

Bachelor thesis: The influences of visibility and language background on communicative
success in video calls

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Abstract:

The entire world in 2020 was advised to work from home because of a global pandemic. This meant meetings could no longer be held face-to-face but were scheduled online via services such as Zoom. This raises the question whether communication via Zoom is as effective as a face-to-face communication, As meetings for international companies need to be virtual as well, this issue could have consequences for communication between international colleagues. The present study tried to find out if visibility and language background influence the communicative success of a videocall. Native Dutch and native German Participants were asked in pairs to play a spot-the-difference game in English to test their communicative skills. The participants were divided in pairs where the camera would be turned on or in a condition with the camera turned off. The pairs had a shared language background (same L1) or a mixed language background (different L1). The participants were asked to fill in a questionnaire after the experiment was completed. The study found that having the camera turned on during a conversation increases the communicative success between the partners. However no significant differences were found between shared and non-shared language backgrounds and communicative success. These findings can be used to optimise online international meetings to be as efficient as possible.

Introduction:

In the modern days of 2021, where everyone is forced to work from home due to a pandemic, people have increased their use of online and virtual communication to maintain contacts. Not only has it become more difficult to keep up with social contacts but working relationships are also affected. In particular, international working relationships between co-workers are haltered as face-to-face meetings are nearly impossible. On top of that, this switch from physical to online meetings will most likely be a permanent one, as most employers will appreciate the time-saving aspect of online meetings over physical ones. Why would you send your managers all over the world for meetings when you can have the same meeting with your employees from home? It is the obvious choice from both a financial standpoint as well as an environmental one. However, a very important issue this raises is the fact that very little research is done on the communicative success of online video communication in comparison to face-to-face communication. In other words, would an online conversation between two people be as effective as a traditional face-to-face conversation? This question is especially relevant in the context of international communication between different speakers of a different L1 (native language) who have English as a lingua franca (ELF). Especially if the recent trend of online communication will be a permanent one. As this could influence the effectiveness of communication, which is something that should be taken into consideration

To be able to answer these questions, there should be an establishment of the description of communicative success. Van Mulken and Hendriks (2015) have identified communicative effectiveness on the basis of needed time and the achievement of the communication goals. In other words, what happens when the messages get across between dialogue partners. The communicative goals can be different objectives per experiment. In the case of this research, the communicative objective for the participants will be identifying differences between pictures. Multiple options are available to measure if communicative success has been assured. The Communication Accommodation Theory (CAT) by Giles and Baker (2008) provides several ideas as to how individuals alter their communication to one another. Communicative success can also increase likability, and prosocial behaviour. Both of these characteristics are also related to CAT. Likeability refers to how much a speaker is liked based on the communication. There is reason to believe that high communicative success can lead to a higher likeability. CAT states that by becoming more communicative similar (i.e., successful), the personal and social liking increases (Giles & Baker, 2008). This also seems to apply for prosocial behaviour, where behaviour is focussed on others. CAT

states that (pro)social approval of others is greater if the communication is similar. Perceived communicative success can also be measured to calculate how the participants experienced the effectiveness of the conversation. A combination of asking questions about likeability, prosocial behaviour and perceived communication successfulness will be asked to measure communicative success shall be used in the present study.

English has become the most important language of the world. English has been used as a Lingua Franca (ELF). There has been some debate recently if ELF is the most optimal way of communication to conquer linguistic diversity. Previous research has shown that there is a difference in communication strategy when a conversation is on L1-L2 (e.g. a native speaker of German who has a conversation in German with a native Dutch speaker), versus a conversation where both participants use English (Van Mulken & Hendriks, 2015). The paper argued that a conversation with L1-L2 interactions was more effective to achieve communicative goals than a conversation in ELF. However, Backus et al. (2013) stated that although the use of ELF is rather formal it is one viable option to communicate for people as English is the most spoken (second) language. The paper concludes a need of 'inclusive multilingualism' in Europe to remove the obstacle of linguistic diversity to make European regulations. However, ELF is still used in a business context, especially as the communication can be outside of Europe, where the inclusive multilingualism theory does not apply. As companies in the future still seem to use ELF, it is important to investigate the most optimal way of communicating in ELF as it will still be used in the future.

Another variable which could be of influence of measuring communicative success is shared or non-shared language background. In other words, whether the participants share the same native language or not. Bent and Bradlow (2003), found that native speakers of English were more intelligible to other native English listeners than non-native speakers. However, non-native listeners did not significantly rate the native English speaker as more intelligible than the non-native speaker. Bent and Bradlow (2003) named this 'matched interlanguage speech intelligibility benefit'. Their findings can provide the present study information about the mixed condition analysed in this study. When working with mixed language backgrounds, one is bound to look at alignment. The term alignment is explained as common ways of speaking to each other by Branigan et al. (2010). An example of this is both speakers saying the word 'sofa' in conversation, even when one of the speakers does not use that word regularly. Abrahams et al. (2019) looked into use of structural alignment between dialogue partners in non-native communication. The paper argued that structural alignment and prosocial behaviour in a second language (L2) did not significantly differ than in a L1.

However, the study does not provide insight in a situation where both participants have the same L1 but use ELF or situations where both participants have a different L1. Costa et al. (2008) argued that the alignment between L1-L2 conversations did differ from the L1-L1 conversation. Where the L1-L2 conversations used less alignment than the L1-L1 conversations. As alignment could be used to measure communicative success it is worth mentioning it.

One of the aspects where online video communication will differ from face-to-face communication is the option to turn a camera on or off during a conversation also known as visibility. Schweitzer et al. (2017) argued that not being able to see your conversation partner makes you want to connect with them more, while seeing them could create the need for more distance (based on accent). Moreover, the likability of the speaker increased if the partner was visible. The paper also indicated that if the participants were in the visible condition but low likability between partners, the partners would distance themselves. Likability turned out to be the main factor in that research. However, the study only used regional accents and did not test the effectiveness of the communication only the 'distance' between the participants. The study presented here, will try to test the likability of the speakers in these conversations as well as test it in the context of international communication and measure it between different native languages. As limited research has been conducted on the effects of visibility in conversations, in particular online conversations, several questions are left unanswered. Schweitzer et al. (2017) provided information about the likability of participants and their ability to see their partner. However, will the communicative success be affected by being able to see or not see your partner or does likability play a larger role? This would indicate a need for results for participants with a shared native language using ELF. Rasenberg et al. (2019) stated that communication, is multimodal, meaning more than one aspect is of influence when analysing it. Not only verbal cues are important when communicating, non-verbal communication could be of influence in communicative success and likability.

The need for more information about communicative success of ELF use in both shared native languages, as well as different native languages, calls for research. The expectation that online communication is going to be prominent in the future, will play a major role in communicative success and should therefore be further investigated. The research question this study will investigate is: What is the influence of visibility and sharedness of native language on the communicative success of the conversation, the likability of the speaker and prosocial behaviour of the participants in zoom conversations in

ELF? Based on the above discussion of previous research, it is hypothesised that in conditions where both speakers share the same native language, the participants will rate the communicative success higher the conditions with speakers with different native speakers. After all, there will be less linguistic distance between the speakers. On the other hand, there might be an uncomfortable feeling between speakers of the same native language when they have a conversation in English, as it is unnatural to not speak in the shared language. Furthermore, it is hypothesized that the participants in the non-visible condition will rate the communicative success as lower than the visible condition as the non-verbal communication will be of influence as stated by Rasenberg et al.(2019) Based on previous research, however, the first and last hypotheses are probably the most plausible.

Method:

The experiment was partly based on the experiment conducted by van Mulken and Hendriks (2015). This study used a spot the difference game in order to test the communicative success of the couples. The difference between the study by van Mulken & Hendriks (2015) and this study is that the spot-the-difference game was be conducted via Zoom instead of real life.

Design:

The design for this study is a 2X3 between-subjects design. The independent variables were visibility and native language. The dependent variables were (1) communicative success, measured in actual successfulness of the task and the perceived successfulness, (2) likability, measured using a likeability scale, and (3) prosocial behaviour, measured using an adapted prosocial behaviour scale. The decision for a between-subjects design was made on the basis that it was important for the participants to not know each other, to measure likability. If the pairs were exposed to multiple conditions and in turn played the game more than once, the likability could be affected. On top of that, there would be a risk of the participants realising what the goals of the experiment were, if they were to participate multiple times.

Stimulus materials:

The first independent variable manipulated in this study was visibility, with two conditions, camera off during the experiment or camera on during the experiment. The second independent variable was the native language of the participating couples. This independent

variable was tested in two conditions, a couple could be a mixed couple, meaning one of the participants was a native Dutch speaker, the second one a native German speaker. The other condition for this was the shared language background. Both speakers had the same native language, either Dutch-Dutch or German-German.

The study used stimulus materials to present to the participants during the experiment. The stimulus material used were four pictures in two sets (see appendix A). These pictures were similar apart from ten differences between the pairs. One set, referred to as the ocean scene, was used in the introduction and explanatory section to explain to the participants what to look for. The second set, the farm scene, was used in the actual experiment. The choice for the farm scene as the experimental scene rather than the ocean scene was based on the idea that, farm animals are more recognisable than marine animals. The differences between the pictures could be number of objects, the location of objects, colour changes in objects or an additional object in one of the pictures.

Furthermore, two sets of questionnaires were created: a pre-screening questionnaire and a questionnaire focussing on the likability of the partner, prosocial behaviour of the partner, the perceived successfulness of the task and the perceived communicative successfulness.

The main goal of the pre-screening questionnaire was to create a timetable for the experiments based on the available dates. The participants were asked to fill out available times to participate. Additional questions were asked about self-perceived language proficiency, nationality, age, and educational level (see appendix B). These questions were asked to gather background information on the participants.

The second questionnaire was used after the experiment was completed. The questions in this questionnaire were focussed on the likability of the partner, prosocial behaviour of the partner, the perceived successfulness of the task and the perceived communicative successfulness (see appendix C). The questions regarding likability were based on the likability scale of Reysen (2005), the questions about prosocial behaviour of the partner are based on the research by Caprara et al. (2005). It is important to note that both questionnaires were available in Dutch and German. Dutch participants were given the Dutch questionnaire, while the native German participants were presented with the German questionnaire. This was to minimise the chance of misunderstanding the question regardless of the level of English the participant had. See the instrumentation section below or more information on these questionnaires.

Instrumentation:

The questionnaire asked to fill out after the experiment was completed measured the most important dependent variables. The questionnaire asked questions concerning likability, prosocial behaviour, perceived task success, perceived communicative success and English language proficiency. Likability was measured with the likability scale developed by Reysen (2005). The scale includes eleven questions (e.g., 'This person is friendly' or 'This person is similar to me'; see appendix C). The scale used a five-point Likert scale (strongly disagree- strongly agree). The reliability of the likability items was good ($\alpha=.85$). Prosocial behaviour was measured using the method developed by Capara et al. (2005). This prosocial scale consisted out of sixteen items (e.g. 'I think this person shares things with their friends' or 'I think this person is empathetic with those in need' see appendix C). the scale used a five-point Likert scale (strongly disagree- strongly agree). The sixteen items had a good reliability ($\alpha=.91$). Perceived successfulness of the task was measured using a scale by Messner (2015), and consisted out of five items (e.g., 'I am generally happy with our collaboration' or 'I think we could have achieved more'). The scale used a five-point Likert scale (strongly disagree- strongly agree). The reliability for these items was acceptable ($\alpha=.785$). Perceived communicative success was measured using a six-item scale (e.g., 'the conversation went smoothly' or 'talking to this person was easy'). The items were anchored using a five-point Likert scale (strongly disagree- strongly agree). The reliability for these items was acceptable ($\alpha=.734$).

Subjects:

The participants had to be either native Dutch or native Germans to participate. The participants also had to be able to communicate in English as that will be the language used for the experiment. The study required participants to be in the age range of 16 to 30 years old. The motivation for this specific requirement was that the couples need to be similar in order to minimise the chance of confound variables such as age, playing a role in the evaluation of the speaker or communicative success. Secondly, the participants were asked during the pre-screening if they had a working camera and microphone. As the experiment took place via Zoom, the participants had to be able to be clearly understood by their partner as well as the researchers. Furthermore, it was adamant that the participants in the visible condition had a working camera to be visible to their partner, as well as a stable internet connection. The participants were randomly assigned.

In total, 52 participants completed the experiment in its entirety. 28 participants were native Dutch (53.8%) and 24 participants were native Germans (46.2%). The mean age of the participants was 23.96 years old ($SD = 3.35$; range 20-30). A majority of the participants was female (65.4%), opposed to male (34.6%). Most of the participants obtained their bachelor's degree (23 participants; 32.7%), followed by the A-levels (17 participants; 32.7%) and master's degree (9 participants; 17.3%). The average age when the participants started speaking English was 10.31 ($SD = 3.76$; range 7-22) and have on average, used English for 13.35 years ($SD = 3.76$; range 7-22). Most of the participants had spent time abroad in an English-speaking country (59.6%). The self-perceived English-learning ability was rated as 'average' ($M = 4.85$; $SD = 0.94$). The participants rated their English-understanding ability as 'good' ($M = 5.92$; $SD = 0.86$), as well as their English-speaking ability as 'good' ($M = 5.27$, $SD = 1.07$). As stated previously, the research was conducted in pairs. However, four participant groups were created to research if visibility of the partner has an influence on the likability or communicative success (shared language background with visibility, shared language background with no visibility, mixed language background with visibility or mixed language background with no visibility). Both the shared language background conditions consisted out of seven pairs (in total 14 pairs for shared language background). Both the mixed language background conditions consisted out of six pairs (in total 12 pairs for mixed language background).

A test was run to establish whether the different background variables (gender, age, educational level, spending time abroad in an English-speaking country, age from which participants started using English, English ability, years of using English) were equally distributed across all conditions. Gender ($\chi^2(3) = 2.98, p = .395$), educational level ($\chi^2(15) = 11.94, p = .683$) and number of participants who went abroad to an English speaking country ($\chi^2(3) = 4.28, p = .232$) were equally distributed across the groups. Age ($F(3,48) < 1, p = .892$), age at which participant started using English ($F(3,48) = 1.52, p = .222$), the number of years the participants have used English ($F(3,48) = 1.04, p = .385$), learning ability in English ($F(3,48) = 0.18, p = .898$), understanding ability in English ($F(3,48) = 0.22, p = .833$) and speaking ability in English ($F(3,48) = .092, p = .503$) were all equally distributed across the groups.

Procedure:

The participants were recruited via the researcher's social media. Each researcher posted the link to the pre-screening survey (see Appendix B) with additional requirements such as 'asking for native Dutch or native German speakers who speak English aged between 18 and 30 years.' The post only stated that the experiment would be conducted via Zoom. Once participants started to fill in the pre-screening their details were added to an excel file. This excel file contained the available dates and the participants selected as well as nationality. Each participant was given a participation number. Native Dutch participants received a number starting with the letter 'N' (e.g., N05). Native German participants were given a number starting with the letter 'D' (e.g., D10). The participants were matched based on the available timeslots. The decision was made to split up the researchers in pairs of two. This had multiple reasons. Firstly, time constraints. Limited time was available to do the experiments. Furthermore, as most of the participants were recruited directly from the researcher's social media, the participants could know one or more of the researchers or other participants, which in turn could lead to bias from both the researcher as well as the participant. Therefore, the matchups of the pairs were orchestrated to minimise the chance of two individual participants knowing each other, as well as the participant and researcher knowing each other. Following the scheduling of the participants, each research pair would email their individual participants with the date, time, zoom link and unique participation number. To get confirmation of the appointment, participants were asked to reply to the email (see appendix D). The email addresses were taken from the pre-screening questionnaire.

As the researchers were not all present at every experiment, a clear script had to be drawn up to be read during the experiment. Two separate scripts were created to differ between the visibility and non-visibility conditions (see appendix E). It was important that every research pair stuck to this script to remove bias. The differences spotted during the game would be counted individually by both researchers in a pair. Some confusion could arise between the pairs about what a difference is. It was established that a found difference was noted when the participants mutually agreed on a difference, even though it was not actually present. The difference was noted down independently by both researchers to ensure intercoder reliability. If the coding of the differences between the researchers was not similar, the researchers would go over what they noted as differences and any differences which was not certain would be removed from the differences found.

When an experiment was scheduled to take place, both researchers entered the zoom link five minutes before the participants were expected to arrive. In those five minutes both researchers checked if everything set up and decide which researcher is going to join which breakout room to show the image. The zoom conference had to set up in such a way, that anybody other than the researchers had to be placed in a waiting room before entering. On top of that, when entering the room, it was important that both the microphone and the camera were turned off regardless of visibility condition. Upon entering the room, the participants were asked if they could hear the researcher and were asked to reply via the chat. Researcher one started reading the script and reassure that the camera and microphone remain turned off (for now). The researcher reading the script explained the rules. The participants had the option to ask questions via the chat function. Afterwards, the participants were sent to their assigned breakout room with one of the researchers. In the breakout room, the researcher asked them to test their microphone and, if required, their camera. The participants were also asked if they brought a pen a paper to make notes about the image as instructed, as there would be no reference picture during the discussion. The participants where shown their image and the researcher set a timer for two minutes. After these two minutes, the researchers returned to the main room. The researched checked with each other if they were ready and once the participants had returned to the room, researcher one gave the start signal for their five-minute discussion and started the timer. Researcher two started the recording at this point. The researchers muted their microphone and turned off their camera. During the five-minute discussion, the researchers counted the differences. After the five minutes had passed, researcher one notified the participants that their time was up and continued to read the script. The link to the questionnaire was posted in the chat by researcher two. The participants would be given the time to fill out the questionnaire and to let the researchers know when they were done. When both participants had completed the questionnaire, the researcher read the final part of the script in which they asked not to discuss the experiment with others who might also participate. The participant was thanked for their participation and informed that the debriefing and results would be sent via their email once all data had been collected and analysed.

The entire experiment from the moment the participants entered the room until they left lasted approximately 17 minutes. The explanation of the rules took approximately five minutes the breakout room session a little over two minutes, the actual experiment five minutes, and the filling in of the questionnaire also approximately five minutes.

Statistical treatment:

The data was collected and analysed in SPSS. The results were analysed using multiple ANOVA's. As it was expected that the dependent variables would correlate, correlation analysis was conducted. Pearson's correlation was used to analyse the correlations between each separate dependent variable.

Results:

Several analyses have been conducted with the collected data. Table 1 shows the means and standard deviations of the dependent variables across the different conditions. For every dependent variable ANOVAs were analysed.

Table 1. Descriptives of the means, Standard deviations () and number of participants of all dependent variables across all possible experiment conditions. (1= strongly disagree, 5= strongly agree)

	Visible		Non visible	
	Shared language background	Non shared language background	Shared language background	Non shared language background
Likability	3.86 (0.53)	3.75 (0.42)	3.83 (0.62)	3.73 (0.31)
Prosocial behaviour	3.73 (0.55)	3.83 (0.37)	3.79 (0.55)	3.57 (0.38)
Communicative success	4.53 (0.53)	4.37 (0.50)	4.31 (0.42)	4.06 (0.32)
Task successfulness	3.81 (0.99)	3.71 (0.68)	3.80 (0.77)	3.60 (0.61)
Differences found	6.57 (1.65)	6.83 (1.53)	7.57 (2.59)	7.00 (2.41)

Likability:

A two-way ANOVA showed a non-significant effect for likability on visibility ($F(1,48) = 0.04, p = .841$), language background ($F(1,48) = 0.63, p = .430$). Furthermore, no significant interaction effect was found between the variables ($F(1,48) = 0.00, p = .972$).

Prosocial behaviour:

A two-way ANOVA for prosocial behaviour showed no significant effect on visibility ($F(1,48) = 0.55, p = .463$) or language background ($F(1,48) = 0.20, p = .654$). No interaction effect was found between the variables ($F(1,48) = 1.46, p = .233$).

Communicative success:

A two-way ANOVA showed a significant relationship between communicative success and visibility ($F(1,48) = 4.44, p=.040$). Participants who were able to see their partner during the experiment evaluated the communicative success between partners higher ($M=4.46, SD=0.51$) than the participants who were restricted from using the camera ($M=4.20, SD=0.39$). No significant effect was found for language background on communicative success ($F(1,48) = 2.52, p=.119$), and no interaction effect was found between the variables ($F(1,48) = 0.10, p=.754$).

Task success:

A two-way ANOVA for task success did not show a significant relationship for visibility ($F(1,48) = 0.09, p=.766$), language background ($F(1,48) = 0.46, p=.500$). No interaction effect was found ($F(1,48) = 0.06, p=.816$).

Differences found:

A two-way ANOVA for the found differences showed no significant effect for visibility ($F(1,48) = 0.99, p=.324$) or language background ($F(1,48) = 0.07, p=.793$). No interaction effect was found ($F(1,48) = 0.51, p=.480$).

Pearson Correlations:

The decision was made to look for correlations between all the dependent variables by using Pearson's correlations. A significant positive correlation was indicated between the found differences and the self-perceived task success rating ($r(52) = .45, p=.001$). This indicates that the self-perceived task success rating increased as more differences were found.

Furthermore, a significant positive correlation was found between the self-perceived task success rating and the self-perceived communicative success rating ($r(52) = .53, p<.001$).

The self-perceived communicative success increased when participants rated the self-perceived task successfulness higher. A similar significant positive correlation was found between the prosocial behaviour rating and the self-perceived task success rating ($r(52) = .35, p=.011$). This indicates that the higher the rating for the self-perceived task success, the prosocial behaviour rating also increased. Regarding, prosocial behaviour rating and the self-perceived communication success rating, another significant positive correlation was found ($r(52) = .35, p=.012$). The communicative success rating increased when the participants rated each other higher on pro social behaviour. A final significant positive correlation for the dependent variables was found between the likability rating of the partner and the prosocial

behaviour rating ($r(52)=.59, p<.001$). This indicates that when the likability rating of the participant was rated high, the prosocial behaviour rating also increased.

Correlation per condition:

Every condition (shared non-visible, shared visible, mixed non-visible, mixed visible) was individually tested for correlations between the dependent variables. These analyses were conducted to investigate if the dependent variables shared correlations for each of the conditions, as this could provide knowledge about possible connections between the conditions, too small for the ANOVA's. All results are listed below.

Shared visible condition

A significant positive correlation was found between the differences found and self-perceived task success rating ($r(14) = .75, p = .002$). This indicates that the self-perceived task success rating increased as more differences were found. However, no significant correlation was found between the prosocial behaviour rating of the participant and the likability rating ($r(14) = .52, p = .059$). A significant positive correlation was found between the prosocial behaviour rating of the participant and the self-perceived task success rating ($r(14) = .72, p = .004$). This indicates that when the prosocial rating of a participant was higher, the self-perceived task success rating also increased. Regarding, prosocial behaviour rating and the self-perceived communication success rating, A significant positive correlation was found ($r(14) = .58, p = .031$). This indicates that when the prosocial rating of a participant was higher, the self-perceived communicative success rating also increased. A final significant positive correlation was found between the self-perceived communicative success rating and the self-perceived task success rating ($r(14) = .70, p = .005$). This indicates that when the participant rated the communicative as higher, the task success rating also increased.

Shared non visible condition:

No significant correlation was found between the differences found and self-perceived task success rating ($r(14) = .33, p = .249$). A significant positive correlation was found between the prosocial behaviour rating of the participant and the likability rating ($r(14) = .76, p = .002$). This indicates that as the participant rates the prosocial behaviour of their partner higher, the likability of the partner also increases. However, no significant correlation was found between the prosocial behaviour rating of the participant and the self-perceived task success rating ($r(14) = .08, p = .781$). No significant correlation was found between the prosocial

behaviour rating of the participant and the self-perceived communicative success rating ($r(14) = .23, p = .437$). Finally, no significant correlation was found between the self-perceived communicative success rating and the self-perceived task success rating ($r(14) = .42, p = .131$).

Only one correlation was significant in this condition.

Mixed visible condition:

No significant correlation was found between the differences found and self-perceived task success rating ($r(12) = .11, p = .740$). No significant correlation was found between the prosocial behaviour rating of the participant and the likability rating ($r(12) = .39, p = .209$). Another insignificant correlation was found between the prosocial behaviour rating of the participant and the self-perceived task success rating ($r(12) = .23, p = .464$). No significant correlations were found between the prosocial behaviour rating of the participant and the self-perceived communicative success rating ($r(12) = .35, p = .269$) or between the self-perceived communicative success rating and the self-perceived task success rating ($r(12) = .42, p = .105$).

No significant correlations were found in this condition.

Mixed non visible condition:

A significant positive correlation was found between the differences found and self-perceived task success rating ($r(12) = .66, p = .021$). This indicates that the self-perceived task success rating increased as more differences were found. No significant correlations were found between the prosocial behaviour rating of the participant and the likability rating ($r(12) = .57, p = .055$), the prosocial behaviour rating of the participant and the self-perceived task success rating ($r(12) = .019, p = .952$), the prosocial behaviour rating of the participant and the self-perceived communicative success rating ($r(12) = .14, p = .672$) or the self-perceived communicative success rating and the self-perceived task success rating ($r(12) = .36, p = .256$).

One significant correlation was found in this condition

Discussion

the aim of this study was to identify the influence of language background and visibility on likability, communicative success, prosocial behaviour, and task successfulness during an online task solving exercise. The results indicated little significant findings. The only significant finding was a relationship between communicative success and visibility. The results indicate that when a participant was in the visible condition the participant rated the communicative success between partners higher than participants in the non-visible conditions. These findings possibly contradict the findings by Schweitzer et al. (2017), who argued that non-visible communication could make the participants more interested in the other and therefore, more likely concentrate on the conversation. However, the findings in this present study confirm the hypothesis that non-visible conditions are more likely to be rated lower on communicative success than the visible conditions. A possible explanation for this could be that communicative success is evaluated on more than verbal success, non-verbal communication could have a significant role in determining the communicative success of a conversation. These findings do align with the theory presented by Rasenberg et al. (2019) who stated that communication is multimodal and requires non-verbal communication to fully understand their partner. This could be the case for the non-visible conditions. However, future research is suggested.

Even though no further significant relationships could be indicated from the results, several correlations between the dependent variables were found. These correlations could be an indication that the study have significant results if a larger sample was used. Significant positive correlations were found in both the general analysis as well as the analyses for the shared visible condition. The correlations found in the shared visible condition (namely for the prosocial and likability variables), could be an indication that there is overlap between the dependent variables. Regardless of language background, communicative success is complex, would more variables make a difference? The findings do not align with the CAT theory by Giles and Baker (2008). They argued that in the CAT theory, communicative success is influenced by likability, if the communicative success was higher, the likability of the partner would also be higher. However, this study argues that more than solely likability is needed to influence communicative success More research with more participants is required to get definitive results and to either dispute or confirm the findings of this paper.

The study had limitations. Firstly, the number of participants. The results indicate that 52 individual participants might not be enough to have strong findings and to generalise these findings. There was a slight imbalance between number of pairs (7 pairs for the shared, 6

pairs for the mixed) which would not have been an issue if the total sample was bigger. With a limited number of participants, every imbalance between conditions could drastically alter the results. Furthermore, time constraints limited the study significantly. The original method was to transcribe the recordings to find differences in linguistic alignment between conditions in addition to the other dependent variables. This idea could not be executed as time to do the experiment and analysis was limited. Another limitation to the study is a possible bias for the differences found variable. The data for this variable was collected by the researchers for each pair. However, as only two out of six researchers were present at an experiment, there could be a difference between the three research couples and how they counted a difference. This in turn could lead to inconsistent results. It is believed that this limitation should be considered, especially because of the limited number of participants. The controllability of the experiment had also had limitations. All the experiments were conducted online, at home. This means that the research team could not check if the participant was paying attention, if the participant was using a pen and paper to take notes (as instructed) or in the worst case took a screenshot of the stimuli material and jeopardise the experiment. Several aspects were out of the control of research team, mostly due to the Covid-19 restrictions, which makes creating a controllable and identically repeatable experiment difficult. The language backgrounds chosen could be limiting the study and explain the reason for lacking significant findings. Both language backgrounds chosen for this study are Germanic languages (Dutch and German). As these languages are linguistically similar, as well as culturally similar, there is reason to assume that the differences when using ELF, are minimised. This could explain why the mixed condition failed to show significant results. This is another reason why the findings, cannot be generalised for a global scale, as only two languages, which share multiple similarities were tested.

Future research should look at the linguistic alignment of the communication in an experiment to gain a broader insight on online communication and CAT. Furthermore, future research should focus on background languages that have less similarity. An example of this could be using L1 speakers of a Romanic language and L1 speakers of an Asian language, to apply the findings on a global level. Reason for this is not only to provide further information for increasing global communication and not only in Europe, but also to prove the internal validity of this paper. There could be a possibility that the manipulation of the language background of the participants was not strong enough. There is a possibility that German and Dutch are too similar to each other both linguistically as well as culturally. Extensive research using language and cultures further apart would limit these validity issues. As the

findings suggest that visible conditions can have a positive impact on communicative success, it is suggested that further research focusses on this. Could this communicative success be based on non-verbal cues only observable when both partners are visible to one another?

To conclude, this study has provided several important insights in collaboratively solving a task via videocall. This study recommends multinational companies and organisations who decide to plan meetings or projects groups online, to require every participant to turn on their camera as this study has indicated that visibility has a significant effect on the communicative success of a pair. Although further research is required.

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APPENDENCIES:

Appendix A: stimulus material

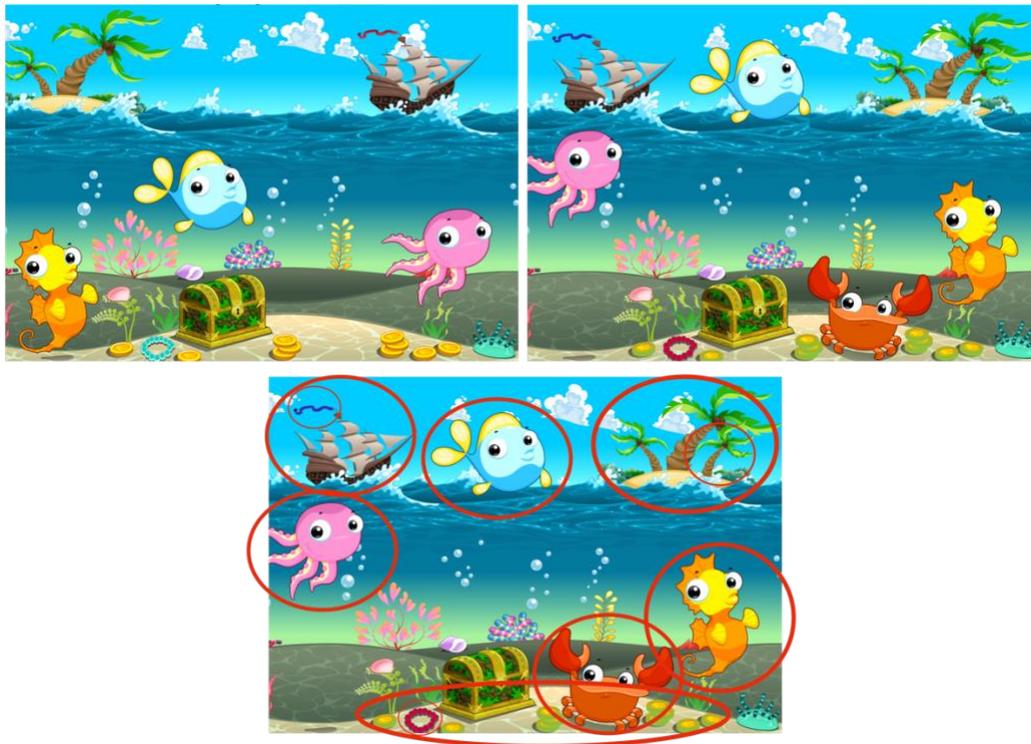


Figure 1: ocean scene. Used to explain rules of the game. The figure was presented to the participants the same as shown above.

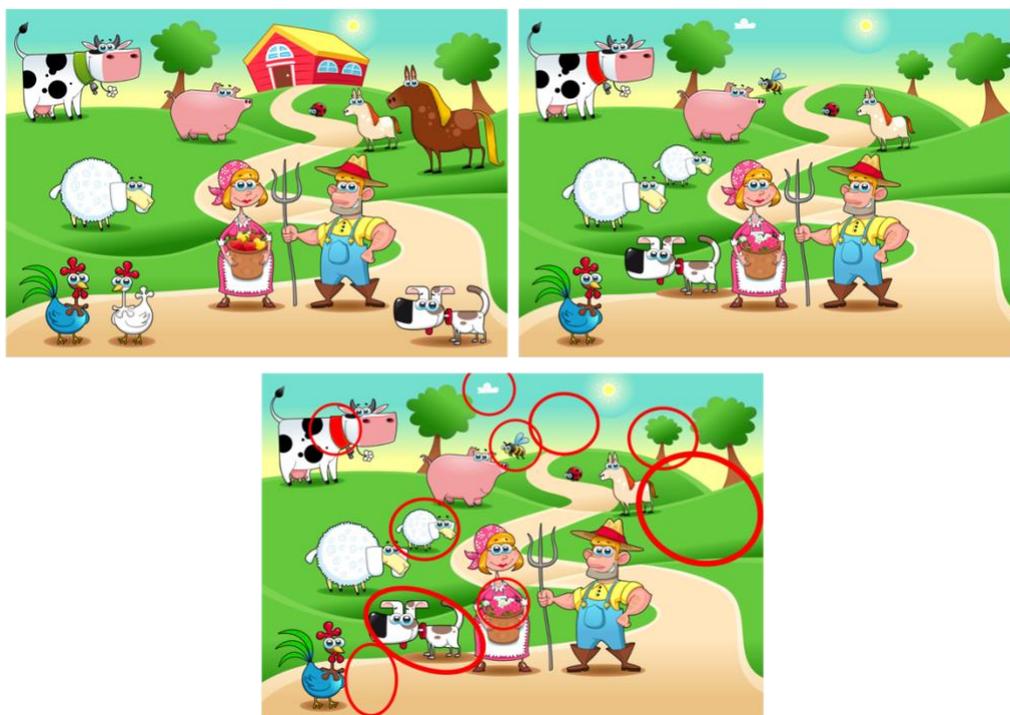


Figure 2: farm scene. Used to present to the participants to memorise in the breakout room. The left top image was shown by researcher one to participant A for two minutes. The right

top image was shown by researcher two to participant B for two minutes. The lower image shows the solution (only used as reference for the researchers)

Appendix B: Pre-screening questionnaire in both Dutch and German.

Pre-Screening

Start of Block: Introduction & Consent

Q1

Beste deelnemer,

Bedankt voor uw bereidheid om aan deze studie mee te werken! De gegevens die in deze vragenlijst en het latere experiment worden verzameld, zijn onderdeel van onze bachelorscriptie voor de opleiding International Business Communication. U heeft slechts enkele minuten nodig om deze vragenlijst te beantwoorden, zodat wij de nodige achtergrondinformatie hebben voordat het experiment via het Zoom-platform plaatsvindt. Daarom vragen we u om de vragen zo eerlijk mogelijk te beantwoorden en door te geven op welke data u beschikbaar bent voor deelname aan het experiment.

Deelname aan het onderzoek is vrijwillig. Al uw gegevens blijven anoniem en alle gegevens worden vertrouwelijk behandeld in overeenstemming met de bepalingen van de wetgeving inzake gegevensbescherming.

Neem bij vragen of problemen contact op met g.kootstra@let.ru.nl.

Wij danken u voor uw inzet en hulp!

Q1 Liebe Teilnehmer*innen,

vielen Dank für Ihre Bereitschaft zur Teilnahme an dieser Studie! Die in diesem Fragebogen und dem späteren Experiment erhobenen Daten werden im Rahmen unserer Bachelorarbeit im International Business Communication Programm erhoben. Das Beantworten dieses Fragebogens dauert nur ein paar Minuten, da wir hier die benötigten

Hintergrundinformationen von Ihnen erfragen, bevor das Experiment über die Plattform Zoom stattfindet. Wir bitten Sie also die Fragen ehrlich zu beantworten und uns die Termine mitzuteilen, an denen Sie das Experiment durchführen können.

Die Teilnahme an der Studie ist freiwillig. Alle Ihre Angaben bleiben anonym und alle Daten werden vertraulich nach Bestimmungen der Datenschutzgesetzgebung behandelt.

Bei Fragen und Problemen wenden Sie sich bitte an g.kootstra@let.ru.nl.

Wir bedanken uns für Ihre Mühe und Mithilfe!

Q2 Introduction We would like to invite you to participate in a research study for a bachelor thesis. Participation is voluntary. If you want to participate, we will ask you to sign a consent form. Before you decide whether or not to take part, we will give you information about the study. Please take time to read the following information carefully. If something is not clear, or you would like more information, please ask the researcher.

Outline and aim of the research study In this research study, we want to analyze the communication on video conferencing platforms. **What is going to happen to you?** In this research study, you will take part in an experiment in which you will communicate with another person with the goal to complete a collaborative spot-the-difference task. The whole experiment will last about 15 minutes. **Voluntary participation** Your participation in this research is voluntary. This means that you can withdraw your participation and consent at any time during the research, without giving a reason. Even up to two weeks after participating you can have your research data and personal data removed, by sending a request to g.kootstra@let.ru.nl. **What will happen to my data?** The research data we collect during this study will be used by scientists as part of data sets, articles and presentations. The anonymized research data is accessible to other scientists for a period of at least 10 years. Personal data collected remain confidential. When we share data with other researchers, these data cannot be traced back to you. Video and audio recordings will be made during this study. These recordings are used for scientific purposes. The recordings cannot be made fully anonymous; therefore, you will be identifiable in the recordings. However, the data will be transcribed and deleted in due time. **More information?** If you have any questions or would like more information about the research study, please contact us using the contact information at the bottom of this letter. **Ethical assessment and complaints** This research study follows the guidelines provided by the Ethics Assessment Committee Humanities of Radboud University. Should you have any complaints regarding this research, please contact the research supervisor: Gerrit-Jan Kootstra (g.kootstra@let.ru.nl) You can also file a complaint with the secretary of the Ethics Assessment Committee Humanities of Radboud University (etc-gw@ru.nl) For questions on data processing in this research, please contact: dataofficer@let.ru.nl **Consent form** If you want to participate in this research study, we ask you to complete the following consent form and the rest of the survey in order to give consent. With this consent, you declare that you have understood the information we have provided and consent to participate in this research study. Kind regards, *Lea Köster, Benita Welz, Konstantin Kohlhage, Britt Cardol, Roel Beumer & Luca Rusch* For any questions or concerns regarding the research feel free to contact Dr. G.J. Kootstra (g.kootstra@let.ru.nl)

For any question regarding the organizational component (appointments etc.) feel free to contact Lea Köster (lea.koster@student.ru.nl) for German participants and Roel Beumer

(roel.beumer@student.ru.nl) for Dutch participants.

Q2 Introduction We would like to invite you to participate in a research study for a bachelor thesis. Participation is voluntary. If you want to participate, we will ask you to sign a consent form. Before you decide whether or not to take part, we will give you information about the study. Please take time to read the following information carefully. If something is not clear, or you would like more information, please ask the researcher.

Outline and aim of the research study In this research study, we want to analyze the communication on video conferencing platforms. **What is going to happen to you?** In this research study, you will take part in an experiment in which you will communicate with another person with the goal to complete a collaborative spot-the-difference task. The whole experiment will last about 15 minutes. **Voluntary participation** Your participation in this research is voluntary. This means that you can withdraw your participation and consent at any time during the research, without giving a reason. Even up to two weeks after participating you can have your research data and personal data removed, by sending a request to g.kootstra@let.ru.nl. **What will happen to my data?** The research data we collect during this study will be used by scientists as part of data sets, articles and presentations. The anonymized research data is accessible to other scientists for a period of at least 10 years. Personal data collected remain confidential. When we share data with other researchers, these data cannot be traced back to you. Video and audio recordings will be made during this study. These recordings are used for scientific purposes. The recordings cannot be made fully anonymous; therefore, you will be identifiable in the recordings. However, the data will be transcribed and deleted in due time. **More information?** If you have any questions or would like more information about the research study, please contact us using the contact information at the bottom of this letter. **Ethical assessment and complaints** This research study follows the guidelines provided by the Ethics Assessment Committee Humanities of Radboud University. Should you have any complaints regarding this research, please contact the research supervisor: Gerrit-Jan Kootstra (g.kootstra@let.ru.nl) You can also file a complaint with the secretary of the Ethics Assessment Committee Humanities of Radboud University (etc-gw@ru.nl) For questions on data processing in this research, please contact: dataofficer@let.ru.nl

Consent form If you want to participate in this research study, we ask you to complete the following consent form and the rest of the survey in order to give consent. With this consent, you declare that you have understood the information we have provided and consent to participate in this research study. Kind regards, *Lea Köster, Benita Welz, Konstantin Kohlhage, Britt Cardol, Roel Beumer & Luca Rusch* For any questions or concerns regarding the research feel free to contact Dr. G.J. Kootstra (g.kootstra@let.ru.nl)

For any question regarding the organizational component (appointments etc.) feel free to contact Lea Köster (lea.koster@student.ru.nl) for German participants and Roel Beumer (roel.beumer@student.ru.nl) for Dutch participants.

Q3 Consent form Statement of participant The aim of the research study has been outlined to me. I was given the opportunity to ask questions regarding the research study. I participate voluntarily in the research study. I understand that I can stop at any point during the research study, should I wish to do so. I understand how the data of the research study

will be stored and how they will be used. I consent to participating in the research study as described in the information document.

I consent (1)

I do not consent (2)

Q3 Consent form Statement of participant The aim of the research study has been outlined to me. I was given the opportunity to ask questions regarding the research study. I participate voluntarily in the research study. I understand that I can stop at any point during the research study, should I wish to do so. I understand how the data of the research study will be stored and how they will be used. I consent to participating in the research study as described in the information document.

I consent (1)

I do not consent (2)

Q4 In addition, I give permission to (please check all that apply):

	Yes (1)	No (2)
process my name & e-mail address (1)	<input type="radio"/>	<input type="radio"/>
have video and audio recordings made of me (2)	<input type="radio"/>	<input type="radio"/>
use these identifiable recordings for scientific purposes (3)	<input type="radio"/>	<input type="radio"/>
have audio recordings transcribed (4)	<input type="radio"/>	<input type="radio"/>
use the anonymised transcripts for scientific research (5)	<input type="radio"/>	<input type="radio"/>

Q4 In addition, I give permission to (please check all that apply):

	Yes (1)	No (2)
process my name & e-mail address (1)	<input type="radio"/>	<input type="radio"/>
have video and audio recordings made of me (2)	<input type="radio"/>	<input type="radio"/>
use these identifiable recordings for scientific purposes (3)	<input type="radio"/>	<input type="radio"/>
have audio recordings transcribed (4)	<input type="radio"/>	<input type="radio"/>
use the anonymised transcripts for scientific research (5)	<input type="radio"/>	<input type="radio"/>

End of Block: Introduction & Consent

Start of Block: Personal Background Questions

Q5 Wat is uw leeftijd?

Q5 Was ist Ihr Alter?

Q6 Wat is uw nationaliteit?

- Duits (1)
- Nederlands (2)
- Ik heb een andere nationaliteit (3)

Q6 Was ist Ihre Nationalität?

- Deutsch (1)
 - Niederländisch (2)
 - Ich habe eine andere Nationalität (3)
-

Q7 Wat is uw moedertaal?

- Duits (1)
- Nederlands (2)
- Ik heb een andere moedertaal (3)

Q7 Was ist Ihre Muttersprache?

- Deutsch (1)
 - Niederländisch (2)
 - Ich habe eine andere Muttersprache (3)
-

Q8 Wat is uw opleidingsniveau?

- Voorbereidend Wetenschappelijk Onderwijs (VWO) (1)
- Hoger Algemeen Voortgezet Onderwijs (HAVO) (2)
- Voorbereidend Middelbaar Beroepsonderwijs (VMBO) (3)
- Middelbaar Beroepsonderwijs (MBO) (4)
- Hoger Beroepsonderwijs (HBO) (5)
- WO bachelor (6)
- WO master (7)
- Anders (8)

Q8 Was ist Ihr Bildungsniveau?

- Abitur (1)
- Bachelor (2)
- Master (3)
- Lehre/Berufsausbildung (4)
- Fachhochschulreife (5)
- Realschulabschluss (6)
- noch in schulischer Ausbildung (7)
- Anderes (8)

End of Block: Personal Background Questions

Start of Block: Appointment

Q14 Om ons experiment uit te voeren vragen wij u een afspraak te maken waarin wij met u in een Zoom-gesprek zitten. Het totale experiment duurt maximaal 30 minuten. Geef alstublieft alle momenten aan waarop u beschikbaar bent. Dinsdag 20 april ontvangt u via de mail een bevestiging met de datum en tijd waarop wij het experiment met u gaan uitvoeren.

Neem bij vragen of problemen met betrekking tot de planning contact op met Roel Beumer: roel.beumer@student.ru.nl

Q14 Um unser Experiment durchzuführen benötigen wir einen Termin in dem wir eine Zoom Konferenz mit Ihnen durchführen können. Das Experiment dauert maximal 30 Minuten. Bitte geben Sie alle Termine an, an denen Sie Zeit haben. Am Dienstag, den 20. April bekommen Sie eine Bestätigung E-Mail an welchem Termin wir das Experiment mit Ihnen durchführen werden.

Bei Fragen oder Problemen wenden Sie sich bitte an Lea Köster (lea.koster@student.ru.nl).

Q15 Wat is uw naam?

Q15 Was ist Ihr Name?

Q16 Voer uw e-mailadres in:

Q16 Bitte geben Sie Ihre E-Mail Adresse an:

Q17 Voer uw telefoonnummer in: (optioneel)

Q17 Bitte geben Sei Ihre Telefonnummer an: (optional)

Q18 Ik heb beschikking over een correct werkende computer met webcam, mircofoon en een sterke internetverbinding om deel te nemen aan een videogesprek.

Ja (1)

Nee (2)

Q18 Ich habe Zugang zu einem Computer mit Webcam und einer ausreichenden Internetverbindung um an einer Videokonferenz teilzunehmen.

Ja (1)

Nein (2)

Q19 Wanneer bent u beschikbaar in de nabije toekomst?

	9.00- 10.00 (1)	10.00- 11.00 (2)	11.00- 12.00 (3)	12.00- 13.00 (4)	13.00- 14.00 (5)	14.00- 15.00 (6)	15.00- 16.00 (7)	16.00- 17.00 (8)	18.00- 19.00 (9)	Not on this day (10)
Thursday, 22. April (1)	<input type="checkbox"/>									
Friday, 23. April (2)	<input type="checkbox"/>									
Saturday, 24. April (3)	<input type="checkbox"/>									
Sunday, 25. April (4)	<input type="checkbox"/>									
Monday, 26. April (5)	<input type="checkbox"/>									

Q19 An welchen Tagen sind Sie in der nächsten Zeit verfügbar? (bitte alle an denen Sie können angeben)

	9.00-10.00 (1)	10.00-11.00 (2)	11.00-12.00 (3)	12.00-13.00 (4)	13.00-14.00 (5)	14.00-15.00 (6)	15.00-16.00 (7)	16.00-17.00 (8)	18.00-19.00 (9)	Not on this day (10)
Thursday, 22. April (1)	<input type="checkbox"/>									
Friday, 23. April (2)	<input type="checkbox"/>									
Saturday, 24. April (3)	<input type="checkbox"/>									
Sunday, 25. April (4)	<input type="checkbox"/>									
Monday, 26. April (5)	<input type="checkbox"/>									

Q20 Heeft u nog opmerkingen over de afspraak, dan kunt u die hier aangeven:

Q20 Wenn Sie uns bezüglich des Termins irgendetwas mitteilen müssen, könne Sie das hier tun:

End of Block: Appointment

Start of Block: Assess own language proficiency

Q9 Geef de leeftijd aan waarop u Engels begon te spreken en begrijpen. Vermeld ook het aantal jaren dat u deze taal hebt gebruikt.



Q9 Geben Sie das Alter an, in welchem Sie begonnen haben, Englisch zu sprechen und zu verstehen. Geben Sie auch die Anzahl der Jahre an, die Sie diese Sprache schon verwendet haben.



Q10 Als u drie maanden of langer in een Engelstalig land hebt gewoond of gereisd, geef de naam van elk land, verblijfsduur (in maanden) en de frequentie van het gebruik van de taal voor elk land.

Voer de frequentie in met het volgende nummer: Nooit (1); Zeldzaam (2); Soms (3); Regelmatig (4); Vaak (5); Meestal (6); Altijd (7)

Land 1 (1) _____

Verblijfsduur land 1 (in maanden) (2)

Frequentie van taalgebruik Land 1 (3)

Land 2 (4) _____

Verblijfsduur land 2 (in maanden) (5)

Frequentie van taalgebruik Land 2 (6)

Land 3 (7) _____

Verblijfsduur land 3 (in maanden) (8)

Frequentie van taalgebruik Land 3 (9)

Q10 Wenn Sie drei Monate oder länger im englischsprachigen Raum gelebt haben oder gereist sind, geben Sie für jedes Land den Namen an, Ihre Aufenthaltsdauer (in Monaten) und die Häufigkeit der Sprachverwendung für jedes Land.

Häufigkeit bitte mit der folgenden Nummer eingeben: Nie (1); Selten (2); Manchmal (3); Regelmäßig (4); Oft (5); Meistens (6); Immer (7)

Land 1 (1) _____

Aufenthaltsdauer Land 1 (in Monaten) (2)

Häufigkeit der Sprachverwendung Land 1 (3)

Land 2 (4) _____

Aufenthaltsdauer Land 2 (in Monaten) (5)

Häufigkeit der Sprachverwendung Land 2 (6)

Land 3 (7) _____

Aufenthaltsdauer Land 3 (in Monaten) (8)

Häufigkeit der Sprachverwendung Land 3 (9)

Q11 Beoordeel uw taalvaardigheid. Met andere woorden, hoe goed denkt u dat u nieuwe talen leert in vergelijking met uw vrienden of andere mensen die u kent?

Heel slecht (1)

Slecht (2)

Beperkt (3)

Gemiddeld (4)

Goed (5)

Zeer goed (6)

Uitstekend (7)

Q11 Stufen Sie Ihre englischen Sprachlernfähigkeit ein. Mit anderen Worten, wie gut denken Sie, sind Sie darin, neue Sprachen zu lernen, im Vergleich zu Ihren Freunden oder anderen Personen, die Sie kennen?

- Sehr schlecht (1)
- Schlecht (2)
- Begrenzt (3)
- Durchschnittlich (4)
- Gut (5)
- Sehr gut (6)
- Ausgezeichnet (7)

Q12 Beoordeel uw huidige taalvaardigheid op het gebied van begrijpen en spreken van de Engelse taal.

	Heel slecht (1)	Slecht (2)	Beperkt (3)	Gemiddeld (4)	Goed (5)	Zeer goed (6)	Uitstekend (7)
Begrijpen (1)	<input type="radio"/>						
Spreken (2)	<input type="radio"/>						

Q12 Stufen Sie Ihre derzeitigen Fähigkeiten in den Bereichen Verstehen und Sprechen der Englischen Sprache ein.

	Sehr schlecht (1)	Schlecht (2)	Begrenzt (3)	Durchschnittlich (4)	Gut (5)	Sehr gut (6)	Ausgezeichnet (7)
Verstehen (1)	<input type="radio"/>						
Sprechen (2)	<input type="radio"/>						

Q13 Schat in hoeveel uur u per dag de Engelse taal gebruikt voor de volgende activiteiten.

Spreken, tv kijken, lezen, luisteren naar podcasts of radio, social media en internet, schrijven.

Spreken : _____ (1)

TV kijken : _____ (2)

Lezen : _____ (3)

Luisteren naar podcast of radio : _____ (4)

Social media en internet : _____ (5)

Schrijven : _____ (6)

Total : _____

Q13 Schätzen Sie, wie viele Stunden pro Tag Sie Englisch für die folgenden Aktivitäten verwenden: Sprache, Fernsehen, Lesen, Podcast oder Radio hören, Social Media und Internet, Schreiben

Sprache : _____ (1)

Fernsehen : _____ (2)

Lesen : _____ (3)

Podcast oder Radio hören : _____ (4)

Social Media und Internet : _____ (5)

Schreiben : _____ (6)

Total : _____

End of Block: Assess own language proficiency

Appendix C: Post experiment questionnaire in both Dutch and German

Questionnaire

Start of Block: Default Question Block

Introduction Liebe*r Teilnehmer*in,

Vielen Dank für Ihre Bereitschaft, an dieser Studie der Radboud Universität teilzunehmen. Das Verfahren dieser Forschungsstudie umfasst das Ausfüllen eines Online-Fragebogens. Das Ausfüllen dieses Fragebogens dauert ungefähr 5-10 Minuten.

Ihre Teilnahme an dieser Studie ist freiwillig und Sie können jederzeit zurücktreten. Alle Ihre Antworten bleiben vertraulich, werden anonym verarbeitet und werden nur für diese Studie verwendet.

Bei Fragen oder Problemen bitte melden Sie sich an die Forscher im Zoom Meeting.

Introduction Beste deelnemer,

Bedankt voor uw deelname aan dit onderzoek van de Radboud Universiteit. Het proces van dit onderzoek omvat het invullen van een online vragenlijst. Het invullen van deze vragenlijst duurt ongeveer 5 - 10 minuten.

Uw deelname aan dit onderzoek is vrijwillig en u kunt zich op elk moment terugtrekken. Al uw antwoorden blijven vertrouwelijk, worden anoniem verwerkt en worden alleen gebruikt voor dit onderzoek.

Met vragen of problemen kunt u zich melden bij de onderzoeker in de Zoom meeting.

Q9 Bitte geben Sie hier Ihre Teilnehmer Nummer an:

Q9 Voer hier uw deelnemernummer in:

Q12 Mit welchem Geschlecht identifizieren Sie sich?

- Männlich (1)
- Weiblich (2)
- Divers (3)
- keine Angabe (4)

Q12 Met welk geslacht identificeert u zich?

- Man (1)
 - Vrouw (2)
 - Divers (3)
 - Niet gespecificeerd (4)
-

Likeability scale Bitte lesen Sie jede Aussage und geben Sie an, ob Sie dieser zustimmen oder nicht zustimmen im Hinblick auf Ihren Teilnehmerpartner.

	Stimme überhaupt nicht zu (1)	Stimme nicht zu (2)	Stimme weder zu noch lehne ab (3)	Stimme zu (4)	Stimme voll und ganz zu (5)
Diese Person ist freundlich (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Diese Person ist liebenswert (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Diese Person ist warmherzig (3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Diese Person ist zugänglich (4)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Ich würde diese Person um Rat bitten (5)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Ich würde diese Person gerne als Mitarbeiter haben (6)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Ich würde gerne mit dieser Person zusammen wohnen (7)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Ich wäre gerne mit dieser Person befreundet (8)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Diese Person ist attraktiv (9)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Diese Person ist mir ähnlich (10)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Diese Person ist kenntnisreich (11)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Likeability scale Lees elke verklaring en geef aan in hoeverre u het met de stelling eens of oneens bent.

	Helemaal mee oneens (1)	Mee oneens (2)	Neutraal (3)	Mee eens (4)	Helemaal mee eens (5)
Deze persoon is vriendelijk (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Deze persoon is sympathiek (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Deze persoon is warmhartig (3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Deze persoon is benaderbaar (4)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Ik zou deze persoon om advies vragen (5)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Ik zou deze persoon een fijne collega vinden (6)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Ik zou deze persoon een fijne huisgenoot vinden (7)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Ik zou beviend willen zijn met deze persoon (8)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Deze persoon is aantrekkelijk (9)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Deze persoon lijkt op mij (10)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Deze persoon is deskundig (11)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q13 Bitte lesen Sie jede Aussage und geben Sie an, ob Sie dieser zustimmen oder nicht zustimmen im Hinblick auf Ihren Teilnehmerpartner.

	Stimme überhaupt nicht zu (1)	Stimme nicht zu (2)	Stimme weder zu noch lehne ab (3)	Stimme zu (4)	Stimme voll und ganz zu (5)
Diese Person ist freundlich (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Diese Person ist liebenswert (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Diese Person ist warmherzig (3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Diese Person ist zugänglich (4)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Ich würde diese Person um Rat bitten (5)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Ich würde diese Person gerne als Mitarbeiter haben (6)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Ich würde gerne mit dieser Person zusammen wohnen (7)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Ich wäre gerne mit dieser Person befreundet (8)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Diese Person ist attraktiv (9)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Diese Person ist mir ähnlich (10)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Diese Person ist kenntnisreich (11)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q13 Lees elke verklaring en geef aan in hoeverre u het met de stelling eens of oneens bent.

	Helemaal mee oneens (1)	Mee oneens (2)	Neutraal (3)	Mee eens (4)	Helemaal mee eens (5)
Deze persoon is vriendelijk (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Deze persoon is sympathiek (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Deze persoon is warmhartig (3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Deze persoon is benaderbaar (4)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Ik zou deze persoon om advies vragen (5)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Ik zou deze persoon een fijne collega vinden (6)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Ik zou deze persoon een fijne huisgenoot vinden (7)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Ik zou beviend willen zijn met deze persoon (8)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Deze persoon is aantrekkelijk (9)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Deze persoon lijkt op mij (10)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Deze persoon is deskundig (11)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Prosocial behaviour Bitte lesen Sie jede Aussage und geben Sie an, ob Sie dieser zustimmen oder nicht zustimmen.

	Stimme überhaupt nicht zu (1)	Stimme nicht zu (2)	Stimme weder zu noch lehne ab (3)	Stimme zu (4)	Stimme voll und ganz zu (5)
Ich denke, diese Person freut sich, ihren Freunden / Kollegen bei Aktivitäten zu helfen (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Ich denke, diese Person teilt Dinge mit ihren Freunden (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Ich denke, diese Person versucht anderen zu helfen (3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Ich denke, diese Person steht für freiwillige Aktivitäten zur Verfügung, um Bedürftigen zu helfen (4)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Ich denke, diese Person ist einfühlsam gegenüber Bedürftigen (5)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Ich denke, diese Person würde sofort Bedürftigen helfen (6)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Ich denke,
diese Person
tut, was sie
kann, um
anderen zu
helfen ihre
Probleme aus
wem Weg zu
schaffen (7)

Ich denke,
diese Person
fühlt intensiv,
was andere
fühlen (8)

Ich denke,
diese Person
ist bereit, ihr
Wissen und
ihre
Fähigkeiten
anderen zur
Verfügung zu
stellen (9)

Ich denke,
diese Person
versucht
diejenigen zu
trösten, die
traurig sind
(10)

Ich denke,
diese Person
hat kein
Problem damit
Geld und
andere Dinge
zu verleihen
(11)

Ich denke,
diese Person
versetzt sich
leicht in die
Lage derer, die
sich unwohl
fühlen (12)

Ich denke,
diese Person
versucht,
Menschen die
Hilfe brauchen
nahe zu sein
und sich um
sie zu
kümmern (13)

Ich denke,
diese Person
teilt leicht mit
seinen/ihren
Freunden in
jeder
Gelegenheit,
die sich ihnen
bietet (14)

Ich denke,
diese Person
verbringt Zeit
mit Freunden,
die sich
einsam fühlen
(15)

Ich denke,
diese Person
spürt sofort
das
Unbehagen
ihrer/seiner
Freunde (16)

Prosocial behaviour Lees elke verklaring en geef aan in hoeverre u het met de stelling eens of oneens bent.

	Helemaal mee oneens (1)	Mee oneens (2)	Neutraal (3)	Mee eens (4)	Helemaal mee eens (5)
Ik denk dat deze persoon graag vrienden / collega's helpt bij hun activiteiten (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Ik denk dat deze persoon dingen deelt met vrienden (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Ik denk dat deze persoon anderen probeert te helpen (3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Ik denk dat deze persoon beschikbaar is voor vrijwilligersactiviteiten om mensen die hulp nodig hebben te helpen (4)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Ik denk dat deze persoon empathie heeft voor mensen die hulp nodig hebben (5)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Ik denk dat deze persoon mensen die hulp nodig hebben onmiddellijk zou helpen (6)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Ik denk dat deze persoon doet wat mogelijk is om anderen te helpen voorkomen dat ze in de problemen komen (7)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Ik denk dat deze persoon intens voelt wat anderen voelen (8)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Ik denk dat deze persoon bereid is zijn kennis en vaardigheden met anderen te delen (9)	<input type="radio"/>				
Ik denk dat deze persoon mensen die verdrietig zijn probeert te troosten (10)	<input type="radio"/>				
Ik denk dat deze persoon makkelijk geld en andere dingen uitleent (11)	<input type="radio"/>				
Ik denk dat deze persoon zichzelf makkelijk kan verplaatsen in mensen die zich onprettig voelen (12)	<input type="radio"/>				
Ik denk dat deze persoon toenadering zoekt en zorgt voor mensen die hulp nodig hebben (13)	<input type="radio"/>				
Ik denk dat deze persoon makkelijk dingen met vrienden deelt in elke gelegenheid die hem wordt geboden (14)	<input type="radio"/>				
Ik denk dat deze persoon tijd doorbrengt met vrienden die zich eenzaam voelen (15)	<input type="radio"/>				
Ik denk dat deze persoon onmiddellijk het ongemak van vrienden aanvoelt, zelfs als het niet direct met hem wordt gecommuniceerd (16)	<input type="radio"/>				

Q10 Bitte lesen Sie jede Aussage und geben Sie an, ob Sie dieser zustimmen oder nicht zustimmen im Hinblick auf die Zusammenarbeit mit ihrem Teilnehmerpartner.

	Stimme überhaupt nicht zu (1)	Stimme nicht zu (2)	Stimme weder zu noch lehne ab (3)	Stimme zu (4)	Stimme voll und ganz zu (5)
Ich bin generell zufrieden mit unserer Zusammenarbeit (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Wir sind mindestens so effektiv wie wenn ich in meiner eigenen Sprache kommuniziere (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Wir sind mindestens so effizient wie wenn ich in meiner eigenen Sprache kommuniziere (3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Ich denke, die Ergebnisse unserer Zusammenarbeit hätten besser sein können (4)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Ich denke, wir hätten mit unserer Zusammenarbeit mehr erreichen können. (5)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q10 Lees elke verklaring en geef aan in hoeverre u het met de stelling eens of oneens bent.

	Helemaal mee oneens (1)	Mee oneens (2)	Neutraal (3)	Mee eens (4)	Helemaal mee eens (5)
Ik ben over het algemeen tevreden over onze samenwerking (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
We zijn minstens zo effectief als wanneer ik in mijn eigen taal communiceer (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
We zijn minstens zo efficiënt als wanneer ik in mijn eigen taal communiceer (3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Ik denk dat de resultaten van onze samenwerking beter zouden kunnen zijn (4)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Ik denk dat we met onze samenwerking meer hadden kunnen bereiken (5)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q11 Bitte lesen Sie jede Aussage und geben Sie an, ob Sie dieser zustimmen oder nicht zustimmen.

	Stimme überhaupt nicht zu (1)	Stimme nicht zu (2)	Stimme weder zu noch lehne ab (3)	Stimme zu (4)	Stimme voll und ganz zu (5)
Das Gespräch mit dieser Person verlief reibungslos (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Mit dieser Person zu sprechen war einfach (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Ich denke, diese Person hat verstanden, was ich gesagt habe (3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Ich habe verstanden, was diese Person gesagt hat (4)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Es gab keine Missverständnisse (5)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Ich konnte der anderen Person helfen wenn sie nicht weiter kam in der Aufgabe (6)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q11 Lees elke verklaring en geef aan in hoeverre u het met de stelling eens of oneens bent.

	Helemaal niet mee eens (1)	Mee oneens (2)	Neutraal (3)	Mee eens (4)	Helemaal mee eens (5)
Het gesprek met deze persoon verliep vlot (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Met deze persoon praten was gemakkelijk (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Ik denk dat deze persoon begreep wat ik zei (3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Ik begreep wat deze persoon zei (4)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Er waren geen misverstanden (5)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Ik kon de andere persoon helpen wanneer deze met de taak vast kwam te zitten (6)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q6

Bewerten Sie die Fähigkeiten Ihres Gesprächspartners in dieser Studie im Bezug auf das Sprechen in der englischen Sprache

- Sehr schlecht (1)
- Schlecht (2)
- Begrenzt (3)
- Durchschnittlich (4)
- Gut (5)
- Sehr gut (6)
- Ausgezeichnet (7)

Q6

Beoordeel het vermogen van uw gesprekspartner om de Engelse taal te spreken

- Heel slecht (1)
 - Slecht (2)
 - Beperkt (3)
 - Gemiddeld (4)
 - Goed (5)
 - Zeer goed (6)
 - Uitstekend (7)
-

Q7 Bewerten Sie die Fähigkeiten Ihres Gesprächspartners im Bezug auf das Verstehen der englischen Sprache

- Sehr schlecht (1)
- Schlecht (2)
- Begrenzt (3)
- Durchschnittlich (4)
- Gut (5)
- Sehr gut (6)
- Ausgezeichnet (7)

Q7 Beoordeel het vermogen van uw gesprekspartner om de Engelse taal te begrijpen

- Heel slecht (1)
- Slecht (2)
- Beperkt (3)
- Gemiddeld (4)
- Goed (5)
- Zeer goed (6)
- Uitstekend (7)

End of Block: Default Question Block

Appendix D: email sent to the participants after pre screening

Dear participant,

Thank you for taking part in this experiment for our bachelor thesis. Your time and effort are greatly appreciated.

Your Zoom meeting will take place on the following date and time:

Insert date and time here

You can use the following link to enter the meeting:

Insert link here

Please make sure to enter the meeting on time and prepare a few minutes before it starts.

You have been assigned the following **participant ID**: *Insert ID here*

Make sure to note this ID down since you will need it in the Zoom call.

If you do not have a Zoom account, it is not necessary to download the platform and create an account. The link will work either way. However, make sure that you join via a computer, not your phone. You should be in a quiet place where you cannot be disturbed. When you enter the meeting your camera and microphone will be turned off. Please do not switch these on unless the researcher tells you to do so. For the experiment you will require a pen and a sheet of paper to make some simple notes. Other than that you do not need to bring anything else.

For questions or problems regarding your appointment please contact Lea Köster

(lea.koster@student.ru.nl) for German participants and Roel Beumer

(roel.beumer@student.ru.nl) for Dutch participants. However, we hope that there will be no schedule changes since this would lead to a delay and scheduling problems for other participants.

Please confirm that you read this mail and will be present at the appointment on the given time and date by replying with 'confirmed'.

We expect to see you soon and hope you are staying healthy.

Kind regards from our research team,

Luca Rusch, Benita Welz, Roel Beumer, Britt Cardol, Konstantin Kohlhage & Lea Köster

Appendix E: protocol and script for experiment

Protocol for experiment

Step 1: Researchers join the call 5 minutes in advance to set up everything. They decide which participant will join which breakout room. Researchers have fixed task that they carry out in every meeting (e.g., show specific image, set up breakout rooms, read script, count differences etc.) Participants will join the waiting room.

Step 2: Participants join the Zoom call, cameras and microphones are turned off. Researchers ask whether the participants can hear, they can indicate via the chat.

Step 3: Researcher 1 greets the participants and reads the script. Researcher 2 shows example image and gives examples. Participants are reminded that they need a sheet of paper. Participants can ask questions via the chat function.

Step 4: Researchers and Participants join the breakout room. Each researcher checks whether the microphone is working. Researcher enables screen sharing. Participants have 2 minutes to watch the image and take notes.

Step 5: Participants and researchers join the main session again. Researcher has to enable screen recording. Research gives cue once they can start. Participants have 5 minutes to communicate. Once the five minutes are over, the researcher tells them to stop.

Step 6: Researcher reminds them of the participant id. Participants get the link to the questionnaire in the chat room. Researchers ask them to fill it in during the session. Thank them for participation. Stress that they cannot discuss anything regarding the experiment with their friends and/or family. Remind them to Once they are done and it is submitted they can leave the call.

Instructions/script participants with camera

Welcome and thank you for participating in this experiment. Your microphone is muted and your camera is off during the duration of this explanation. If you have any questions or remarks you can use the chat function at the bottom of the screen. During the actual experiment, you will be able to communicate in English in any way you see fit. The goal of this experiment is to identify 10 changes in a spot the difference game like this image we show you (show beach scene). The differences could be the location of objects, the number of objects, colour changes in objects, or an additional object in one of the pictures. In a short moment, you will both be sent to a separate room called a breakout room without your

partner where one of the researchers will show you an image and your partner will see the same image as you but with 10 differences. You will be given 2 minutes to remember your specific image. You can take notes about what you see in the picture but you are not allowed to take any pictures. Therefore, it is required that you have a piece of paper and a pen to take notes during the breakout room. After your two minutes, the researchers will leave the breakout room. Please stay and wait patiently until the researcher closes the break-out room. Afterwards, you will be brought back to this room. Once you and your partner are both back in the main room you will have 5 minutes to communicate with each other in order to identify the differences between the pictures. It is important to note that there will be no reference image in this room, you and your partner will need to verbally identify the differences. We will not be able to give any feedback or hints. Pretend as if we are not there. We will indicate when the 5 minutes have passed. Like indicated in the pre-screening questionnaire you will be recorded during the experiment, this recording will be used only for scientific purposes by researchers of Radboud university. this experiment will measure communicative skills via Zoom Do you have any questions?

Instructions after experiment (with camera condition):

The 5 minutes have passed, you will now be asked to complete a questionnaire while you are still in the zoom call. Via this link (SEND LINK) The total time of this survey will be 15 minutes. Thank you for your participation, with your data we will be able to analyse communicative skills via Zoom. We will send you an email with the outcomes of the experiment when all data is collected and analysed. We are not sure if you know anybody else who is also doing the experiment. If you do, please do not share anything about the experiment or your experience until after you have received our debriefing email. as this could jeopardize our results and analysis.

https://radboudletteren.eu.qualtrics.com/jfe/form/SV_42ArGhjqkypaL5k

Instructions/script participants (without camera condition):

Welcome and thank you for participating in this experiment. Your microphone is muted and your camera is off during the duration of this explanation. **However, your camera will be off during the entire experiment.** If you have any questions or remarks you can use the chat function at the bottom of the screen. During the actual experiment, you will be able to communicate in English in any way you see fit. The goal of this experiment is to identify 10 changes in a spot the difference game like this image we show you (show beach scene). The differences could be the location of objects, the number of objects, colour changes in objects, or an additional object in one of the pictures. In a short moment, you will both be sent to a separate room called a breakout room without your partner where one of the researchers will show you an image and your partner will see the same image as you but with 10 differences. You will be given 2 minutes to remember your specific image. You can take notes about what you see in the picture but you are not allowed to take any pictures. Therefore, it is required that you have a piece of paper and a pen to take notes during the breakout room. After your two minutes, the researchers will leave the break-out room. Please stay and wait patiently until the researcher closes the break-out room. Afterwards, you will be brought back to this room. Once you and your partner are both back in the main room you will have 5 minutes to communicate with each other in order to identify the differences between the pictures. It is important to note that there will be no reference image in this room, you and your partner will need to verbally identify the differences. We will not be able to give any feedback or hints. Pretend as if we are not there. We will indicate when the 5 minutes have

passed. Like indicated in the pre-screening questionnaire you will be recorded during the experiment, this recording will be used only for scientific purposes by researchers of Radboud university. this experiment will measure communicative skills via Zoom Do you have any questions?

Instructions after experiment (without camera condition):

The 5 minutes have passed, you will now be asked to complete a questionnaire while you are still in the zoom call. Via this link (SEND LINK) The total time of this survey will be 15 minutes. Thank you for your participation, with your data we will be able to analyse communicative skills via Zoom. We will send you an email with the outcomes of the experiment when all data is collected and analysed. We are not sure if you know anybody else who is also doing the experiment. If you do, please do not share anything about the experiment or your experience until after you have received our debriefing email. as this could jeopardize our results and analysis.

https://radboudletteren.eu.qualtrics.com/jfe/form/SV_42ArGhjqpL5k