

‘Do I make any sense?’

An experimental study into the Actual and Perceived Effectiveness of ELF and
Receptive Multilingualism in Dutch-German online communication

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Word of thanks

After months of struggling with scientific articles, finding participants, planning and executing experiments, and, of course, writing this thesis, I can finally say that I have delivered an end product that reflects my growth in conducting research. This growth is partly due to my supervisor, Dr. Hendriks. She had to point me in the right direction a couple of times, but she has always counselled me in a right and fair way. Therefore, I would like to thank her specifically, for her patience and guidance. I would also like to thank my boyfriend, Luuk, and my parents, who have supported me throughout the whole year and helped me get through the tough times.

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Abstract

In today's globalizing world effective communication is essential to maintaining international relations. There are several modes to use for communication in a multilingual situation, but some modes are more effective than others. Speakers can also use a number of communication strategies to make communication more effective or to indicate that they cannot make themselves clear. Earlier research already observed differences in the effectiveness of modes and the number and type of communication strategies that were used, but some results were conflicting. The current study therefore aimed to contribute to the existing knowledge about the effectiveness of communication modes, and the use of communication strategies in different modes. The actual and perceived effectiveness of two different modes were investigated in an online experiment, for which 34 Dutch and German police officers did one spot-the-differences task per mode. The number and type of communication strategies participants used were measured as well. Actual effectiveness was measured by counting the number of words used per person per task and by counting the number of differences found. Perceived effectiveness was measured by asking participants how they perceived the communication. The communication strategies used in both modes were also counted and analyzed. Findings indicated that there was no significant difference between the two communication modes in terms of actual and perceived effectiveness, and communication strategy use. Further research should be done on the effectiveness of different communication modes and the use of communication strategies, because there remain conflicting results. Future research should also point out what the results are for effectiveness of different communication modes across other languages.

1. Introduction

Because of the growing mobility of important parts of the world's population, there has been a massive increase in multilingualism in post-modern societies (Lüdi, Höchle, & Yanaprasart, 2010). This also comes with a rise of potential linguistic problems, because a choice must be made for an appropriate communication mode and this can be rather difficult. According to Blee, Mak, and Ten Thije (2014): "linguistic prior-knowledge is an important factor to take into account when choosing a multilingual communication constellation" (p. 173). This means that choosing the right communication mode may depend heavily on the language knowledge of interlocutors. Furthermore, according to several researchers such as Rehbein, Ten Thije, and Verschik (2012), and Ten Thije and Zeevaert (2007), there are six 'solutions' or communication modes that can be used in a multilingual situation: using a lingua franca (a common language, that often is English), inventing pidgin-like emergent varieties, choosing the language of one of the interlocutors known (partially) by the others, using various forms of mixed speech, offering interpretation and translation facilities or insisting on receptive competences or lingua receptiva (everybody uses his or her own language). However, not all modes can be used in whatever situation or whatever the circumstances. It is plausible that emergent varieties of pidgin talk are mostly or only used when there is an urgent need for quick communication and these varieties arise in emergent situations (Holm, 1988; Vicente, 2007). Therefore, pidgin talk cannot be seen as a mode that is normally used outside of these emergent situations, and it is chosen not to investigate this communication mode due to its emergent nature. Furthermore, it can be assumed that using various forms of mixed speech is also a mode that is unsuitable to compare to other modes, because of the endless combinations of languages that can be used, and because the

distribution of the languages that are used can be very uneven. For instance, when three (or more) languages are used simultaneously in a conversation, it is plausible that these three languages are not used in an equal amount. When, for example, Dutch, German, and English are spoken as a form of mixed speech, it is possible that a speaker uses Dutch 15 % of the time, German 20 % of the time, and English 65 % of the time. Comparing this form to another form of mixed speech with a different distribution of languages that are used may result in unreliable outcomes, because distributions of languages used are uneven. On the other hand, it can be considered that not all companies, institutions or individuals have access to proper interpretation and translation facilities, which makes the dependence on translation services highly unwanted because it does not seem to fit in in today's globalizing world.

Lastly, choosing the language of one of the interlocutors known (partially) by the others (L1-L2 communication) might be a useful method to communicate effectively. For this type of communication, the mother tongue (L1) of one of the speakers is used by every interlocutor that takes part in the conversation. L1-L2 communication can be seen as an interesting alternative to for instance a lingua franca. Van Mulken and Hendriks (2015) investigated ELF (English as a lingua franca) communication versus this alternative communication mode – L1-L2. They observed L1-L2 communication to be more effective than ELF communication. L1-L2 communication can be convenient for at least one of the interlocutors, because he or she is allowed to speak his or her mother tongue. However, the other speakers might be at a disadvantage, because they are not allowed to speak their mother tongue and might therefore experience trouble in making themselves clear. As Van Mulken and Hendriks (2015) stated in their study: “the mother tongue speaker has the strategic advantage of native speaker proficiency, which may create a linguistically unbalanced situation” (p. 406). In other words: L1-L2 is rather

unfair to the speakers that are not allowed to speak their mother tongue, and, in addition, lack of sufficient linguistic knowledge might cause misunderstandings during the conversation.

Although it seems that L1-L2 communication can be an effective way to communicate in a multilingual context, there are other modes to be considered. Using a lingua franca or using the receptive competences of every individual (receptive multilingualism) are two other communicative possibilities. However, there seem to be conflicting results for the effectiveness of using a lingua franca, specifically English as a lingua franca, and the effectiveness of receptive multilingualism. In the study of Van Mulken and Hendriks (2012) receptive multilingualism (RM) seemed to be more effective than using English as a lingua franca (ELF), but in a master's thesis (Stoll, 2014) and another student's research paper (Zweers, 2015) no differences in effectiveness were observed between ELF and RM or ELF and RM+ (a variation on RM that is discussed further later on). Because of these conflicting results, it is important to gather more data about the effectiveness of ELF and RM and add to the existing knowledge about these modes, which is why these two modes are investigated in the current study instead of L1-L2 communication.

English as a lingua franca

English as a lingua franca can be defined as “a common means of intercultural communication among speakers who do not share a primary lingua-cultural background” (Hülmbauer & Seidlhofer, 2013, p. 389). Several researchers have already observed that using English as a lingua franca (ELF) is currently a rather dominant communication mode for international business, science and technology and that English is increasingly adopted by international

companies as their corporate language (e.g. Charles, 2007; Louhiala-Salminen, Charles, & Kankaanranta, 2005; Vollstedt, 2002).

There are a number of advantages when ELF is used as a communication mode. As Backus, Maracz, and Ten Thije (2011) stated in their study: “ELF ... de-emphasize[s] the importance of standard norms. The higher the reliance on ‘perfect skills’, the more costly the educational needs” (p. 21). They also indicated that ELF can be used practically everywhere, as it does not depend on available linguistic skills as other communication modes do (Backus et al., 2011). Furthermore, as House (2003) stated, there is no definable group of ELF speakers, which makes ELF a mode that is not associated with a certain national language, a certain identity or a positive disposition. Using ELF as a communication mode is therefore a fair and neutral option when it comes to multilingual situations, since it causes equal communicative rights for all its users (Hülmbauer, Böhringer, & Seidlhofer, 2008) and it does not create a linguistic imbalance between those who are fluent and those who are not, or less fluent, in ELF (House, 2007; Louhiala-Salminen et al., 2005; Mauranen, 2006; Seidlhofer, 2002). The study of Beerkens (2010) corroborates this statement. She found that in Dutch-German meetings, communicators increasingly chose to speak English, instead of using the mother tongues of the interlocutors. She argued that this is partly due to the fact that the Dutch have become less fluent in German generally speaking, and due to the fact that Dutch has never been taught in German schools, which causes generally lower proficiency. In addition, several researchers have argued that a lingua franca mode (such as ELF) is a flexible and integrative communication mode (Cogo, 2012; Hülmbauer & Seidlhofer, 2013).

However, ELF also has its disadvantages. Several studies have observed ELF as a communication mode to be less effective than other modes (House, 1999; Van Engen, Baese-

Berk, Baker, Choi, Kim, & Bradlow, 2010; Van Mulken & Hendriks, 2012; 2015). In addition, English is very often not the mother tongue of many of the interlocutors, which means communicating in English might take considerably more time than using mother tongue communication and might thus affect the effectiveness of communication. A study by Hincks (2010) seems to corroborate this statement. She found that speakers needed 26.5 % more time to communicate the same information in English than in their mother tongue. Furthermore, not everyone has equal access to English (Backus et al., 2011) and because of their different backgrounds, speakers have to put in much more effort into the communication to create mutual understanding (Hülmbauer, 2007). In addition, it may also occur that interlocutors cannot express themselves the way they want to, or they could be afraid to make mistakes. According to a study by Dewaele, Pertrides, and Furnham (2008), it seemed that self-perceived low proficiency speakers of a language felt anxious to use it, while those with a self-perceived high proficiency felt less anxious to use it. It is plausible that differences in self-perceived proficiency may cause communicators to hold back in their foreign language use and could have them prefer another communication mode. On the other hand, with a common corporate language there might be ineffective inter-unit communication, or subsidiaries might be isolated from information flow and knowledge sharing (Welch, Welch, & Piekkari, 2005). A common corporate language might also lead to social exclusion or abuse of power by those that understand the language better than others (Welch et al., 2005). Furthermore, using English as a lingua franca might endanger the vitality of other languages according to Philipson (2006), because other languages might have potential as well to be used as vehicular languages and they do not get equal chances to be used as such. Seidlhofer, Breiteneder, and Pitzl (2006) described the endangerment of certain languages and the need for effective communication means as ‘problematic’: “the need for a

common means of communication is in potential conflict with the ideals of societal multilingualism and individual plurilingualism” (p. 8). It seems that a communication mode needs to be found that can be as fair as ELF, but more effective.

Receptive multilingualism

The last communication mode that was mentioned earlier is using the receptive competences of speakers. This mode is called receptive multilingualism (RM). Mutual understanding is established by letting interlocutors use their ‘passive’ knowledge of the language of their speaking partner(s), without the help of any additional lingua franca (Rehbein et al., 2012). However, it is also possible to achieve congruent understanding by letting interlocutors use their passive knowledge of the language of their speaking partner(s), *and* use an additional lingua franca such as English. This type of communication could be called RM+, an extension of RM. In the present study, participants are allowed to use an additional lingua franca (English) when they are using RM as a communication mode. This is necessary, because the German participants who have been recruited come from different parts of Germany. In some parts of Germany people can speak Dutch to a certain degree, but in other regions people do not speak any Dutch at all. In order to measure the effectiveness of communication, participants need to have the means to communicate, which is why participants are allowed to speak English besides their mother tongue in the RM mode. Some of the participants may use RM as a communication mode, and some may use RM+ as a communication mode, but there always is a receptive component. The current study does not focus on differences between the effectiveness of RM and RM+, so no distinction is made between these modes and the mode will be called RM henceforth.

The receptive competences of speakers were studied by Lüdi et al. (2010). They described that speakers often do not share a common L1, and therefore use their receptive competences to ensure mutual understanding. Lüdi et al. (2010) showed that “[the participants] do not restrict themselves to one of the languages in their repertoires, but employ two of them simultaneously” (p. 70). The code switching – switching between languages and using two or more languages at the same time – that took place in their study contributed to the mutual understanding of interlocutors, who chose the best possible language option(s) to communicate effectively. Using RM as a communication mode might thus lead to a better mutual understanding and might be more effective than other communication modes such as ELF. It was already observed by Rehbein et al. (2012) that RM was an effective communication mode in various multilingual situations. Another study by Van Mulken and Hendriks (2012) showed RM to be more effective than ELF in Dutch-German student dyads. However, another study by Blees et al. (2014) contradicts these findings. Blees et al. (2014) observed that solving a task was more difficult using RM than using ELF, thus leading to lower effectiveness for RM. The current study focuses on comparing the effectiveness of different communication modes – ELF versus RM – and aims to contribute to the existing knowledge about the effectiveness of ELF versus RM.

Besides being a possible effective mode in a multilingual situation, there are more advantages to RM. For instance, it could be argued that using RM might be easier and fairer than using ELF or L1-L2, since both speakers are allowed to speak their native language and do not have to use a second language they might be less sufficient at (Van Mulken & Hendriks, 2012). This was also stated by Lüdi (2013): “It [RM] is an efficient way for institutions and companies to manage communication in a multilingual context and a promising strategy for people with unbalanced multilingual repertoires ...” (p. 154). Furthermore, there are cognitive advantages to

using RM compared to ELF according to Bleses et al. (2014). They cited Ringbom (2007), who stated that comprehending a foreign language is generally easier than speaking it; and they explained this by citing Laufer and Paribakht (1998), who stated that second language learners' passive vocabulary is generally larger than their active vocabulary. Bleses et al. (2014) then came to the conclusion that using RM makes it possible for communicators to speak their first language, which reduces the effort they have to make when they produce words in a foreign language.

However, RM has a couple of downsides. Although RM has cognitive advantages, it also has cognitive disadvantages. A study by Meuter and Allport (1999) showed that switching from an L2 to an L1 took more time than switching from an L1 to an L2. This means that, when using RM as a communication mode, using only an L2 to communicate seems to be easier than receiving the L2 and replying in the L1. In addition, throughout the twentieth century, RM has been ignored or suppressed as an effective communication mode due to language policies (Rindler-Schjerve, 2008). It can therefore be a challenge to convince the people that are sceptical about RM that RM can be an effective way to communicate in multilingual contexts. The negative attitudes towards using RM may also block comprehension according to Rehbein et al. (2012) and permanently reinforce or reflect the inequality of languages according to Irvine and Gal (2009).

Actual effectiveness

Communication is effective when a person attaches a meaning to a message that is relatively similar to what was intended by the person transmitting it (Gudykunst & Nishida, 2001).

However, effectiveness is a rather broad concept, which is why in the present study it is subdivided into actual and perceived effectiveness. Several studies have investigated the actual

effectiveness of communication and the actual effectiveness of different communication modes.

A study by Rogerson-Revell (2007) revealed that non-native English speakers (NNES) experienced problems in comprehension, production due to vocabulary limitations, and management of interactions. Rogerson-Revell (2007) investigated 34 NNES and 9 NES (native English speakers) who use English as a common working language. Although the NES tried to avoid the use of for instance jargon and metaphors in meetings, NNES with both high and lower English language proficiency experienced difficulties in processing fast or quiet speech.

Difficulties in comprehension and production seemed to be related to speakers whose self-assessment of their language proficiency was relatively low. It is plausible that the comprehension and production problems caused communication to be less effective. Something similar was discovered by Rehbein (1987), because according to his results it seemed that non-understanding in an L2 blocked speech production in the same language, and understanding in an L1 facilitated production in an L2. Thus, a communication mode such as RM does not have the risk of a blockage of speech production, since the speakers produce L1 speech actions (Rehbein, 1987). Furthermore, Rehbein et al. (2012) demonstrated that RM can be an effective mode in various multilingual constellations, such as border regions, institutional discourse, or cross-generational communication. Rehbein et al. (2012) compared RM to other multilingual modes, such as second language usage or ELF, and they concluded that RM has far-reaching potential for achieving mutual understanding. In addition, Van Mulken and Hendriks (2012) also investigated the actual effectiveness of RM versus other modes (ELF, L1-L2 communication, and L2-L1 communication, which means a participant spoke the mother tongue of his or her speaking partner) and whether there was a difference in communication strategy use across the modes. They conducted two within-subject experiments. In study 1, participants solved three spot-the-

differences tasks in three consecutive chat sessions. Every task they did with a different partner and in a different mode – ELF, L1-L2, or L2-L1. For each task, dyads that consisted of a Dutch student and a German student got two versions of a picture they had to discuss. The goal was to find 10 differences between the two versions of the picture. Because interlocutors have a mutual goal they have to work towards to, they have to really try and make communication successful. For this reason, a spot-the-differences task is very suitable for this kind of investigation. In the current study it was therefore chosen to also use a spot-the-differences task, which makes a comparison with the results of other studies possible as well. Continuing on, in study 2 of their research, Van Mulken and Hendriks (2012) asked another group of participants to do two spot-the-differences tasks with two different partners: one in ELF, and one in RM. The goal was again to find 10 differences between two different versions of a picture. Four Dutch-Dutch and four German-German dyads did an additional third task in their L1's, which provided Van Mulken and Hendriks (2012) with a base-line measurement. The actual effectiveness was measured by counting the number of differences that were found, and by counting the number of words and turns used per chat. Efficiency was measured by counting the number of communication strategies used and by pointing out what types of communication strategies were used. Although RM seemed to be the most effective mode according to the results, and ELF scored relatively low on effectiveness; Van Mulken and Hendriks (2012) looked at students with high proficiency in English and at least some proficiency in the other person's language. In a more 'natural' environment, with speakers that have different linguistic backgrounds than the students in the study of Van Mulken and Hendriks (2012), proficiency might vary more across speakers. It is necessary to investigate whether the findings of Van Mulken and Hendriks (2012) regarding RM would still hold in a setting with more natural dyads, who communicate with each other on a

regular basis and who communicate about tasks that are more directly relevant to them. This is investigated in the current study.

Another study by Van Mulken and Hendriks (2015) revealed ELF to be less effective than L1-L2. In a within-subject experiment, 60 participants did a problem-solving task in English, German, or Dutch. The effectiveness of communication was measured in two ways: the number of communicative goals achieved within a delimited time span, and the number of words needed to achieve communicative goals. Dutch-German student dyads did three spot-the-differences tasks in three consecutive chat sessions. Every dyad got two versions of a picture, for which they had to find 10 differences between them within 15 minutes. They did this three times, each time with different pictures. According to the results, it seemed that L1-L2 was the more effective mode, because on average, more differences were found using this mode than using ELF. In addition, the non-native speakers (ELF speakers) turned out to be more verbose than native speakers. Edmondson and House (1991) attributed verbosity to lower linguistic resources, because lower resources might cause speakers to 'waffle'. On the other hand, Van Mulken and Hendriks (2015) observed native speakers to use more words than ELF speakers. It therefore remained unclear whether native or non-native speakers were actually more verbose. This is investigated in the present study. It was chosen to use the same measures Van Mulken and Hendriks (2012; 2015) used to measure the actual effectiveness of communication. Since a spot-the-differences task is carried out as well, the number of differences found is an indication of a dyad's communicative effectiveness, as well as the number of words used per person per chat.

Lastly, in a study by Blees et al. (2014) the effectiveness of ELF and RM was investigated. Eight Dutch-German student pairs solved four maze puzzles: two using ELF and two using RM. According to the results, the problem-solving effectiveness of ELF was higher than that of RM

(Blees et al., 2014). This is opposite to the results Van Mulken and Hendriks (2012) obtained. However, participants were also observed to be more proficient in English than in the native language of their interlocutors (Blees et al., 2014). After testing it turned out that the difference in proficiency and not the language mode explained the higher effectiveness of ELF. In the current study it was therefore chosen to measure the proficiency of participants, in order to check possible individual differences in proficiency that might explain the possibly higher or lower effectiveness of the investigated modes.

Perceived effectiveness

In a few studies it has been observed that on an individual level the perceived effectiveness often deviated from the actual effectiveness (Braunmüller, 2013; Rogerson-Revell, 2008), and many researchers indicated that perceptions of interactions played a very important role in the effectiveness of interactions (Henderson & Louhiala-Salminen, 2011; Kankaanranta & Louhiala-Salminen, 2010; Welch et al., 2005). For this reason it was chosen to make a distinction between actual and perceived effectiveness, and measure both in the current study. In the study of Rogerson-Revell (2008) NSE's (native speakers of English) and NNSE (non-native speakers of English) in European MNCs (multinational corporations) were investigated. It was discovered that the perceived effectiveness in ELF meetings did not always match the actual effectiveness, and that using ELF might lead to feelings of discomfort. A discrepancy in linguistic power created frustration, which in turn led to perceived dominance of the communication partner (Rogerson-Revell, 2008). These feelings of discomfort or perceived dominance might partially cause ELF to be less effective than conversations in a speaker's L1 (Van Mulken & Hendriks, 2015). On the other hand, RM as a communication mode has much more linguistic equality. This

equality might lead to more positive perceptions and might cause feelings of mutual trust, which in turn could result in higher effectiveness (Henderson & Louhiala-Salminen, 2011). Besides feelings of discomfort or mutual trust, there are other emotions that may play a part in the effectiveness or ineffectiveness of communication. The effect of anxiety and uncertainty on perceived effectiveness was investigated by Gudykunst and Nishida (2001). They looked at the relationship between anxiety and attributional confidence (the inverse of uncertainty) across relationships – strangers and close friends – and cultures – United States and Japan. According to their results, it seemed that anxiety negatively predicted perceived effectiveness and attributional confidence positively predicted perceived effectiveness across relationships and cultures. Another study by Hubbert, Gudykunst, and Guerrero (1999) also revealed a correlation between uncertainty and perceived effectiveness, and a correlation between anxiety and perceived effectiveness. It is plausible that when interacting with strangers or foreign communication partners, the anxiety and uncertainty of communicating with these kinds of interlocutors have an effect on the perceived effectiveness of the communication. Namely, several studies have observed that the low familiarity of the interlocutors incremented anxiety and uncertainty (Gudykunst & Kim, 2003; Gudykunst & Nishida, 2001; Gudykunst & Shapiro, 1996; Neuliep & McCroskey, 1997). It can therefore be argued that speaking a language that is not the mother tongue, which is the case when ELF is used, might contribute to the anxiety of communicating with foreigners; whereas speaking in an L1, which is the case when RM is used, tends to decrease anxiety (Kouwenhoven & Van Mulken, 2012; MacIntyre, Noels, & Clément, 1997). Obviously, interlocutors are more self-confident in their L1 due to a high proficiency level (Kouwenhoven & Van Mulken, 2012; MacIntyre et al., 1997), and logically it can therefore be argued that a

communication mode such as RM, for which interlocutors can use their L1, might be more effective than for instance ELF.

Communication between the Dutch and the Germans

Effective communication is very important for maintaining international relations, especially for neighbouring countries such as the Netherlands and Germany. There is an economic collaboration between these countries that is structurally high-grade, intensive and stable (De Gijssel & Wenzel, 1998). Therefore, cooperating internationally and communicating interdependently is important. For this communication ELF might be used, but RM is also a possibility, especially because there is more and more attention for Dutch-German receptive multilingualism (Clyne, 2003). This is due to the fact that there is an increase in the education of Dutch in German schools (Beerkens, 2010; Clyne, 2003), and a decrease in the education of German in Dutch schools (Clyne, 2003).

Interestingly, there already is an increase measurable in the use of RM (Beneke 1996, cit. in: Loos 1997, p. 141) and the border crossing cooperation in the areas close to the Dutch-German border also leads to RM at an institutional level (Herrlitz 2004, personal communication). Since several institutions, such as the department of justice, the government and the police, need to be able to communicate effectively in order to create and sustain an economically thriving and safe society for its civilians, research is needed on how employees of these kinds of institutions can achieve mutual understanding when dealing with foreign neighbours and international affairs. Therefore, it was chosen to investigate police officers that work at an international level and deal with foreign colleagues on a regular basis. There is not much research on the police in general, because many police officers are concerned about their personal safety and whether anonymity is

guaranteed (2016, personal communication with a member of Team Internationale Misdrijven who would like to remain anonymous).

As was argued before, close and effective communication between the Dutch and the Germans is essential to maintain the relationship between these countries, since negative changes in one of the countries could affect the other. Communicating effectively might not be so hard, since the Netherlands and Germany are examples of countries where residents of both countries often possess a basic knowledge of the neighbouring country's mother tongue (Ház, 2005). It is therefore logical to look at the effectiveness of Dutch-German communication when using RM as a communication mode. The Dutch and German language share a common linguistic background and linguistic similarities between these languages are also perceived as such by speakers of German and Dutch according to Ház (2005), which could mean that RM is a more effective communication mode for the Dutch and the Germans than other communication modes.

Although the Dutch and the Germans have many characteristics in common linguistically speaking, it might be possible that not all Germans understand Dutch. It is plausible that there is a reasonable proficiency for those who live close to the Dutch-German border, but less so or not at all for those who live farther away from it. The proficiency of interlocutors might thus affect the effectiveness of communication. However, Bahtina, Ten Thije, and Wijnen (2013) reported no differences in effectiveness when participants had a high L2 (which was either Estonian or Russian) proficiency, and neither did Van Mulken and Hendriks (2012) in their study (for which the L2 was either Dutch or German). In the current study the proficiency for all languages involved – Dutch, German, and English – is measured, in order to analyze whether proficiency is a factor in effective communication between Dutch-German dyads.

RM might be the future mode for communication between the Dutch and the Germans, especially since using English as a lingua franca is less obvious or natural for some Germans than it is for other Europeans (Ammon, 2001; Ten Thije, 2003). RM also does not require knowledge of a lingua franca that is not the mother tongue of either of the speakers (such as in ELF), nor does it cause a linguistic imbalance due to the fact that only one of the speakers is allowed to speak their mother tongue (such as in L1-L2). However, RM is not a natural way for Germans to communicate (Ten Thije, 2005). According to Ten Thije (2005), Germans prefer to adopt the other speaker's mother tongue, or they choose English as a lingua franca. It is surprising that despite the typological proximity of Dutch and German, receptive multilingualism is seldom used in Dutch–German communication (Ribbert & Ten Thije, 2007). This might be because in order for RM to work, speakers must have a reasonable proficiency in the other interlocutors' language. As was argued before, it may be that Germans that live close to the Dutch-German border can understand Dutch, but that Germans that live farther away from the border cannot. Since English is often still adopted as a lingua franca in a conversation between a Dutchman and a German (Ten Thije, 2005), it is logical to look at ELF and the effectiveness of this communication mode, compared to the effectiveness of RM.

Communication strategies

In addition, because some of the German police officers might not be able to understand Dutch entirely, or because the Dutch police officers may not have a high enough proficiency to understand German entirely, it is interesting to also take a look at how they solve the lack of comprehension they might possibly suffer. There have been a number of studies on so called communication strategies (e.g. Færch & Kasper, 1980; Kouwenhoven, 2016; Tarone, 1977; Van

Mulken & Hendriks, 2012; 2015) that were used by speakers when their linguistic abilities failed or fell short. However, the main categories that Tarone (1977) created, as well as the subcategories – avoidance strategy (consisting of topic avoidance and message abandonment), paraphrase strategy (consisting of approximation, word coinage and circumlocution), conscious transfer (consisting of literal translation and language switch), appeal for assistance strategy and mime strategy – seemed a bit limited. For example, Tarone (1977) did not include the offering of assistance as a strategy. Furthermore, she did not create a category for comprehension checks, which may occur when a speaker or hearer is not entirely sure he or she understood something correctly. Lastly, there are paralinguistic strategies that might be used by speakers, such as the use of capitals or emoticons. These are not included in the categories that Tarone (1977) created either, but this might be because emoticons did not exist yet when she created the categories. However, emoticons are an important part of online communication in the present day, so they should be included as a communication strategy. Because the categories Tarone (1977) created seem to be too limited to make a clear distinction between strategies, other categorizations are consulted.

The study of Færch & Kasper (1980) took a more psycholinguistic approach and put communication strategies within a general model of speech production. However, since the current study does not have a psycholinguistic approach and does not focus on speech production in general, the model of Færch & Kasper (1980) does not seem to have a good fit with the current research objectives either.

More recent studies on communication strategies such as that of Kouwenhoven (2016) could be more useful. He provided a list of strategies that he based on Brown and Levinson (1987) that focused on face-saving and face-threatening. Although it could be argued that the

interlocutors might be concerned with protecting face, the current study's main focus is not about face-saving or face-threatening. Therefore, these categories are not quite suitable and will not be used in the current study.

Finally, the recent study of Van Mulken & Hendriks (2015) offers a better alternative. In their study, they observed that the communication mode (L1-L2 or ELF) seemed to make a difference in the use of certain strategies. For instance, L1 speakers used a meta-discourse strategy (tell the other person what you are about to tell or explain) more often than ELF or L2 speakers. It also seemed that signalling linguistic deficiency (tell the other person you do not know a certain word in English) typically occurred in ELF conversation, and that offering assistance was used more frequently when participants were speaking in their L1 (Van Mulken & Hendriks, 2015). In an earlier study, Van Mulken and Hendriks (2012) also observed that in ELF conversations, process oriented strategies (give a generalisation, description or circumlocution) were used frequently. Paralinguistic strategies (use of capitals, emoticons, punctuation or onomatopoeia) were observed to be used mostly in L1-L1 communication, and meta-discourse strategies were observed to be used mostly in RM communication.

Van Mulken and Hendriks (2015) used a list of strategies that can be divided into four broad categories: speaker-oriented, hearer-oriented, message-oriented and interaction-oriented. Their list makes it possible to distinguish strategies that are targeting the speaker or hearer, and also to distinguish strategies that are targeting the message or the interaction. Within the categories distinctions are made such as the distinction between appealing for assistance and offering assistance, which makes it possible to analyze a conversation closely and point out whether most strategies are targeting the speaker, hearer, message or interaction. If it turns out

that certain strategies are used more in either the ELF mode or the RM mode, then this can provide insight into which communication mode might be more effective than the other.

Since the current study is focusing on the actual and perceived effectiveness of communication modes, it is interesting to look at how interlocutors help each other achieve mutual understanding by using these strategies and thus communicate effectively. It might also be interesting to find out whether strategy use differs across communication modes, and whether the strategies are related to the communication mode that is used, because this might provide insight into whether certain strategies are typically used in one of the modes. Combining all named above, the following research questions are formulated:

RQ1: To what extent do ELF and RM differ in terms of actual and perceived effectiveness in Dutch-German police officer dyads?

RQ2: To what extent do ELF and RM differ in terms of communication strategy use?

RQ3: To what extent are communication strategies related to the communication mode that is used?

It is investigated whether the actual and perceived effectiveness are higher for ELF or for RM, and whether Dutch police officers have a higher or lower actual and perceived effectiveness than German police officers. It is also investigated for which communication mode more communication strategies are used, and which kinds of strategies are used most. Lastly, it is investigated whether certain communication strategies are related to the communication mode that is used.

2. Method

2.1 Materials

For the experiment two spot-the-differences tasks were carried out by the participants. They did the tasks in dyads of which one person was Dutch and one person was German. For the tasks two pictures were retrieved from the internet, which were then altered so that for each of the two pictures there were two versions, so four pictures in total. The pictures had items in them that were familiar to the participants, because they were items that had to do with the police, justice, or crime. Previous research (Van Mulken & Hendriks, 2012; 2015) showed that some pictures are too difficult for these kinds of tasks. Namely, participants might struggle too much to find the right words for the items in them, because there might be items in there they do not know or have never used. Therefore, the pictures selected for this study had items in them that participants were likely to know and have used before. Participants were supposed to know the items, but were less supposed to know the words for the items in order for them to run into problems during the communication about the pictures. This was necessary because otherwise the spot-the-differences tasks would have been too easy. They ran into problems about the place of an item, the colour, absence or quantity. These problems they sometimes tried to solve with the use of communication strategies, which are discussed more elaborately later on.

For each pair of pictures ten differences could be found. The picture pairs were varied systematically to the dyads, as well as the communication mode they first used. The tasks were performed completely online via a Computer Mediated Communication (CMC) environment, since this was the easiest for all participants because they live in different countries.

An independent samples *t*-test was carried out to test whether participants found significantly more or less differences for the first picture pair than the second, because this could mean that one of the picture pairs was more difficult than the other. This might in turn have affected the performance of participants and thus the reliability of this study. The *t*-test showed that on average, participants did not find significantly more differences for the first picture pair ($M = 5.29, SD = 1.87$) than they did for the second picture pair ($M = 6.00, SD = 2.54$) ($t(66) = 1.31, p = .196$). This means that there were no significant differences in difficulty of the picture pairs.

2.2 Subjects

The participants were recruited by contacting Dutch police teams that operate internationally – FAST-NL (Fugitive Active Search Team Netherlands), TIM (Team Internationale Misdrijven), IRC (Internationaal Rechtshulp Centrum) – and German police teams that operate internationally – FAST-DE (Fugitive Active Search Team Germany) and GPT (Grensoverschrijdend Politie Team (Border Crossing Police Team), consisting of the Dutch Royal (Military) Constabulary District North-East, Politie Oost-Nederland, Bundespolizeidirektion Hannover, Kreispolizeibehörde Borken and Polizeidirektion Osnabrück). The researcher's own network has ties to the Dutch and German police so these were used to find participants. To convince the potential participants, the possible significance and value the results might have for them were stressed, since the results may provide insight into the best communication mode for them and may suggest they need to change their current multilingual communication strategy.

Because of their regular contact with foreign colleagues, the specific police teams that were mentioned above sometimes need to communicate in another language and might

experience problems in doing so. There are no real policies about how members of these teams need to be communicating with foreign colleagues (2016, personal communication with a member of FAST-NL who would like to remain anonymous). English is often used as a lingua franca, but simultaneous use of multiple languages also occurs on a regular basis.

The average age of the Dutch participants was 47.06; the youngest participant was 33 years old and the oldest was 64 years old. The majority of the Dutch participants were male (58.82 %). Most of the Dutch participants had an MBO education (Intermediate Vocational Education – 20.60 %) and the educational level varied from VMBO/MAVO (Lower Vocational Education) to University Master. Of the seventeen Dutch participants, two currently live in Germany, the rest of them live in the Netherlands.

The average age of the German participants was 45.47; the youngest participant was 32 years old and the oldest was 54 years old. All of the German participants were male. Most of the German participants had a Fachhochschule/Ausbildung education (Higher Education/College – 29.40 %) and the educational level varied from Realschule (Middle School) to University Master.

All participants were required to have a reasonable knowledge of English and the Dutch participants were required to have a reasonable knowledge of German, since they had to be able to understand the German participants in the RM mode. The German participants, on the other hand, were not required to have any knowledge of Dutch, since the Dutch participants were allowed to speak English instead of Dutch in the RM mode. Participants were asked to self-rate their proficiency in English, German, and Dutch. For the questions about the proficiency for English the reliability was good ($\alpha = .87$). For the questions about the proficiency for German the reliability was very good ($\alpha = .92$). Lastly, for the questions about the proficiency for Dutch the reliability was also very good ($\alpha = .91$).

To be certain that the proficiency was measured correctly, it was chosen to let the participants take a standardized proficiency test that was created by Lemhöfer & Broersma (2012), called LexTALE, as well. *T*-tests were carried out to check whether Dutch participants scored higher or lower than German participants.

An independent samples *t*-test showed that, on average, the Dutch participants ($M = 72.94$, $SD = 12.56$) did not score significantly higher on the English LexTALE test than the German participants ($M = 72.43$, $SD = 11.00$) ($t(32) = .13$, $p = .900$).

In addition, another independent samples *t*-test showed that, on average, the Dutch participants ($M = 68.24$, $SD = 10.48$) did not score significantly higher on the German LexTALE test than the German participants ($M = 68.44$, $SD = 14.31$) did on the Dutch LexTALE test ($t(23) = .04$, $p = .968$).

A paired samples *t*-test showed that, on average, the Dutch participants did not score significantly higher on the English LexTALE test ($M = 72.94$, $SD = 12.56$) than on the German LexTALE test ($M = 68.24$, $SD = 10.48$) ($t(16) = 1.67$, $p = .115$).

Another paired samples *t*-test showed that, on average, the German participants did not score significantly higher on the English LexTALE test ($M = 72.03$, $SD = 14.65$) than on the Dutch LexTALE test ($M = 68.44$, $SD = 14.31$) ($t(7) = 1.21$, $p = .267$).

In conclusion, the proficiency participants had in English and German or Dutch should not have affected the performance of participants during the experiment.

Lastly, in the ELF mode, both the Dutch and the German participants were speaking English; in the RM mode, the Dutch participants could choose between speaking Dutch or English and the German participants spoke German. In order to control for possible individual differences, every dyad had to do the tasks in both ELF and RM.

2.3 Design

The design for this experiment was a 2 x 2 within subjects design, as subjects of two nationalities (Dutch and German) were exposed to two treatments: ELF and RM. This design was chosen because it reduced the error variance that is associated with individual differences, which means the results were more reliable than they would have been in a between subjects design.

2.4 Instruments

The effect of mode and nationality on actual and perceived effectiveness was measured, and the communication strategies that were used during the conversations were counted and then compared.

Actual effectiveness was measured after the participants performed the tasks, by counting the number of differences found per task, and by counting the amount of words that was used per participant per task.

Perceived effectiveness was measured by letting participants fill out five questions, created by Gudykunst and Nishida (2001), about their perceptions of the communication that took place during each task (1. I just communicated effectively with this person, 2. The communication with this person was successful, 3. I felt skilled while communicating with this person, 4. I communicated in an appropriate way with this person, 5. The communication with this person has failed), measured with a seven-point Likert-scale (1 = completely disagree, 7 = completely agree). Participants filled out these questions after each task. This means that they filled out the

same five questions twice. For the first task, the reliability of perceived effectiveness was insufficient ($\alpha = .56$). However, by removing the last item the scale got a good reliability ($\alpha = .89$). For the second task, the reliability of perceived effectiveness was insufficient as well. However, by removing the last item again the scale got a very good reliability ($\alpha = .92$).

Communication strategies

Communication strategies are strategies that can be used by participants because of their possible lack of linguistic ability. The strategies can be divided into four categories according to Van Mulken and Hendriks (2015): speaker-oriented, hearer-oriented, message-oriented and interaction-oriented. In order to analyze the differences in strategy use in the ELF mode and the RM mode, as well as the differences in strategy use by the Dutch participants and the German participants, a couple of changes were made in the table Van Mulken and Hendriks (2015) provided. Instead of dividing the process-oriented, linguistic encoding, and paralinguistic strategies into subcategories, it was chosen to leave the subcategories out and group all process-oriented strategies together, as well as all linguistic encoding and paralinguistic strategies. This was done because the objective of the current study was to analyze what types of strategies participants used. Pinpointing every single strategy was therefore unnecessary, thus making subcategories redundant. In addition, Van Mulken and Hendriks (2015) experienced that pinpointing certain strategies can be difficult, because sometimes it is not entirely clear whether an utterance is a generalisation, description or circumlocution. Van Mulken and Hendriks (2015) give examples for these strategies. When speakers try to solve their lexical problems at a conceptual level, they are making generalisations such as ‘under the big yellow fruit’ [= melon]; and giving descriptions such as ‘a thing you put on your hand when you’re bleeding’ [= band-aid]

(Van Mulken & Hendriks, 2015, p. 409). Lastly, a circumlocution can be used because the speaker does not know a certain word, for example: ‘a thing to make your nails more beautiful’ [= file] (Van Mulken & Hendriks, 2015, p. 409). It can also be used to explain a particular word that the hearer does not understand, for example: ‘tweezers, you know, a thing to pull out hairs’ (Van Mulken & Hendriks, 2015, p. 409). It can be argued that the line between a generalisation, a circumlocution, and a description can be very thin, and because in the current study it was not necessary to distinguish these it was chosen to put them together in one single category.

Similarly, it is not always possible to distinguish between word coinage, ‘foreignizing’ and code switching. Word coinage means that a speaker ‘creates’ a new word, that is then possibly used by other speakers as well. Van Mulken and Hendriks (2015) give the example of ‘cumcumber’ [= cucumber] (p. 410). Foreignizing means that a speaker ‘foreignizes’ an L1 word into an L2 sounding word, for example ‘an photoapparat’ [= camera] (Van Mulken & Hendriks, 2015, p. 410). It can be argued that foreignizing is also creating new words, as is the case with word coinage. The line between these strategies can therefore be very thin as well. Because code switching – the act of switching between languages, mostly between the L1 and L2 (‘an toothbrush and pasta’ [=tooth paste]) (Van Mulken & Hendriks, 2015, p. 410) – is a type of linguistic encoding strategy, as well as word coinage and foreignizing, it was chosen to put these strategies together in a single category. In Table 1 all of the possible strategies are described, including the changes that were made.

Table 1. Communication strategies (based on Van Mulken & Hendriks, 2015).

Category	Strategies
Speaker-oriented	1. Comprehension check (self) 2. Self-correction 3. Appealing for assistance

Hearer-oriented	4. Signalling linguistic deficiency, insecurity or misunderstanding
	5. Comprehension check (other)
Message-oriented	6. Offering assistance
	Compensatory strategies:
	7. Process-oriented: generalisation, description or circumlocution
	8. Linguistic encoding: word coinage, foreignizing, literal translation or code switching
Interaction-oriented	9. Paralinguistic: use of capitals, use of emoticons, onomatopoeia or punctuation
	10. Meta-discourse

It was investigated if, how many and what type of strategies were used by the Dutch and German participants, and if there were any differences in communication strategy use between the ELF mode and the RM mode. It was also investigated whether certain strategies were related to the mode that was used.

Proficiency

Self-rated

As was said before, participants were asked to self-rate their proficiency in English, German, and Dutch. They did this by filling out four questions with a five-point Likert-scale (1 = very bad, 5 = very good) per language about their abilities in writing, reading, listening and speaking. All participants filled out these questions for English; the Dutch participants filled them out for German as well, and the German participants that indicated they could speak (a little) Dutch filled them out for Dutch.

LexTALE

The amount of knowledge participants had of English, German, and Dutch was also checked by letting them take the LexTALE test, which stands for *Lexical Test for Advanced Learners of*

English (Lemhöfer & Broersma, 2012). All participants took the test in English, whilst the Dutch participants took the test in German also, and the German participants that spoke (a little) Dutch took the test in Dutch also. The LexTALE test can be done online and takes about five minutes. During the test, a series of words is shown to the person that is taking the test. For every word, he or she has to indicate whether it is an existing word or not, by simply clicking 'yes' or 'no'. The score he or she can get ranges from 0 % to 100 %; 100 % being a perfect score and an excellent knowledge of the language that is tested. An average score for English is 70.7 % based on the large-scale study by Lemhöfer and Broersma (2012).

All participants had a reasonable knowledge of English, because their average scores were higher than the average score Lemhöfer and Broersma (2012) found: 72.94 % was the average score of the Dutch participants, and 72.43 % was the average score of the German participants. Furthermore, all Dutch participants took the test in German, and scored 68.24 % on average. Lastly, the German participants that spoke (a little) Dutch were asked to take the test in Dutch also. Out of seventeen German participants in total, eight of them took the test in Dutch. On average, they scored 68.44 %.

2.5 Pretest

Earlier studies used problem-solving tasks, such as a spot-the-differences task (Van Mulken & Hendriks, 2012; 2015) or a maze puzzle (Blees et al., 2014), for the measurement of effectiveness of communication modes. Because interlocutors have a mutual goal they have to work towards to, they have to really try and make communication successful. For this reason, a spot-the-differences task or maze puzzle is very suitable for a study that aims to investigate the effectiveness of communication modes. The pictures Van Mulken and Hendriks (2012; 2015)

used were also used by a few students in their thesis or research paper (Stoll, 2014; Zweers, 2015). New pictures needed to be used in a similar study, in order to compare the results of earlier studies and see whether the same results were found with different pictures.

Therefore, new pictures were found via the internet and pretested. Three dyads (50% male, 50% female), were asked to participate in the pretesting. The average age of the pre-testers was 52.83; the youngest pre-tester was 50 and the oldest was 57. The educational level varied from MBO (Intermediate Vocational Education) to HBO (Higher Vocational Education), of which MBO was the most frequent educational level (83.3 %). The most frequent educational level of the pre-testers was consistent with the most frequent educational level of the Dutch participants of the actual experiment.

Five sets of pictures were pretested. Two sets of pictures (Appendix B, pictures 1-4) proved to be too difficult, due to the fact that the differences were sometimes in the details and they were too small to determine, or due to the fact that participants could not always determine what a certain item was. The other three sets of pictures (Appendix C, pictures 1-6) proved to be suitable, because they were not too difficult, nor too easy. One of these sets (Appendix C, pictures 1 and 2) was used for the warm up task and the other two (Appendix C, pictures 3-6) were used for the actual experiment.

2.6 Procedure

The experiments were conducted between April 14th, 2016 and June 21st, 2016. The participants first took the LexTALE test in English and German or Dutch. After taking the LexTALE test, the researcher joined each dyad in a Facebook chat on a date and time that were set. Two Facebook accounts were made especially for the experiment: one for the Dutch participants and one for the

German participants. The credentials for the accounts were sent by e-mail once a date and time were set for the experiment. Instructions for logging onto Facebook and finding the chat option were also sent by e-mail.

First, each participant filled out the first part of the questionnaire (Appendix A, part one of each questionnaire) individually in which they indicated what their gender, age, educational level and proficiency in English and German or English and Dutch was. This questionnaire was in the native language of the participants. Before the actual experiment started, all pairs did a warm-up task for which five differences could be found, to get them a bit used to the typing and the procedure of a spot-the-differences task that is done via the internet. They got ten minutes to find the five differences. For the warm-up task they got two versions of a picture that was not related to the pictures that were used for the actual experiment, since it could have caused any learning effects for the items on the pictures.

After the warm-up task, the researcher sent the two versions of the first picture individually to the participants. They tried to find the ten differences in fifteen minutes time in the chat that was joined by the researcher, by chatting with each other. After fifteen minutes, they individually filled out the second part of the questionnaire (Appendix A, part two of each questionnaire) about the perceived effectiveness they experienced during the first task. Then they got the two versions of the second picture, tried to find the ten differences in fifteen minutes, and filled out the third and last part of the questionnaire (Appendix A, part three of each questionnaire) about the perceived effectiveness they experienced during the second task. Afterwards, the researcher thanked them for their participation and saved the conversation so the words and differences found could be counted for the measurement of the actual effectiveness.

2.7 Statistical treatment

The design had three dependent variables – number of words used and number of differences found (these were combined the actual effectiveness), and perceived effectiveness – and two treatments – mode (ELF and RM) and nationality (Dutch or German). One of the treatments, mode, was a within factor because all participants had to use both modes; the other treatment, nationality, was a between factor. This is why two repeated measures mixed design analyses were carried out: one to examine the number of words that was used per participant per task, and one to examine any differences in the two communication modes in terms of perceived effectiveness. Furthermore, an independent samples *t*-test was carried out to examine the number of differences found for each mode. Lastly, paired samples *t*-tests were carried out to examine whether there were any differences in communication strategy use between ELF and RM, and ten Friedman tests were carried out to examine whether the use of certain strategies was related to ELF or RM.

To ensure consistent coding of the communication strategies, the inter-rater reliability (Cohen's kappa) was computed. Nearly 30 % of all data (10 cases) was coded by a second coder. For the first task, strategy 1 revealed moderate agreement among the coders ($\kappa = .58, p < .005$). Strategies 2, 4, 9, and 10 revealed substantial agreement among the coders (all κ 's $> .61$, all p 's $< .05$). Strategies 5 and 6 revealed perfect agreement among the coders (both κ 's = 1.00, both p 's $< .005$), and strategy 8 revealed almost perfect agreement among the coders ($\kappa = .83, p < .005$). Unfortunately, strategy 7 revealed poor agreement among the coders ($\kappa = .11, p > .05$), so both coders sat together and deliberated about the coding of strategy 7. They compromised and after running the analysis again, strategy 7 revealed moderate agreement among the coders ($\kappa = .46, p < .05$). Lastly, the Cohen's kappa for strategy 3 could not be computed because the values for strategy 3 were constants.

For the second task, strategy 5 revealed moderate agreement among the coders ($\kappa = .55$, $p < .05$). Strategies 1 and 9 revealed substantial agreement among the coders (both κ 's $> .68$, both p 's $< .005$). Strategies 2, 4, 6, and 10 revealed perfect agreement among the coders (all κ 's = 1.00, all p 's $< .005$), and strategy 8 revealed almost perfect agreement among the coders ($\kappa = .84$, $p < .001$). Unfortunately, strategy 7 revealed poor agreement among the coders ($\kappa = .06$, $p > .05$), so both coders sat down together and deliberated about the coding of strategy 7. They compromised and after running the analysis again, strategy 7 revealed fair agreement among the coders ($\kappa = .33$, $p < .05$). Lastly, the Cohen's kappa for strategy 3 could not be computed because the values for strategy 3 were constants.

3. Results

The main purpose of this study was to investigate to what extent ELF and RM differed in terms of actual and perceived effectiveness; to what extent ELF and RM differed in terms of communication strategy use; and to what extent communication strategies were related to the communication mode that was used.

3.1 Actual effectiveness

To test whether more words were used by participants in the ELF mode or in the RM mode, and whether the Dutch participants used more or less words than their German counterparts, a repeated measures analysis was carried out.

A repeated measures analysis for number of words used with as factors mode and nationality showed no significant main effect of mode ($F(1, 32) < 1$). In the ELF mode ($M =$

132.94, $SD = 53.82$) participants did not use significantly more words than in the RM mode ($M = 135.26$, $SD = 38.07$). Furthermore, there was no significant main effect of the between factor nationality ($F(1, 32) < 1$). The Dutch participants ($M = 138.59$, $SD = 9.70$) did not use significantly more words than the German participants ($M = 129.62$, $SD = 9.70$). Finally, the interaction of number of words used and nationality was not significant ($F(1, 32) = 1.98$, $p = .169$). In Table 2 all means and standard deviations of the number of words used are displayed.

Table 2. Means and standard deviations of the number of words used subdivided by nationality and mode.

	Dutch $n = 17$		German $n = 17$		Total $N = 34$	
	M	SD	M	SD	M	SD
ELF	131.59	47.85	134.29	60.68	132.94	53.82
RM	145.59	40.05	124.94	34.04	135.26	38.07
Average	138.59	43.95	129.62	47.36	134.10	45.95

Furthermore, to examine whether more differences were found in the ELF mode or in the RM mode, an independent samples t -test was carried out. The t -test showed that on average, participants did not find significantly less differences in the ELF mode ($M = 5.29$, $SD = 2.20$) than they did in the RM mode ($M = 6.00$, $SD = 2.26$) ($t(66) = 1.31$, $p = .196$). Table 3 shows that participants spotted around 5 differences on average (out of a possible 10) in the ELF mode; and 6 differences on average (out of a possible 10) in the RM mode.

Table 3. Means and standard deviations of the number of differences found subdivided by mode ($N = 34$).

	M	SD
ELF	5.29	2.20
RM	6.00	2.26

3.2 Perceived effectiveness

To test whether the participants perceived the communication to be more or less effective in the ELF mode than in the RM mode, another repeated measures analysis was carried out.

The repeated measures analysis for perceived effectiveness with as factors mode and nationality showed no significant main effect of mode ($F(1, 32) < 1$). Participants did not perceive the communication to be less effective in the ELF mode ($M = 4.68, SD = .72$) than they did in the RM mode ($M = 4.69, SD = .73$). Furthermore, there was no significant main effect of the between subject factor nationality ($F(1, 32) < 1$). The Dutch participants ($M = 4.75, SD = .15$) did not perceive the communication to be more effective than the German participants did ($M = 4.61, SD = .15$). Finally, the interaction of perceived effectiveness and nationality was not significant ($F(1, 32) < 1$). In Table 4 all means and standard deviations of the perceived effectiveness are displayed.

Table 4. Means and standard deviations of the perceived effectiveness subdivided by nationality and mode (1 = low/negative perception, 7 = high/positive perception).

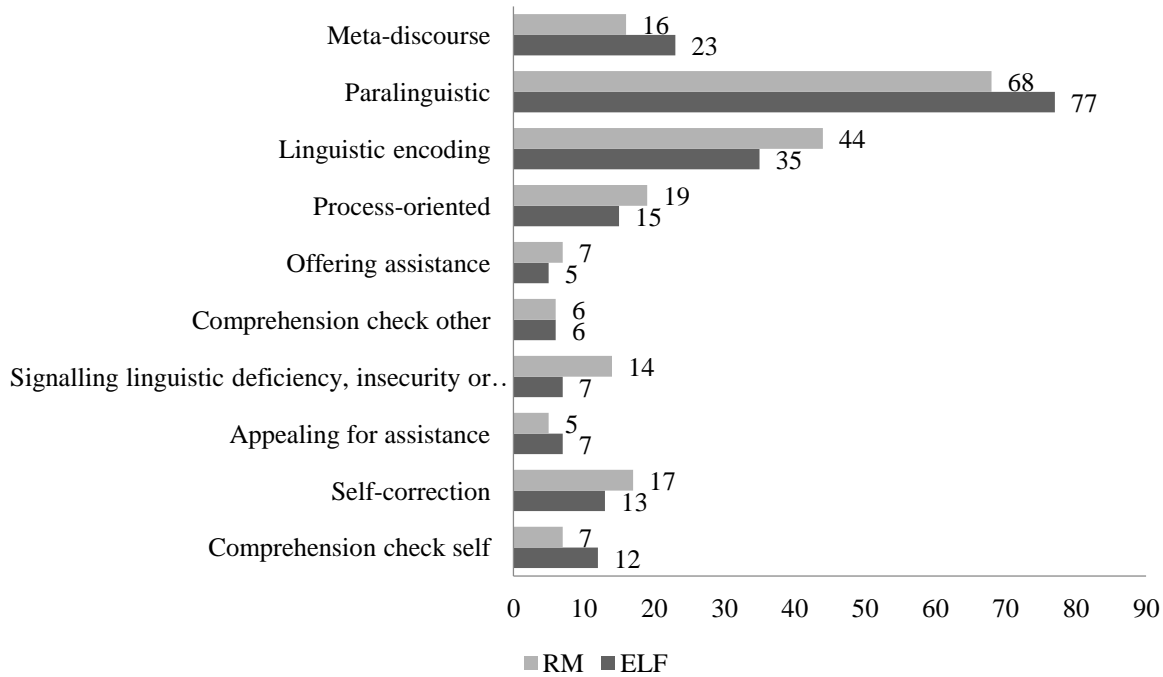
	Dutch <i>n</i> = 17		German <i>n</i> = 17		Total <i>N</i> = 34	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
ELF	4.78	0.80	4.58	0.63	4.68	0.72
RM	4.73	0.86	4.65	0.60	4.69	0.73

3.3 Communication strategy use

Lastly, this study aimed to examine to what extent ELF and RM differed in terms of communication strategy use and to what extent communication strategies were related to the communication mode that was used. Figure 1 reveals that participants used paralinguistic

strategies most frequently, particularly in the RM mode. Linguistic encoding and meta-discourse were also frequently used strategies, although less frequently than paralinguistic strategies.

Figure 1. Total number of communication strategies used in the ELF mode and the RM mode.



In Table 5 an overview of all frequencies and percentages of the strategies is displayed, which shows that in the ELF mode more comprehension check self strategies, more appealing for assistance strategies, more paralinguistic strategies and more meta-discourse strategies were used than in the RM mode. All other strategies were used less in the ELF mode than they were used in the RM mode. However, paired samples *t*-tests pointed out that these differences in strategy use between the ELF mode and the RM mode were not significant.

Table 5. Frequencies of the distribution and the relative use (%) of the ten communication strategies for the ELF and RM mode.

Strategy	ELF	RM	Total
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		%		%		%
Comprehension check self	12	(6.00)	7	(3.45)	19	(4.71)
Self-correction	13	(6.50)	17	(8.37)	30	(7.44)
Appealing for assistance	7	(3.50)	5	(2.46)	12	(2.98)
Signalling linguistic deficiency, insecurity or misunderstanding	7	(3.50)	14	(3.55)	21	(5.21)
Comprehension check other	6	(3.00)	6	(2.96)	12	(2.98)
Offering assistance	5	(2.50)	7	(3.45)	12	(2.98)
Process-oriented	15	(7.50)	19	(9.36)	34	(8.44)
Linguistic encoding	35	(17.50)	44	(21.67)	79	(19.60)
Paralinguistic	77	(38.50)	68	(33.50)	145	(35.98)
Meta-discourse	23	(11.50)	16	(7.88)	39	(9.68)
Total	200	(100)	203	(100)	403	(100)

A paired samples *t*-test showed that a comprehension check self strategy was not used significantly more in the ELF mode ($M = .35$, $SD = .69$) than it was in the RM mode ($M = .21$, $SD = .48$) ($t(33) = 1.04$, $p = .304$).

A paired samples *t*-test showed that a self-correction strategy was not used significantly more in the ELF mode ($M = .38$, $SD = .60$) than it was in the RM mode ($M = .50$, $SD = .99$) ($t(33) = .81$, $p = .422$).

A paired samples *t*-test showed that an appealing for assistance strategy was not used significantly more in the ELF mode ($M = .21$, $SD = .48$) than it was in the RM mode ($M = .15$, $SD = .44$) ($t(33) = .81$, $p = .422$).

A paired samples *t*-test showed that a signalling linguistic deficiency, insecurity or misunderstanding strategy was not used significantly more in the ELF mode ($M = .21$, $SD = .73$) than it was in the RM mode ($M = .41$, $SD = .66$) ($t(33) = 1.49$, $p = .147$).

A paired samples *t*-test showed that a comprehension check other strategy was not used significantly more in the ELF mode ($M = .18$, $SD = .39$) than it was in the RM mode ($M = .18$, $SD = .46$) ($t(33) = .00$, $p = 1.000$).

A paired samples *t*-test showed that an offering assistance strategy was not used significantly more in the ELF mode ($M = .15$, $SD = .44$) than it was in the RM mode ($M = .21$, $SD = .48$) ($t(33) = .63$, $p = .535$).

A paired samples *t*-test showed that process oriented strategies were not used significantly more in the ELF mode ($M = .44$, $SD = .66$) than they were in the RM mode ($M = .56$, $SD = 1.08$) ($t(33) = .57$, $p = .571$).

A paired samples *t*-test showed that linguistic encoding strategies were not used significantly more in the ELF mode ($M = 1.03$, $SD = 1.14$) than they were in the RM mode ($M = 1.29$, $SD = 1.47$) ($t(33) = .99$, $p = .331$).

A paired samples *t*-test showed that paralinguistic strategies were not used significantly more in the ELF mode ($M = 2.26$, $SD = 4.49$) than they were in the RM mode ($M = 2.00$, $SD = 3.44$) ($t(33) = .50$, $p = .619$).

Finally, a paired samples *t*-test showed that a meta-discourse strategy was not used significantly more in the ELF mode ($M = .68$, $SD = 1.04$) than it was in the RM mode ($M = .47$, $SD = .86$) ($t(33) = 1.13$, $p = .269$). An overview of all means and standard deviations is displayed in Table 6.

Table 6. Means and standard deviations of the strategy use subdivided by mode ($N = 34$).

Strategy	ELF		RM		Total	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
Comprehension check self	0.35	0.69	0.21	0.48	0.28	0.59
Self-correction	0.38	0.60	0.50	0.99	0.44	0.80
Appealing for assistance	0.21	0.48	0.15	0.44	0.18	0.46
Signalling linguistic deficiency, insecurity or misunderstanding	0.21	0.73	0.41	0.66	0.31	0.70
Comprehension check other	0.18	0.39	0.18	0.46	0.18	0.43
Offering assistance	0.15	0.44	0.21	0.48	0.18	0.46
Process-oriented	0.44	0.66	0.56	1.08	0.50	0.87

Linguistic encoding	1.03	1.14	1.29	1.47	1.16	1.31
Paralinguistic	2.26	4.49	2.00	3.44	2.13	3.97
Meta-discourse	0.68	1.04	0.47	0.86	0.58	0.95

Furthermore, to check whether there were associations between the mode that was used (ELF or RM) and whether or not participants used a certain strategy, ten Friedman tests were carried out. Unfortunately, none of them turned out to be significant. Below the results for the analyses are described and examples for every strategy are given.

For the comprehension check self strategy the analysis showed that there was no significant association between the mode that was used and whether participants used the comprehension check self strategy or not ($\chi^2(1) = .82, p = .366$). An example is given below (1), where the Dutch participant checked whether he understood correctly how many items there were in total.

- (1) *DU19: just to double check. you have 5 lines with each 5 items, right?¹*
GER20: and a syringe crossed
correct

For the self-correction strategy the analysis showed that there was no significant association between the mode that was used and whether participants used the self-correction strategy or not ($\chi^2(1) = .07, p = .796$). An example is given below (2) to illustrate this type of strategy. It was observed that many times when this strategy was used, it was because the participant made a typing mistake.

- (2) *DU1: i think its a belt, wyou ut it around your both arms over your clothing and*
-

¹ The examples were copied and were not adapted or corrected. They might therefore contain spelling or grammatical errors.

the hoster with gun is on your left side

its a amrbelt

sorry armbelt

For the appealing for assistance strategy the analysis showed that there was no significant association between the mode that was used and whether participants used the appealing for assistance strategy or not ($\chi^2(1) = .67, p = .414$). An example is given below (3), where the strategy is used by a German participant. He needed help with the word ‘bulletform’ that was used by the Dutch participant, because he did not know what was meant by it.

(3) DU29: *let me tell you what I see in the first line: a microfoon speaker, handcuffs, bulletform, gun, lamp*

GER30: *Ok... Are all symbols in black Color?*

DU29: *flashlights*

yes

yes black color

GER30: *Ok... All the symbols I see are also in black Color.*

Difference: I have no flashlights. And the are all in different order

What do you meen with bulletform?

For the signalling linguistic deficiency, insecurity or misunderstanding strategy the analysis showed that there was no significant association between the mode that was used and whether participants used the signalling linguistic deficiency, insecurity or misunderstanding strategy or not ($\chi^2(1) = 2.57, p = .109$). An example is given below (4), where the Dutch participant was insecure about his typing and excused himself for the mistakes he made. The German participant replied that the Dutch participant did not need to worry about the mistakes,

because he made them too.

(4) *DU15: right next to the hand cuffs is a revolver cylinder, underneath a pistol in a holster, underneath that a seven pointed star, right next to it a baton and underneath the three cartridges in differens sizes - All my signs are also black*
please excuse my typing mistakes

GER16: I've got the revolver cylinder, underneath a police car, underneath the seven pointed star, right underneath a police head and directly underneath the head a police badge.
Don't worry about the mistakes. I've any of them too... ;-)

Another example (5) is given of a Dutch participant who did not know what was meant by the German word 'Handschellen' (handcuffs). She asked the German participant what this word meant, and the German participant then described what is done with handcuffs – securing the hands of someone when you arrest them.

(5) *GER30: Handschellen in weiß*
und Hände in Handschellen
oh... und Handschellen in schwarz

DU29: what is a handschell?
you mean gloves?

GER30: ähm... nein
wenn jemand in Arrest kommt. Um die Hände zu fixieren

For the comprehension check other strategy the analysis showed that there was no significant association between the mode that was used and whether participants used the

comprehension check other strategy or not ($\chi^2(1) = .14, p = .705$). An example is given below (6), where the Dutch participant started with naming a couple of items. The German participant signalled that he did not have a ‘maglite’ (flashlight) in his picture. The Dutch participant was uncertain whether the German participant had a police riot shield in his picture, which she already mentioned, and therefore asked him again whether he did have it or not. The German participant then answered with the place of the riot shield in his picture.

(6) *DU9: Right side on my picture I have maglite, shotgun, police riot shield and taser*

GER10: a gun, a sherrif star, the speaker phone, a revolver, a i dont have a maglite

DU9: You do have the police riot shield?

GER10: its on the right side in the middle

Another example of this strategy is given (7), where the German participant checked whether the Dutch participant could still follow, by asking him ‘OK soweit?’ (OK so far?).

(7) *GER30: Ok... ich kann ja schon mal ein paar Dinge beschreiben. Wenn Du Fragen hast, sag einfach:*

Eine Pistole in einer Hand in Schwarz

6 Dynamitstangen

Eine Hand in schwarz mit einem weißen Fleck in der Mitte

Ein Gesetzbuch in Schwarz mit einem Paragraphensymbol in weiß darauf

eine Waage in schwarz

ein Bankräuber mit schwarzer Maske und weißem Geldbeutel mit

Dollarzeichen

eine Polizeimarke

DU29: no, only a gun without a hand I see no dynamitstangen The hand is the same, also a hole in it

GER30: OK soweit?

ok ja

For the offering assistance strategy the analysis showed that there was no significant association between the mode that was used and whether participants used the offering assistance strategy or not ($\chi^2(1) = 1.29, p = .257$). An example is given below (8), where the German participant proposed that he would start with naming the items in his picture.

(8) *GER20: ok maybe I start with describing the pics?*

DU19: yes that sounds good

For the process oriented strategies (generalisation, description or circumlocution) the analysis showed that there was no significant association between the mode that was used and whether participants used a process oriented strategy or not ($\chi^2(1) = .25, p = .617$). An example is given below (9), where instead of saying ‘no corruption sign’, the German participant described what the item looked like.

(9) *GER20: a sack with money handed out by one hand the other hand refusing*

Another example (10) is that of a Dutch participant describing a shoulder holster.

(10) *GER14: Hast du auch 3 Patronen ? Sie sind bei mir in der unteren Reihe in der Mitte !*

DU13: Do you have a kind of 'belt' you can wear over your shoulder which is used to put your gun in? And I don't have 3 bullets

For the linguistic encoding strategies (word coinage, foreignizing or code switching) the analysis showed that there was no significant association between the mode that was used and whether participants used a linguistic encoding strategy or not ($\chi^2(1) = .00, p = 1.000$). An example is given below (11), where instead of using the word ‘scale’, a German participant used the words ‘weighing machine’ to make clear he meant a device that is used for weighing.

(11) GER32: *court, weighing machine, contract, handcuffs white, dynamite*

Another example (12) is given of something very interesting that happened in one of the conversations. A German participant combined the words ‘butt’ and ‘bottom’, which resulted in ‘buttom’, to tell the Dutch participant he meant the bottom of the picture.

(12) GER14: *In my last set at the buttom i have : a magnifying glass !*

I have one handcuffs, in the scond set !

DU13: *this glass I have also but in the first set completely right.*

For the paralinguistic strategies (use of capitals, emoticons, onomatopoeia or punctuation) the analysis showed that there was no significant association between the mode that was used and whether participants used a paralinguistic strategy or not ($\chi^2(1) = .22, p = .637$). An example is given below (13), where a Dutch participant used capitals to tell the German participant that there was a word written on the bulletproof vest that was in her picture.

(13) DU25: *On the top left corner a hand grenade and next to the grenade handcuffs,
all my objects are black*

GER26: *My objects are black to. But i have a different. On my picture, i can see in
the left top a megaphone. The handcuff is on the same place.*

DU25: *I don't have a megaphone. below the grenade i see a radio and a helmet.
next to the radio a bulletproof vest with text POLICE on it.*

Another example (14) shows the use of emoticons to express happiness, because the participants found a difference; and the use of a hash tag (#) instead of the word ‘number’.

(14) *DU3: in what position is the helicopter in your picture?*

GER4: I don't have a helicopter in my picture... 😊 so difference #8

For the meta-discourse strategy the analysis showed that there was no significant association between the mode that was used and whether participants used the meta-discourse strategy or not ($\chi^2(1) = .47, p = .491$). An example is given below (15), where a German participant told his Dutch speaking partner what he was about to describe. It was observed that a meta-discourse strategy was often used by German participants in the beginning of a conversation. They often told their Dutch speaking partners what they were about to say or do, or where they wanted to start with the description of the items.

(15) *GER6: I start in the toplane*

DU5: ok, i'll wait

GER6: 1. courthammer 2. policesign 3. tied hands 4. pistol in the right hand 5. magnifying glass (that is the first lane)

I will write down the rest and you can make it for your picture)

4. Conclusion

The aim of this study was to investigate to what extent ELF and RM differed in terms of actual and perceived effectiveness; to what extent ELF and RM differed in terms of communication strategy use; and to what extent communication strategies were related to the communication mode that was used.

According to the results of the analyses, it can be concluded that the actual and perceived effectiveness were not significantly lower for ELF than for RM. In addition, Dutch and German police officers did not differ significantly in terms of actual and perceived effectiveness. Furthermore, the analyses showed that although much more paralinguistic strategies were used in the RM mode than in the ELF mode, this result was not significant. None of the strategies were used significantly more in one mode or the other. Lastly, there were no associations between the communication mode that was used and the strategies that were used.

5. Discussion

5.1 Actual effectiveness

The analysis showed that there were no differences in actual effectiveness between ELF and RM. This result contradicts earlier findings and theories. According to the studies of House (1999), Van Engen et al. (2010), and Van Mulken and Hendriks (2012; 2015), ELF seems to be less effective than other modes. For example, in one of their studies, Van Mulken and Hendriks (2012) observed RM to be more effective than ELF, L1-L2, and L2-L1. Van Mulken and Hendriks (2012) hypothesized that the potential of solving linguistic problems and the fact that Dutch and German are typologically close languages might have caused RM to be more effective in Dutch-German student dyads than ELF interactions. However, the current study also investigated Dutch and German speakers and no differences were found between the effectiveness of ELF and the effectiveness of RM. It may thus be that, although Dutch and German are typologically related languages, RM is not always more effective than for instance ELF for speakers of typologically close languages. Whether this goes for other typologically related languages such as French and Spanish, Italian and Spanish or Scandinavian languages or not remains uncertain.

Although the current study also investigated Dutch-German dyads and used a spot-the-differences task as Van Mulken and Hendriks (2012) did, there might be more possible explanations for the different results. The current study investigated more ‘natural’ dyads than Van Mulken and Hendriks (2012) did. Police officers with different linguistic backgrounds who communicate regularly with each other in their field of work participated in the present study, and communicated about tasks that were directly relevant to them, because pictures of police equipment and the justice department were used for the spot-the-differences task. The different linguistic backgrounds may have been related to the proficiency levels of participants, and the proficiency levels may have in turn affected the effectiveness of communication. The proficiency levels of participants varied quite a lot and this may have affected the performance of the dyads. In addition, not all German police officers spoke Dutch, which ‘forced’ some dyads to use English in the RM mode. This in turn could have led to less successful communication, if one or both officers had a lower English proficiency. Van Mulken and Hendriks (2012) investigated student dyads that had a high proficiency in English and at least some proficiency in the other person’s language. They knew in advance that communicating in English was not going to be a problem for their dyads. In the present study this was not the case, because it was not clear beforehand what the English proficiency of participants was. Furthermore, the pictures that were used in the current study were related to the profession of participants, which was not the case with the pictures Van Mulken and Hendriks (2012) used in their study. It is possible that the use of new and relevant pictures affected the outcome of the current study, because participants already knew what certain police items look like and what they are called.

On the other hand, the study of Bles et al. (2014) revealed ELF to be more effective than RM, which is contradictory to the findings of the current study. However, the participants in the

study of Blees et al. (2014) were observed to be more proficient in English than in the native language of their interlocutors – which was either Dutch or German because Dutch-German dyads were investigated. After testing it turned out that the differences in proficiency and not the communication mode explained the higher effectiveness of ELF. In the present study, participants were not significantly more proficient in English than they were in the native language of their interlocutors – which was also either Dutch or German. It is possible that there is not that big of a difference between the effectiveness of ELF and RM, unless proficiency levels are higher for the language(s) used in one of the modes. It is also possible that the type of task used affected the effectiveness of both modes. Blees et al. (2014) used maze puzzles, whereas in the current study spot-the-differences tasks were used. Although they are both problem-solving tasks, it could be that the different way of solving the tasks affected the results of both studies. It could also be that the results were affected by the fact that the participants of the present study knew the items in the pictures they had to discuss. Furthermore, Blees et al. (2014) used student dyads instead of more natural dyads as is the case with the present study, which may have affected the performance of dyads. Namely, proficiency levels could have varied between student dyads and more natural dyads, and it is possible that these differences in proficiency affected the performance of participants. On the other hand, Blees et al. (2014) only had eight pairs solving maze puzzles, whereas in the present study seventeen pairs solved a spot-the-differences task. Because eight dyads is quite a low number, and because the current study had more than twice as much participants; the number of participants may have affected (the reliability of) the results of Blees et al. (2014). Finally, Blees et al. (2014) had every pair do two puzzles in ELF, and two puzzles in RM, whereas in the current study, pairs had to do only one task in ELF and one in RM. It is possible that the participants of Blees et al. (2014) performed badly in one ELF or RM task,

but compensated their performance because they performed well in the other ELF or RM task. In the current study this was not possible, because if participants performed badly due to certain circumstances, they did not get a ‘do-over’. However, they did get a chance to get used to how a task would go, because they got to do a warm-up task. Still, the number of tasks participants did may have affected the results of both studies.

Furthermore, another master’s thesis (Stoll, 2014) corroborates the findings of the current study. No differences were found in the actual effectiveness of ELF and RM either. Although Stoll (2014) had much younger (student) participants than the present study, it could be that age is not a factor in the effectiveness of ELF and RM, because the same results were found with older participants in the current study. However, in the present study no significant differences were found between the proficiency levels of Dutch and German participants; whereas Stoll (2014) observed that her German participants assessed their Dutch proficiency significantly higher than her Dutch participants assessed their German proficiency. The proficiency may thus have had an effect on the results of both studies.

Lastly, another study by Van Mulken and Hendriks (2015) revealed ELF to be less effective than L1-L2 communication. Although the present study did not focus on L1-L2 as a communication mode, some of the results Van Mulken and Hendriks (2015) obtained may be compared to the results of the current study. In their study, Van Mulken and Hendriks (2015) investigated Dutch-German student dyads once more. The dyads performed spot-the-differences tasks as was also the case in the present study. According to the results, ELF speakers (non-native speakers) seemed to be more verbose than native speakers (Van Mulken & Hendriks, 2015). On the other hand, native speakers used more words than ELF speakers. It therefore remained unclear to Van Mulken and Hendriks (2015) whether non-native speakers or native speakers

actually are more verbose. In the current study non-native speakers (in the ELF mode) did not use significantly more words than native speakers (in the RM mode). According to these results, it could be that non-native speakers and native speakers actually do not differ in verbosity. A study by Bles et al. (2014) may provide insight into the verbosity of speakers. In their study, Bles et al. (2014) observed that passive proficiency of participants, in their case that of Dutch and German students, can have a positive effect on the effectiveness of communication. They hypothesized that passive proficiency mediated the amount of language that was produced: the more words that were produced, the higher the passive proficiency was. However, in the present study there were no significant differences in the proficiency of participants, and there were no significant differences in the amount of words that were produced. It therefore remains uncertain whether passive proficiency actually mediates the amount of words that is produced.

5.2 Perceived effectiveness

Perceptions of interactions play an important role in the effectiveness of interactions according to a number of researchers (Henderson & Louhiala-Salminen, 2011; Kankaanranta & Louhiala-Salminen, 2010; Welch et al., 2005). This is why perceived effectiveness was measured in the current study, but it did not turn out to be significantly lower in ELF interactions than in RM interactions. In addition, it was observed in earlier studies (Braunmüller, 2013; Rogerson-Revell, 2008) that perceived effectiveness often deviated from actual effectiveness, which was not the case in the present study. It could be that in the case of Dutch-German dyads that communicate in ELF and RM, participants perceive the communication as effective as it actually is in reality. It could also be that the perceived effectiveness deviated from the actual effectiveness in the study of Rogerson-Revell (2008), because she investigated ELF meetings and did not include RM as a

communication mode. In addition, Rogerson-Revell (2008) observed that a discrepancy in linguistic power created frustration, which in turn led to perceived dominance of the communication partner. These feelings of discomfort or perceived dominance might partially cause ELF to be less effective than conversations in a speaker's L1 according to Van Mulken and Hendriks (2015). On the other hand, RM as a communication mode has much more linguistic equality. This equality might lead to more positive perceptions and might cause feelings of mutual trust, which in turn could result in higher effectiveness (Henderson & Louhiala-Salminen, 2011). In addition, low familiarity of the speaking partners increments anxiety and uncertainty (Gudykunst & Kim, 2003; Gudykunst & Nishida, 2001; Gudykunst & Shapiro, 1996; Neuliep & McCroskey, 1997). However, in the present study the feelings of participants during the ELF and RM interactions were not measured, and it is therefore not certain whether participants' feelings may have affected the effectiveness of communication. Furthermore, it could be argued that a communication mode such as RM, for which interlocutors can use their L1, might be more effective than ELF, because interlocutors are more self-confident in their L1 due to a high proficiency level (Kouwenhoven & Van Mulken, 2012; MacIntyre et al., 1997). This was not the case in the present study, because no differences were found between ELF and RM in terms of effectiveness.

5.3 Communication strategies

In earlier studies, it was observed that the communication mode that was used seemed to make a difference in the use of certain strategies (Stoll, 2014; Van Mulken & Hendriks, 2012; 2015). This is in contradiction to the findings of the present study. In a master's thesis (Stoll, 2014), a significant relation between communication mode (ELF or RM) and appealing for assistance,

offering assistance, signalling uncertainty, paralinguistic and compensatory strategies was observed. Van Mulken and Hendriks (2012; 2015) discovered that L1 speakers used a meta-discourse strategy more often than ELF or L2 speakers, that signalling linguistic deficiency and using process oriented strategies occurred frequently in ELF conversations, and that offering assistance was used more frequently when participants were speaking in their L1. It could be that the type of participants affected the results of these studies, because both Stoll (2014) and Van Mulken and Hendriks (2012; 2015) used student dyads, whereas the current study used police officer dyads. In addition, because student dyads were used in the studies of Stoll (2014) and Van Mulken and Hendriks (2012; 2015), it is possible that age affected the results as well. Namely, the average age of the participants of the current study was much higher than the average age of the participants of Stoll (2014) and Van Mulken and Hendriks (2012; 2015). It can be argued that younger participants, such as students, use for instance more paralinguistic strategies, such as the use of emoticons. The age of participants may thus have affected the use of certain communication strategies.

5.4 Limitations

The present study had a couple of limitations. First, the pictures that were used for the experiment were pretested by only three dyads. It may be that the low number of pre-testers affected the reliability of the pre-test. It could be that the pictures that were used for the experiment were not suitable enough and this in turn may have affected the performance of participants. In addition, the pictures contained items that the participants of the experiment were familiar with. It could be that the pictures were therefore too easy. It is also possible that a different type of task, such as a maze puzzle that was used by Blees et al. (2014), could have yielded different results than a spot-

the-differences task. Although both types of tasks are problem-solving tasks, the way the tasks need to be solved may have affected the performance of participants.

Furthermore, the number of police officers that participated may have been too low and this may have affected the reliability of the study. However, it was very hard to find police officers that were willing to participate, because during the process of finding a date and time to do the experiment, a number of police officers stopped answering e-mails at a certain point. On the other hand, many of the German police officers that were contacted were afraid that their English was not good enough and refused to participate. In addition, setting dates and making appointments for the experiment was nearly impossible sometimes, because many police officers were available on a limited number of dates, or they cancelled last minute because something (work related) came up. It was sometimes possible to convince a police officer to do the experiment at home on his or her day off, but the majority of the police officers insisted on doing the experiment during work hours.

Another factor that may have affected the results of this study is age. The majority (41.18 %) of the participants was over 50 years old, and there were only 8 out of 34 participants between the age of 30 and 40. It was observed that the younger participants between the age of 30 and 40 could type faster than most of the other participants. The typing speed may have in turn affected the effectiveness of communication, because the tasks were done within a delimited time span.

The fact that many police officers used an older computer at work for the experiment may have affected the performance of these police officers. It was observed that many times participants were not able to log onto Facebook or that the computer was too slow to process the chatting via Facebook. A number of police officers indicated that many of the computers they

had to work with were outdated, and that they did not only experience problems during the experiment, but also on a normal work day. It was also observed that, despite sending an explanation about the functioning of Facebook, some police officers still had difficulties logging in or handling the chatting. It is possible that Facebook was not a proper chat medium for this type of investigation, or that basic knowledge about the functioning of Facebook was required to be able to participate in the chatting.

On the other hand, it was observed that the Dutch participants often chose English over Dutch in the RM mode. Ribbert and Ten Thije (2007) already argued that RM is seldom used in Dutch-German communication, in spite of the typological proximity of Dutch and German. It could be that the participants in the current study had prior experience in using RM as a communication mode and that this mode was not always successful for them, and that they therefore preferred English over Dutch because they may have felt that using English works better than using Dutch. It may also be that the participants did *not* have prior experience in using RM as a communication mode and that this mode felt strange to them, because they normally use English to communicate and using English therefore feels more familiar in Dutch-German communication than using Dutch. Whatever the reason is for preferring English over Dutch, not using Dutch very often in the RM mode may have affected the performance of participants and thus the effectiveness of communication, because many of the German participants pointed out that they were able to understand Dutch. It is possible that communicating in Dutch may have been easier and more effective than communicating in English. Moreover, participants were not informed about the scores they obtained in the LexTALE test, nor were they informed about the scores of others. This may also explain why some Dutch participants resorted to English, because

it could be that they automatically assumed that their German counterparts did not have a reasonable proficiency in Dutch.

Furthermore, the measurement of the actual effectiveness may have been incomplete. Van Mulken and Hendriks (2012) did not only count the number of differences found and the number of words used per task, but they also counted the number of turns a participant had per task. In the present study, the number of turns was not counted. It is therefore possible that the measurement of the actual effectiveness was less reliable by leaving out the number of turns.

Regarding the perceived effectiveness, only five questions were used to measure the perceived effectiveness of communication. In another master's thesis (Stoll, 2014), perceived effectiveness was subdivided into uncertainty, expectations, own effectiveness, communication of partner, anxiety, quality of communication, satisfaction, and perception of communication mode. For every subcategory, participants had to answer a number of questions. It could be that, because more questions were used, the measurement of perceived effectiveness was more reliable in the study of Stoll (2014) than it was in the present study. In addition, the feelings of participants, such as uncertainty or anxiety, were not investigated in the current study. It may have been interesting to have examined the effects of certain feelings on the effectiveness of communication, but the current study was limited to the examination of actual and perceived effectiveness, and communication strategy use.

Lastly, a limitation of the study may have been the fact that participants only did one task per mode. This may have affected the reliability of the effectiveness of the communication modes. In the study of Blees et al. (2014), participants did two tasks in ELF and two tasks in RM. This way, when a participant underperformed (or overperformed for that matter) in the first task due to certain reasons, there was a possibility to compensate in the second task. In the present study,

when a participant underperformed, there was no ‘do-over’. Having every participant do two tasks in ELF and two in RM may have been more reliable.

5.5 Further research

There are a number of possible options for future research. First, because of the fairly low number of participants, there should be a similar study on a larger scale to see whether the results that were found in the present study concur with a larger population. A part of this larger, similar study should be that participants need to do a certain problem-solving task twice in the same mode, in order to make results more reliable. It should also be investigated whether there are differences in effectiveness between different age groups, because it was observed that younger participants responded more quickly due to faster typing than older participants, and this may have affected the results and therefore the effectiveness of communication in this study. However, it is possible that due to slow and old computers or due to lack of knowledge about Facebook, typing and sending messages went slower than it would have went on an ‘up-to-date’ computer or with another chat programme. It should therefore be investigated whether the effectiveness of the two communication modes remains the same when newer computers are used or when a different chat programme is used. In addition, it should be examined whether the effectiveness differs between ELF and RM when communication is done face-to-face instead of via a CMC environment. Face-to-face communication may also rule out any typing difficulties participants might experience.

Furthermore, future research should also be directed at investigating other lines of work, to see whether there are differences in effectiveness between ELF and RM when participants with a different working background participate in an experiment. Other possible participants could be

teachers (because many times they have to teach children languages such as English), politicians (because they often have to communicate with politicians of other countries) or doctors (because for instance in many tourist spots it can be a challenge for the doctor as well as the patient to communicate effectively).

On the other hand, further research should examine if and why Dutch participants opt for English more often than for Dutch when they communicate with Germans. It was observed that in the current study, Dutch participants chose to use English more often than Dutch in the RM mode, but it could be that this is just a coincidence rather than a fact. In addition, it should be investigated whether in other language combinations – such as for instance French and Spanish, Italian and Spanish or Scandinavian language combinations – an additional lingua franca such as English is also used often when RM is used as a communication mode. Moreover, other languages such as those mentioned above should be investigated in terms of actual and perceived effectiveness, and communication strategy use, because many studies on effectiveness have been concerned with Dutch and German.

Future research should also be directed at investigating whether the number of turns participants take in a conversation makes a good measure for actual effectiveness, in combination with the number of words used per conversation and the number of differences found per task. It could be that it is not necessary to include the number of turns a participant takes to measure the actual effectiveness of communication correctly, and that just measuring the number of words used and the number of differences found is enough to measure actual effectiveness. It should be investigated whether actual effectiveness deviates when the number of turns is taken into account or not.

Furthermore, it should be investigated whether certain feelings, such as anxiety and uncertainty, have an effect on the type and number of strategies that are used in ELF and RM. Stoll (2014) already investigated this in her master's thesis, and observed that uncertainty was a significant predictor for the total number of communication strategies that were used in the ELF mode. This means that the more uncertain the participants were, the less strategies they used in the ELF mode. However, more research is necessary to point out whether feelings, such as uncertainty, actually predict the use of strategies.

In conclusion, the present study has shown that there were no differences in actual and perceived effectiveness between ELF and RM in Dutch-German police officer dyads. According to the results, ELF should be just as effective for Dutch and German police officers as RM. It was also shown that there were no differences in communication strategy use between ELF and RM. Dutch and German police officers should be able to do their job appropriately when they keep communicating with each other the way they do now: using either English, Dutch or German, or combining them all (2016, personal communication with a member of FAST-NL who would like to remain anonymous). All in all, it could be argued that different languages are not something that keep the Dutch and German police officers from keeping us safe.

6. Literature

- Ammon, U. (2001). Die deutsche Sprache in der Welt von heute; The German language in today's world. In W. Fleischer, G. Helbig & G. Lerchner (Eds.) *Kleine Enzyklopädie Deutsche Sprache; Little Encyclopedia German Language* (pp. 17-38). Frankfurt am Main.: Peter Lang
- Backus, A., Marácz, L., & Ten Thije, J.D. (2011). A Toolkit for Multilingual Communication in Europe: Dealing with Linguistic Diversity. In J.N. Jørgensen (Ed.) *A Toolkit for Transnational Communication in Europe* (pp. 5-24). Copenhagen: University of Copenhagen, Faculty of Humanities.
- Bahtina, D., Ten Thije, J.D., & Wijnen, F. (2013). Combining Cognitive and Interactive Approaches to Lingua Receptiva. *International Journal of Multilingualism*, 10(2), 159-180.
- Beerkens, R. (2010). *Receptive Multilingualism as a Language Mode in the Dutch-German Border Area*. Münster: Waxmann Verlag GmbH.
- Blees, G.J., Mak, W.M., & Ten Thije, J.D. (2014). English as a Lingua Franca versus Lingua Receptiva in Problem-Solving Conversations between Dutch and German Students. *Applied Linguistics Review*, 5(1), 173-193.
- Braunmüller, K. (2013). Communication based on Receptive Multilingualism: Advantages and Disadvantages. *International Journal of Multilingualism*, 10(2), 214-223.
- Brown, P. & Levinson, S.C. (1987). *Politeness: Some Universals in Language Usage*. Cambridge: Cambridge University Press.

- Charles, M. (2007). Language Matters in Global Communication. *Journal of Business Communication, 44*, 260-282.
- Clyne, M. (2003). Towards Inter-Cultural Communication in Europe without Linguistic Homogenization. In R. de Cillia et al. (Eds.) *Die Kosten der Mehrsprachigkeit. Globalisierung und sprachliche Vielfalt; The Cost of Multilingualism. Globalisation and Linguistic Diversity* (pp. 39-49). Vienna: Verlag der Österreichischen Akademie der Wissenschaften.
- Cogo, A. (2012). ELF and Super-Diversity: a Case Study of ELF Multilingual Practices from a Business Context. *Journal of English as a lingua franca, 1*(2), 287-313.
- De Gijssel, P. & Wenzel, H.-J. (Hg.) (1998). *Mobilität und Kooperation auf grenzüberschreitenden Arbeitsmärkten: Deutschland-Niederlande; Mobility and Cooperation in Border-Crossing Labor Markets: Germany-Netherlands*. Themenheft: IMIS-Beiträge 9/1998.
- Dewaele, J.-M., Petrides, K.V., & Furnham, A. (2008). Effects of Trait Emotional Intelligence and Sociobiographical Variables on Communicative Anxiety and Foreign Language Anxiety among Adult Multilinguals: A Review and Empirical Investigation. *Language Learning, 58*(4), 911-960.
- Dondrup (n.d.). Retrieved April 3, 2016, from www.dondrup.com.
- Dreamstime (n.d.). Retrieved April 3, 2016, from www.dreamstime.com.
- Edmondson, W. & House, J. (1991). Do Learners Talk Too Much? The Waffle Phenomenon in Interlanguage Pragmatics. In R. Phillipson, E. Kellerman, L. Selinker, M. Sharwood Smith, & M. Swain (Eds.). *Foreign/Second Language Pedagogy Research* (pp. 273-287). Clevedon: Multilingual Matters.

- Færch, C. & Kasper, G. (1980). Processes and Strategies in Foreign Language Learning and Communication. *Interlanguage Studies Bulletin* 5(1), 47-118.
- Gudykunst, W.B. & Kim, Y.Y. (2003). *Communicating with Strangers: An Approach to Intercultural Communication* (4th ed.). New York, NY: McGraw-Hill.
- Gudykunst, W.B. & Nishida, T. (2001). Anxiety, Uncertainty, and Perceived Effectiveness of Communication across Relationships and Cultures. *International Journal of Intercultural Relations*, 25, 55-71.
- Gudykunst, W.B. & Shapiro, R.B. (1996). Communication in Everyday Interpersonal and Intergroup Encounters. *International Journal of Intercultural Relations*, 20(1), 19-45.
- Ház, E. (2005). *Deutsche und Niederländer: Untersuchungen zur Möglichkeit einer Unmittelbaren Verständigung; Germans and Dutchmen: Investigating the Possibilities of a Mutual Direct Understanding*. Hamburg: Kovac.
- Henderson, J.K. & Louhiala-Salminen, L. (2011). Does Language affect Trust in Global Professional Contexts? Perceptions of International Business Professionals. *Rhetoric, Professional Communication and Globalization*, 2(1), 15-33.
- Hincks, R. (2010). Speaking Rate and Information Content in English Lingua Franca Oral Presentations. *English for Specific Purposes* 29(1), 4-18.
- Holm, J. (1988). *Pidgins and Creoles. 2 vols.* Cambridge: CUP.
- House, J. (1999). Misunderstanding in Intercultural Communication. Interactions in English as Lingua Franca and the Myth of Mutual Intelligibility. In C. Gnutzman (Ed.). *Teaching and Learning English as a Global Language* (pp. 73-89). Tübingen: Stauffenburg.
- House, J. (2003). English as a Lingua Franca: a Threat to Multilingualism? *Journal of Sociolinguistics*, 7(4), 556-578.

- House, J. (2007). Unity in Diversity: English as a Lingua Franca for Europe? In C. Leung & J. Jenkins (Eds.). *Reconfiguring Europe – the Contribution of Applied Linguistics* (pp. 87-104). London: Equinox.
- Hubbert, K., Gudykunst, W.B., & Guerrero, S. (1999). Intergroup Communication Over Time. *International Journal of Intercultural Relations*, 23, 13-46.
- Hülmbauer, C. (2007). ‘You moved, aren’t?’ – The Relationship between Lexicogrammatical Correctness and Communicative Effectiveness in English as a Lingua Franca. *Vienna English Working Papers*, 16, 3-35.
- Hülmbauer, C., Böhringer, H., & Seidlhofer, B. (2008). Introducing English as a Lingua Franca (ELF): Precursor and Partner in Intercultural Communication. *Synergies Europe*, 3, 25-36.
- Hülmbauer, C. & Seidlhofer, B. (2013). English as a Lingua Franca in European Multilingualism. In A.-C. Berthoud, F. Grin, & G. Lüdi (Eds.) *Exploring the Dynamics of Multilingualism. The DYLAN project* (pp. 387-406). Amsterdam/Philadelphia: John Benjamins Publishing Company.
- Irvine, J.T. & Gal, S. (2009). Language Ideology and Linguistic Differentiation. In A. Duranti (Ed.). *Linguistic Anthropology* (pp. 402-434). Malden: Wiley-Blackwell.
- Istockphoto (n.d.). Retrieved April 3, 2016, from www.istockphoto.com.
- Kankaanranta, A. & Louhiala-Salminen, L. (2010). “English? – Oh, it’s just work!”: A Study of BELF users’ Perceptions. *English for Specific Purposes*, 29, 204-209.
- Kouwenhoven, H. (2016). Situational Variation in Non-Native Communication: Studies into Register Variation, Discourse Management and Pronunciation in Spanish English. PhD Thesis, Radboud University Nijmegen, Nijmegen.

- Kouwenhoven, H. & Van Mulken, M. (2012). The Perception of Self in L1 and L2 for Dutch- English Compound Bilinguals. In N. De Jong K., Juffermans, M. Keijzer, & L. Rasier (Eds.), *Papers of the Anéla 2012 Applied Linguistics Conference* (pp. 326-335). Delft: Eburon.
- Laufer, B. & Paribakht, T.S. (1998). The Relationship between Passive and Active Vocabularies: Effects of languagelearning context. *Language Learning*, 48(3), 365-391.
- Lemhöfer, K. & Broersma, M. (2012). Introducing LexTALE: A Quick and Valid Lexical Test for Advanced Learners of English. *Behavior Research Methods*, 44, 325-343.
- Loos, E. (1997). Internationale Bedrijfscommunicatie. Reconstructief Onderzoek naar het Intertekstuele Netwerk van Nederlandse en Duitse Actoren in een Bungalowpark. Utrecht.
- Louhiala-Salminen, L., Charles, M., & Kankaanranta, A. (2005). English as a Lingua Franca in Nordic Corporate Mergers: Two Case Companies. *English for Specific Purposes*, 24(4): 401-421.
- Ludi, G. (2013). Receptive Multilingualism as a Strategy for Sharing Mutual Linguistic Resources in the Workplace in a Swiss Context. *International Journal of Multilingualism*, 10(2), 140-158.
- Lüdi, G., Höchle, K., & Yanaprasart, P. (2010). Plurilingual Practices at Multilingual Workplaces. In B. Apfelbaum & B. Meyer (Eds.). *Multilingualism at Work* (pp. 211-234). Amsterdam: John Benjamins.
- MacIntyre, P.D., Noels, K.A., & Clément, R. (1997). Biases in Self-Ratings of Second Language Proficiency: The Role of Language Anxiety. *Language Learning*, 47(2), 265-287.
- Mauranen, A. (2006). Signaling and Preventing Misunderstanding in English as Lingua Franca Communication. *International Journal of the Sociology of Language*, 177, 123-150.
- Meuter, R.F., & Allport, A. (1999). Bilingual Language Switching in Naming: Asymmetrical Costs of Language Selection. *Journal of memory and language*, 40(1), 25-40.

- Neuliep, J.W. & McCroskey, J.C. (1997). The Development of Intercultural and Interethnic Communication Apprehension Scales. *Communication Research Reports*, 14(2), 145-156.
- Philipson, R. (2006). *English-only Europe? Challenging Language Policy*. London: Routledge.
- Rehbein, J. (1987). Diskurs und Verstehen. Zur Rolle der Muttersprache bei der Textverarbeitung in der Zweitsprache; Discourse and Understanding. The Role of the Mother Tongue in Word Processing in the Second Language. In E. Apelauer (Ed.). *Gesteuerter Zweitspracherwerb; Controlled Second Language Acquisition* (pp. 113-172). München: Hueber.
- Rehbein, J., Ten Thije, J.D., & Verschik, A. (2012). Lingua Receptiva (LaRa) – Remarks on the Quintessence of Receptive Multilingualism. *International Journal of Bilingualism*, 16(3), 248-264.
- Ribbert, A. & Ten Thije, J.D. (2007). Receptive Multilingualism in Dutch-German Intercultural Team Cooperation. In J.D. ten. Thije & L. Zeevaert (Eds.). *Receptive Multilingualism: Linguistic Analyses, Language Policies, and Didactic Concepts* (pp. 73-101). Amsterdam, Netherlands: Benjamins.
- Rindler-Schjerve, R. (2008). *Disglossia and Power. Language Policies and Practice in the 19th Century Habsburg Empire*. Berlin/New York: Mouton de Gruyter.
- Ringbom, H. (2007). *Cross-Linguistic Similarity in Foreign Language Learning*. Clevedon: Multilingual Matters Limited.
- Rogerson-Revell, P. (2007). Using English for International Business: A European case study. *English for Specific Purposes*, 26, 103-120.
- Rogerson-Revell, P. (2008). Participation and Performance in International Business Meetings. *English for Specific Purposes*, 27(3), 338-360.

- Seidlhofer, B. (2002). The Shape of Things to Come? Some Basic Questions about English as a Lingua Franca. In K. Knapp & C. Meierkord (Eds.). *Lingua Franca Communication* (pp. 269-302). Frankfurt: Peter Lang.
- Seidlhofer, B., Breiteneder, A., & Pitzl, M.-L. (2006). English as a Lingua Franca in Europe: Challenges for Applied Linguistics. *Annual Review of Applied Linguistics*, 26, 3-34.
- Shutterstock (n.d.). Retrieved April 3, 2016, from www.shutterstock.com.
- Stoll, L. (2014). 'In my mind I knew what I wanted to say' – An Experimental Study into the Actual and Perceived Effectiveness in German-Dutch Task-Based Online Communication in ELF and Receptive Multilingualism. Master thesis International Business Communication.
- Tarone, E. (1977). Conscious Communication Strategies in Interlanguage: a Progress Report. In H. Brown, C. Yorio, & R. Crymes (Eds.), *On TESOL '77. TESOL* (pp. 89-129). Washington, DC.
- Ten Thije, J.D. (2003). Eine Pragmatik der Mehrsprachigkeit: zur Analyse, diskursiver Interkulturen; Pragmatics of Multilingualism: Analysis of Intercultural Discourse. In R. de Cillia, J. Krumm, & R. Wodak (Eds.). *Die Kosten der Mehrsprachigkeit – Globalisierung und sprachliche Vielfalt; The Cost of Multilingualism – Globalisation and Linguistic Diversity* (pp. 101-125). Vienna: Akademie der Wissenschaften.
- Ten Thije, J.D. (2005). Receptieve Meertaligheid in een Nederlands-Duitse Teambespreking; Receptive Multilingualism in Dutch-German Team Meetings. In T. Koole, J. Nortier, & B. Tahitu (Eds.). *Artikelen van de Vijfde Sociolinguïstische Conferentie* (pp. 490-503). Delft: Eburon.

- Ten Thije, J.D. & Zeevaert, L. (2007). *Receptive Multilingualism. Linguistic Analyses, Language Policies and Didactic Concepts*. Amsterdam/Philadelphia: John Benjamin.
- Van Engen, K.J., Baese-Berk, M., Baker, R.E., Choi, A., Kim, M., & Bradlow, A.R. (2010). The Wildcat Corpus of Native- and Foreign-Accented English: Communicative Efficiency across Conversational Dyads with Varying Language Alignment Profiles. *Language and Speech*, 53(4), 510-540.
- Van Mulken, M. & Hendriks, B. (2012). Taalkeuze, Effectiviteit en Efficiëntie: een Experimentele Studie naar het Gebruik van Engels als Lingua Franca, Lingua Receptiva, T1-T2 en Moedertaal. In N. De Jong, K. Juffermans, M. Keijzer & L. Rasier (Eds.). *Papers of the Anéla 2012 Applied Linguistics Conference* (pp. 326-335). Delft: Eburon.
- Van Mulken, M. & Hendriks, B. (2015). Your Language or Mine? Or ELF? Comparing Effectiveness in English as a Lingua Franca and L1-L2 Interactions: Implications for Corporate Language Policies. *Journal of Multilingual and Multicultural Development*, 36(4), 402-422.
- Vicente, V.S. (2007). English-based Pidgins and Creoles: from Social to Cognitive Hypotheses of Acquisition. *Revista Virtual de Estudos da Linguagem – ReVEL*, 5(9), 1-30.
- Vollstedt, M. (2002). English as a Language for Internal Company Communications. In K. Knapp & C. Meierkord (Eds.). *Lingua Franca Communication* (pp. 87-108). Frankfurt am Main: Peter Lang.
- Welch, D., Welch, L., & Piekkari, R. (2005). Speaking in Tongues: the Importance of Language in International Management Processes. *International Studies of Management and Organization*, 35(1), 10-27.

Zweers, A. (2015). Effectiveness of Dutch-Swedish Communication in ELF and Receptive Multilingualism+. Unpublished manuscript, Department of Business Communication, Radboud University, Nijmegen, the Netherlands.

7. Appendix A: questionnaires

7.1 Questionnaire for Dutch participants

7.1.1 Part one

Deelnamenummer: _____

Geslacht

- Man
- Vrouw

Leeftijd:

Nationaliteit:

- Nederlandse
- Anders, namelijk: _____

Wat is uw moedertaal?

- Nederlands
- Duits
- Engels
- Anders, namelijk: _____

In welk land woont u?

- Nederland
- Duitsland
- Anders, namelijk: _____

Hoogst afgeronde opleiding:

- VMBO/MAVO
- HAVO
- VWO
- MBO
- HBO
- WO Bachelor
- WO Master

Hoe is uw beheersing van de volgende aspecten in het Engels? Kies voor elk aspect één bolletje.

	Heel slecht	Slecht	Matig	Goed	Heel goed
Schrijven	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Lezen	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Luisteren	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Spreken	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Hoe is uw beheersing van de volgende aspecten in het Duits? Kies voor elk aspect één bolletje.

Heel slecht	Slecht	Matig	Goed	Heel goed
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7.2 Questionnaire for German participants

7.2.1 Part one

Teilnehmernummer: _____

Geschlecht:

- Männlich
- Weiblich

Alter:

Nationalität:

- Deutsch
- Niederländisch
- Andere, nämlich: _____

Ihre Muttersprache:

- Deutsch
- Niederländisch
- Englisch
- Eine andere, nämlich: _____

Wo wohnen Sie?

- Deutschland
- Niederlande
- In einem anderen Land, nämlich in: _____

Was ist Ihr Bildungsniveau?

- Hauptschule
- Realschule
- Gymnasium
- Fachhochschule/Ausbildung
- Universität (Bachelor)
- Universität (Master)
- Anders, nämlich _____

Wie schätzen Sie ihre Englischkenntnisse ein?

	Sehr schlecht	Schlecht	Mäßig	Gut	Sehr gut
Schreibfähigkeiten	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Lesefähigkeiten	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Hörverständnis	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Sprachfähigkeiten	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Wie schätzen Sie ihre Niederländischkenntnisse ein?

8. Appendix B: pictures pretesting that were too difficult

Picture 1 pretest (source: Dreamstime, n.d.)



Picture 2 pretest manipulated



Picture 3 pretest (source: Shutterstock, n.d.)



Picture 4 pretest manipulated



9. Appendix C: pictures actual experiment

Picture 1: warm up task version 1 (source: Istockphoto, n.d.)



Picture 2: warm up task version 2



Picture 3: experiment first task version 1 (source: Dondrup, n.d.)



Picture 4: experiment first task version 2



Picture 5: experiment second task version 1 (source: Dondrup, n.d.)



Picture 6: experiment second task version 2

