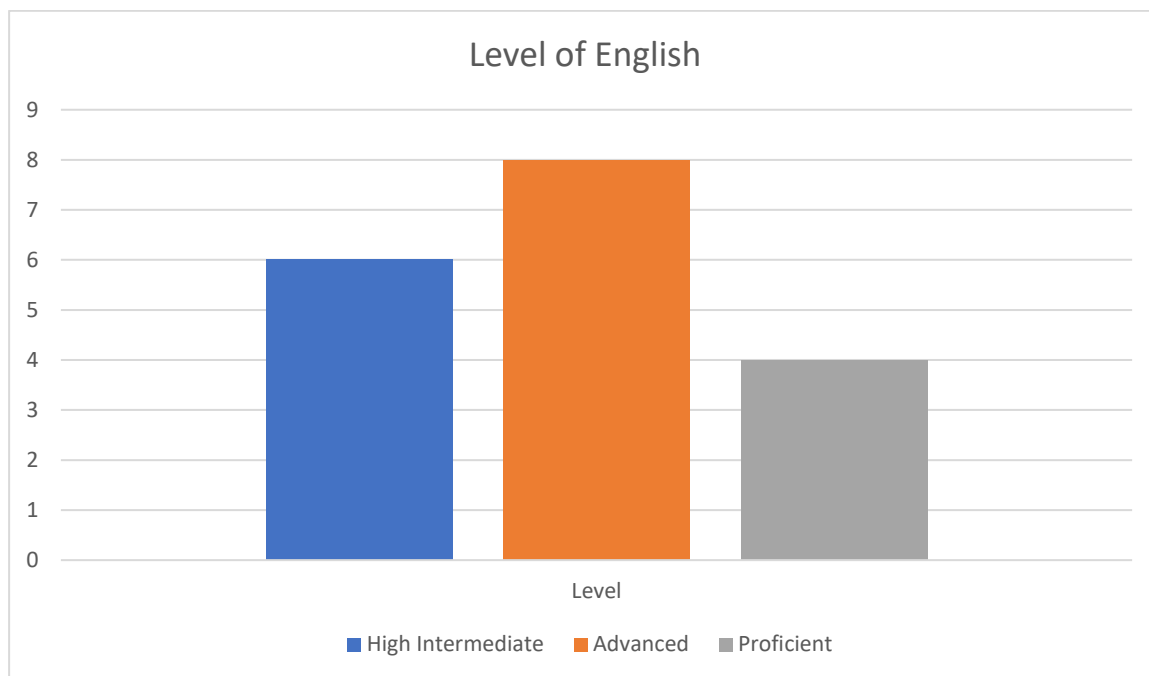


Chart 1.1.3. Level of English of respondents at C.A.

Knowledge of airport pictograms

Some of the answers respondents gave could not be easily placed within the category of whether people understood it or not. Table 1.1. -1.3 and 1.1.1. – 1.3.1. show the categories in which the answers were placed, with added the categories ‘unknown’, ‘possible yes’ and ‘possible no’ in the assessment of the understanding of the pictograms. For the comparison with other signs the ‘possible yes’ was grouped with ‘yes’, and ‘possible no’ and ‘unknown’ were grouped with ‘no’.

	Yes		No		
	Yes	Possible yes	Possible no	Unknown	No
Pictogram					
Passport control	10	4	2	1	3
Baggage storage/lockers	5	5	2	4	4
Baggage reclaim	3	2	4	2	9
Departures	16	4	0	0	0
Arrivals	17	1	2	0	0
Baby care	9	6	2	3	0
Taxi rank	20	0	0	0	0
Train station	18	0	0	1	1

Table 1.1 Knowledge of airport pictograms of respondents at C.A.

Pictogram	Yes	Possible yes	Possible no	No
Passport control	ID control; Passport check; check document; check ID	Checker; passport; control; check	Police; security	Info; Customs
Baggage storage/lockers	(Baggage) Locker;	Luggage box; locker bag;	Luggage; baggage;	Check-in baggage; left/lost luggage; baggage control
Baggage reclaim	Luggage claim; luggage collection	Baggage line; take your bag	Luggage; baggage	Luggage drop; baggage drop-off; drop; luggage check-in; luggage carts; luggage trolley; tape for luggage
Departures	Depart; departure;	Go to gate; gates (out); fly out; departure (probably for departure)	-	-
Arrivals	Arrival; arrived; arrives	Gates (in)	landing	-

Baby care	Baby change; toilet with place for babies; powder room for babies; changing room for kids/babies; change babies	Baby room; baby place; room for mother and child	Kids; baby	-
Taxi rank	Taxi, taxi stop	-	-	-
Train station	Train; train stop; railway	-	-	Shuttle

Table 1.1.1. Detailed version of table 1.1.

Signs at Chopin Airport

Table A, B and C. Show the responses of in total 20 participants at each airport.

	Errors/ Unusual?			Distracting?			Clear?			
	No	Yes	N/A	No	Yes	N/A	Yes	Not imm.	No	N/A
Signs										
Baggage reclaim	12	8	0	3	5	0	12	8	0	0
Currency Exchange	18	2	0	0	1	1	16	1	1	2
Non-standard luggage	14	3	3	0	2	1	12	3	1	4
Train/coach	14	6	0	3	3	4	7	5	3	5
Customs	12	8	0	1	7	1	6	4	6	4
Pay station	12	7	1	3	4	4	8	5	1	6
Car rental	-	-	-	-	-	-	6	5	8	1
Lost luggage	-	-	-	-	-	-	11	4	4	1

Table A. Responses of the participants at C.A.

ii. Schiphol Airport (S.A.)

Background information of the respondents

Table 3.2.1. shows the nationalities of the respondents and 3.2.2. the L1s of the same respondents. Three of the participants were raised bilingual, in English and another language, one participant is trilingual, also with English.

Nationality	
Indian	1
Greek	2
British	4
Dutch	8
Irish	1
Polish	2
Austrian	1

Table 3.2.1. Nationality at S.A.

First languages	
English	10
Greek	2
Urdu	1
Dutch	7
Arabic	1
Polish	2
French	1
German	1
Moroccan	1

Table 3.2.2. L1s at S.A

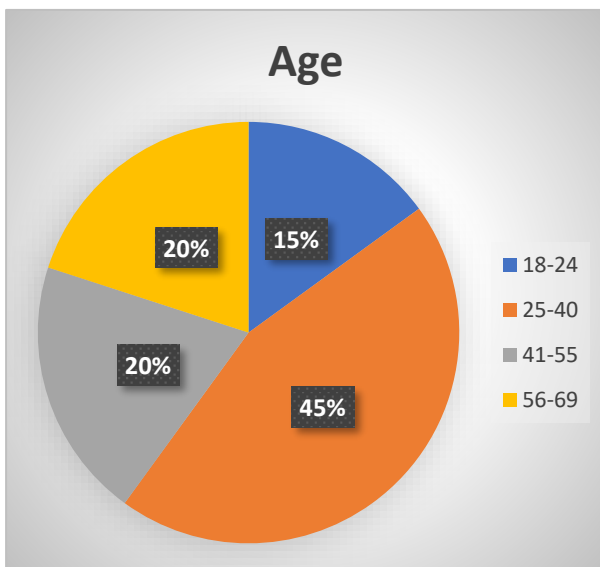


Chart 1.2.1. Age of respondents at S.A

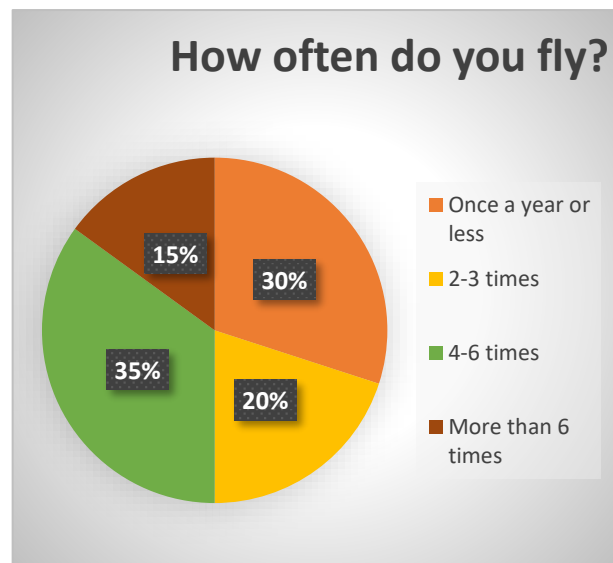


Chart 1.2.2. Number of flights a year of respondents at S.A.

	Work/Uni	Holiday	Online	Home
Sometimes	0	2	1	0
Often	7	7	3	4
Most of the time	1	0	1	0
Always	7	5	7	5

Table 3.2.3.. Use of English of respondents at S.A.

No one rated themselves as a basic user of English, therefore this does not show in chart

1.2.3.

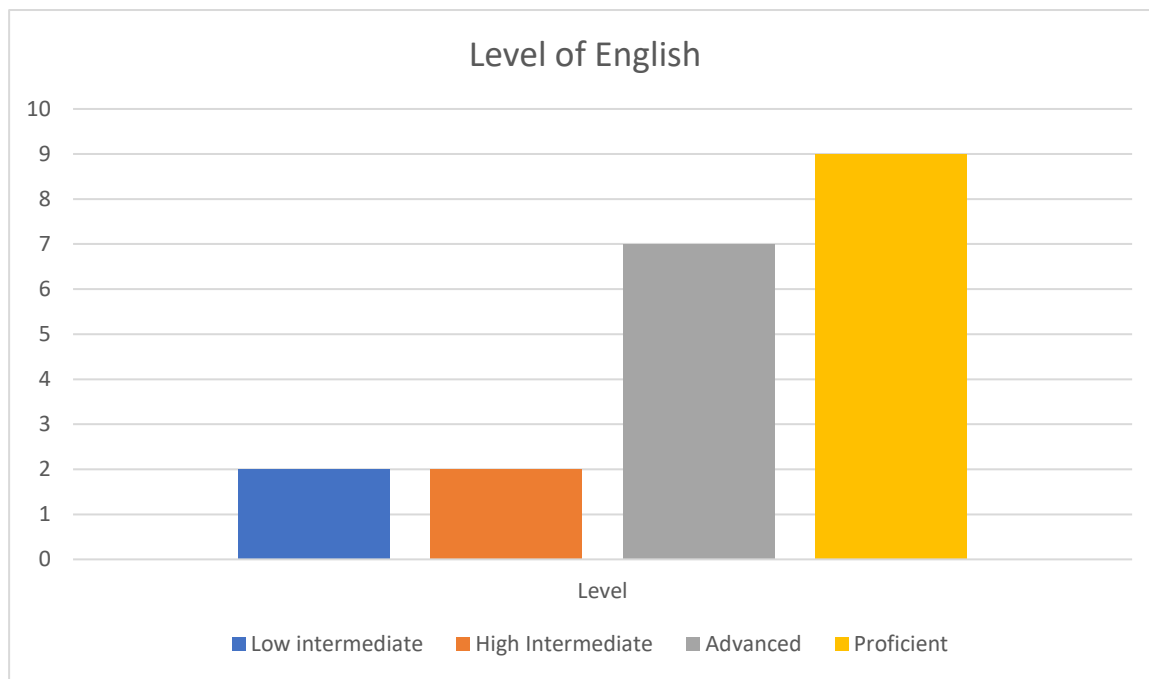


Chart 1.2.3.. Level of English of the respondents at S.A.

Knowledge of airport pictograms at Schiphol Airport

Pictogram	Yes		No		
	Yes	Possible yes	Possible no	Unknown	No
Passport control	11	1	3	3	2
Baggage storage/ lockers	12	0	2	3	3
Baggage reclaim	10	1	2	2	5
Departures	18	0	0	0	2
Arrivals	18	0	1	0	1
Baby care	7	4	2	1	6
Taxi rank	19	0	0	0	1
Train station	19	1	0	0	0

Table 1.2 Knowledge of airport pictograms of respondents at S.A.

Pictogram	Yes	Possible yes	Possible no	No
Passport control	Passport check; immigration;	Controller	Police	Douane (Dutch: customs); customs

	show passport			
Baggage storage/ lockers	Luggage/ baggage locker; locker; kofferkluis (English: baggage locker)	-	Lock luggage; baggage lock	Access to your bag; suitcase; missing items
Baggage reclaim	Luggage carousel; baggage band (English: luggage carousel); baggage collection;	Luggage trolley + baggage band	Baggage; transport luggage	Trolley available; key + suitcase; carts; baggage hand in;
Departures	Departure section	-	-	Aeroplane; runway
Arrivals	Arrivals section	-	Aeroplane landing;	runway
Baby care	Baby facilities; childcare; baby feeding area; baby room/feeding; changing nappies room	Nursery; baby area	For baby/ies	Baby milk; baby food; baby voeding (English: baby food); baby bottle
Taxi rank	Taxi	-	-	Car coming
Train station	train	Train service between terminals	-	-

Table 1.2.1.. Detailed version of table 1.2.

Signs at Schiphol Airport

	Errors/ Unusual?			Distracting?			Clear?			
	No	Yes	N/A	No	Yes	N/A	Yes	Not imm.	No	N/A
Signs										
Baggage reclaim	13	6	1	2	3	1	11	3	2	4
Currency Exchange	19	0	1	0	0	0	14	3	0	3
Non-standard luggage	13	7	0	2	3	2	15	1	1	3
Customs	13	6	1	1	3	2	8	3	3	6
Pay station	18	1	1	0	1	0	15	2	0	3
Keep distance	17	2	1	0	1	1	17	0	0	3
Inclined travelator	10	9	1	3	4	2	11	6	1	2
Hotel/ pie bar	10	10	0	2	7	1	11	5	3	1

Table B. Responses of participants at S.A.

iii. Manchester Airport (M.A.)

Background information of the respondents

Nationalities	
American	2
British	7
Dutch	2
German	3
Greek Cypriot	1
Irish	1
Russian	1
Spanish	2
Surinamese	1

Table 3.3.1. Nationalities of respondents at Manchester Airport (M.A.)

First language	
Dari	2
Dutch	3
English	9
German	3
Greek	1
Portuguese	1
Punjabi	1
Russian	1
Spanish	2

Table 3.3.2. L1s of respondents at M.A.

Table 3.3.1. shows the nationalities of the respondents and 3.3.2. the L1s of the same respondents. Three of the participants were raised bilingual, but in other languages than in English.

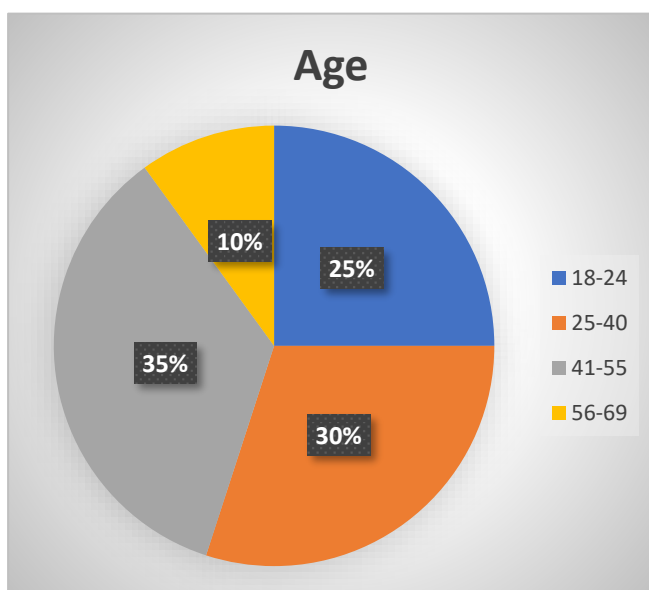


Chart 1.3.1. Age of the respondents at M.A.

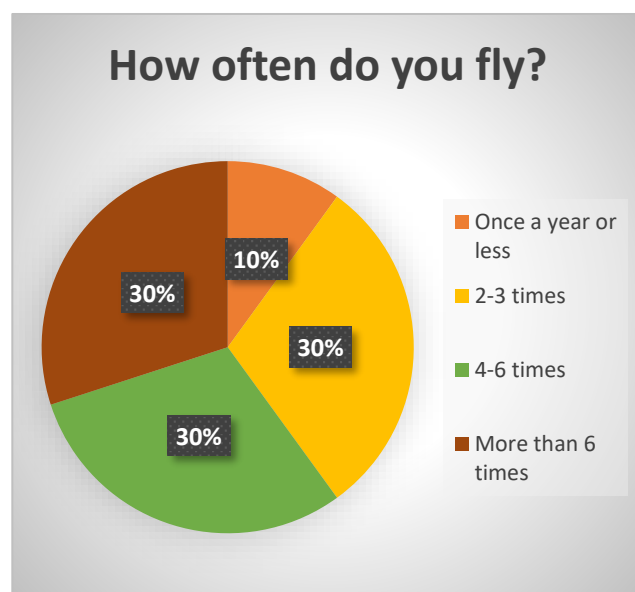


Chart 1.3.2. Number of flights a year of respondents at M.A.

	Work/Uni	Holiday	Online	Home
Sometimes	1	3	0	1
Often	5	4	3	3
Always	10	10	10	10

Table 3.3.3. Use of English of the respondents at M.A.

One of the respondents indicated to be between 3 and 4, therefore, this category has been added to chart 1.3.3. In addition, no one rated themselves as a basic user of English, therefore this does not show in the graph.

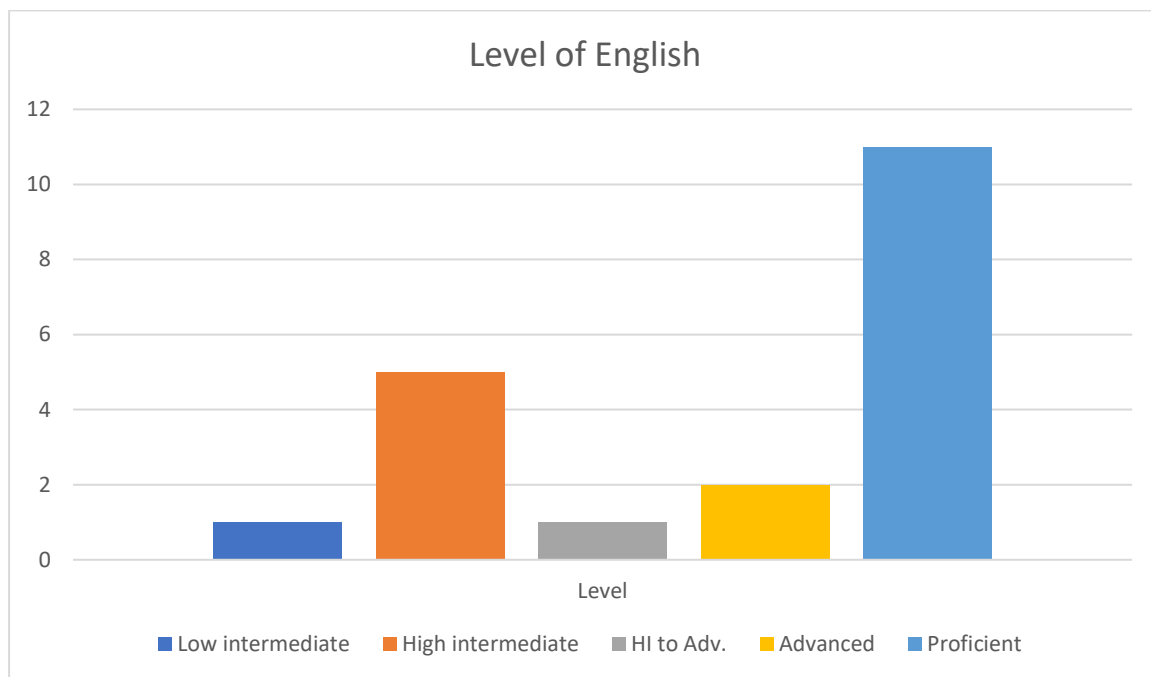


Chart 1.3.3. Level of English of the respondents at M.A.

Knowledge of Airport pictograms at Manchester Airport

Pictogram	Yes		No		
	Yes	Possible yes	Possible no	Unknown	No
Passport control	9	0	2	3	6
Baggage storage/lockers	6	0	4	3	7
Baggage reclaim	7	2	1	3	7
Departures	12	2	6	0	0
Arrivals	12	1	6	1	0
Baby care	11	2	5	2	0
Taxi rank	18	0	0	1	1
Train station	16	2	1	0	1

Table 1.3. Knowledge of airport pictograms of the respondents at M.A.

Pictogram	Yes	Possible yes	Possible no	No
Passport control	Passport check; pass control; paspoort control	-	Security; police	Customs; conductor; police office; information; fire; traffic control
Baggage storage/ lockers	Luggage locker; locker; lockers; bag safe	-	luggage closet; lock luggage; koffers op slot (English: lock luggage); luggage	key; luggage store; left luggage; lost & found; baggage security; security; theft warning
Baggage reclaim	Koffer/ bagage band (English: suitcase/ baggage carousel); pick up luggage/carousel; luggage belt	Col. Bag (collect bag); koffers komen aan (luggage will arrive).	Baggage	Luggage belt drop off; luggage trolley; luggage control; check in
Departures	Departure zone; departure; departur	Dep.; outbound flight	Taking off; take off; opsteigende vliegtuigen (English: planes taking off); aircraft + take off	-
Arrivals	Arrival; arrive; areive	Inbound flight	Landing; dalen vliegtuigen (landing planes); aircraft landing	-
Baby care	Change area baby; baby change station; child changing station; baby changing	Nursery; baby room	Baby; infant	-
Taxi rank	Taxi; taxi stand; taxi(s) station; taxi area	-	-	Car
Train station	Train; trein (English: train)	Station; tram/trein	-	Metro

		opstapplaats (English: tram/ train point of embarking)		
--	--	--	--	--

Table 1.3.1. Detailed version of table 1.3.

Signs at Manchester Airport

	Errors/ Unusual?			Distracting?			Clear?			
	No	Yes	N/A	No	Yes	N/A	Yes	Not imm.	No	N/A
Signs										
Baggage reclaim	10	5	5	3	2	0	14	3	1	2
Currency Exchange	16	0	4	0	0	0	16	0	0	4
Customs	12	5	3	2	2	1	13	5	1	1
Pay station	15	2	3	1	2	0	13	3	0	4
Trains/trams	11	4	5	1	2	1	15	0	1	4
Buses/coaches / hotel	15	1	4	0	1	0	16	1	0	3
Buses / emergency	12	5	3	0	4	1	14	4	0	2
Lift	-	-	-	-	-	-	9	4	6	1

Table C. Responses of participants at M.A.