# The relationship between multicultural personality, foreign language mastery and time spent abroad for (international) students <br> Master Thesis <br> Céline Michon 


#### Abstract

This research examines whether there is a relationship between multicultural personality, foreign language mastery, time spent abroad and student group (Dutch-taught Dutch students, English-taught Dutch students, international students). In a survey, differences between student groups were studied to determine whether multicultural personality, measured with the Multicultural Personality Questionnaire (MPQ), foreign language mastery and time spent abroad could discriminate between the groups. International students were found to be more open-minded and reported to be more proficient in English than Dutch-taught Dutch students. Moreover, international students spent more months abroad than both Dutch groups. International students were less emotionally stable than Dutch-taught Dutch students and less flexible than English-taught Dutch students. Moreover, number of foreign languages correlated with Open-mindedness, total months abroad and number of visited countries. Selfassessed proficiency correlated with Cultural Empathy, Emotional Stability, total months abroad and number of visited countries. Furthermore, self-assessed proficiency of English predicted Open-mindedness and Emotional Stability, total months abroad predicted number of foreign languages, and number of visited countries predicted self-assessed proficiency of English. Open-mindedness, Flexibility, Social Initiative and total months abroad were to some extent predictive of differences between the student groups. This study contributes to the ongoing research into multicultural personality and will help multinational companies in selecting and training multicultural competent employees.


## Key words:

Multicultural personality, foreign language mastery, time spent abroad, multicultural competence, MPQ

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## Introduction

Due to organisations operating on a global level, many professionals encounter international colleagues. Since current students are future professionals, it is advantageous to investigate students' multicultural competences (Anderson et al., 2006; Ledwith \& Seymour, 2001; Van Oudenhoven \& Van der Zee, 2002). Moreover, students are more likely to be sent abroad due to their educational level and higher education's focus on globalisation (Van Oudenhoven \& Van der Zee, 2002), signifying that students probably will encounter intercultural environments during their professional life. Cultural misunderstandings can lead to intercultural conflicts (Leung et al., 2014), which might hinder the future professionals' teamwork. To avoid this, students should be able to adapt to new cultural settings (Bücker \& Poutsma, 2010; Piasentin, 2013) and understand the factors influencing international relationships (Korzilius et al., 2011; Lieberman \& Gamst, 2015). Obtaining multicultural competences while studying might be beneficial for students who want to apply for international jobs. These competences entail professional performance, adapting to other cultures and having intercultural interactions (Van der Zee \& Van Oudenhoven, 2000).

Furthermore, the number of international students in the Netherlands is increasing (Elfferich et al., 2021), signifying that students will probably encounter intercultural situations on campus. Since most studies include group work, this probably means for international students and native students studying with internationals that they have to work in multicultural teams during their studies, which could contribute to acquiring multicultural competences. Both native and international students can become aware of intercultural differences and prepare for teamwork in international organisations (Liang \& Schartner, 2020). Nonetheless, internationals could have higher levels of multicultural competence than native students, since international students often chose to study in another country to develop multicultural skills (Ledwith \& Seymour, 2001).

According to Tracy-Ventura et al. (2016), time spent abroad could change someone's personality. This might imply that students who studied abroad could experience a personality change, probably including the gain of personality traits that contribute to acquiring multicultural competences. International organisations might profit from hiring students with international experience, since they could have more multicultural competences.

Moreover, the number of English-taught studies in the Netherlands has increased (Elfferich et al., 2021). This implies that English-taught native and non-English speaking international students deal with a foreign language on a daily basis. Internationals also are confronted by the host country's language. Furthermore, many international organisations use
a standard corporate language (Marschan et al., 1997; Marschan-Piekkari et al., 2015). While this corporate language is often English (Nickerson, 2000, 2005, 2015), other languages could also be used (Bargiela-Chiappini \& Nickerson, 2003). It is therefore useful for native and international students to be able to communicate in various languages, because speaking multiple languages can help in gaining multicultural competences (Korzilius et al., 2011).

The current investigation examined the relationship between multicultural personality, foreign language mastery, time spent abroad and student group (Dutch-taught, English-taught Dutch, international). Foreign language mastery was assessed through the number of spoken languages and self-assessed proficiency of English. Time spent abroad consisted of the total months lived abroad and the number of visited countries. Moreover, this study investigated whether it is possible to discriminate between Dutch-taught students, English-taught Dutch students and international students through multicultural personality, foreign language mastery and time spent abroad. The distinction between these three student groups was made, because Dutch-taught Dutch students might possess less multicultural personality traits, master less foreign languages and have spent less time abroad than English-taught Dutch students and international students. International students, in turn, might have a higher degree of multicultural personality, master more foreign languages and have spent more time abroad than English-taught Dutch students. This investigation was conducted among students in Dutch higher education.

## Theoretical background

## Multicultural personality

The connection between personality and culture has received much attention in research (e.g. Hofstede \& McCrae, 2004), but someone can also possess multicultural personality traits. Possessing multicultural personality traits is needed in order to effectively communicate in an intercultural environment. Ideally, a person should be open to other people, unprejudiced, able to build relationships, extraverted, empathetic, flexible, confident, proactive and be able to handle stressful situations, in order to adapt successfully to intercultural situations (Korzilius et al., 2011). Measuring someone's personality traits can therefore give an idea of how successful someone could be in intercultural encounters. Despite the usefulness of the Big Five model, which measures Neuroticism, Extraversion, Openness to Experience, Agreeableness and Conscientiousness (Costa \& McCrae, 1992), Van der Zee and Van Oudenhoven (2000) argue that this model is too unspecific to measure the personality traits needed to succeed in a multicultural environment. Namely, the Big Five measures personality
based on non-context related adjectives, it does not specifically measure personality traits that are relevant for intercultural encounters. Moreover, these broad personality traits measured by the Big Five are less successful in predicting personality criteria for international jobs (Van der Zee \& Van Oudenhoven, 2000). Hence, Van der Zee and Van Oudenhoven (2000) developed the Multicultural Personality Questionnaire (MPQ) which is a context-oriented instrument based on statements instead of adjectives.

The MPQ measures multicultural effectiveness through personality traits.
Multicultural effectiveness is defined as "success in the fields of professional effectiveness, personal adjustment and intercultural interactions" (Van der Zee \& Van Oudenhoven, 2000, p. 293). The authors argue that using personality traits to measure multicultural effectiveness contributes to a psychometrically sound instrument. They assume that the MPQ predicts multicultural effectiveness better than the Big Five and can be used as a selection and training instrument for international students and professionals with international jobs. The five traits that the MPQ measures are Cultural Empathy, Open-mindedness, Emotional Stability, Flexibility and Social Initiative. Cultural Empathy measures to what degree someone can empathize with members from other cultures (Van der Zee \& Van Oudenhoven, 2000). Openmindedness can be defined as "an open and unprejudiced attitude towards outgroup members and towards different cultural norms and values" (Van der Zee \& Van Oudenhoven, 2000, p. 296). Emotional Stability assesses to what extent individuals can stay calm in stressful situations (Van der Zee \& Van Oudenhoven, 2000). Flexibility refers to what degree one can adjust their behaviour to different cultural circumstances (Van der Zee \& Van Oudenhoven, 2000). Lastly, Social Initiative is defined as "the tendency to approach social situations in an active way and to take initiatives" (Van Oudenhoven \& Van der Zee, 2002, p. 681). These traits have correlated with the Big Five (Leone et al., 2005; Van der Zee \& Van Oudenhoven, 2000), nonetheless Van der Zee and Van Oudenhoven (2000) argue that the MPQ is better equipped to predict multicultural effectiveness.

Several investigations have demonstrated that the MPQ has good validity, reliability and generalizability (Brücker \& Poutsma, 2010; Chen \& Gabrenya, 2021; Matsumoto \& Hwang, 2013). Moreover, the MPQ dimensions have successfully predicted multicultural effectiveness in different ways (see Leung et al., 2014, p. 494, for an overview). Furthermore, the MPQ has been successfully used in various countries and languages, e.g. Dutch in the Netherlands (Leone et al., 2005; Van der Zee \& Van Oudenhoven, 2000; Van Oudenhoven \& Van der Zee, 2002), English in Singapore (Leong, 2007) and the UK (Dewaele \& Van Oudenhoven, 2009; Liang \& Schartner, 2020; Schartner, 2016; Tracy-Ventura et al., 2016),

Italian in Italy (Leone et al., 2005), Hebrew in Israel (Dewaele \& Stavans, 2014), Turkish in Turkey (Caliskan \& Isik, 2016), German in Germany (Genkova et al., 2021); Portuguese in Portugal (Sousa et al., 2019) and among culturally heterogeneous samples (Dewaele \& Botes, 2020; Korzilius et al., 2011). The present study used the MPQ to measure multicultural personality.

## Foreign language mastery

Next to a multicultural personality, speaking foreign languages can help with multicultural effectiveness. Researchers believe that foreign languages help with developing multicultural competences (e.g. Dewaele \& Botes, 2020; Korzilius et al., 2011). Multiple studies evaluated the relationship between foreign language mastery and the MPQ dimensions (Caliskan \& Isik, 2016; Dewaele \& Botes, 2020; Dewaele \& Van Oudenhoven, 2009; Dewaele \& Stavans, 2014; Korzilius et al., 2011).

Dewaele and Botes (2020) showed evidence that multilingualism could predict Flexibility, Open-mindedness and Social Initiative. Contrarily, Dewaele and Stavans (2014) obtained no significant relationships between the number of languages and the MPQ dimensions. They demonstrated, however, that total proficiency predicted Open-mindedness and Cultural Empathy. Dewaele and Van Oudenhoven (2009) revealed that teenage multilinguals scored higher on Open-mindedness than bilinguals. Lastly, Korzilius et al. (2011) reported that for international professionals, the number of foreign languages correlated with Open-mindedness and Emotional Stability. Self-assessed proficiency of English correlated with Cultural Empathy. Moreover, the employees that spoke more languages scored higher on Open-mindedness and Flexibility.

Despite these fruitful attempts, the studies that measured the separate MPQ dimensions in relation to foreign language mastery did not validate consistent outcomes, only Open-mindedness yielded steady significant results. A relation between Open-mindedness and foreign language mastery could therefore also be expected in the present study. Flexibility and Cultural Empathy led to significant results in two investigations, whereas Social Initiative and Emotional Stability were significant in just one. To support the trend that there could be a relationship between foreign language mastery and multicultural personality, the current investigation also studied the possible relationship between foreign language mastery and the MPQ dimensions. The existing studies have been conducted among secondary school children or professionals, whereas this investigation explored the relationship between foreign language mastery and multicultural personality among higher education students.

Following Korzilius et al. (2011), foreign language mastery was defined as the number of spoken languages and self-assessed proficiency. By using the same method among students, the present study can compare outcomes and contribute to the research field by examining future professionals.

## Time spent abroad

Being in foreign cultures can be a good way to learn about multicultural situations. For example, a study abroad can help develop intercultural skills (Netz, 2021). Medical students that went on an Erasmus program stated that they went to study abroad to, inter alia, develop cultural competency (Żebryk et al., 2021). Enhancing intercultural awareness is also one of the reasons why the European Union committed billions of euros to their Erasmus+ program (European Commission, 2021). Moreover, Anderson et al. (2006) present preliminary results that a four-week study abroad could lead to reduced reversal and increased acceptance and adaption to cultural differences. Notwithstanding, the authors stress that more research on the relationship between time spent abroad and multicultural competences is needed.

Nonetheless, there are few studies that investigate the relationship between multicultural personality and time spent abroad. Schartner (2016) revealed that students scored higher for Cultural Empathy and Open-mindedness before going abroad, while she expected that studying abroad would increase Cultural Empathy, Open-mindedness, Social Initiative and Flexibility. Also Tracy-Ventura et al.'s (2016) investigation was unexpected: only Emotional Stability increased significantly after studying abroad. Genkova et al. (2021) did not measure time spent abroad via a longitudinal study. They asked their respondents how much time they studied abroad before and during their study. The results show that time abroad during study correlated with Cultural Empathy, Emotional Stability, Flexibility and Open-mindedness. Time abroad before study correlated with Open-mindedness, Emotional Stability, Social Initiative and Flexibility. Notwithstanding, the relationship between multicultural personality and time spent abroad needs more research, as the unexpected results of Tracy-Ventura et al. (2016) and Schartner (2016) demonstrated. Nonetheless, since both Tracy-Ventura et al. (2016) and Genkova et al. (2021) found a relation between Emotional Stability and time spent abroad, the same trend could be expected in the current investigation.

Korzilius et al. (2011) also asked respondents about their weeks on vacation, studied and worked abroad and number of months lived abroad, but did not analyse these numbers. In line with Korzilius et al. (2011) and Genkova et al. (2021), the current investigation measured the numerical time spent abroad in months studied, on vacation and total months lived abroad,
to compare and provide insight into the differences in time spent abroad between student groups. Nonetheless, only total months lived abroad was used in the analyses since vacation abroad and study abroad are probably included in the total months lived abroad.

A remarkable lacuna is that previous studies did not investigate the number of visited countries. There might potentially be a difference in multicultural personality between individuals who have lived abroad long in one culture and individuals who did not spent much time abroad, but experienced more cultures. Besides the numerical time spent abroad, this study also included the number of visited countries.

## International education environment

Besides foreign language mastery and time spent abroad, living in an international environment can affect multicultural personality. This international environment might be family (Dewaele \& Stavans, 2014; Dewaele \& Van Oudenhoven, 2009) or at work (Caliskan \& Isik, 2016; Korzilius et al., 2011; Sousa et al., 2019).

The international environment can also be at school. Van Oudenhoven and Van der Zee (2002) compared the multicultural personality of native students to international students. Unexpectedly, native students scored higher on Open-mindedness, Emotional Stability, Social Initiative and Flexibility than international students. Liang and Schartner (2020) validated that international students scored higher on Open-mindedness before multicultural group work and higher on Flexibility after multicultural group work. There were no significant differences for native students. Contrarily, Williams and Johnson (2011) demonstrated that native students with international friends scored higher on Open-mindedness than students with no international friends.

Furthermore, the student's international orientation can influence multicultural personality. Students with the intention of going abroad scored higher on Open-mindedness, Social Initiative, Flexibility and Emotional Stability than students with no intention of going abroad (Leong, 2007). Moreover, students in a cultural study scored higher on Cultural Empathy and Open-mindedness (Genkova et al., 2021). Since English-taught Dutch students could be more internationally-oriented than Dutch-taught students, they might score higher on certain multicultural personality traits. Previous studies mostly demonstrated that Openmindedness is higher for the internationally-oriented students (Leong, 2007; Liang \& Schartner, 2020; Williams \& Johnson, 2011), which could mean that English-taught Dutch students might also be more open-minded than the Dutch-taught Dutch students. Nonetheless,
there is no concurrence on the difference between internationally-oriented students and native students with regard to the other four MPQ dimensions.

Considering that international students often chose to study in another country to develop multicultural competences (Ledwith \& Seymour, 2001), they could have a higher degree of multicultural personality. Nonetheless, the unexpected results by Van Oudenhoven and Van der Zee (2002) demonstrate that more research is needed. Furthermore, only one study considered the international study environment by looking at the differences in multicultural personality between cultural and other students (Genkova et al., 2021). The present investigation can provide more clarity about the differences in multicultural personality between various levels of international education environment by investigating the differences between Dutch-taught and English-taught Dutch students and international students.

## Research questions

There has been research on the relationship between foreign language mastery and multicultural personality (Caliskan \& Isik, 2016; Dewaele \& Botes, 2020; Dewaele \& Van Oudenhoven, 2009; Dewaele \& Stavans, 2014; Korzilius et al., 2011) and the relationship between time spent abroad and multicultural personality (Genkova et al., 2021; Schartner, 2016; Tracy-Ventura et al., 2016). However, the relationship of these three elements combined has not been investigated yet, especially not regarding the difference between Dutch-taught Dutch students, English-taught Dutch students and international students. Furthermore, the current study determined to what extent multicultural personality, foreign language mastery and time spent abroad could discriminate between the three student groups. This way, this investigation contributes to the research on the relationship between foreign language mastery, time spent abroad and multicultural personality. Moreover, knowing the manner in which Dutch-taught Dutch students, English-taught Dutch students and international students differ in multicultural personality, foreign language mastery and time spent abroad might shed a light on how they differ in multicultural competences and could therefore potentially help international organisations in selecting and training students for international jobs.

The present investigation examined the relationship between multicultural personality, foreign language mastery, time spent abroad and student group with the following research questions:

RQ1. To what extent is there a relationship between multicultural personality and foreign language mastery?

RQ1a. To what extent can foreign language mastery predict multicultural personality? RQ2. To what extent is there a relationship between multicultural personality and time spent abroad?

RQ2a. To what extent can time spent abroad predict multicultural personality?
RQ3. To what extent is there a relationship between time spent abroad and foreign language mastery?

RQ3a. To what extent can time spent abroad predict foreign language mastery? RQ4. To what extent do student groups display differences in multicultural personality, foreign language mastery and time spent abroad?
RQ5. To what extent can multicultural personality, time spent abroad and foreign language mastery predict student group?

## Method

## Instruments

To investigate the potential relationship between multicultural personality, foreign language mastery, time spent abroad and student group (Dutch-taught, English-taught Dutch, international), a questionnaire was used. Multicultural personality was measured through the short version of the Multicultural Personality Questionnaire which was developed by Van der Zee et al. (2013) based on the MPQ by Van der Zee and Van Oudenhoven (2000). The MPQ Short Form (Van der Zee et al., 2013) contains the five personality dimensions Cultural Empathy (8 items), Open-mindedness (8 items), Emotional Stability (8 items), Flexibility (8 items) and Social Initiative ( 8 items). The scale contains a total of 40 items. These items were measured through a five-point Likert scale ranging from 1 (totally not applicable) to 5 (totally applicable) (Van der Zee et al., 2013).

The reliability of 'Cultural Empathy' comprising eight items was poor: $\alpha=.47$. After the seventh item was deleted, the reliability was acceptable: $\alpha=.68$. Consequently, the mean of the seven items was used to calculate the compound variable 'Cultural Empathy', which was used in further analyses. The reliability of 'Open-mindedness' comprising eight items was acceptable: $\alpha=.73$. The mean of all eight items was used to calculate the compound variable 'Open-mindedness', which was used in further analyses. The reliability of 'Emotional Stability' comprising eight items was acceptable: $\alpha=.77$. Consequently, the mean of all eight items was used to calculate the compound variable 'Emotional Stability', which
was used in further analyses. The reliability of 'Flexibility' comprising eight items was acceptable: $\alpha=.79$. Hence, the mean of all eight items was used to calculate the compound variable 'Flexibility', which was used in further analyses. Lastly, the reliability of 'Social Initiative' was good: $\alpha=.85$. Consequently, the mean of all eight items was used to calculate the compound variable 'Social Initiative', which was used in further analyses.

Foreign language mastery was assessed in a similar way as Korzilius et al. (2011). The only difference is that Korzilius et al. (2011) used a 7-point scale, whereas the current investigation used a 5-point scale. The respondents were asked how many and which foreign languages they speak and how well they speak these languages on a 5 -point scale with 1 being very bad and 5 being very good. Even though self-assessment can be affected by socially desirable answers, Oscarson (1989) indicates that "the validity of learner judgements can in fact be quite high" (p. 2). Self-assessed proficiency was operationalised as the self-assessed proficiency in English, since a majority of the respondents (see table 1 in appendix 1), with the exception of the English native speakers, spoke English as a foreign language. The second and third most spoken foreign languages were reported by less than half of the respondents. Making a compound variable would therefore be less positive for the people that speak more languages, since their proficiency might be less for their second or third foreign language. The mean of their overall proficiency could be lower compared to the mean of a person that only speaks one foreign language.

Time spent abroad was measured by asking the respondents about the number of months spent on vacation abroad, the number of months spent studying abroad and the total number of months spent abroad, in line with Genkova et al. (2021) and Korzilius et al. (2011). Moreover, the respondents were asked in how many different countries they spent these months abroad. Since vacation abroad and months of study abroad are probably included in the total months spent abroad, time spent abroad was operationalised through total months abroad and number of visited countries.

To assess the student group, respondents were asked whether their study program is in English or Dutch, what this program is and at which educational level. To determine the difference between Dutch and international students, the respondents were asked what their native language is. Lastly, demographical questions like gender and age were part of the questionnaire. Both the English and the Dutch survey can be found in appendix 1.

## Respondents

In total, 108 respondents finished the survey. The distribution among the three student groups can be seen in table 1 below. The respondents were in the age of 17 to 38 years old with a mean age of 23.09 and a standard deviation of 3.48. A significant one-way analysis of variance showed that age was not equally distributed among the different student groups ( $F$ $(2,67.30)=6.89, p=.002)$. This analysis has been reported with the Welch F-statistic since Levene's test of equality of error variance turned out to be significant. The international students ( $M=24.75, S D=4.09$ ) were significantly older than the Dutch-taught Dutch students ( $p<.001$, Tukey HSD-correction; $M=21.62, S D=3.17$ ). There was no significant difference between the two Dutch groups ( $p=.163$, Tukey HSD-correction) or the Englishtaught Dutch students and the international students ( $p=.078$, Tukey HSD-correction).

Of the 108 respondents, 74 identified as females ( $68.5 \%$ ) and 34 identified as male (31.5\%). A non-significant Chi-square test showed that gender was equally distributed across the three groups $\left(\chi^{2}(2)=3.49, p=.175\right)$.

All respondents were higher education students studying in the Netherlands. 34 respondents ( $31.5 \%$ ) did a bachelor at a university of applied sciences, 4 respondents ( $3.7 \%$ ) followed a master at a university of applied sciences, 26 students did a bachelor at a university ( $24.1 \%$ ), 1 followed a pre-master at university $(0.9 \%), 42$ attended a master at a university ( $38.9 \%$ ) and 1 did a $\mathrm{PhD}(0.9 \%)$. A significant Chi-square test showed that level of education was not equally distributed across the three groups $\left(\chi^{2}(10)=58.72, p<.001\right)$. There were more university of applied science bachelor students in the Dutch-taught Dutch group (74.4\%) than in the English-taught Dutch group (6.1\%) and the international group (8.3\%). Moreover, there were more university master students among the English-taught Dutch group (60.6\%) and the international group (52.8\%) than amongst the Dutch-taught Dutch group (7.7\%). The other differences were non-significant. The most reported study programs were facility management, psychology, international business communication and communication science.

Lastly, the respondents spoke 2.06 languages on average with a standard deviation of 1.00, a minimum of 1 and a maximum of 5.33 respondents ( $30.6 \%$ ) spoke 1 foreign language, 50 respondents ( $46.3 \%$ ) spoke 2 foreign languages, 15 respondents ( $13.9 \%$ ) reported to speak 3 foreign languages, 6 respondents ( $5.6 \%$ ) spoke 4 foreign languages and 4 respondents $(3.7 \%)$ spoke 5 foreign languages. Furthermore, one respondent reported to speak no foreign languages. Table 1 in appendix 2 portrays the foreign languages that respondents reported to speak and how many respondents spoke these languages. Table 2 in appendix 2 shows the
same for the respondents' native language. The average proficiency in English was 4.45 on a scale of 5 with a standard deviation of 0.65 .

Table 1. The distribution of the respondents among the different groups

Language of education

| Nationality | Dutch | English | Total |
| :--- | :--- | :--- | :--- |
| Dutch | 39 | 33 | 72 |
| International | 0 | 36 | 36 |
| Total | 39 | 69 | 108 |

## Procedure

An online survey developed with the program Qualtrics was used. The respondents were asked personally to participate in the investigation. The respondents could access the survey through an anonymous URL. There were no financial rewards or other incentives. The survey was filled in individually. In the introduction of the questionnaire, the respondents received a short explanation of the study. Moreover, they were reassured of the anonymity of the survey and they were given the opportunity to quit at any given time without having to give a reason. All respondents filled in the same questionnaire. The only difference was the language. Dutch respondents could fill in the questionnaire in Dutch, whereas the international students could complete the survey in English. The respondents were not debriefed at the end of the questionnaire. Nonetheless, they were thanked for participating. The respondents were collected between the $23^{\text {rd }}$ of May 2022 until the $24^{\text {th }}$ of June 2022.

## Statistical treatment

In order to answer RQ1, RQ2 and RQ3 Pearson's correlations were conducted to find relationships between multicultural personality, foreign language mastery and time spent abroad. To answer RQ1a, RQ2a and RQ3a, multiple regression analyses were conducted in order to find out whether foreign language mastery can predict multicultural personality, time spent abroad can predict multicultural personality and whether time spent abroad can predict foreign language mastery.

Furthermore, one-way univariate analyses of variance were carried out to determine the answer to RQ4 of whether there are any differences between the three student groups. Finally, a multinomial logistic regression analysis was used to answer RQ5, to see whether multicultural personality, foreign language mastery and time spent abroad can predict student group (Dutch-taught Dutch, English-taught Dutch, international).

## Results

## Foreign language mastery and multicultural personality

In order to examine a potential relation between multicultural personality and foreign language mastery, correlations were calculated. A significant positive correlation was found between Open-mindedness and Number of foreign languages ( $r(108)=.20, p=.044$ ). Openmindedness increased with the number of foreign languages that the participant spoke. There were no significant correlations between the other four MPQ dimensions and the Number of foreign languages (Cultural Empathy ( $r(108)=.10, p=.325)$; Emotional Stability $(r(108)=$ $-.18, p=.056)$; Flexibility ( $r(108)=-.01, p=.882$ ); Social Initiative $(r(108)=.08, p=$ .410)). Significant correlations were found between Self-assessed proficiency of English and Cultural Empathy ( $r(104)=.21, p=.029$ ), Open-mindedness $(r(104)=.25, p=.012)$ and Emotional Stability $(r(104)=-.29, p=.003)$. Cultural Empathy and Open-mindedness increased as self-assessed proficiency of English increased. Emotional Stability decreased as self-assessed proficiency of English increased. There were no significant correlations between Self-assessed proficiency of English and Flexibility $(r(104)=-.02, p=.838)$ or Self-assessed proficiency of English and Social Initiative ( $r(104)=.01, p=.911$ ).

The correlations in table 2 also demonstrate that some MPQ dimensions were interrelated with one another. Social Initiative positively correlated significantly with Cultural Empathy $(r(108)=.38, p<.001)$, Open-mindedness $(r(108)=.36, p<.001)$, Emotional Stability $(r(108)=.28, p=.003)$ and Flexibility $(r(108)=.19, p=.044)$. Cultural Empathy, Open-mindedness, Emotional Stability and Flexibility increased when Social Initiative increased. A significant positive correlation was found between Open-mindedness and Cultural Empathy $(r(108)=.34, p<.001)$. Cultural Empathy increased when Openmindedness increased. Lastly, a significant positive correlation was found between Emotional Stability and Flexibility $(r(108)=.23, p=.015)$. This means that when Emotional Stability increased, Flexibility also increased.

Moreover, a significant positive correlation was found between Number of foreign languages and Self-assessed proficiency of English $(r(104)=.25, p=.010)$, meaning that self-assessed proficiency of English increased with the number of foreign languages.

In order to investigate whether foreign language mastery could predict multicultural personality, multiple regression analyses were conducted. A multiple regression analysis showed that the two variables entered, Number of foreign languages and Self-assessed proficiency of English, explained 7\% of the variance in Open-mindedness $(F(2,101)=4.69$, $p=.011$ ). Self-assessed proficiency of English was shown to be a significant predictor of Open-mindedness ( $\beta=.20, p=.041$ ). Open-mindedness increases with $.20 S D$ for each increase of $1 S D$ of Self-assessed proficiency of English, given that all other variables are kept constant. However, Number of foreign languages was not a significant predictor ( $\beta=.16, p=$ .099). Table 3 presents the findings of this analysis.

Another multiple regression analysis showed that the two variables entered, Number of foreign languages and Self-assessed proficiency of English, explained 9\% of the variance in Emotional Stability $(F(2,101)=6.03, p=.003)$. The assumptions of normality were violated. The statistical consequences are, however, beyond the scope of this study. Selfassessed proficiency of English was shown to be a significant predictor of Emotional Stability ( $\beta=-.25, p=.012$ ). Emotional Stability decreases with $.25 S D$ for each increase of $1 S D$ of Self-assessed proficiency of English, given that all other variables are kept constant. However, Number of foreign languages was not a significant predictor ( $\beta=-.16, p=.109$ ). Table 4 demonstrates the findings of this analysis.

Non-significant multiple regressions showed that the two variables entered, Number of foreign languages and Self-assessed proficiency of English, could not explain any of the variance in Cultural Empathy $(F(2,101)=2.73, p=.070)$, Flexibility $(F(2,101)<1)$ and Social Initiative $(F(2,101)<1)$.

## Time spent abroad and multicultural personality

In order to examine a potential relation between multicultural personality and time spent abroad, correlations were calculated. There were no significant correlations between the MPQ dimensions and Total months abroad (Cultural Empathy ( $r(93)=.03, p=.778$ ); Openmindedness $(r(93)=.05, p=.670)$; Emotional Stability $(r(93)=-.08, p=.437)$; Flexibility ( $r$ (93) $=-.14, p=.189)$; Social Initiative $(r(93)=-.11, p=.306))$ or between the MPQ dimensions and Number of visited countries (Cultural Empathy ( $r(100)=.16, p=.112$ );

Open-mindedness $(r(100)=.18, p=.076)$; Emotional Stability $(r(100)=-.10, p=.312)$; Flexibility $(r(100)=.03, p=.799)$; Social Initiative $(r(100)=.16, p=.120))$.

To investigate whether time spent abroad could predict multicultural personality, multiple regression analyses were conducted. Non-significant multiple regressions showed that the two variables entered, Total months abroad and Number of visited countries, could not explain any of the variance in Cultural Empathy $(F(2,86)=1.38, p=.258)$, Openmindedness $(F(2,86)=1.67, p=.194)$, Emotional Stability $(F(2,86)<1)$, Flexibility $(F(2$, $86)=1.32, p=.272)$ or Social Initiative $(F(2,86)=2.38, p=.098)$.

Table 2. Correlations between the MPQ dimensions and foreign language mastery (number of foreign languages and self-assessed proficiency in English) ( $N=108$ )

|  | Cultural <br> Empathy | Openmindedness | Emotional Stability | Flexibility | Social Initiative | Number of foreign languages | Self-assessed proficiency $\qquad$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Cultural <br> Empathy |  | . $34 * *$ | -. 13 | -. 11 | . $38 * *$ | . 10 | .21* |
| Openmindedness | s .34** |  | . 03 | -. 06 | . $36 * *$ | .20* | .25* |
| Emotional Stability | -. 13 | . 03 |  | .23* | .28* | -. 18 | $-.29 * *$ |
| Flexibility | -. 11 | -. 06 | .23* |  | .19* | -. 01 | -. 02 |
| Social <br> Initiative | . $38 * *$ | . 36 ** | .28* | .19* |  | . 08 | . 01 |
| Number of foreign languages | . 10 | .20* | -. 18 | -. 01 | . 08 |  | .25* |
| Self-assessed proficiency | $\text { sed } .21^{*}$ | .25* | -.29** | -. 02 | . 01 | .25* |  |

[^0]Table 3. Regression analysis for Foreign language mastery as predictor of Open-mindedness ( $N=104$ ).

| Variable | $B$ | $S E B$ | $\beta$ |
| :--- | :--- | :--- | :--- |
| Intercept | 2.60 | .34 |  |
| Number of foreign languages | .08 | .05 | .16 |
| Self-assessed proficiency | .16 | .08 | $.20^{*}$ |
| $R^{2}$ | .07 |  |  |
| $F$ | $4.69^{*}$ |  |  |
| $* p<.050,{ }^{* *} p<.010,{ }^{* * *} p<.001$ |  |  |  |

Table 4. Regression analysis for Foreign language mastery as predictor of Emotional Stability ( $N=104$ ).

| Variable | $B$ | $S E B$ | $\beta$ |
| :--- | :--- | :--- | :--- |
| Intercept | 4.33 | .42 |  |
| Number of foreign languages | -.10 | .06 | -.16 |
| Self-assessed proficiency | -.25 | .10 | $-.25^{*}$ |
| $R^{2}$ | .09 |  |  |
| $F$ | $6.03^{* *}$ |  |  |
| $* p<.050, * * p<.010, * * * p<.001$ |  |  |  |

## Foreign language mastery and time spent abroad

In order to examine a potential relation between foreign language mastery and time spent abroad, correlations were calculated. A significant positive correlation was found between Total months abroad and Number of foreign languages ( $r(93)=.28, p=.006$ ) and between Total months abroad and Self-assessed proficiency of English ( $r(89)=.25, p=.017$ ), meaning that number of foreign languages and self-assessed proficiency of English increased with the total months spent abroad. Moreover, a significant positive correlation was found between Number of visited countries and Number of foreign languages $(r(100)=.21, p=$ .034) and between Number of visited countries and Self-assessed proficiency of English ( $r$ $(96)=.34, p<.001)$. Furthermore, a significant positive correlation was found between Total months abroad and Number of visited countries $(r(89)=.35, p<.001)$. Lastly, a significant positive correlation was found between Number of foreign languages and Self-assessed
proficiency of English $(r(104)=.25, p=.010)$. These correlations are also presented in Table 5 below.

A multiple regression analysis showed that the two variables entered, Total months abroad and Number of visited countries, explained $7 \%$ of the variance in Number of foreign languages $(F(2,86)=4.41, p=.015)$. The assumptions of normality were violated. The statistical consequences are, however, beyond the scope of this study. Total months abroad was shown to be a significant predictor of Number of foreign languages ( $\beta=.24, p=.032$ ). Number of foreign languages increases with $.24 S D$ for each increase of $1 S D$ of Total months abroad, given that all other variables are kept constant. However, Number of visited countries was not a significant predictor $(\beta=.12, p=.264)$. Table 6 presents the findings of this analysis.

Another multiple regression analysis showed that the two variables entered, Total months abroad and Number of visited countries, explained $14 \%$ of the variance in Selfassessed proficiency of English $(F(2,82)=7.77, p<.001)$. The assumptions of normality were violated. The statistical consequences are, however, beyond the scope of this study. Number of visited countries was shown to be a significant predictor of Self-assessed proficiency of English ( $\beta=.33, p=.003$ ). Self-assessed proficiency of English increases with . $33 S D$ for each increase of $1 S D$ of Number of visited countries, given that all other variables are kept constant. However, Total months abroad was not a significant predictor ( $\beta=.14, p=$ .218). The findings of this analysis are presented in table 7 below.

Table 5. Correlations between foreign language mastery (number of foreign languages and self-assessed proficiency of English) and time spent abroad (total months abroad and number of visited countries) $(N=104)$

|  | Total months <br> abroad | Number of <br> visited <br> countries | Number <br> of foreign <br> languages |
| :--- | :--- | :--- | :--- |
| Self-assessed <br> proficiency |  |  |  |
| Total months <br> abroad | $.35^{* *}$ | $.28^{* *}$ | $.25^{*}$ |
| Number of <br> visited <br> countries | $.35^{* *}$ | $.21^{*}$ | $.34^{* *}$ |
| Number of <br> foreign <br> languages | $.28^{* *}$ | $.34^{* *}$ |  |
| Self-assessed <br> proficiency | $25^{*}$ |  |  |

*p<.050, ** $p<.010$

Table 6. Regression analysis for Time spent abroad as predictor of Number of foreign languages $(N=89)$.

| Variable | $B$ | $S E B$ | $\beta$ |
| :--- | :--- | :--- | :--- |
| Intercept |  |  |  |
| Total months abroad | 1.74 | .19 |  |
| Number of visited countries | .01 | .00 | $.24^{*}$ |
| $R^{2}$ | .02 | .02 | .12 |
| $F$ | .07 |  |  |
| $* p<.050,{ }^{* *} p<.010, * * * p<.001$ | $4.41^{*}$ |  |  |

Table 7. Regression analysis for Time spent abroad as predictor of Self-assessed proficiency of English $(N=85)$.

| Variable | $B$ | $S E B$ | $\beta$ |
| :--- | :--- | :--- | :--- |
| Intercept | 4.12 | .12 |  |
| Total months abroad | .00 | .00 | .14 |
| Number of visited countries | .03 | .01 | $.33^{* *}$ |
| $R^{2}$ | .14 |  |  |
| $F$ | $7.77 * * *$ |  |  |
| $* p<.050,{ }^{* *} p<.010,{ }^{* * *} p<.001$ |  |  |  |

## Student group

To investigate whether there are any difference in multicultural personality, foreign language mastery and time spent abroad between Dutch-taught Dutch students, English-taught Dutch students and international students, multiple one-way analyses of variance were conducted.

A one-way analysis of variance showed a non-significant effect of Student group on Cultural Empathy ( $F(2,105$ ) < 1 ).

A one-way analysis of variance showed a significant effect of Student group on Openmindedness $\left(F(2,68.66)=3.58, p=.033, \eta^{2}=.07\right)$. This analysis has been reported with the Welch F-statistic since Levene's test of equality of error variance turned out to be significant. The international students $(M=3.67, S D=0.59)$ were more open-minded than the Dutchtaught Dutch students ( $p=.013$, Tukey HSD-correction; $M=3.33, S D=0.50$ ). There was no significant difference between the two Dutch groups ( $p=.263$, Tukey HSD-correction) or the English-taught Dutch students ( $M=3.52, S D=0.37$ ) and the international students ( $p=.440$, Tukey HSD-correction).

A one-way analysis of variance showed a significant effect of Student group on Emotional Stability $\left(F(2,69.11)=3.91, p=.025, \eta^{2}=.08\right)$. This analysis has been reported with the Welch F-statistic since Levene's test of equality of error variance turned out to be significant. The international students ( $M=2.76, S D=0.68$ ) were less emotionally stable than the Dutch-taught Dutch students ( $p=.016$, Tukey HSD-correction; $M=3.16, S D=0.66$ ). There was no significant difference between the two Dutch groups ( $p=.918$, Tukey HSDcorrection) or the English-taught Dutch students ( $M=3.11, S D=0.46$ ) and the international students ( $p=.060$, Tukey HSD-correction).

A one-way analysis of variance showed a significant effect of Student group on Flexibility $\left(F(2,105)=5.49, p=.005, \eta^{2}=.10\right)$. The international students $(M=2.36 ; S D=$ 0.58 ) were less flexible than the English-taught Dutch students ( $p=.005$, Tukey HSDcorrection; $M=2.81, S D=0.54$ ). There was no significant difference between the two Dutch groups ( $p=.059$, Tukey HSD-correction) or the Dutch-taught Dutch students ( $M=2.50, S D=$ 0.60 ) and the international students ( $p=.568$, Tukey HSD-correction).

A one-way analysis of variance showed a non-significant effect of Student group on Social Initiative $\left(F(2,105)=1.82, p=.167, \eta^{2}=.03\right)$.

Another one-way analysis of variance showed a non-significant effect of Student group on Number of foreign languages $\left(F(2,67.79)=2.71, p=.074, \eta^{2}=.05\right)$. This analysis has been reported with the Welch F-statistic since Levene's test of equality of error variance turned out to be significant.

A one-way analysis of variance showed a significant effect of Student group on Selfassessed proficiency of $\operatorname{English}\left(F(2,101)=7.68, p<.001, \eta^{2}=.13\right)$. The international students ( $M=4.75, S D=0.57$ ) reported to be more proficient in English than the Dutchtaught Dutch students ( $p<.001$, Tukey HSD-correction; $M=4.18, S D=0.68$ ). There was no significant difference between the two Dutch groups ( $p=.094$, Tukey HSD-correction) or the English-taught Dutch students $(M=4.48, S D=0.57)$ and the international students ( $p=.195$, Tukey HSD-correction).

A one-way analysis of variance showed a significant effect of Student group on Total months abroad $\left(F(2,45.87)=7.25, p=.002, \eta^{2}=.20\right)$. This analysis has been reported with the Welch F-statistic since Levene's test of equality of error variance turned out to be significant. The international students $(M=35.77, S D=41.18)$ were significantly longer abroad than the Dutch-taught Dutch students ( $p<.001$, Tukey HSD-correction; $M=7.77, S D$ $=21.41$ ) and the English-taught Dutch students ( $p<.001$, Tukey HSD-correction; $M=6.42$, $S D=7.93$ ). There was no significant difference between the two Dutch groups ( $p=.978$, Tukey HSD-correction).

A one-way analysis of variance showed a non-significant effect of Student group on Number of visited countries $\left(F(2,57.75)=1.88, p=.162, \eta^{2}=.03\right)$. This analysis has been reported with the Welch F-statistic since Levene's test of equality of error variance turned out to be significant.

To examine whether multicultural personality, foreign language mastery and time spent abroad were able to predict whether a student belonged to the Dutch-taught Dutch student group, the English-taught Dutch student group or the international student group,
multinomial logistic regressions were conducted. In a first analysis, Student group was the dependent variable that was predicted on the basis of the five MPQ variables. A second multinomial regression analysis was performed to test whether Foreign language mastery and Time spent abroad explained variance beyond the MPQ dimensions. The group Dutch-taught Dutch students was considered as the reference category. What is being predicted are the odds of being in the English-taught Dutch student group or the international student group relative to being in the Dutch-taught Dutch student group. Statistically significant predictors are important to differentiate between the student groups.

Model 1 in table 8 demonstrates that the MPQ variables significantly predicted differences in Student groups. Open-mindedness was found to be important for the classification of both English-taught Dutch students and international students compared to Dutch-taught Dutch students. For each unit increase in Open-mindedness, the odds of belonging to the English-taught Dutch student group relative to the Dutch-taught Dutch students, given that all other variables are held constant, would be expected to increase by a factor of 4.00. Moreover, for each unit increase of Open-mindedness, the odds of belonging to the international student group relative to the Dutch-taught Dutch students, given that all other variables are held constant, would be expected to increase by a factor of 9.87 . Next, Flexibility was found to be an important determinant for predicting membership of the English-taught Dutch student group compared to the Dutch-taught students with an increase by a factor of 3.32, given that all other variables are held constant. Lastly, Social Initiative was also found to be an important determinant for predicting membership of the Englishtaught Dutch student group compared to the Dutch-taught student group with an increase by a factor of 0.39 , given that all other variables are held constant.

Model 2 in table 9, which incorporates Foreign language mastery and Time spent abroad, reveals that they explain statistically more variance in addition to the MPQ dimensions in Model 1. Specifically, Total months abroad predicted the odds of belonging to the international student group compared to the Dutch-taught Dutch students with an increase by a factor of 1.05 , given that all other variables are held constant.

Table 8 validates that Model 1 correctly predicted $50 \%$ of the total classifications, with differences in the extent to which the Student groups could be classified correctly, i.e. Model 1 correctly predicted $56.4 \%$ of Dutch-taught Dutch students, $36.4 \%$ of Dutch-taught English students and $55.6 \%$ of international students. Table 9 showed that Model 2 correctly predicted $65.9 \%$ of the total classifications, with differences in the extent to which the Student groups could be classified correctly, i.e. Model 2 correctly predicted $63.3 \%$ of the Dutch-taught

Dutch students, $62.1 \%$ of the English-taught Dutch students and $73.1 \%$ of the international students.

Table 8. Results of Model 1 of multinomial logistic regressions predicting Student group.

| Model 1 | B | SE B | Odds ratio |
| :--- | :--- | :--- | :--- |
| English-taught Dutch students |  |  |  |
| Cultural Empathy | 0.04 | 0.76 | 1.05 |
| Open-mindedness | 1.39 | 0.64 | $4.00^{*}$ |
| Emotional Stability | -0.17 | 0.44 | 0.85 |
| Flexibility | 1.20 | 0.48 | $3.32^{*}$ |
| Social Initiative | -0.95 | 0.48 | $0.39^{*}$ |
|  |  |  |  |
| International students | -0.39 | 0.80 | 0.68 |
| Cultural Empathy | 2.29 | 0.67 | $9.87^{* * *}$ |
| Open-mindedness | -1.04 | 0.48 | 0.35 |
| Emotional Stability | 0.12 | 0.49 | 1.13 |
| Flexibility | -1.13 | 0.49 | 0.32 |

Model

Likelihood ratio test
$R^{2}$ Cox and Snell
$R^{2}$ Nagelkerke
$\chi^{2}(10, n=108)=35.10^{* * *}$
.28
.31
Correct classifications: $n$ group, $n$ correct, \% correct
Dutch-taught Dutch students
39, 22, 56.4
English-taught Dutch students
33, 12, 36.4
International students
36, 20, 55.6
Total
108, 54, 50.0
*p<.050, ** $p<.010$, *** $p<.001$
Note: Reference category is Dutch-taught Dutch students. Constant not included in analyses.

Table 9. Results of Model 2 of multinomial logistic regressions predicting Student group.

| Model 2 | $B$ | SE B | Odds ratio |
| :--- | :--- | :--- | :--- |


| English-taught Dutch students |  |  |  |
| :--- | :--- | :--- | :--- |
| Cultural Empathy | 0.87 | 0.99 | 2.38 |
| Open-mindedness | 1.43 | 0.71 | $4.18^{*}$ |
| Emotional Stability | -0.11 | 0.60 | 0.90 |
| Flexibility | 1.27 | 0.59 | $3.57^{*}$ |
| Social Initiative | -1.38 | 0.62 | $0.25^{*}$ |
| Number of foreign languages | -0.50 | 0.37 | 0.61 |
| Self-assessed proficiency | 0.34 | 0.60 | 1.41 |
| Total months abroad | -0.05 | 0.03 | 0.95 |
| Number of visited countries | 0.08 | 0.06 | 1.09 |
|  |  |  |  |
| International students |  |  |  |
| Cultural Empathy | 0.27 | 1.22 | 1.31 |
| Open-mindedness | 1.91 | 0.84 | $6.78^{*}$ |
| Emotional Stability | -1.45 | 0.75 | 0.23 |
| Flexibility | 0.34 | 0.70 | 1.41 |
| Social Initiative | -0.89 | 0.66 | 0.41 |
| Number of foreign languages | 0.19 | 0.38 | 1.21 |
| Self-assessed proficiency | 0.27 | 0.73 | 1.31 |
| Total months abroad | 0.05 | 0.02 | $1.05 *$ |
| Number of visited countries | 0.00 | 0.06 | 1.00 |

## Model

Likelihood ratio test
$\chi^{2}(18, n=85)=56.15^{* * *}$
$R^{2}$ Cox and Snell
.48
$R^{2}$ Nagelkerke
. 54

Correct classifications: $n$ group, $n$ correct, $\%$ correct
Dutch-taught Dutch students 30,19,63.3
English-taught Dutch students $\quad 29,18,62.1$
International students 26,19,73.1
Total 85, 56, 65.9
*p<.050, ** $p<.010$, *** $p<.001$
Note: Reference category is Dutch-taught Dutch students. Constant not included in analyses.

## Conclusion

Firstly, RQ1 asked to what extent there is a relationship between multicultural personality and foreign language mastery. The current study demonstrated that if Openmindedness increases, the number of foreign languages also increases. Moreover, there was a positive correlation between self-assessed proficiency of English and Cultural Empathy, Open-mindedness and Emotional Stability. To answer RQ1a, whether foreign language
mastery can predict multicultural personality, the evidence was found that self-assessed proficiency of English is able to predict Open-mindedness, with a higher self-assessed proficiency of English leading to an increase in Open-mindedness. Moreover, self-assessed proficiency of English predicted Emotional Stability, with a higher self-assessed proficiency of English leading to a decrease in Emotional Stability.

Next, no evidence was found for a relationship between time spent abroad and multicultural personality, which answers RQ2. Time spent abroad was also not able to predict multicultural personality, as a response to RQ2a.

Notwithstanding, answering RQ3, which asked whether there is a relationship between time spent abroad and foreign language mastery, the present investigation demonstrated that total months abroad positively correlated with number of foreign languages and self-assessed proficiency of English. Moreover, number of visited countries correlated positively with number of foreign languages and self-assessed proficiency of English. RQ3a asked whether time spent abroad could predict foreign language mastery. Total months abroad was able to predict number of foreign languages, with more months spent abroad leading to a higher number of spoken foreign languages. Furthermore, number of visited countries predicted selfassessed proficiency of English, with more visited countries leading to an increase in selfassessed proficiency of English.

Furthermore, to answer RQ4 of whether there were any differences between Dutchtaught Dutch students, English-taught Dutch students and international students concerning multicultural personality, foreign language mastery and time spent abroad, the current study found the evidence that international students are more open-minded than Dutch-taught Dutch students, but there was no difference between the two Dutch groups or the English-taught Dutch students and the international students. Moreover, the international students were less emotionally stable than the Dutch-taught Dutch students and less flexible than the Englishtaught Dutch students. Again, the two Dutch groups did not differ significantly from each other regarding Emotional Stability and Flexibility. Next, the international students had a higher self-assessed proficiency of English than the Dutch-taught Dutch students. The two Dutch groups did not differ significantly from each other, nor did the international students differ significantly from the English-taught Dutch students. Finally, the international students had spent more time abroad than both Dutch groups. The Dutch groups did not differ significantly from each other.

Lastly, RQ5 asked to what extent multicultural personality, time spent abroad and foreign language mastery could predict whether a student belonged to the international group,
the Dutch-taught Dutch group or the English-taught Dutch group. The data provided evidence that multicultural personality and time spent abroad are to some extent predictive for differences between student groups. Open-mindedness, Flexibility and Social Initiative appeared to be predictors for differentiating between Dutch-taught Dutch students and English-taught Dutch students. Students with a relatively high score on these dimensions are more likely to be an English-taught Dutch student. Open-mindedness and total months abroad appeared to be predictors for differentiating between international students and Dutch-taught Dutch students. Students with a high score on Open-mindedness are more likely to be an international student as well as students that spent more months abroad.

## Discussion

The finding that Cultural Empathy correlated positively with self-assessed proficiency of English is in line with Korzilius et al. (2011) where Cultural Empathy correlated positively with self-assessment knowledge of foreign languages. Korzilius et al. (2011) explain this relation by stating that in order to be culturally empathetic, a person must be able to explain their own experiences to others. Moreover, this relation could be explained by the idea that in order to show empathy towards people from other cultures, one needs to be able to express oneself accurately in another language. Nonetheless, Cultural Empathy could not be predicted by foreign language mastery or time spent abroad nor was it able to predict the odds that a student would belong to either the Dutch-taught Dutch group, the English-taught Dutch group or the international group. Furthermore, there were no significant differences between the student groups regarding Cultural Empathy. The case that Cultural Empathy yields nonsignificant results is not uncommon in multicultural personality research (e.g. Dewaele \& Botes, 2020; Leong, 2007; Liang \& Schartner, 2020; Sousa et al., 2019; Tracy-Ventura et al., 2016; Williams \& Johnson, 2011). Sousa et al. (2019) explained these non-significant results by stating that all groups had a high score on Cultural Empathy. Also Tracy-Ventura et al. (2016) say that their non-significant results on Cultural Empathy might be due to a high score. Nonetheless, these authors do not explain why their respondents could possibly have a high score on Cultural Empathy. Moreover, other studies (Dewaele \& Botes, 2020; Leong, 2007; Liang \& Schartner, 2020) do not explain their non-significant results. Since the Dutch-taught Dutch students, English-taught Dutch students and international students also score relatively high on Cultural Empathy in the present study, a tentative explanation could be that in order to be culturally empathetic, one should be empathetic in general and everyone, international or native, can be empathetic. This might be a reason why there is hardly any difference
between international and domestic groups regarding Cultural Empathy. Nonetheless, more research is needed to confirm this idea.

Next, the result that Open-mindedness correlated positively with both the number of spoken foreign languages and the self-assessed proficiency of English is in line with Korzilius et al. (2011) and Dewaele and Botes (2020) where Open-mindedness correlated positively with the number of foreign languages and Dewaele and Van Oudenhoven (2009) where multilingual children scored higher than bilingual children. Moreover, self-assessed proficiency in English predicted Open-mindedness, implicating that when people are more proficient in languages they become more open-minded, as also Dewaele and Stavans (2014) suggested after total proficiency predicted Open-mindedness in their study. This effect could possibly be because a higher proficiency might lead to more conversations with members from other cultures, which might lead to a higher degree of Open-mindedness. Nonetheless, further research is needed to determine whether students with a higher proficiency in a language indeed have more conversations with native speakers of that language.

Unexpectedly, number of foreign languages was not able to predict Open-mindedness in the current study, whereas this effect did occur in Dewaele and Botes (2020). This difference in results could be because the majority of respondents in Dewaele and Botes' (2020) sample spoke three or more languages, whereas in the present study the respondents spoke a bit above two languages on average.

Moreover, the effect that international students were more open-minded than Dutchtaught Dutch students is in accordance with several studies where the international(lyoriented) respondents demonstrated to be more open-minded than the domestic respondents (Caliskan \& Isik, 2016; Dewaele \& Van Oudenhoven, 2009; Genkova et al., 2021; Korzilius et al., 2011; Leong, 2007; Sousa et al., 2019; Williams \& Johnson, 2011). For example, students that were about to leave on exchange scored higher on open-mindedness than students with no intention to go abroad (Leong, 2017), students with international friends scored higher than students with no international friends (Williams \& Johnson, 2011) and cultural students scored higher than other students (Genkova et al., 2021). This effect could be due to the idea that people need an open mind to function in another culture and to solve the problems that living in other cultures brings (Caliskan \& Isik, 2016), whereas domestic students probably do not encounter the same problems or multicultural environments as international students and therefore might not have the need to be as open-minded. Moreover, seeing how international students come from a different culture, they might realise that they have other norms and opinions than the domestic majority, which might cause them to adopt
an open mind (Dewaele \& Van Oudenhoven, 2009). This might also be the reason why Openmindedness was important in predicting the odds of whether a student belonged to the English-taught Dutch group or the international group compared to the Dutch-taught students, seeing how English-taught Dutch students and international students probably are surrounded by a more multicultural environment than the Dutch-taught Dutch students, which might lead those two groups to be more unprejudiced towards members from other cultures. This finding, however, is not in line with Korzilius et al. (2011) where Open-mindedness was only able to predict the odds of an employee belonging to the non-international employee group compared to the business contacts, but did not predict the odds of an employee belonging to the international employee group. This difference could be because Korzilius et al. (2011) conducted their research among professionals whereas the current investigation sampled Dutch higher education students.

Next, Emotional Stability correlated negatively with self-assessed proficiency of English. Moreover, Emotional Stability was predicted by self-assessed proficiency of English, implicating that when a person's self-assessed proficiency of English increased, Emotional Stability decreased. These results contradict Korzilius et al. (2011), where Emotional Stability correlated positively with number of foreign languages, and Dewaele and Botes (2020), who investigated whether the MPQ dimensions can predict foreign language mastery. Emotional Stability did not yield any significant results in their study. Moreover, Dewaele and Stavans (2014) demonstrated that people with one dominant language were more emotionally stable than people with multiple dominant languages. This makes it even more unexpected that number of foreign languages did not correlate with or predict Emotional Stability. Nonetheless, that Emotional Stability decreased when self-assessed proficiency of English increased could be because international students reported themselves to be more proficient in English than the Dutch-taught Dutch students. The current investigation as well as previous studies validated that international groups are less emotionally stable than domestic groups, which might therefore explain the decrease in Emotional Stability with every increase in selfassessed proficiency of English.

The finding that international students scored lower on Emotional Stability than Dutch-taught Dutch students is in line with multiple studies (e.g. Dewaele \& Van Oudenhoven, 2009; Korzilius et al., 2011), which therefore supports the effect that international groups are reported to be less emotionally stable than domestic groups. This suggests that international students could be less emotionally stable due to the demands of living in another culture (Dewaele \& Van Oudenhoven, 2009). International students might
have to make themselves at home in a foreign country while trying to perform well at school, which could make them feel less secure and more stressed, and therefore less emotionally stable, than domestic students who do not need to deal with making oneself at home in a foreign country. Notwithstanding, more research is needed on the reason why international students score less on Emotional Stability and on the possible factors that could influence this lower score, seeing how someone's emotional status is not only influenced by the country that one is living in, but also someone's school/work situation, housing situation, family situation, etc.

Nonetheless, other studies (Caliskan \& Isik, 2016; Leong, 2007; Sousa et al., 2019) demonstrated that the international group scored higher on Emotional Stability than the native group. Namely, Sousa et al. (2019) showed evidence that expatriates scored highest on Emotional Stability, Caliskan and Isik (2016) demonstrated that international retail employees scored higher than supply chain and national retail employees and Leong (2007) validated that students who almost went on exchange scored higher than students with no intention to go abroad. Furthermore, a number of studies (Dewaele \& Botes, 2020; Genkova et al., 2021; Liang \& Schartner, 2020; Williams \& Johnson, 2011) only received non-significant results on Emotional Stability. These inconsistent findings strongly indicate that more research on the effect of international environment and foreign language mastery on Emotional Stability is needed.

Also the effect of foreign language mastery and international environment on Flexibility needs more research, since the present study and previous investigations are not in accordance. The present study could not demonstrate any significant effects of foreign language mastery on Flexibility, which is in line with the non-significant results of Dewaele and Stavans (2014). Nonetheless, Dewaele and Botes (2020) demonstrated that Flexibility could predict the number of spoken languages. The present study also found evidence that international students were less flexible than English-taught Dutch students. The effect that international students were less flexible is not in accordance with previous research, seeing how international retail and supply chain employees scored higher on Flexibility than national retail employees (Caliskan \& Isik, 2016), international employees scored higher than noninternational employees (Korzilius et al., 2011), students that were about to leave on exchange scored higher than students without the intention to go abroad (Leong, 2007) and expatriates scored highest (Sousa et al., 2019). A possible explanation for the present study's confounding result is that the international students in this sample might like their routine and fixed schedule, since it could help them to function in a foreign environment. However, this is
a tentative explanation and more research is needed to find out whether international students have a more rigid daily routine to cope with living in a foreign country compared to domestic students.

Flexibility, however, was important for predicting the odds of whether a student belonged to the English-taught Dutch group compared to the Dutch-taught Dutch group. Seeing how the English-taught Dutch students might be surrounded by a more multicultural environment than the Dutch-taught Dutch students, this finding is more in line with previous research (Caliskan \& Isik, 2016; Korzilius et al., 2011; Leong, 2007; Sousa et al., 2019). The English-taught Dutch students could be more flexible, because they might have to switch between English in the classroom and Dutch at home. Therefore, they have to adapt quickly to the situation and change idiom quickly. Nonetheless, in Korzilius et al. (2011), Flexibility could not predict the odds of belonging to the international or national employee group compared to the business contacts. This again strongly indicates that more research on the differences in Flexibility between domestic and international groups is needed.

Social Initiative did not yield any significant results regarding the first four research questions. These non-significant results are not surprising, since multiple studies also received non-significant results on Social Initiative (Dewaele \& Van Oudenhoven, 2009; Korzilius et al., 2011; Liang \& Schartner, 2020; Williams \& Johnson, 2011). Seeing how Van der Zee and Van Oudenhoven (2000) define Social Initiative as "the tendency to approach social situations in an active way and to take initiatives", one could argue that also domestic students have to deal with social situations and might have to take initiative. Notwithstanding, other studies did validate that the international group scored higher on Social Initiative than the native group, e.g. Caliskan and Isik (2016) demonstrated that international retail and supply chain employees scored higher than national retail employees and Leong (2007) showed the evidence that students who were about to go on exchange scored higher than students with no intention to go abroad. Moreover, regarding foreign language mastery, Dewaele and Stavans (2014) showed evidence that Social Initiative could be predicted by language proficiency and Dewaele and Botes (2020) validated that Social Initiative could be predicted by the number of spoken languages.

Notwithstanding, Social Initiative was important for predicting the odds of a student belonging to the English-taught Dutch group compared to the Dutch-taught Dutch group. The English-taught Dutch group might have to communicate more with international students and therefore might have to take initiative more than the Dutch-taught Dutch students. However, in Korzilius et al.'s (2011) study, Social Initiative could not predict whether an employee
belonged to the national or international employee group compared to the business contacts. These confounding results indicate that more research on the relation between international environment, foreign language mastery and Social Initiative is needed.

Another aspect of research into multicultural personality that requires more investigation is the effect of time spent abroad on multicultural personality. The current study did not find any significant effects of time spent abroad on the MPQ dimensions. These findings are in line with Tracy-Ventura et al. (2016) where only Emotional Stability was higher after time spent abroad, but the other MPQ dimensions yielded non-significant results. In addition, Social Initiative, Flexibility and Emotional Stability were non-significant for Schartner (2020) as well. The other two dimensions, Cultural Empathy and Open-mindedness, gave the unexpected result of being higher before going abroad than after time spent abroad. Nonetheless, these two studies were longitudinal, i.e. they measured multicultural personality before and after going abroad, whereas the present study only asked for the time spent abroad. Genkova et al. (2021) also asked their respondents about their time spent abroad and they demonstrated that there can be a relation between time spent abroad and multicultural personality. Namely, time spent abroad correlated positively with all five MPQ dimensions. A possible explanation for the non-significant effects of time spent abroad on multicultural personality in the current study might be that spending time in a certain culture does not change someone's multicultural personality, rather someone's multicultural personality might be the reason that someone wants to spend time in another culture. However, more research is needed to confirm this idea.

Even though time spent abroad did not yield any significant results on multicultural personality, total months abroad and number of visited countries did correlate positively with self-assessed proficiency of English and number of foreign languages. Moreover, total months abroad predicted the number of foreign languages, indicating that respondents that spent more time abroad spoke more foreign languages. Even though there has been no previous research on the relation between foreign language mastery and time spent abroad, a possible explanation for this effect could be that when people spend more time in a certain country, they could be more willing to learn that country's language in order to adapt to that country. Furthermore, the number of visited countries predicted self-assessed proficiency in English. The number of visited countries could lead to someone having a higher self-assessed proficiency of English. A possible explanation might be that English is a lingua franca (e.g. Seidlhofer, 2004) and that if someone visits a country where one does not speak the language of, one tries to communicate in English. Therefore, the more countries one has visited, the
more one could have spoken in English and therefore had more opportunities to improve one's English.

Lastly, the result that international students reported to have a higher proficiency in English than Dutch-taught Dutch students is not surprising, since English is the main language of education and communication for international students in the Netherlands. This finding is also in line with studies that show that international groups have a higher selfassessed proficiency than domestic groups (e.g. Caliskan \& Isik, 2016; Korzilius et al., 2011). Moreover, unsurprisingly, international students spent significantly more months abroad than both Dutch groups. Total months abroad was also important for predicting the odds of a student belonging to the international group compared to the Dutch-taught Dutch group. This could be due to the fact that international students are studying abroad and therefore spend more time in succession in a foreign country. The number of visited countries did not differ between the groups, which might mean that even though the two Dutch groups did not spent as much time abroad as the international students, they might still travel, but for a shorter time, e.g. on vacation.

A limitation of this study is that age and education were not equally distributed among the student groups. Age and education might have influenced the differences in multicultural personality, foreign language mastery and time spent abroad between the three student groups. Moreover, self-assessed proficiency was operationalised as self-assessed proficiency of English. The Dutch are quite proficient in English (Education First, 2021) and Dutch higher education students have a level of at least B2/C1 after they graduate from secondary school (College voor Toetsen en Examens, 2020). Furthermore, the international students have English as educational language in Dutch education institutes and most Dutch higher education institutes require a minimum English level. This high proficiency could also be seen in the high average self-assessed proficiency of English with a score of 4.45 on a scale of 5 in the current study. Self-assessed proficiency of English might therefore not have been representative of someone's proficiency in foreign languages. Nonetheless, as explained above, someone who speaks more foreign languages might have a lower proficiency in their third or fourth foreign language. A compound variable of overall proficiency might have been less positive for these people. Future research should look into a way of bypassing this dilemma. Moreover, proficiency was measured through self-assessment. Even though Oscarson (1989) indicated that self-assessment has a high validity, an objective language test might yield more conclusive results.

Apart from the above-suggested research into the relation between international environment, foreign language mastery, time spent abroad and multicultural personality, future studies could investigate whether there are any differences between native employees working in an international environment and expats, since expats spend more time abroad and live in a foreign culture. Moreover, expats have to perform in a multicultural work environment, while trying to make themselves at home in a foreign country. Therefore, they might be more flexible and take more initiative in order to achieve good results. Moreover, a future investigation could evaluate whether time spent abroad for professional purposes compared to recreational purposes has an influence on multicultural personality, because someone might try harder to adapt to a certain culture when one has to professionally operate and perform in this culture compared to someone who merely is on vacation and wants to enjoy a certain culture.

In conclusion, in this study, the relationship between multicultural personality, foreign language mastery, time spent abroad and international study environment was investigated in Dutch higher education. Using a questionnaire, the difference between Dutch-taught Dutch students, English-taught Dutch students and international students was investigated to determine whether multicultural personality, foreign language mastery and time spent abroad could differentiate between these student groups. The international students were found to be more open-minded than Dutch-taught Dutch students. Moreover, international students reported to be more proficient in English than Dutch-taught Dutch students and to have spent more time abroad than both Dutch groups. Contrastingly, Dutch-taught Dutch students were more emotionally stable than the international students and the English-taught Dutch students were more flexible than the international students. Moreover, number of foreign languages correlated with Open-mindedness, total months abroad and number of visited countries. Selfassessed proficiency of English correlated with Cultural Empathy, Emotional Stability, total months abroad and number of visited countries. Furthermore, self-assessed proficiency of English predicted Open-mindedness and Emotional Stability, total months abroad predicted number of foreign languages, and number of visited countries predicted self-assessed proficiency of English. Open-mindedness, Flexibility and Social Initiative were predictive of the odds of a student belonging to the English-taught Dutch group compared to the Dutchtaught Dutch group, and Open-mindedness and total months abroad were predictive of the odds of a student belonging to the international group compared to the Dutch-taught Dutch group.

With these results, this investigation contributes to the research field of multicultural personality. In line with other investigations (e.g. Bücker \& Poutsma, 2010; Chen \& Gabrenya, 2021; Leung et al., 2014; Matsumoto \& Hwang, 2013), it shows that the MPQ in general is a good instrument. Nonetheless, this study, in combination with previous research, also demonstrates that not every dimension of the MPQ gives consistent results. Only Openmindedness seems to have robust results when it comes to differences between international(ly-oriented) people and domestic people (Caliskan \& Isik, 2016; Dewaele \& Van Oudenhoven, 2009; Genkova et al., 2021; Korzilius et al., 2011; Leong, 2007; Sousa et al., 2019; Williams \& Johnson, 2011) and the relation with foreign language mastery (Dewaele \& Botes, 2019; Dewaele \& Stavans, 2012; Dewaele \& Van Oudenhoven, 2009; Korzilius et al., 2011). The other four dimensions do not give consist outcomes and often give non-significant results, as the discussion above regarding Cultural Empathy, Emotional Stability, Flexibility and Social Initiative demonstrates. The findings of the current investigation, in combination with previous research, give ground to the idea that some dimensions can discriminate between international(ly-oriented) and domestic groups, whereas other dimensions are less apt to do so. Nonetheless, Van der Zee and Van Oudenhoven (2000) already acknowledged this when they developed the MPQ by stating that "some of the MPQ dimensions may not be specifically predictive of multicultural success but be more generally linked to managerial success" (p. 307). Since both managerial and multicultural success could be needed for expatriate jobs, the MPQ still might be a predictive instrument for multicultural job competence. Nonetheless, further research should investigate which dimensions are more apt to measure multicultural competence and which dimensions are more apt to measure managerial competence.

The results of this study, in combination with the findings of previous research, will help multinational companies select and train employees for international jobs. Since Openmindedness had consistent results in previous research and was able to predict whether a student belonged to either the international group or the English-taught Dutch group compared to the Dutch-taught Dutch group, multinational companies might want to select expatriates on their open-mindedness or train their current employees to be more openminded before going abroad. Moreover, since self-assessed proficiency was able to predict Open-mindedness, multinational employers could take foreign language mastery into account when selecting personnel for international opportunities. In summary, even though much research can still be done in this research field, the present study, in combination with past
investigations, could inform multinational companies about the relationship between foreign language mastery, time spent abroad and multicultural personality.

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## Appendix 1

Deze enquête wordt in het Nederlands en in het Engels uitgevoerd. Kies alsjeblieft je voorkeurstaal in het hokje rechtsboven.

This survey will be conducted in Dutch and English. Please pick your preferred language in the box in the upper right corner.

## Dutch survey

Beste deelnemer,
Bedankt voor je deelname aan dit onderzoek! Je wordt uitgenodigd om mee te doen aan een onderzoek over de relatie tussen multiculturele persoonlijkheid, het spreken van vreemde talen en tijd in het buitenland doorgebracht. Dit onderzoek wordt uitgevoerd door Céline Michon, masterstudent International Business Communication aan de Radboud Universiteit.

## Wat wordt er van je verwacht?

Meedoen aan het onderzoek houdt in dat je een online vragenlijst gaat invullen. De vragenlijst bestaat uit 5 onderdelen en ik vraag je om de vragen zo waarheidsgetrouw mogelijk in te vullen. Er bestaan geen foute antwoorden. Het invullen van de vragenlijst duurt ongeveer 10 minuten.

## Vrijwilligheid

Je doet vrijwillig mee aan dit onderzoek. Daarom kun je op elk moment tijdens het onderzoek je deelname stopzetten en je toestemming intrekken. Je hoeft niet aan te geven waarom je stopt. Omdat de data meteen geanonimiseerd worden, is het na het voltooien van het experiment niet mogelijk om je onderzoeksgegevens te laten verwijden.

## Wat gebeurt er met de gegevens?

De onderzoeksgegevens die we in dit onderzoek verzamelen, zullen door wetenschappers gebruikt worden voor datasets, artikelen en presentaties. De anoniem gemaakte onderzoeksgegevens zijn tenminste 10 jaar beschikbaar voor andere wetenschappers. Als we gegevens met andere onderzoekers delen, kunnen deze dus niet tot jou herleid worden. We bewaren alle onderzoeksgegevens op beveiligde wijze volgens de richtlijnen van de Radboud Universiteit.

## Heb je vragen over het onderzoek?

Als je meer informatie wilt hebben of als je klachten hebt over het onderzoek, kun je contact opnemen met Céline Michon (celine.michon@ru.nl). Ook kun je een klacht indienen bij de secretaris van de Ethische Toetsingscommissie Geesteswetenschappen Radboud Universiteit (etc-gw@ru.nl).Voor vragen over de verwerking van gegevens in dit onderzoek kun je contact opnemen met dataofficer@let.ru.nl.

Toestemming: Geef hieronder je keuze aan. Door te klikken op de knop 'Ik ga akkoord' geef je aan dat je:

- de informatie op de vorige pagina hebt gelezen
- instemt met deelname aan het onderzoek zoals in de informatie op de vorige pagina is beschreven
- begrijpt hoe de gegevens van het onderzoek bewaard zullen worden en waarvoor ze gebruikt zullen worden.
- vrijwillig meedoet aan het onderzoek
- 16 jaar of ouder bent

Als je niet mee wilt doen aan het onderzoek, kun je op de knop 'Ik wil niet meedoen’ klikkenIk ga akkoord (doorgaan naar vragenlijst)Ik wil niet meedoen

Geef aan in hoeverre je het eens bent met de volgende stellingen:

| Helemaal <br> niet mee <br> eens (1) | Niet mee <br> eens (2) | Neutraal (3) | Mee eens | Helemaal <br> mee eens (5) |
| :---: | :---: | :---: | :---: | :---: |

Ik ga in op emoties van anderen

Ik kan goed luisteren

Ik voel aan wanneer anderen geïrriteerd raken

Ik vind het leuk om me in anderen te verdiepen

Ik beleef plezier aan de verhalen van andere mensen Ik zie wanneer iemand het moeilijk heeft

Ik kan me moeilijk inleven in anderen

Ik stel anderen op hun gemak

Geef aan in hoeverre je het eens bent met de volgende stellingen:

| Helemaal |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| niet mee |  |  |  |  |
| eens (1) | Niet mee | eens (2) | Neutraal (3) | Mee eens | | Helemaal |
| :---: |
| mee eens (5) |

Ik probeer
verschillende
benaderingen uit
Ik zoek naar
nieuwe
methoden om
iets te bereiken
Ik kan
gemakkelijk een
nieuw leven
beginnen

Ik vind het leuk om oplossingen voor problemen te bedenken

Ik loop voor in maatschappelijke veranderingen

Ik voel aan wat hoort in een andere cultuur

Ik zoek contact met mensen met een verschillende achtergrond

Ik heb een brede interesse

Geef aan in hoeverre je het eens bent met de volgende stellingen:

|  | Helemaal niet mee eens (1) | Niet mee eens (2) | Neutraal (3) | Mee eens <br> (4) | Helemaal mee eens (5) |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Ik pieker | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ |
| Ik ben snel uit het veld geslagen | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ |
| Ik voel me snel eenzaam | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ |
| Ik blijf kalm als dingen niet goed gaan | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ |
| Ik ben onzeker | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ |
| Ik ben gespannen | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ |
| Ik kan tegen een stootje | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ |
| Ik ben nerveus | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ |

Geef aan in hoeverre je het eens bent met de volgende stellingen:

| Helemaal <br> niet mee <br> eens (1) | Niet mee <br> eens (2) | Neutraal (3) | Mee eens <br> (4) | Helemaal <br> mee eens (5) |
| :---: | :---: | :---: | :---: | :---: |

Ik werk volgens
vaste regels
Ik werk
planmatig
Ik werk meestal volgens een vast stramien

Ik zoek
regelmaat in het leven

Ik houd van routine

Ik wil voorspelbaarheid

Ik functioneer het best in een vertrouwde omgeving

Ik heb vaste gewoontes

Geef aan in hoeverre je het eens bent met de volgende stellingen:

| Helemaal <br> niet mee <br> eens (1) | Niet mee <br> eens (2) | Neutraal (3) | Mee eens | Helemaal <br> mee eens (5) |
| :---: | :---: | :---: | :---: | :---: |


| Ik neem de <br> leiding |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Ik laat in <br> contacten het <br> initiatief van <br> anderen <br> komen |  |  |  |  |
| Ik vind het <br> lastig om <br> contacten te <br> leggen |  |  |  |  |
| Ik neem <br> initiatieven |  |  |  |  |
| Ik ben <br> geneigd het <br> woord te <br> nemen |  |  |  |  |
| Ik ben <br> meestal de <br> motor achter <br> dingen |  |  |  |  |
| Ik leg <br> gemakkelijk <br> contact |  |  |  |  |
| Ik ben <br> terughoudend |  |  |  |  |

Hoeveel vreemde talen spreek je? (Vreemde talen zijn alle talen buiten je moedertaal)

- 1
- 3
- 4
- 6 of meer

Welke vreemde talen spreek je? Meerdere antwoorden mogelijk.EngelsDuitsFransSpaansArabischTurksNederlandsAnders, namelijk
Hoe goed spreek je Engels?Zeer slechtSlechtMatigGoedZeer goed

Hoe goed spreek je Duits?Zeer slechtSlechtMatigGoedZeer goed
Hoe goed spreek je Frans?Zeer slechtSlechtMatigGoedZeer goed

Hoe goed spreek je Spaans?
O Zeer slecht

- Slecht
- Matig
- Goed

O Zeer goed
Hoe goed spreek je Arabisch?
Oeer slecht

- Slecht
- Matig
$\bigcirc$ Goed
Zeer goed
Hoe goed spreek je Turks?
Zeer slecht
- Slecht
- Matig
$\bigcirc$ Goed
Zeer goed
Hoe goed spreek je Nederlands?
Zeer slechtSlechtMatigGoed
Zeer goed
Hoe goed spreek je ... ?
Zeer slechtSlechtMatigGoedZeer goed
Wat is je moedertaal?

In welke taal wordt de opleiding die je momenteel volgt onderwezen?NederlandsEngelsAnders, namelijk
Wat studeer je?
Wat is je huidige opleidingsniveau?HBO BachelorHBO MasterWO BachelorWO Pre-MasterWO MasterPhD
Hoeveel maanden heb je op vakantie in het buitenland doorgebracht?
Hoeveel maanden heb je voor je studie in het buitenland doorgebracht?
Hoeveel maanden heb je in totaal in het buitenland doorgebracht/gewoond?
Hoeveel verschillende landen heb je bezocht?
Hoe oud ben je?
Wat is je geslacht?VrouwManNon-binairAnders/zeg ik liever niet

## English survey

Dear participant,
Thank you for taking part in this investigation! You are invited to participate in a research project in which the relationship between multicultural personality, foreign language mastery and time spent abroad will be studied. The project is conducted by Céline Michon, Masterstudent International Business Communication at the Radboud University.

## What is expected of you?

The procedure involves filling out an online survey. The questionnaire consists of 5 parts and I ask you to answer the questions as honestly as possible. There are no wrong answers. The survey will take approximately 10 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. Because the data is immediately anonymized, it is not possible to have your research data removed after the completion of the experiment.

## 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. When we share data with other researchers, these data cannot be traced back to you. All research and personal data are safely stored following the Radboud University guidelines.

## Do you have questions about the study?

If you want more information or have any complaints about the study, you can contact Céline Michon (celine.michon@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: Please select your choice below. By clicking on the "I agree" button below, you indicate that:

- you have read the information on the previous page
- you consent to participating in the research study as described in the information on the previous page
- you understand how the data of the research study will be stored and how they will be used
- you voluntarily agree to participate
- you are at least 16 years of age

If you do not wish to participate in the research study, please decline participation by clicking on the "I do not want to participate" button.

I agree (proceed to survey)

- I do not want to participate

Indicate to what extend you agree with the following statements:

|  | Strongly <br> disagree (1) | Disagree (2) | Neutral (3) | Agree (4) | Strongly <br> agree (5) |
| :---: | :---: | :---: | :---: | :---: | :---: |
| I pay attention to the emotions of others | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ |
| I am a good listener | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ |
| I sense when others get irritated | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ |
| I like to get to know others profoundly | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ |
| I enjoy other people's stories | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ |
| I notice when someone is in trouble | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ |
| I symphatize with others | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ |
| I set others at ease | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ |

Indicate to what extend you agree with the following statements:

| Strongly |
| :---: |
| disagree (1) |

Disagree (2) Neutral (3) $\quad$ Agree (4) $\quad$| Strongly |
| :---: |
| agree (5) |

I try out various approaches

I look for new ways to attain my goals

I start a new
life easily
I like to imagine
solutions to problems

I am a
trendsetter in societal
developments
I have a
feeling for what is appropriate in another culture

I seek people from different backgrounds I have a broad range of interests

Indicate to what extend you agree with the following statements:

|  | Strongly <br> disagree (1) | Disagree (2) | Neutral (3) | Agree (4) | Strongly <br> agree (5) |
| :---: | :---: | :---: | :---: | :---: | :---: |
| I worry |  |  |  |  | $\bigcirc$ |
| I get upset <br> easily |  |  |  |  |  |
| I am apt to <br> feel lonely |  |  |  |  |  |
| I keep calm <br> when things <br> do not go <br> well |  |  |  |  |  |
| I am <br> insecure |  |  |  |  |  |
| I am under <br> pressure |  |  |  |  |  |
| I am not <br> easily hurt |  |  |  |  |  |
| I am nervous |  |  |  |  |  |

Indicate to what extend you agree with the following statements:

|  | Strongly <br> disagree (1) | Disagree (2) | Neutral (3) | Agree (4) | Strongly <br> agree (5) |
| :---: | :---: | :---: | :---: | :---: | :---: |
| I work <br> according to <br> strict rules |  |  |  |  |  |
| I work <br> according to <br> a plan |  |  |  |  |  |
| I work mostly <br> according to <br> a strict <br> scheme |  |  |  |  |  |
| I look for <br> regularity in <br> life |  |  |  |  |  |
| I like routine |  |  |  |  |  |
| I want <br> predictability |  |  |  |  |  |
| I function <br> best in a <br> familiar <br> setting |  |  |  |  |  |
| I have fixed <br> habits |  |  |  |  |  |

Indicate to what extend you agree with the following statements:

|  | Strongly <br> disagree (1) | Disagree (2) | Neutral (3) | Agree (4) | Strongly <br> agree (5) |
| :---: | :---: | :---: | :---: | :---: | :---: |
| I take the <br> lead |  |  |  |  |  |
| I leave the <br> initiative to <br> others to <br> make <br> contacts |  |  |  |  |  |
| I find it <br> difficult to <br> make <br> contacts |  |  |  |  |  |
| I take <br> initiative |  |  |  |  |  |
| I am inclined <br> to speak out |  |  |  |  |  |
| I am often <br> the driving <br> force behind <br> things |  |  |  |  |  |
| I make <br> contact <br> easily |  |  |  |  |  |
| I am <br> reserved |  |  |  |  |  |

How many foreign languages do you speak? (Foreign languages are the languages other than your native language)6 or more

Which foreign languages do you speak? Multiple answers possible.EnglishGermanFrenchSpanishArabicTurkishDutchOther, namely
How well do you speak English?Very badMediocreGoodVery good
How well do you speak German?Very badBadMediocreGoodVery good
How well do you speak French?Very badBadMediocreGoodVery good
How well do you speak Spanish?Very badBadMediocreGoodVery good

How well do you speak Arabic?Very bad

- BadMediocre
$\bigcirc$ Good
Very good
How well do you speak Turkish?Very badBadMediocreGoodVery good
How well do you speak Dutch?Very badBadMediocreGoodVery good
How well do you speak ... ?Very badBadMediocreGoodVery good
What is your native language?
In which language is the study program that you follow at the moment taught?
DutchEnglishOther, namely
What do you study?

What is your current educational level?Bachelor at a university of applied scienceMaster at a university of applied scienceBachelor at a universityPre-Master at a universityMaster at a universityPhD
How many months of holiday did you spent abroad?
How many months did you spent abroad for study?
How many months have you lived/spent abroad in total?
How many different countries have you visited?
How old are you?
What is your gender?FemaleMaleNon-binaryOther/I would rather not tell

## Appendix 2

Table 1. The frequency of spoken foreign languages

|  | Frequency |
| :--- | :--- |
| Foreign language |  |
| English | 104 |
| German | 43 |
| Dutch | 21 |
| Spanish | 19 |
| French | 3 |
| Turkish | 3 |
| Chinese/Mandarin | 3 |
| Swedish | 1 |
| Russian | 1 |
| Arabic | 1 |
| Catalan | 1 |
| Gujarati | 1 |
| Japanese | 1 |
| Polish | 1 |
| Portuguese | 1 |
| Twi | 1 |

Table 2. The frequency of native languages

Frequency
Native language
Dutch 72

German 8
English 5
Spanish 2
Chinese 2
Portuguese 2
Russian 2
Bulgarian 1
Croatian 1
English \& Swahili $\quad 1$
Finnish 1
Greek 1
Icelandic 1
Italian 1
Japanese $\quad 1$
Kurdish 1
Malay 1
Polish 1
Romanian and Russian 1
Serbian 1
Taiwanese Mandarin 1
Vietnamese 1


[^0]:    *p<.050, ** $p<.010$

