

# From Inclusion to Impact

A MULTI-ANNUAL STUDY INTO THE IMPACT OF THE ERASMUS+ PROGRAMME ON STUDENTS IN  
HIGHER EDUCATION



Kyra de Korte | Kristel Nas | Josien Lodewick | Matthijs Brink



From Inclusion to Impact.

A Multi-Annual Study into the Impact of the Erasmus+ Programme on Students in Higher Education.

Kyra de Korte, Kristel Nas, Josien Lodewick & Matthijs Brink

In Collaboration with Danny Brukx

September 2020

Commissioned by the National Agency Erasmus+ Education & Training.

This project was financed with the support of the European Commission. The responsibility for this publication rests exclusively with the author. The Commission cannot be held responsible for the use of the information contained therein.

© 2020 ResearchNed Nijmegen, commissioned by the National Agency Erasmus+ Education & Training. All rights reserved. The use of the data contained in this report without detailed source reference is strictly prohibited. ResearchNed works in conformity with the NEN-EN-ISO 9001:2015 quality standard for quality management systems and NEN-ISO 20252:2012 for market, opinion and social research.

## Table of Contents

<b>1</b>	<b>Summary</b>	<b>5</b>
<b>2</b>	<b>Positioning of the Multi-Annual Research</b>	<b>7</b>
2.1	Introduction	7
2.2	Research Objective and Questions	8
	2.2.1 From International Mobility to the Development of Personal Skills	9
	2.2.2 From international Mobility to a European Identity	10
	2.2.3 From international Mobility to Employment Opportunities	10
2.3	Findings from Earlier Studies	10
2.4	Literature Guide	13
<b>3</b>	<b>Research Design and Data Collection</b>	<b>15</b>
3.1	Method	15
	3.1.1 Research Design	16
3.2	Random Testing Design	18
3.3	Response Group Composition	18
3.4	Response Group by Background Characteristics	20
<b>4</b>	<b>Personal Skills</b>	<b>23</b>
4.1	Introduction	23
4.2	Self-Image and Self-Esteem	23
4.3	Assertiveness/Self-Reliance	24
4.4	Flexibility	26
4.5	Trust in Others	27
<b>5</b>	<b>Intercultural Skills</b>	<b>29</b>
5.1	Introduction	29
5.2	Cultural Orientation	29
5.3	International Outlook	30
5.4	European Outlook	32
<b>6</b>	<b>Graduates and the Labour Market: The Role of a Foreign Experience</b>	<b>35</b>
6.1	Skills in Practice	35
6.2	Results of a Foreign Experience in a Qualitative Perspective	36
<b>7</b>	<b>Conclusion and Discussion</b>	<b>39</b>
	<b>Appendix A: Explanation of Study Methodology</b>	<b>41</b>
	<b>Appendix B: Tables and Figures</b>	<b>45</b>



## 1 Summary

In its objectives, the National Agency (NA) Erasmus+ points out the importance of Erasmus+ projects having maximum effect and the highest possible success rate. For this reason, the NA pays special attention to the programme's impact. This report contributes thereto by examining the results of the longitudinal research measuring the impact of Erasmus+ on the personal and intercultural skills of students in higher education. In other words: What is the outcome and impact of the Erasmus+ programme. As regards the outcome of the Erasmus+ Programme, this study focuses on the changes in skills, recently acquired or otherwise, knowledge, behaviour and, possibly, an increase in self-confidence in the student. As to the eventual impact, we focus, among other things, on fundamental changes in relation to active citizenship and improved employability in the labour market. The study is a sequel to the first cross-sectional study published in June 2019, which formed the start of the multi-annual study (MAS) into the impact and objectives of the Erasmus+ Programme.

This study seeks to delineate the differences between two groups of students: (1) Students without foreign experience and (2) students with a foreign experience ('free movers' and students with an Erasmus+ scholarship). To this end, the same group of respondents was followed between November 2018 and January 2020, and three measurements were taken. In order to establish whether certain attitudes and/or developments are the immediate result of a foreign visit or planned foreign visit, we created an experimental design for this study. The resulting analytical method consists of a linear mixed-model approach. This approach does not consider the change that a student may go through over time as a fixed intercept, but rather as a randomly varying parameter between individuals.

The results show first and foremost that in terms of nearly all skills and attitudes the two groups of students (foreign experience vs no foreign experience) differ significantly right from the baseline measurement. This implies that students who eventually go abroad will, right from the start, have a greater chance at a more positive self-image, greater self-reliance, and the extent to which they are open-minded about travel and other cultures. Students who will eventually go abroad, already prior to their departure have higher perceived values regarding cultural orientation and an international and European outlook compared to students who have not had any foreign experience. Only in case of a more flexible attitude, trust in others and an international outlook has a significant impact of a foreign visit been found. In other words, after a foreign visit students are often more flexible, more trusting towards others and have a more international outlook than students without a foreign experience.

As regards the other values and attitudes, the outcomes may point to them not being merely a dependent variable to be studied, but rather a possible explanation for the eventual step abroad. It is possible that going abroad is perceived as less of a big step by students who are more self-reliant or have a more positive self-image compared to students who possess these qualities to a lesser degree. A follow-up study could possibly shed more light on this issue.



## 2 Positioning of the multi-annual research

### 2.1 Introduction

This report takes a closer look at the longitudinal study into the impact of the Erasmus+ programme on students in higher education. This study is a sequel to the first cross-sectional study<sup>1</sup> that was published in June 2019 and formed the start of the multi-annual study (MAS) into the impact and objectives of the Erasmus+ Programme (figure 2.1). The MAS thus comprises two interwoven sub-studies: a cross-sectional study primarily measuring the programme's inclusivity and a longitudinal study intended to establish the impact of Erasmus+ on students' intercultural skills. The results of this study are not only intended to provide insight in the contribution of the Erasmus+ Programme but also to highlight possible chances and opportunities.

The first report focused on the extent to which correlations exist between certain skills and students who did or did not gain a foreign study experience. To this end, an extensive questionnaire was conducted to delineate, among other things, students' intercultural awareness and language skills, as well as their already existing or planned foreign experience and possible other factors playing a role in the impact of the Erasmus+ Programme, such as their socio-economic background. This longitudinal study measures the indicators at three different measuring moments (m0, m1 and m2) in order to delineate the developments. The group of students in the first measurement (m0; autumn 2018) who indicated their willingness to participate in follow-up measurements, were approached both in the summer of 2019 as well as at the end of 2019 for a second and third measurement.<sup>2</sup>

In this study we primarily look at the causal relationships between a foreign stay and students' cultural and personal skills discussed above. An assessment is made of the extent to which these developments follow a different trajectory in students with and without a foreign experience. Taking this into account facilitates the eventual evaluation of the impact made by a foreign visit under the Erasmus+-mobility programme.

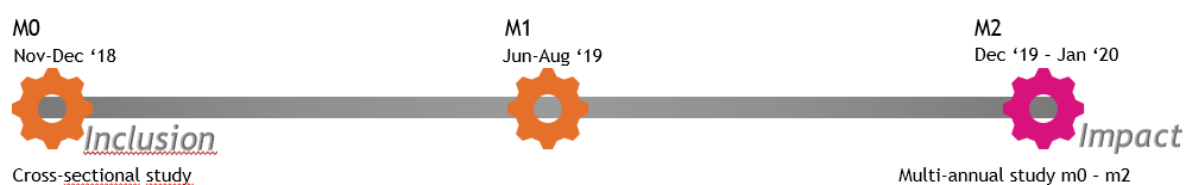


Figure 2.1: From Inclusion to Impact. Visual representation of the measuring moments of the multi-annual study into the impact of the Erasmus+ Programme.

Data collection for this study started prior to the COVID-19 Outbreak. An initially planned fourth measurement was scheduled to take place during the COVID-19-crisis, and therefore cancelled. The consequences of the COVID-19-crisis are further explained in the explanation of the study methodology in appendix A.

1 Kurver, B., Nas, K., Korte, de, K. & J. Warps (2019). A foreign experience for all? Baseline measurement into impact and inclusivity of the Erasmus+-mobility programme. Nijmegen: ResearchNed.

2 An initially planned fourth measurement was eventually not conducted due to the current corona crisis. This was, among other reasons, because international mobility was severely restricted due to the measures taken by various national governments.

## 2.2 Study Objective and Question

The Erasmus+ Programme strives for common European values and the promotion of social integration and intercultural understanding as well as the reinforcement of the sense of involvement in a community. To this end, several international plans of action were developed<sup>3</sup>. This study is conducted within the framework of the Core Action 1 (KA1) of the Erasmus+ Programme, in which inter-European mobility takes centre stage. As regards the student mobility of the Erasmus+ Programme, this is facilitated through gaining a foreign experience either during or just after the study. During their study, students can study or take on an internship in one of the participating programme countries. Country and institution of study are selected through the Erasmus+ subsidy programme.<sup>4</sup> An internship at a major international company is also possible. Within one year of graduation, students can do an internship in a different programme country in order to facilitate the transfer to the labour market (to be applied for before graduation). For this reason, this study focuses on the results of this process on graduates' chances on the labour market. Also included in this study are students who go abroad without an Erasmus+ scholarship. For the purpose of this study, these students are called free movers.

In its objectives, the National Agency (NA) Erasmus+ states that it is important its projects should have maximum effect and success.<sup>5</sup> This is why the NA pays attention to the programme's impact, that is to say, the change effected by a project - for an individual, an organisation and for the society. In order to gain insight into this process, the NA has developed an *Impact Tool*. In light of this approach, the focus of the study questions is mostly on the *outcome* and *impact* of the Erasmus+ Programme for students (figure 2.2).

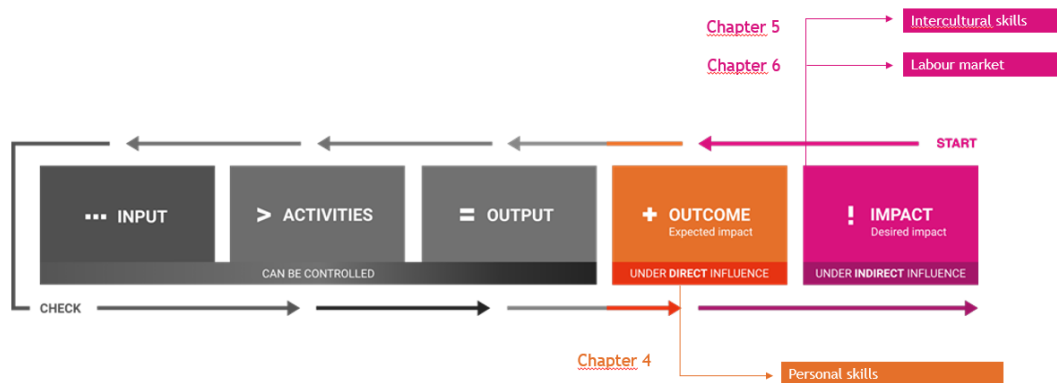


Figure 2.2: De Erasmus+ impact tool + with the aspects that the longitudinal study focuses on shown in colour.

As regards the outcome of the Erasmus+ Programme, attention is paid to the changes in existing and newly acquired skills, knowledge and behaviour, and possibly improved self-confidence in the student. Chapter 4 discusses this subject in further detail. As to the final impact, we focus, among other aspects, on fundamental changes related to active citizenship (chapter 5) and improved employability in the labour market (chapter 6). The main research question answered at the end of the report based on the findings is:

- 3 Erasmus+ employs three courses of action: Mobility (KA1), Strategic Partnerships (KA2) and Policy Development (KA3).
- 4 All 28 EU member states plus Iceland, Liechtenstein, Norway, Turkey, and Macedonia participate in the Erasmus+ Programme. These 33 programme countries differ per action line. For the participating countries see also: [https://ec.europa.eu/programmes/erasmus-plus/resources/programme-guide\\_en](https://ec.europa.eu/programmes/erasmus-plus/resources/programme-guide_en)
- 5 <https://www.erasmusplus.nl/impacttool-mobiliteit#outcomeHeading>

To what extent does the Erasmus+ Programme make a contribution to the development of students and thus succeed in its stated objectives?

In order to answer this core question, we examine for different themes whether there is a causal connection with the foreign experience and, if so, what the nature of this connection is. To this end, we examine a series of sub-questions linked to the objectives of the Erasmus+ Programme and, by extension, those of the European Commission. We introduce these questions in the following paragraphs, each time with the accompanying goals and hypotheses.

### 2.2.1 From International Mobility to the Development of Personal Skills

The European Commission states that education and culture are primarily the responsibility of the member states. However, the Commission views Europe's role as an important complementary one, even more so when cross-border activities are involved. Within this context, the Erasmus+ Programme is mentioned as an important example, where all member states have a common interest in fully exploiting the potential of education and culture.<sup>6</sup> The extent to which the Erasmus+ Programme contributes to education and culture in the Netherlands is too broad a question to be answered within the framework of this study. This is why some aspects of the MAS that fall under these two terms (education and culture) have been further worked out in consultation with the National Agency Erasmus+ and bundled under the heading of 'personal skills'. These personal skills can be subdivided in social, communicative, and cognitive skills (figure 2.2).

In order to draw up the sub-questions, an initial inventory was made of the available literature and we looked at where we could expect possible effects of the Erasmus+ Programme which have not yet been extensively studied. The inventory showed that under certain conditions international mobility can result in added value, both in terms of personal development and of professional growth.<sup>7 8 9</sup> Eventually, chapter 4 discusses the following four research questions:

- a. What is the impact of a foreign experience on students' self-image?
- b. What is the impact of a foreign experience on students' self-reliance?
- c. What is the impact of a foreign experience on students' flexibility?
- d. What is the impact of a foreign experience on students' trust in others?

6 [https://ec.europa.eu/commission/sites/beta-political/files/communication-strengthening-european-identity-education-culture\\_en.pdf](https://ec.europa.eu/commission/sites/beta-political/files/communication-strengthening-european-identity-education-culture_en.pdf)

7 Bracke, Carla (2007). Study into the funding of Flemish youths who move south. Commissioned by the Platform Kleurrijk Vlaanderen (Colourful Flanders Platform).

8 Behrnd, Verena, Prozelt, Susanne (2011). Intercultural competence and training outcomes of students with experiences abroad. (article in press) In: International Journal of Intercultural Relations, 29, pp. 137-163.

9 Teichler, Ulrich & Rizva, B. (2007). The changing role of student mobility. In: Higher Education Policy. 20, 457-475.

### 2.2.2 From international mobility to European identity

In March 2017, the European Commission presented a White Paper<sup>10</sup> outlining the different roads that Europe can travel in the future.<sup>11</sup> Next, EC President Juncker stated his vision for a more united, stronger, and more democratic Union in his State of the Union address of 2017<sup>12</sup>. One of the principal topics in this debate concerns the reflection on a shared European identity. It is said, for example that “(...) sixty years after the ratification of the Treaty of Rome, reinforcing the European identity remains essential, and education and culture are the best motivations there are.”<sup>13</sup>

Active promotion of the international mobility fits in this vision. The European Commission itself says that the thirty-year old Erasmus+ Programme is the most prominent example of EU measures intended to stimulate mobility. In chapter five of this study, we will examine whether a foreign experience contributes to a shared European identity and a more international/open outlook. The following research questions are central to this examination:

- e. What is the impact of a foreign experience on the student’s cultural orientation?
- f. What is the impact of a foreign experience on the student’s international orientation?
- g. What is the impact of a foreign experience on the student’s European orientation?

### 2.2.3 From international mobility to employment opportunities

The European Commission states there are indications that people who participated in the Erasmus+ programme have ‘excellent chances’ on the labour market. There is also a supposition that ‘in times of globalisation such experiences become even more valuable’.<sup>13</sup> This study seeks to establish whether this supposition holds true for the Netherlands and whether students themselves experience a better position in the labour market as a result of their participation in the Erasmus+ Programme. The following research question is central to this supposition:

- h. What is the impact of a foreign experience on the employment opportunities of former students?

The sub-questions are explored through an experimental design (see study design). This study design has been used before in a number of other European countries. In the next segment, we will, among other things, examine these findings from earlier national and international research

## 2.3 Findings from earlier research

In this section, we discuss the most important findings from earlier research, which put the outcomes of this longitudinal study in a broader perspective. To this end, we will briefly examine the results from the cross-sectional study of the multi-annual research<sup>14</sup> that forms the point of departure of this research.

In addition, we will examine the outcomes of the qualitative study into the impact of the Erasmus+ Programme on the KA1 student mobility.<sup>15</sup> In conclusion, we will discuss several important outcomes of international studies into student mobility and the effect on knowledge and attitudes.

---

10 COM (2017)2025

11 [https://ec.europa.eu/commission/future-europe/white-paper-future-europe-and-way-forward\\_nl](https://ec.europa.eu/commission/future-europe/white-paper-future-europe-and-way-forward_nl)

12 [https://ec.europa.eu/commission/state-union-2017\\_en](https://ec.europa.eu/commission/state-union-2017_en)

13 [https://ec.europa.eu/commission/sites/beta-political/files/communication-strengthening-european-identity-education-culture\\_en.pdf](https://ec.europa.eu/commission/sites/beta-political/files/communication-strengthening-european-identity-education-culture_en.pdf)

14 Kurver, B., Nas, K., Korte, de, K. & J. Warps (2019). A foreign experience for all? Baseline measurement into impact and inclusivity of the Erasmus+-mobility programme. Nijmegen: ResearchNed.

15 Korte, de, K., Broek, van den, A. & C. Ramakers (2018). The impact of Erasmus+. A qualitative study into the foreign experiences of students and staff. Nijmegen: ResearchNed.

### The inclusivity of the Erasmus+ Programme

The most important question from the first study was to what extent Erasmus+ contributes to all students having an equal chance to go abroad within the framework of their study (inclusivity issue). The study shows that the students with a foreign experience are often older, less likely to be hampered by a disability or disorder and more often have parents with the financial means to support their children in their choice for a foreign study and in their study activities in general. Students without a foreign experience are more often first-generation students in higher education. In addition, limitations are more strongly experienced by students without a foreign experience, in which the costs of a foreign study trip form the biggest hurdle by far, followed at some distance by a lack of information from their educational institution and the supposition that a stay abroad would not fit the study programme.

Whereas Erasmus+-students primarily stay in Europe for part of their study, so-called free movers, students with an independent foreign experience, more often choose an internship outside the EU. Many students feel that their stay abroad has brought about a development or stronger development of various skills, of which language skills are the most important. Nearly all students reflect positively on their foreign experience, but in only one in five has it led to a changed outlook on the foreign country. After their study, students without a foreign experience were found to have a job just a little more often compared to the group with a foreign experience, but the latter feel better prepared for the international labour market. As far as intercultural skills and attitude are concerned, it has been found that Erasmus+ students have a stronger cultural orientation and fewer problems interacting with others, and that they clearly have a stronger international outlook and more easily deal with change. Free movers and Erasmus+ students have a more positive self-image, are more assertive and speak more languages compared to students without a foreign experience. As regards these intercultural skills and attitudes, earlier research failed to prove in which direction the causal connection ran: did these characteristics lead to the foreign visit or are they the result of a study-related stay abroad? This study extensively examines this issue.

### Findings from the qualitative study “The impact of Erasmus+”

This study<sup>15</sup>, which was conducted among more than 300 students, gives insight into the Erasmus+ foreign experiences from students from secondary vocational education & training (VET), higher professional education (HPE) and university education (UE)<sup>16</sup>. VET students primarily go abroad with Erasmus+ for an internship, in HPE and UE more than 70 percent use the scholarship to follow part of their study programme at a foreign educational institution. Among VET students, the largest group goes for a stay between one and three months, the average length of stay among HPE and UE students is between three and six months. One of the subjects examined is what structural changes were caused by the Erasmus+ foreign experience. The students' answers to this question can be divided into five categories:

- a. Personal change: more independent, greater self-confidence, more open to other people, having become a calmer and more balanced person.
- b. Self-development, skills: more enterprising, more open to criticism, self-reflection, more pro-active, aware of own actions and of own abilities and limitations.
- c. Cultural enrichment: improved understanding of and better interaction and communication (having conversations) with people from other cultures, learning to take cultural differences into account, and more easily being able to see things from a different cultural perspective.
- d. Cognitive and social skills: better planning and organizational skills, better able to deal with setbacks, balancing a personal budget, better at distinguishing between main and side-issues, improved people skills and listening and collaborative skills, learning to adapt.
- e. Field of study/profession: broader view of study, greater focus on study, greater pleasure in study, more serious about study and finding greater meaning in study.

---

<sup>16</sup> Of the students participating in this study, 37 percent were UE students, 30 percent HPE students and the remainder VET students.

These lasting changes that resulted from the qualitative analysis, are substantiated by the answers to a quantitative question; they (as well) showed that becoming more self-reliant, improving language skills and knowledge, and understanding of other cultures as well as an improved ability to cope with unfamiliar situations are aspects in which three quarters of the students reported a personal development.

#### Findings from international literature

Sigalas<sup>17</sup> (2010) examined whether foreign experience and direct interpersonal contact among Erasmus+ students could contribute to a European identity. The author posits that Erasmus+ makes no direct contribution to the students' European identity (also because eventually there is little international contact) and that sometimes it can even have an opposite effect. The study does show that more social contact with other Europeans has a small but positive effect on the European identity. In a different study<sup>18</sup>, Sigalas also finds that participants in an EU-subsidized programme (Erasmus+ students) over time do not show increased support for the EU. According to Sigalas, neither EU money nor contacts with other Europeans had any effect on student support for the EU.

Jacobone and Moro<sup>19</sup> (2015) looked at what Italian university students gained from a stay abroad (on an Erasmus+ scholarship). The authors conducted a before and after measurement involving both students who went abroad and a control group. They looked at study points, skills development and personal growth compared to students who completed their study or internship in their home country. The authors argued that a stay abroad positively effects students: Erasmus+-students scored best in cultural improvement, personal development, and foreign language skills. In addition, they concluded that studying abroad does in fact have a Europeanizing influence on the self-identity of students.

Lastly, Mitchell (2012) examined three assumptions that are central to Erasmus+'s social vision: (1) that Erasmus+-students have extensive contacts with other Europeans, (2) that they as a result become more interested in Europa and other Europeans, and finally (3) identify more as a European. She conducted her research by means of a cross-sectional data set of the academic year 2010-2011, including only university students from France, Germany, Italy, Spain, and the UK. This constitutes therefore a single measurement of a selective group in higher education. The main conclusion from this study is, among other things, that the great majority of the Erasmus+-students develop greater intercultural and international skills compared to students who are not mobile. Mitchell also suggests that the Erasmus+ sponsored stay abroad leads to stronger interest in the EU and other Europeans and a stronger sense of being a European compared to students who did not go abroad. It is, however, impossible to say with any degree of certainty whether other factors have influenced these results. It was, after all, only the one measurement.<sup>20</sup>

---

17 Sigalas, E. (2010). Cross-border mobility and European identity: The effectiveness of intergroup contact during the ERASMUS year abroad. *European Union Politics*, 11(2), 241-265.

18 Sigalas, E. (2010) The Role of Personal Benefits in Public Support for the EU: Learning from the Erasmus Students, *West European Politics*, 33(6), 1341-1361.

19 Jacobone, V., & Moro, G. (2015) Evaluating the impact of the Erasmus programme: skills and European identity, *Assessment & Evaluation in Higher Education*, 40(2), 309-328

20 Mitchell, K. (2012). Student mobility and European Identity: Erasmus Study as a civic experience? *Journal of Contemporary European Research*. 8 (4), p 490-518.

### Summary of earlier findings

The above findings present a nuanced picture. Kurver (et al. 2019<sup>14</sup>) and De Korte (2018<sup>15</sup>) show that Dutch students who went abroad have a stronger cultural orientation and fewer problems socializing with others. They also have a notably stronger international outlook, have become more self-reliant, and improved their foreign language skills and their ability to function in unfamiliar situations. The students also state they are more enterprising, engage more in self-reflection and have gained a broader view of their study. However, the first MAS is cross-sectional and therefore incapable of delineating the impact of the foreign stay. Comparable multi-annual studies into the impact of the Erasmus+ Programme are not, or not yet, available. At the same time, it is important to realize that it is not possible as yet to speak of causal links. International panel studies including measurements taken at two separate points in time paint a contradictory picture. Sigalas (2010), for instance, states that Erasmus+ makes no immediate contribution to students' European identity (also because there eventually is little international contact) and that sometimes it can even have the opposite effect. Jacobone and Moro (2015) in their Italian study did in fact find a Europeanizing influence on the self-identity of students as a result from their stay abroad. In addition, they conclude that Erasmus+ students score best in terms of cultural improvement, personal development, and foreign language skills (compared to students who did not go abroad). Both studies include two measuring moments: a before and after measurement.

## 2.4 Literature Guide

In the next section, we first elucidate the overall study design. We go deeper into the process of data collection, the method used for this longitudinal study, and the response groups.

Next, the research questions will be discussed by theme in separate chapters. In deciding the order of the themes, we took into account the intended outcome factors on the personal level and the impact on the cultural level. Chapter 3, for instance, focusses on the student's personal skills, examining, among other things, their self-image, self-reliance, and flexibility. Chapter four focuses on the cultural orientation and the international and European outlook. The impact of a foreign experience on employability in the labour market is discussed in chapter 5. We end with the conclusion and discussion.



### 3 Study Design and Data Collection

#### 3.1 Methodology

This study is intended to delineate the differences between two groups of students: (1) students without, and (2) those with a foreign experience (both ‘free movers’ and students on an Erasmus+ scholarship). To this end, the same group of respondents was followed between November 2018 and January 2020, and three measurements were conducted. A cross-sectional study was carried out on the basis of the 0 measurement, the results of which have been published in the first report.<sup>21</sup> The study at hand is longitudinal and describes the results across three measurements. Figure 3.1 shows the research design of the two studies.

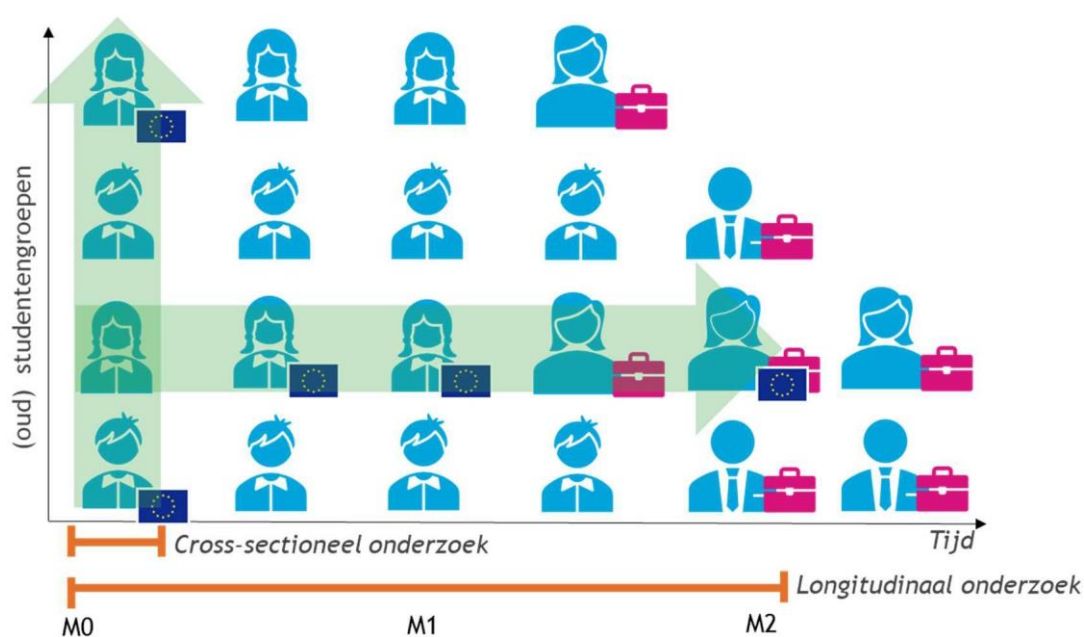


Figure 3.1: Methods used in the multi-annual study into inclusivity and the impact of Erasmus+: Cross-sectional and longitudinal research

Examples of various student groups/characteristics are presented on the y-axis; the x-axis represents time. The cross-sectional study (m0) compares students with different characteristics (including background characteristics and foreign experience) at one single moment in time. The Longitudinal study (m0 m1 m2) compares a group of students with different characteristics at different moments in time (three measurements). Because this latter study wants to measure the impact of a foreign experience, only those students who have not yet graduated at the time of the 0 measurement and no foreign experience are included. In the following paragraphs we describe the research design utilized in this longitudinal study and the main analytical methods.

<sup>21</sup>Kurver, B., Nas, K., Korte, de, K. & J. Warps (2019). A foreign experience for all? Baseline measurement into impact and inclusivity of the Erasmus+-mobility programme. Nijmegen: ResearchNed.

### 3.1.1 Research Design

In this study, we have drawn up an experimental design intended to determine whether certain attitudes and/or skill developments are the direct result of a planned foreign visit. We measured the attitudes and skills of a large group of students at three different moments. In the following chapters we examine to what extent these developments show a different path for students with and without a foreign experience. In doing this, additional attention is paid to the initial differences in specific attitudes, such as in intercultural awareness and between students who eventually do or do not go abroad (the difference in the 0 measurement). Taking this into account will eventually enable us to determine the effect of a foreign visit (figure 3.2).

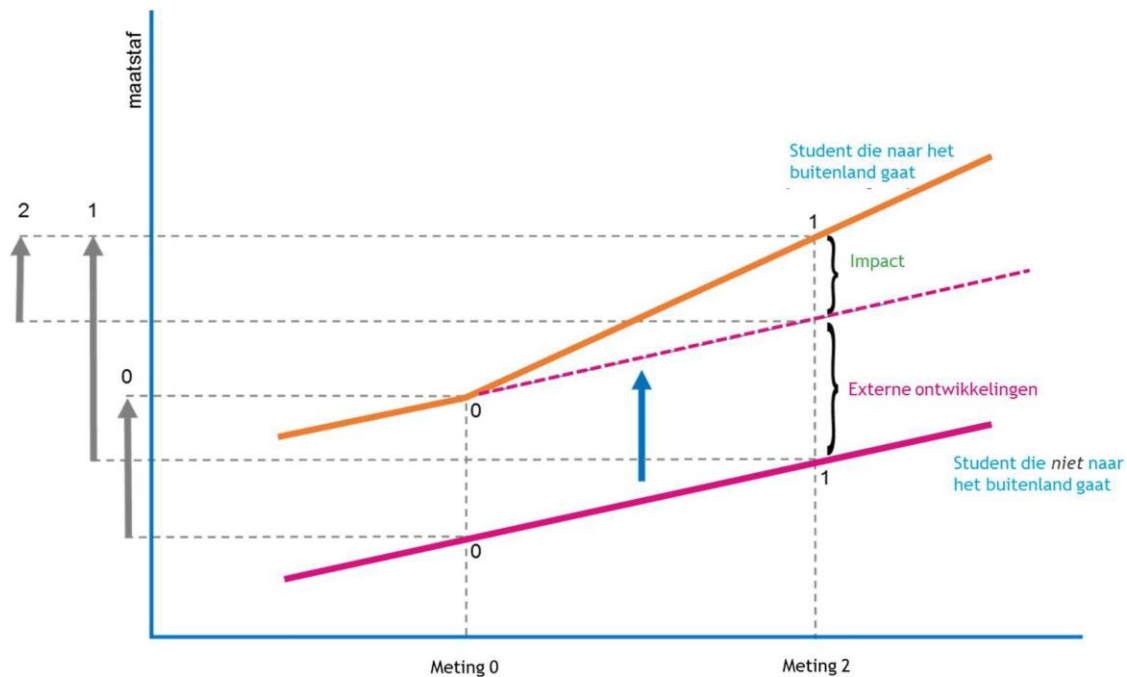


Figure 3.2: Schematic rendering of the experimental design of the multi-annual study into the impact of Erasmus +

In the above figure, the x-axis represents time and the various measuring moments. In the example, the time is shown between measurements 0 and 2. The y-axis shows the unit of measure, for instance, the score on the scale of international orientation. Two different lines are shown for two types of students, the one student eventually goes abroad (orange line), the other does not (pink line). There are three differences that are relevant to this study:

- Difference 0 (y-axis) is the difference in international orientation when the possible intervention has not yet taken place. No one has gone abroad as part of their studies yet. In this study, we make the assumption that students have different attitudes and opinions at the outset.
- Difference 1 (y-axis) is the eventual difference between the two types of student at the last measuring moment (measurement 2).
- Difference 2 (y-axis) concerns the eventual impact of the intervention: the foreign stay. This is the difference between the point in measurement 2 that the student would have reached had he not gone abroad and the point where he is at now (when he did go abroad).

It is important to note that figure 3.2 shows a simplified representation of the experimental design. In reality, the road that students travel in their development of skills and attitudes exhibits a much more capricious pattern. The changes over time are often not steady, linear increases or decreases but will, for instance, show a weak increase in one period and a strong increase in the next (or vice versa). It is also possible that the effect of the foreign visit subsides or diminishes over time. The effect of the intervention is also assumed to differ from one student to the next. This is why for the purpose of this study we have opted for an analytical method which allows us to monitor these aspects. To this end, we employ an analytical technique known as a linear mixed-model approach, which is extensively described in the work of Heck and others (2014)<sup>22</sup>. It looks at the changes a student may go through over time not as a fixed intercept, but rather as a randomly varying parameter between individuals.<sup>22</sup> We utilize, for instance, the Intra-class Correlation Coefficient (ICC) to determine to what extent the attitudes and ideas of the students are determined within the individual. When this percentage is big enough (from around 10%), it is assumed that a linear mixed model has added value for the analysis. The ICC was calculated for all seven models discussed in the following chapters<sup>23</sup>. A large share (about 70% or more per model) can be explained by developments within the individual. A smaller share by developments such as changes over time. (measurements 0, 1 and 2). This method thus distinguishes itself from a Univariate Variance Analysis (ANOVA) or Multivariate Variance Analysis (MANOVA) (see, for instance, Hox, 2010; Raudenbush & Bryk, 2002)<sup>24 25</sup>.

For the execution of this analysis, the software package *IBM SPSS Statistics* was used. The data collected during measurements 0, 1 and 2 are bundled in a data set in which respondents occur multiple times. Such a research design is known as a ‘repeated measures design’ (RMD). An example of such a data set is shown in figure 3.3.

id	meting	geslacht	cultuur_schaal	internationaal_schaal	buitenland2
203554	0	,00	1,50	1,50	0
203554	1	,00	3,50	2,50	1
203554	2	,00	3,50	3,00	1
203810	0	,00	2,50	2,50	0
203810	1	,00	3,25	2,50	0
203810	2	,00	3,50	2,50	2

Figure 3.3: Example of a Repeated Measurements Design (RMD) data set in which respondents occur multiple times

Respondent 203554 participated in measurements 0, 1 and 2. The background characteristics, such as gender, remain constant over time. The values on the various scales can vary across measurements, depending on the respondents’ answers to the question in the measurement in question. Respondent 203554 went abroad with Erasmus+ in measurement 1 (variable abroad2 = 1). As of this measurement, the respondent has a value of 1 for a foreign experience. We also determined that the value for Cultural Orientation (culture scale) and International Orientation (international scale) vary for this respondent across the different measurements. Respondent 203810 goes abroad in measurement 2 but without Erasmus+ (free mover; abroad2 = 2). We determine a variation on cultural orientation but not on international orientation (it remains 2.50). So, the entire data set comprises different respondents, each with unique characteristics that occur multiple times in the data set.

21 Heck, R. H., Thomas, S. L., & Tabata, L. N. (2014). *Multilevel and longitudinal modelling with IBM SPSS*. Routledge.

22 See Appendix B

23 Hox, J. (2010). *Multilevel analysis: Techniques and applications* (2nd ed.). New York, NY: Routledge Academic.

24 Raudenbush, S. W., & Bryk, A. S. (2002). *Hierarchical linear models: Applications and data analysis methods* (2nd ed.). Thousand Oaks, CA: Sage.

### 3.2 Random Sampling Design

At the start of this multi-annual study, in the autumn of 2018, we used the ResearchNed student panel. This panel includes the contact data of a large group of students. In total, ResearchNed has at its disposal the email addresses of more than 60,000 students in higher education who during earlier studies have granted permission to be approached for non-commercial research intended to improve the quality of education. The panel closely mirrors the Dutch student population and consists for 57 percent of students in Higher Vocational Education (HVE) whereas 43 percent are university students. A representative sample was taken from this panel (See Appendix B). In addition to this panel, students were approached via the National Agency Erasmus+ Education and Training (NA). They, after all, have the contact data of the students who already went abroad earlier with Erasmus+ for either a study programme or internship.

For this study, we want to delineate the impact of a foreign stay and more specifically of the Erasmus+ Programme. In order to determine its impact, we conducted a longitudinal study comprising a panel design. In other words, the same group was surveyed at three different moments in time about a possible stay abroad and their attitudes, knowledge, and skills. For this purpose, we selected only those students from the baseline measurement who:

1. *Did not yet have* a foreign experience, the definition of a foreign experience was adopted from the cross-sectional measurement. Students must have spent at least three months abroad within the framework of their study, based on the EU objective regarding outgoing student mobility. The EU has determined that in 2020 at least 20 percent of the higher education (HE) graduates must have completed a study programme or internship abroad. The norm being that the period study, training, or internships must yield at least 15 study points or last a minimum of three months<sup>26 27</sup>.
2. Have granted permission to be approached one more time within the framework of the multi-annual study into the impact of the Erasmus+ Programme (the data can be found further along in this chapter).
3. Have participated in at least two measurements.
4. Have not yet graduated.

Eventually, more than 8,000 students participated in the first, baseline measurement (m0), a 10% net response. Of these more than 8,000 students, 2,375 took part in the second measurement (m1) and 2,722 respondents in the third (m2) and final measurement, a net response of 47 and 55 percent respectively (Appendix A). The above four criteria, in addition to quality checks, resulted in the data and answers of approximately 1,482 students that were used in the descriptive and evaluative statistics.

### 3.3 Response Group Make-Up

Students in the study population will appear at least two and at most three times (panel design), depending on how often a student has participated in the study. Figure 4 shows how many and how often students participated in the study. In the response group 53 percent (n=785) of the students participated in all three measurements. Out of the students who 'only' took part in two measurements, 18 percent took part in measurements 0 and 1, and 29 percent in measurements 1 and 2.

---

25 Messelink, A., Stehouder, L., & Huberts, D. (2018). An Image of Internationalization 2018. Facts and Figures from Education. Den Haag: Nuffic.

26 Hauschildt, Vögtle & Gwosc, (2018). Social and Economic Conditions of Student Life in Europe. Brussel: EUROSTUDENT.

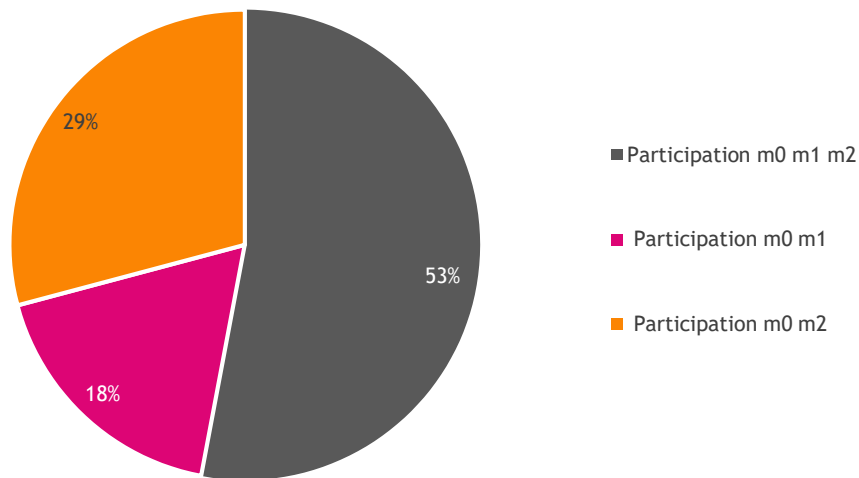


Figure 3.4: Ratio of the number of students who participated in either two or three measurements (N=1,482)

Next, we looked at the ratios in the research population with regard to foreign visits. The research group in the 0 measurement, for instance, is exclusively comprised of students with no foreign experience. After all, it is essential that the students have not yet had a foreign experience at the time of the 0 measurement in order to establish a clear connection. Also, these are all students who were in school at the time; former students who had already graduated at the time of the 0 measurement were not included. Over time, the group of students without a foreign experience remains the largest group (m1; 94%, m2; 85%).

In 2016-2018, the outgoing student mobility in Europe is around 20 percent.<sup>28</sup> In our final measurement, the percentage among our research population was 15. The fact the group with a foreign experience is larger in measurement 2 compared to measurement 1 can be explained by the fact that all students who have had a foreign experience in measurement 1 and participated in all three measurements are also included as 'a student with a foreign experience' in measurement 2. The expectation was that as time passed the number of students who had gone abroad would grow, and eventually by approximation match their share of the overall population (20%). However, due to the COVID-19 outbreak, an initially planned fourth measurement was cancelled. As a result, the eventual percentage of students with a foreign experience (15%) was presumably lower compared to the population.

<sup>27</sup> Hauschildt, K., Vögtle, E. M., & Gwosc, C. (2018). *Social and Economic Conditions of Student Life in Europe*. Bielefeld: W. Bertelsmann Verlag GmbH & Co.

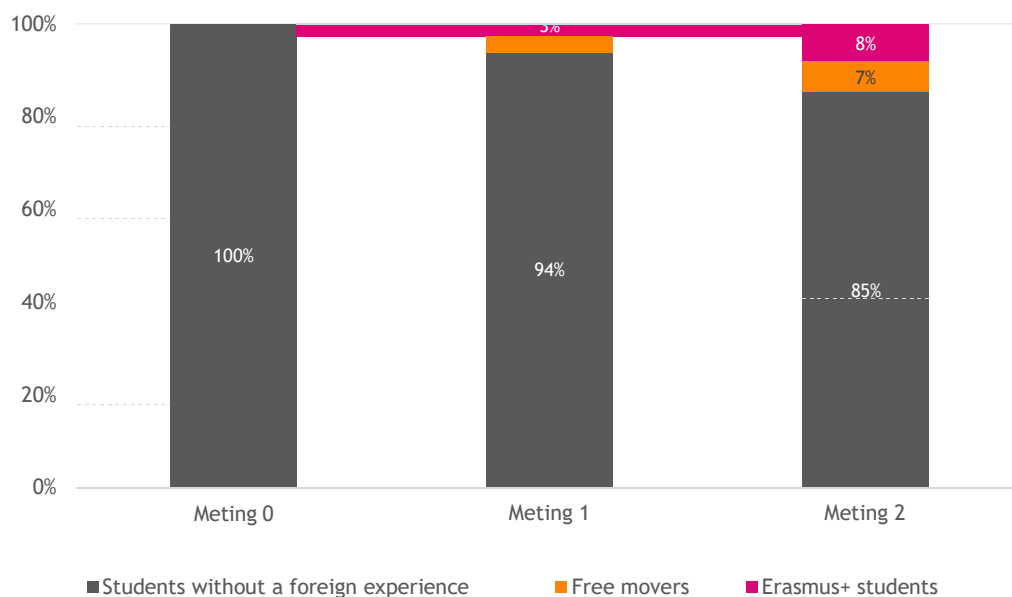


Figure 3.5: Number of students per measurement sorted by type of foreign experience (m0; n=1,482, m1; n=1,050, m2; 1,217)

The percentage of students who go abroad either with Erasmus+ or as a free mover is a relatively small group. For this reason, Erasmus+ students and free movers are taken together in the continuation of the evaluative analyses. The size of the separate groups is so small that a subdivision on the basis of background characteristics would otherwise hardly be possible (see also Explanation of Study Methodology in Appendix A). The cross-sectional study shows no clear differences between Erasmus+-students and free movers concerning developments in the field of personal and intercultural skills.

### 3.4 Response Group and Representativeness

#### The response group

Lastly, we delineate the composition of the response group on the basis of several background characteristics.<sup>29</sup> These background characteristics were not all collected in one measurement. The background characteristics were surveyed at the end of the questionnaire in the first measurement. Students who did not fully fill in the questionnaire in the first measurement sometimes had missing values for certain characteristics. These students were again asked about the background characteristics in the follow-up measurements. This approach resulted in an as complete as possible impression of the participating respondent. The three measurements took place in a relatively short period of time. This is why in the analyses, the assumption is made that the background characteristics (such as gender and parental characteristics) remain constant over time. We did, however, adjust for age, based on the year of birth and the year in which the measurement in question took place.

<sup>29</sup> Gender, age, level of education, parental level of education, parental financial situation, ethnicity, and disability

The descriptive statistics are presented in the appendix.<sup>30</sup> About two-thirds of the students follow or followed a university education. More than 70 percent of the students are female. This ratio is rather large compared to the student population. A possible explanation for the discrepancy is twofold. First off, it is clear from the various major survey studies we conducted among students in higher education that the number of women participating in the study is often considerably larger than the number of men. Secondly, there is a clear reinforcing effect resulting from the fact that this is a long-term panel study in which the same people are surveyed several times. In other words: more women than men participate in the first measurement, that same group is surveyed again, and once again women are perhaps more inclined to repeatedly participate in the same study.<sup>31</sup> As a result, the group that eventually participated in two or three measurements is primarily composed of women. At 90 percent, students without a migration background are the largest group in the research population. About a third of the students stated they had one or more disabilities. As regards parental background, both parents of more than a third of the students are not highly educated (first generation HE) and slightly more than half (ca 53%) say their parents are financially well to very well off. Finally, the ratios of the age brackets are not constant across the measurements, after all, every year students get older (2018, 2019 and 2020).

### Representativity

Only those students who took part in the first measurement were approached for the second and final measurement. Based on this fact, and the make-up of the response group described above, it can reasonably be assumed that the response group will not be fully representative of the entire research population. This, however, does not necessarily lead to negative consequences for establishing links between a foreign stay and students' personal and intercultural skills nor, by extension, for the report. The models employed in this study are corrected for composition effects of the background characteristics. In other words, differences in group composition between the two student groups (foreign experience vs no foreign experience) do not affect the estimated effects. This is intended to establish a more precise link between a foreign visit and the attitude and/or skills of the student. Nevertheless, we cannot report on students who barely responded or not at all, and long-term research usually includes some form of selection. It is possible, for instance, that a group of students with certain attitudes or skills is not really inclined to take part in a long-term study, which is why it is always important to be cautious in drawing conclusions about the entire research population based on these results.

In the next chapter, we discuss the first dependent parameter of this study: personal skills. We determine the impact of a foreign stay on students' personal skills based on an experimental design set down in a RMD data set comprising 1,482 students who appear multiple times in the data set. The analytical method employed is a linear mixed-method approach.

---

<sup>29</sup> For more information see Appendix B.

<sup>30</sup> Other causes could also underlie this phenomenon, such as the survey method or the research theme in question. In this study, however, we were unable to determine a definitive explanation.



## 4 Personal skills

### 4.1 Introduction

In this part, we successively discuss the impact of a foreign stay on a student regarding their self-image, assertiveness and self-reliance, flexibility, and their trust in others. We discuss per indicator first how we measured it and what the results were from the earlier cross-sectional study. In each case, we do this on the basis of a concise text box in which we refer back to the first study of this multi-annual research.<sup>32</sup> This study showed whether there was a connection between certain attitudes and skills on the one hand and the foreign visit on the other. It did not, however, examine whether these attitudes and skills were the result or the cause of a foreign experience. We next discuss this in the analysis results. To this end, we examine per theme the experimental design as presented in figure 3.2 and discuss the differences, if any, between the groups of students who did and those that did not go abroad.

### 4.2 Self-image and Self-esteem

A foreign stay can introduce a student to a different culture and customs. In this section, we examine to what extent this introduction affects the student's sense of self-esteem (called self-image in this section). The student's self-image is measured with Rosenberg's self-esteem scale (1965).<sup>33</sup> This scale comprises ten theses to which the respondent in question can respond by selecting one of five choices ranging from 1) completely disagree to 5) fully agree. A Dutch study into the workings of this scale shows that a factor analysis can be a reliable method for establishing one appropriate unit of measurement.<sup>34</sup> This study has chosen to employ this unit and the theses and factor loadings are presented in Appendix B.

*Rosenberg's ten theses have been separately analysed and discussed in the **cross-sectional study**. The study showed that outward bound students have a significantly more positive self-image than students without a foreign experience. No differences were found between Erasmus+ students and free movers.*

#### Outcome Analyses

The report at hand seeks to establish whether a causal link actually exists regarding the earlier results from the cross-sectional study on self-image. In addition, we examine to what extent a foreign experience affects the self-image. After all, the objectives of Erasmus+ are based on the expectation that *students with a foreign experience develop a more positive self-image than those without*. The development over time of students with and without a foreign experience is presented in figure 4.1. For the evaluation of the hypothesis, this figure is used to examine the three differences in the study that were mentioned earlier (see figure 3.2 and the accompanying description on page 16).

32 Kurver, B., Nas, K., Korte, de, K. & J. Warps (2019). A foreign experience for all? Baseline measurement into impact and inclusivity of the Erasmus+-mobility programme. Nijmegen: ResearchNed.

33 Rosenberg, M. (1965). Rosenberg self-esteem scale (RSE). Acceptance and commitment therapy. Measures package, 61(52), 18.

34 Franck, E., De Raedt, R., Barbez, C., & Rosseel, Y. (2008). Psychometric properties of the Dutch Rosenberg self-esteem scale. *Psychologica Belgica*, 48(1), 25-35.

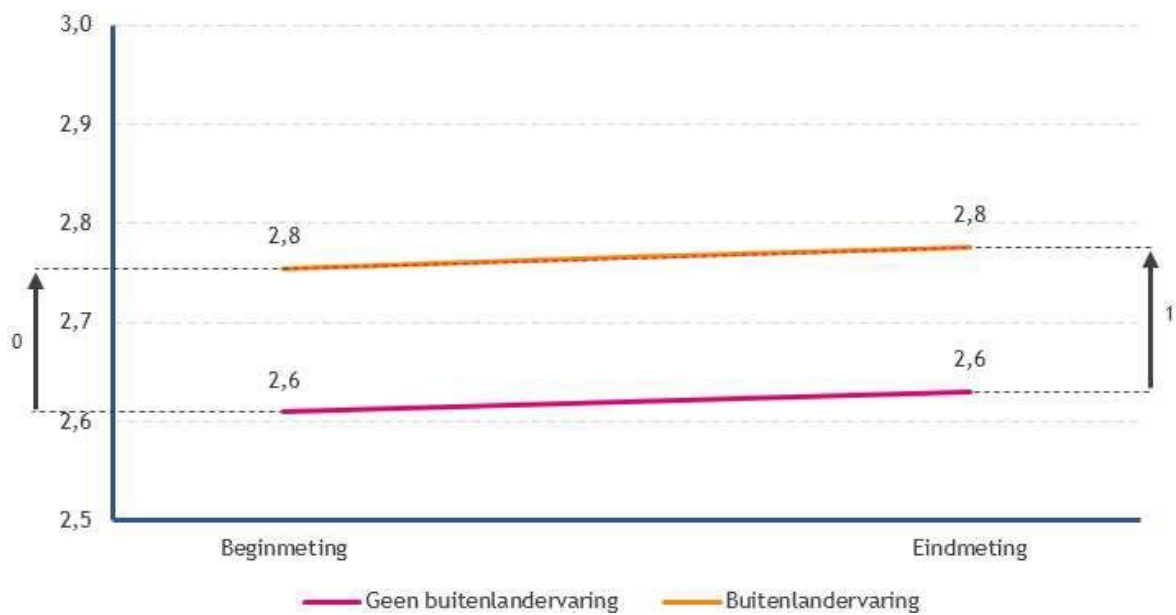


Figure 4.1: Outcome: The self-image of students with (=orange) and without (=pink) a foreign experience (n = 1,482)

#### *Difference 0 (difference at the start)*

The analyses showed that students in the 0 measurement (before any of them had gone abroad) who had the intention of going abroad have a more positive self-image compared to those who do not. This means that the two groups are significantly different right from the start. It also means that a positive self-image may in fact be an explanation for taking the step to go abroad, instead of simply a contributing factor influenced by the foreign stay.

#### *Difference 1 (external developments) and 2 (outcome)*

Around the external development, that is, the influence of time, no significant effects were found (difference 1). Students do not by definition gradually develop a more positive self-image. This analysis did not find any impact of a foreign stay on the student's self-image.

#### *Background Characteristics*

Study attitude<sup>35</sup> proved to have a significantly positive influence on the student's self-image. As far as the basic background characteristics are concerned, it is primarily men or students with parents who are well off to very well off who have a more positive self-image than women or students whose financial home situation is less advantageous. Students with a disability have a more negative self-image compared to students who have none.

### 4.3 Assertiveness/self-reliance

In this section, we look at the impact of a foreign experience on the assertiveness/self-reliance of the student. The scale for measuring assertiveness comprises four theses to which the students could also respond by selecting one of five choices ranging from 1) completely disagree to 5) fully agree. In constructing this scale, we used a factor analysis to determine whether when taken together they would meet the statistical demands for creating a single scale. The theses and the accompanying factor loadings and reliability are presented in Appendix B.

<sup>35</sup> See Appendix B for the theses and the scale construct for study attitude.

The **cross-sectional study** shows that students with a foreign experience individually have a significantly more positive score on all four theses compared to students without a foreign experience. This means that outward bound students are more assertive/self-reliant than students without a foreign experience. Once again, no differences were found between Erasmus+ students and free movers.

### Outcome Analyses

Beforehand, we expected students with a foreign experience to become more assertive/self-reliant compared to students without such an experience. The development over time of both groups is presented in figure 4.2. In order to eventually establish whether a foreign stay actually has such an impact on the students, we examine the three differences mentioned earlier.

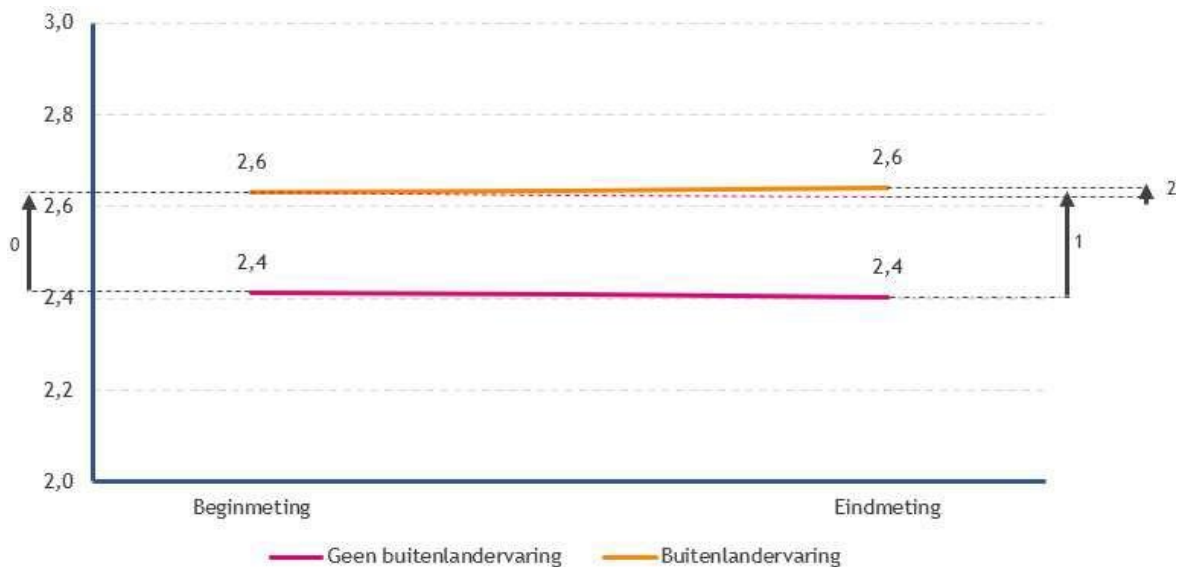


Figure 4.2: Outcome: assertiveness of students with (=orange) and without (=pink) a foreign experience (n = 1,482)

#### *Difference 0 (baseline)*

The analysis shows that in the baseline measurement the students who intend to go abroad are significantly more assertive/self-reliant than those who eventually do not go. This implies that assertiveness can also be an explanation for the decision to eventually go abroad.

#### *Difference 1 (external developments) and 2 (outcome)*

In cases where the intention of going abroad affects the student's self-reliance, time has no significant effect on this attitude (difference 1). In short, both groups do not by definition become more self-reliant over time. Also, the analysis shows that a foreign visit does not lead to more self-reliance among students (difference 2). After all, the effect is not significant.

#### *Background Characteristics*

Here as well, study attitude proves to have a positive effect on the extent to which a student is self-reliant. Students who are better motivated for their study<sup>35</sup> prove to be more self-reliant compared to those with a lesser motivation. And finally, the analysis shows that it is primarily men, students with highly educated parents, or parents who are financially well off, are more assertive/self-reliant compared to women, students whose parents have little formal education, or students with parents who are financially less well off.

#### 4.4 Flexibility

One of the other personal skills that might be influenced by a foreign visit, is the level of a student's flexibility. In this study, a student's flexibility is exclusively seen as the extent to which a person is open to travel and other cultures. The scale for this form of flexibility consists of four theses to which students are required to respond by selecting one of five choices ranging from 1) completely disagree to 5) fully agree. Also, for this scale, a factor analysis is employed to determine whether when taken together they would meet the statistical demands for creating a single scale. The theses and the accompanying factor loadings and reliability are presented in Appendix B.

We know from the earlier **cross-sectional study** that students with a foreign experience score significantly more positive results on all of the theses compared to students without a foreign experience. In other words, students with a foreign experience are more open to travel and other cultures than students without such an experience. Significant differences between Erasmus+ students and free movers were not found.

#### Outcome analyses

The analysis is intended to provide more clarity regarding causality. In short, if a foreign stay actually has an impact on the student's flexibility. Prior to this study, *students were assumed to have become more flexible in their attitudes compared to students without a foreign experience*. Figure 4.3 reflects this development between the two groups, allowing for a conclusion as to the significance of the three differences.

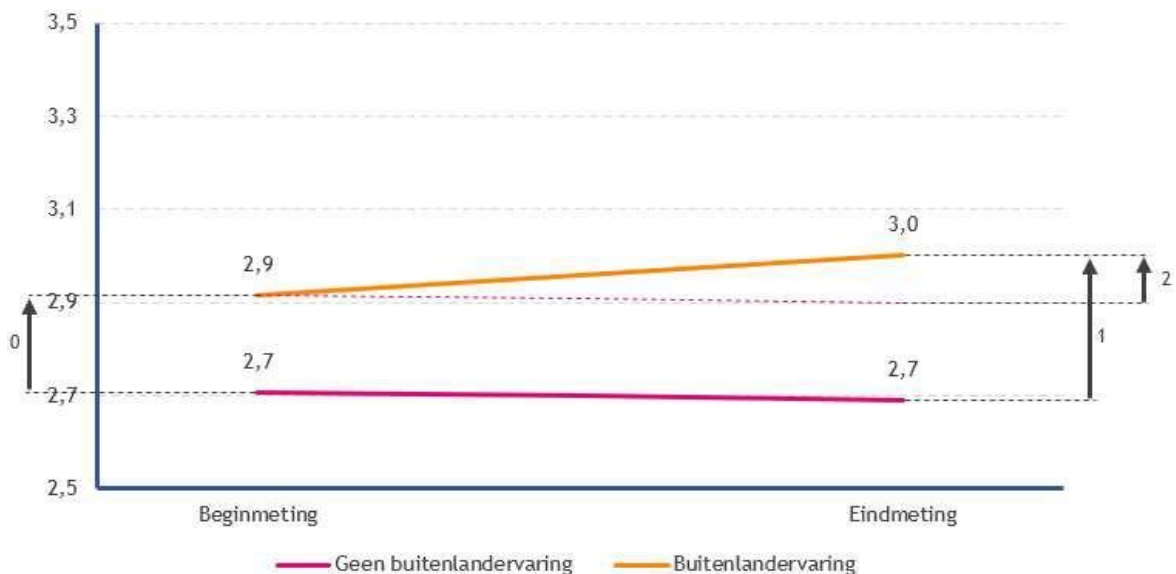


Figure 4.3: Outcome: Flexible attitude of students with (= orange) and without (= pink) a foreign experience (n = 1.482)

#### Difference 0 (baseline)

The analysis shows that at the start (baseline measurement) the students who had the intention of going abroad were significantly more open to travel and other cultures compared to students who eventually did not go. Here as well, it holds true that a flexible attitude can probably make a positive contribution to the foreign stay of some students.

#### *Difference 1 (external developments) and 2 (outcome)*

When considering the external development experienced by the two groups of students over time, we see a different progression. For the groups of students without a foreign experience, time proves not to have a significant effect on students' attitudes, i.e., a greater flexibility (difference 1). In both groups, flexibility does not by definition increase over time when no foreign experience is had. When students do go abroad, this proves to have a positive effect, albeit small, on the extent to which a person is open to travel and other cultures (difference 2). So, a foreign experience does contribute to the extent to which a person is open to travel and other cultures.

#### *Background Characteristics*

Looking at the basic background characteristics, it turns out that male students or students with a migration background have a more flexible attitude compared to female students or students with a Dutch background. However, students with a disability are less flexible in their attitudes than students with no disability. The level of parental education appears to have no effect on flexibility.

### 4.5 Trust in Others

Finally, we looked into the level of trust in others. For the purpose of measuring trust in others, the questions from the European Social Survey, among others, were used as an example.<sup>36</sup> A concrete example thereof is the question to what extent other people can be trusted. Based on these examples, we examined which type of question has already proved valid for survey-based research. Next, the questions were further tailored to the theme of this study. As a result, in this study the eventual scale for measuring trust comprises three theses. For this scale as well, students could indicate the extent of their agreement or disagreement, in which a higher score implies greater trust. A factor analysis was used to determine whether the theses in this scale meet statistical norms. The relevant factor loadings, reliability, and the theses can be found in Appendix B.

*The earlier **cross-sectional study** shows that Erasmus+-students score higher on all three theses and therefore have significantly more trust in others compared to students without a foreign experience. Significant differences between Erasmus+ students and free movers were not found.*

#### Outcome analyses

This report seeks to establish to what degree a causal link exists between a foreign stay and the level of trust in others. We examined whether *students after a foreign stay have more trust in others compared to students who gain no foreign experience*. The developments over time of these two groups are presented in figure 4.4. It shows the extent to which the three differences exist between the two groups of students.

---

<sup>36</sup> European Social Survey (2018). *ESS Round 9 Source Questionnaire*. London: ESS ERIC Headquarters c/o City, University of London.

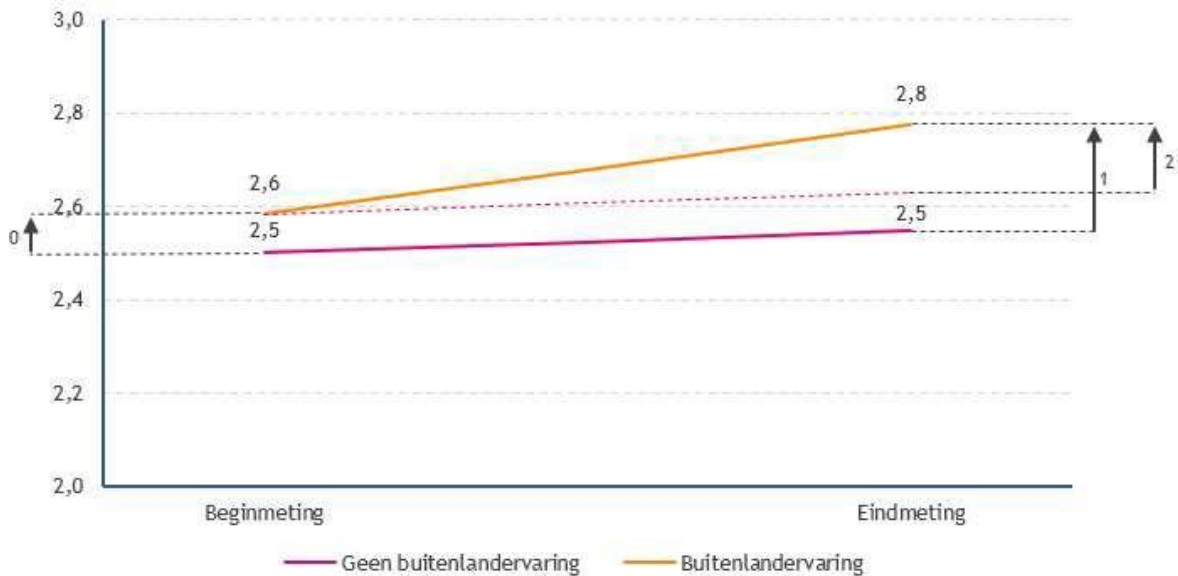


Figure 4.4: Outcome: trust in others of students with (= orange) and without (=pink) a foreign experience (n = 1,482)

#### *Difference 0 (baseline)*

As regards trust, the analysis shows that at the start (baseline measurement), students who intend to go abroad do not have more trust in others compared to students without a foreign experience. After all, the difference is not significant.

#### *Difference 1 (external developments) and 2 (outcome)*

Time, on the other hand, does have a significantly positive effect on student trust (difference 1), leading to slight increase over time in trust in others for both groups. Despite the lack of differences between the two groups of students at the outset, once the student has actually been abroad, a significantly positive effect on the level of trust in others does exist (difference 2). A foreign visit therefore contributes to students' trust in others. In short, a foreign visit leads to the development of greater trust in others compared to students without a foreign experience.

#### *Background Characteristics*

It turns out that university students, students whose parents are highly educated, or whose parents are well off, have greater trust in others compared to students in HVE, students whose parents have little education or students whose parents are less well off. Students with a disability or from a migration background have less trust in others compared to students without a disability or a migration background.

## 5 Intercultural Skills

### 5.1 Introduction

As in the previous chapter, here we examine the impact of a foreign visit on students' attitudes as to cultural orientation and their international and European outlook. Again, we discuss per attitude how we performed our measurements and refer back to earlier results from the cross-sectional study.<sup>37</sup> Next, the impact analysis goes deeper into the results from this cross-section by determining whether these skills and attitudes lead to a foreign experience or if their development is in fact the result. We do this on the basis of the experimental design (see figure 3.2) with which we discuss the possible differences between the groups of students who did and did not go abroad.

### 5.2 Cultural Orientation

In addition to a foreign experience potentially having an influence of students' personal skills, it can also affect their intercultural skills. This is why in this section we examine the impact of a foreign stay on the cultural orientation and the interaction with others. We used four theses for measuring such an attitude, again derived from examples from the European Social Survey (ESS).<sup>36</sup> Students could indicate the extent of their agreement or disagreement with the theses. Eventually, a scale was constructed from these theses. A factor analysis was used to determine whether the statistical demands for creating a scale were met. The factor analyses, the accompanying theses that jointly measure the cultural orientation, and the reliability of the scale can be found in Appendix B.

*The theses pertaining to the cultural orientation are separately discussed in the **cross-sectional study**. It showed that students with an Erasmus+ experience are slightly more culturally oriented compared to students without a foreign experience. Significant differences between Erasmus+ students and free movers were not found.*

#### Impact analysis

In the report at hand, we seek to establish whether there actually is a causal link between a foreign stay and the student's cultural orientation. In other words, we examine the degree to which a foreign stay impacts the cultural orientation and whether *students after a foreign stay are more culturally oriented compared to students without a foreign experience*. The development over time of these two groups is presented in figure 5.1 and we examine the extent to which the three differences are present between the two groups of students.

<sup>37</sup> Kurver, B., Nas, K., Korte, de, K. & J. Warps (2019). A foreign experience for all? Baseline measurement into impact and inclusivity of the Erasmus+-mobility programme. Nijmegen: ResearchNed.

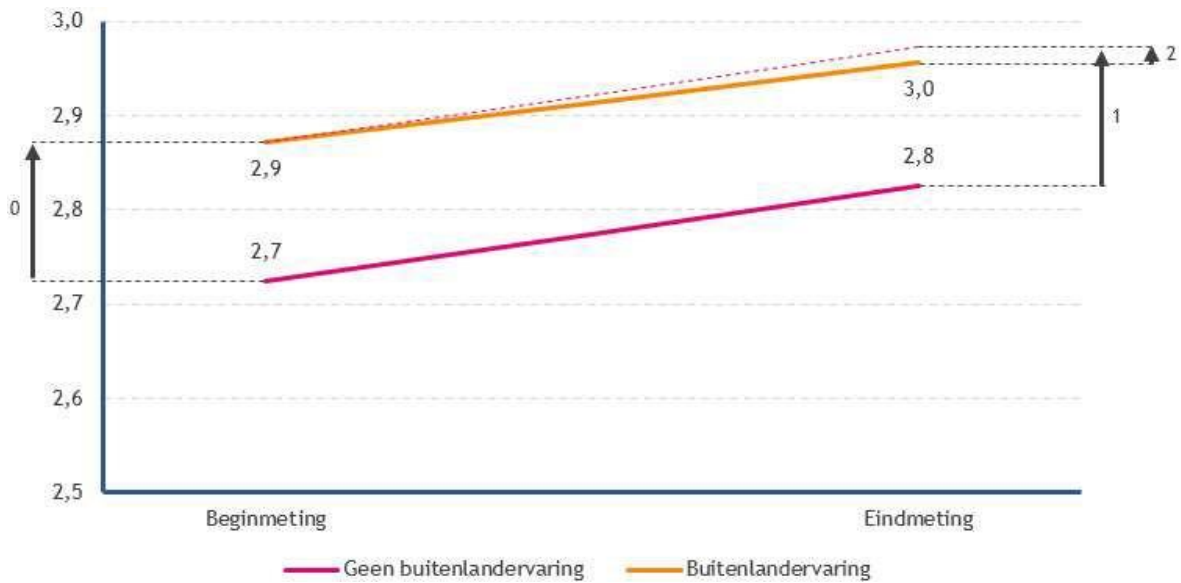


Figure 5.1: Impact analysis: cultural orientation of students with (= orange) and without (=pink) a foreign experience (n = 1,482)

*Difference 0 (baseline)*

It can be concluded from the impact analyses that at the start students who intend to go abroad are significantly more culturally oriented compared to students without a foreign experience.

*Difference 1 (external developments) and 2 (impact):*

Time proves to have a significant positive impact on students' cultural attitude (difference 1). In short, the cultural orientation of both groups of students increases as time goes by. The impact analysis also shows that after a foreign visit students are not more culturally oriented compared to students who did not go abroad (difference 2). In other words, no impact was found on students' cultural attitudes as a result of a foreign stay.

*Background Characteristics*

As regards basic background characteristics, the analyses show that university students, students with highly educated parents or from a migration background have a stronger cultural orientation compared to HVE students, students whose parents have little education or with a Dutch background.

**5.3 International outlook**

The second aspect around the student's intercultural skills concerns the international outlook. Here, we examine the impact of a foreign stay on the extent to which a student has an international outlook. In order to determine this outlook, we employed two theses which, by means of a factor analysis, were formed into a single scale for measuring the international outlook. The accompanying theses, factor loadings, and reliability are presented in Appendix B.

The student responses to the two theses in the **cross-sectional study** show that students with a foreign experience score significantly higher compared to students without a foreign experience. In other words, students with a foreign experience appear to be more internationally oriented than students without a foreign experience.

### Impact analysis

We used an impact analysis to establish whether there actually is a causal link between gaining a foreign experience and the international outlook. In other words, what impact has a foreign stay on the international outlook? Looking at the Erasmus+ objectives, one can assume that *students after a foreign stay have a stronger international outlook compared to students without a foreign experience*. This development over time of the two groups of students is presented in figure 5.2.

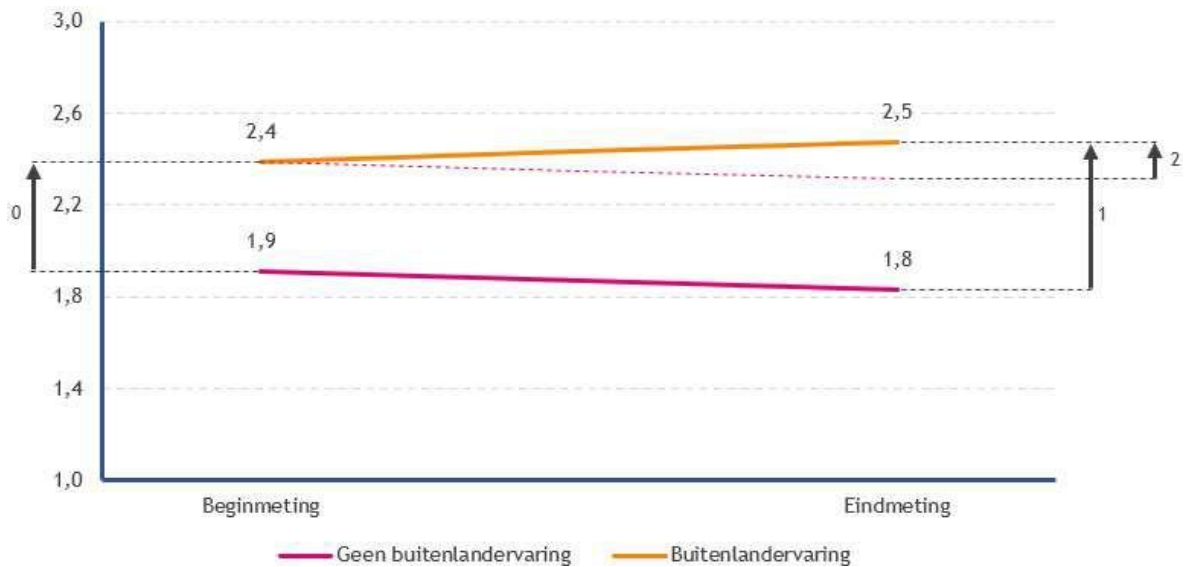


Figure 5.2: Impact analysis: international outlook of students with (= orange) and without (= pink) a foreign experience (n = 1,482)

#### Difference 0 (baseline)

First off, the impact analysis shows that right from the start students who intend to go abroad have a stronger international outlook compared to students who eventually do not go abroad.

#### Difference 1 (external developments) and 2 (impact):

A notable fact is that time appears to have a significantly negative effect (difference 1). The international orientation, for instance, diminishes among students without a foreign experience. This could mean that as they grow older, students are less inclined to live or work abroad and cling more to their initial home environment. This does not alter the fact that the analysis shows that a foreign visit has a positive effect. For instance, after a foreign stay, students have a significantly stronger international orientation compared to the baseline measurement and the group of students without a foreign experience (difference 2). Phrased differently: a foreign stay appears to have a small but significantly positive impact on students' international orientation.

#### Background Characteristics

Students who have a stronger study motivation are less internationally oriented. As far as the basic background characteristics are concerned, only the parental educational level appears to have a significant impact. Students with highly educated parents appear to have a stronger international orientation compared to students with parents who have little formal education.

## 5.4 European Outlook

Finally, we examine the impact of a foreign stay on the European outlook of students. We used two theses to create a scale and employed a factor analysis to determine whether combining these in a single scale would meet statistical standards. The theses, the accompanying factor loadings, and reliability are presented in Appendix B.

The *cross-sectional study* briefly examines the two theses in question and comes to the conclusion that there is a minor but significant difference between students with and without a foreign experience. Students with a foreign experience are more European in outlook compared to students without a foreign experience. Differences between Erasmus+ students and free movers were not found.

### Impact analysis

Once again, we examined in the impact analysis to what extent a causal link exists between a foreign stay and the European outlook. In other words, if a foreign stay has an impact, and if so what kind, on the European outlook of students. Looking at the Erasmus+ objectives, one can assume that *students after a foreign stay have a stronger European outlook compared to students without a foreign experience*. The differences between these two groups and the development over time are presented in figure 5.3.

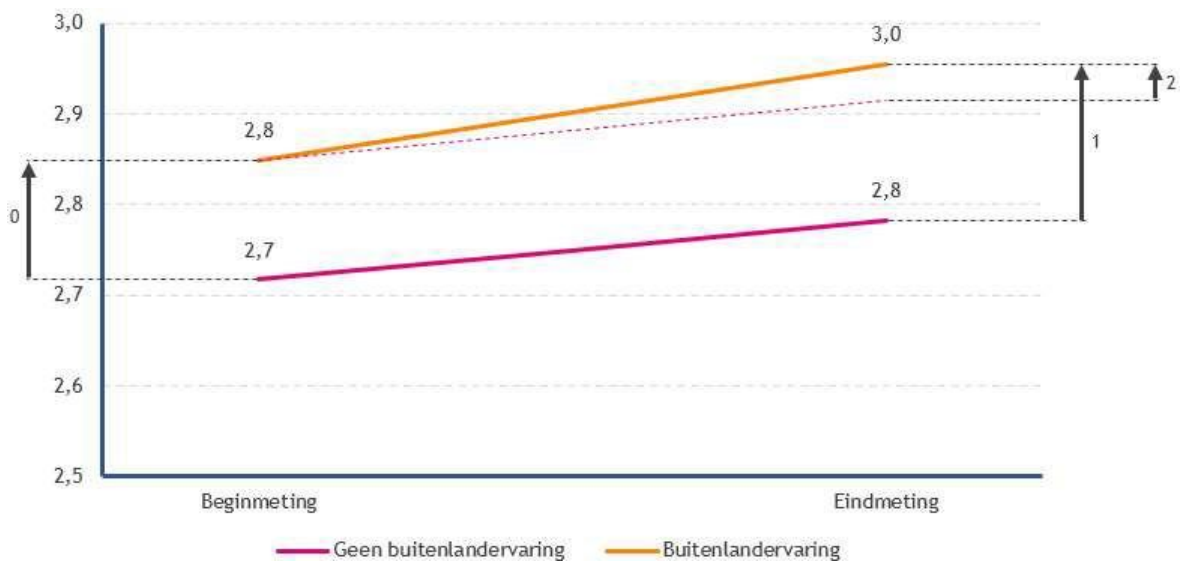


Figure 5.3: Impact analysis: European outlook of students with (= orange) and without (= pink) a foreign experience (n = 1,482)

#### *Difference 0 (baseline)*

The final impact analysis shows that at the start there is a significant difference in the strength of the European outlook between students who have the intention of going abroad and those who eventually do not go. In other words, students who intend to go abroad have a stronger European outlook compared to students without a foreign experience.

#### *Difference 1 (external developments) and 2 (impact):*

Time is another significant factor (difference 1). Both groups of students over time become more European in their orientation. However, a foreign stay does not show a significant impact (difference 2). Students' European outlook does not grow stronger as they go abroad compared to students who do not gain a foreign experience.

### *Background Characteristics*

Of the basic background characteristics, only the student's disability and the parental financial situation are significant. Students with a disability are less Europe-oriented compared to students without a disability. Students from affluent parents are more Europe-oriented compared to students whose parents are less well off.



## 6 Graduates and the labour market: the role of a foreign experience

The government and the EU invest, among other things, in outgoing student mobility because it is expected to lead to better opportunities in the national and international labour market. In this study, we examine the extent to which the students themselves believe a foreign experience is conducive to this objective. To this end, in the text box below we first refer back to the outcomes of the cross-sectional study. Next, we employ descriptive analyses to examine the skills they gained and now use in everyday life. Finally, we conduct a qualitative analysis to go deeper into the answers students gave concerning the yields of their foreign experience in their professional and/or private lives, which is an important element of the European objectives of the Erasmus+ Programme.

*In the **cross-sectional study**, we looked at whether graduates found jobs after their study, and how well prepared they feel in the labour market. The study showed that 96 % of all graduates without a foreign experience have jobs, compared to 89% for students with a foreign experience. The students with and without a foreign experience believe they are equally well prepared for the Dutch labour market. In the international labour market, however, the students with a foreign experience clearly more often feel they are well or very well prepared (69% vs. 51%).*

### 6.1 Skills in Practice

The group of graduates were asked which skills and/or competences they developed as a result of their foreign stay and whether or not they actually use the skills they gained in their professional or private lives. This group exclusively comprises graduates who either after graduation, for work and/or study, or for their personal development went abroad for at least two months (n=50; figure 6.1).

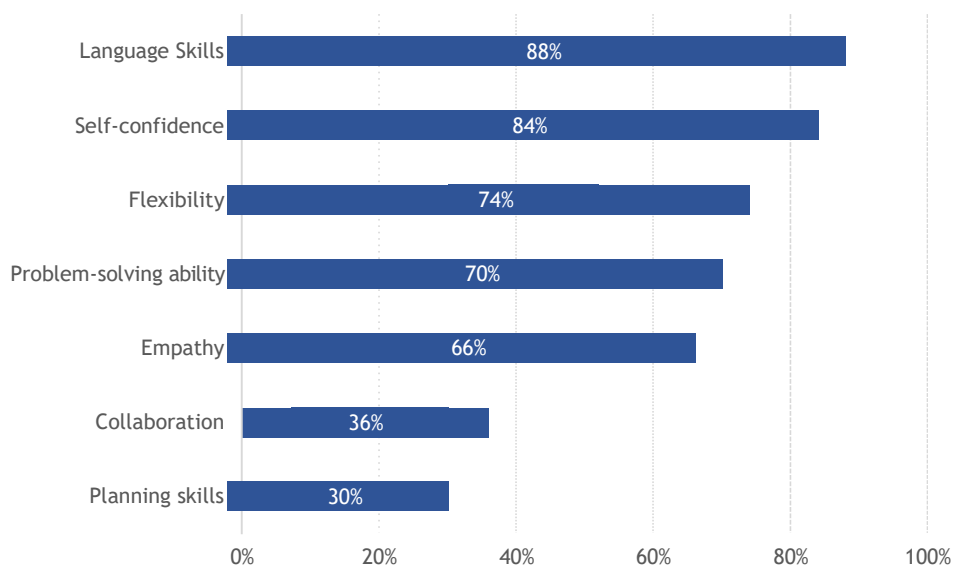


Figure 6.1: Skills and/or competences gained by graduates with a foreign experience as a result of the foreign stay (n=50).

Nearly all graduates said they developed language skills, followed by self-confidence, flexibility, problem-solving ability, and empathy. Around one third said they were better able to work together and plan.

## 6.2 Foreign Experience Results in a Qualitative Perspective

This final section describes a qualitative analysis of 70 open answers given by graduates with a foreign experience after graduation. They were asked in the third and final measurement whether they are using the knowledge they may have gained during their foreign stay in their everyday lives or field of profession. The respondents' answers have been sorted in three overarching themes that recurred the most. Only a handful (five) participants said that they did not use the knowledge and skills in their everyday lives or field of profession.

As already shown in the analyses (chapter 3 and 4), a flexible attitude and an international outlook are important yields for the respondents with a foreign experience. In addition, work-related knowledge and language skills are mentioned as important yields of a foreign experience.

### Self-confidence and flexibility

The largest group of participants said they had greater self-confidence in their daily lives and or work where it comes to the decisions they had to make and were able to be more flexible. This skill is often mentioned in combination with self-reliance and drive. At work, respondents sometimes face unexpected situations, which they say they are better able to anticipate due to the experiences they gained during their foreign stay.

---

"I feel more self-reliant and now know that I have the possibility and ability to travel alone and be able to cope."

---

This self-confidence also helps the respondents in question to stand up for themselves and make decisions they fully support.

---

"The best thing during my three long trips? That I'm allowed to say no to the other person and put myself first."

---

### International Outlook

The insight gained in a different work environment and culture came second. For instance, respondents with a job said their experiences abroad help them function in an international work environment.

---

"(...) I lived and travelled in Asia during my foreign travels. There are many foreigners in my current field, and many of them are Asian. Even though my colleagues are not necessarily from the same country where I spent most of my time, I do notice that I'm much better able to work with them compared to most of my colleagues. I understand more quickly what people mean when there is language-related confusion, and often am better able to adjust to the cultural situation and less easily annoyed by what we regard as 'foreign customs.'"

---

Other respondents mentioned the ‘calm’ and the ‘patience’ they now have in certain situations, and also emphasize greater insight in their own culture.

---

“Greater patience with and knowledge of and respect for other cultures. But also greater knowledge about the Dutch culture.”

---

#### Work-related knowledge and language skills

And finally, several respondents gained experience at foreign companies. This had led to people gaining work-related knowledge and skills. This knowledge, for instance, includes technical skills, insight in HR-related processes or in the company organization.

---

“(…) I make use of this knowledge every day, both the factual knowledge I gained and insights about how organisations are set up in another country.”

---



## 7 Conclusions and Discussion

The report at hand discussed the longitudinal study into the impact of the Erasmus+ Programme for students in higher education. Through an extensive survey among current and former students at three different measuring moments (m0, m1 and m2; 2018-2020) we examined to what extent the Erasmus+ Programme contributes to student development and thus realizes its stated objectives. The study focused on practical aspects and the experience of the foreign stay, the cultural orientation and interaction with others, the development of personal skills and an international outlook, personal characteristics and well-being, study attitude and the experiences in the labour market. By means of an experimental design, the experiences of students with and without a foreign experience were compared across the different measuring moments.

At the start of the study, we examined which results from earlier longitudinal studies into the impact of the Erasmus+-mobility programme came to the fore. These findings did not present an unambiguous picture. Whereas some studies point to a contribution of the Erasmus+ Programme to European values and the European identity of the respondent, others did not find a direct link. Some authors point to cultural improvement, personal development, and improved language skills (compared to students who did not go abroad).<sup>38 39 40</sup> Dutch quantitative research into this theme was not, or not yet available.

The presented analyses into personal and intercultural skills provide different insights into the Dutch situation. Firstly, we found that as far as nearly all skills and attitudes are concerned, the two groups of students (foreign experience vs. no foreign experience) differed significantly right from the 0 measurement. These findings were checked for background characteristics such as gender, age, and socio-economic situation. This means that even prior to their departure students who will eventually go abroad already have a greater chance of having a positive self-image, greater self-reliance, and a larger extent to which they are open to travel and other cultures. The two groups of students also differ in their respective intercultural skills, with the group that eventually goes abroad having higher perceived values for their cultural orientation and international and European outlook.

Looking at the results over time, and thus at the total analysis, we find that a foreign experience makes a positive contribution to the level of flexibility. Prior to the foreign stay, students assign significantly lower values to being open to travel and other cultures compared to after their stay abroad. In addition, we find a significant effect regarding students' international outlook. More specifically, this concerns considerations of living or working outside the familiar Dutch home situation. Their external outlook has literally become more open as a result of the foreign experience. A foreign stay also makes a positive contribution to the trust students have in others. After a foreign stay, students develop greater confidence in others compared to students without a foreign experience. A positive effect as the result of a foreign stay on the extent to which a student identifies as European was not found, nor other effects of a foreign stay on personal skills.

---

38 Sigalas, E. (2010). Cross-border mobility and European identity: The effectiveness of intergroup contact during the ERASMUS year abroad. *European Union Politics*, 11(2), 241-265.

39 Jacobone, V., & Moro, G. (2015) Evaluating the impact of the Erasmus programme: skills and European identity, *Assessment & Evaluation in Higher Education*, 40(2), 309-328.

40 Mitchell, K. (2012). Student mobility and European Identity: Erasmus Study as a civic experience? *Journal of Contemporary European Research*. 8 (4), p 490-518.

In short, the two groups of students were already different at the start, before a foreign visit had even taken place. Only in terms of a more flexible attitude, the level of trust in others, and a more international outlook was any significant effect of the foreign stay found. This can point to the above-mentioned skills and attitudes not purely being a dependent to be studied, but rather an explanation for the eventual step of going abroad. It could be, for instance, that students who are, for instance, more self-reliant or have a more positive self-image experience going abroad as a smaller step compared to those who have these skills to a lesser extent. Here, follow-up research could possibly provide a more definite answer. Also, in light of Erasmus+'s inclusivity policy, which was one of the main subjects of the above-mentioned cross-sectional study, these insights could yield valuable points of departure for discussion. Because maybe, in order to reach a more heterogenous group of students, in addition to the socio-economic background of the student, their personal skills and attitudes could also be brought into focus.

## Appendix A: Explanation of Study Methodology

### Limitations Measuring Instruments

The questionnaire for this MAS was drafted in close consultation with the National Agency Erasmus+ on the basis of an extensive inventory of the existing literature. In any case, our choice of questions inevitably had consequences for the results in this study. Certain questions that seemed relevant based on the results of the preliminary study were left out so as not to overburden respondents and achieve a sufficient response. In addition, too long a questionnaire may affect the quality of the answers. In this context, a typical example is the assessment we made about the student's attitudes regarding cultural orientation and international outlook. Earlier research into the international orientation of students in secondary education showed that knowledge about Europe is highly dependent on the general level of their interest in global affairs, politics, and society. And students who read the paper, watch the TV-news, and communicate with others on European affairs also have more knowledge about the subject.<sup>41</sup> We suspected that intensification of media use and discussions with parents could be an explanatory factor in the possible impact on, for instance, the cultural orientation or other personal attitudes. These questions were eventually removed from the draft questionnaire and, as a result, can no longer be included in the analysis.

Another point of discussion are the choices made for measuring latent constructs such as self-image, flexible attitude, and self-reliance. Whenever possible, a choice was made for scales that have proved their validity in earlier studies. And yet, this was not possible for all questions and on occasion questions were formulated on the basis of our own insights and experiences. Furthermore, this is about perceived values that in our estimation will be insufficient for measuring the whole of the change a respondent goes through. The result would then be an estimation made the student themselves. Including the respondents' environment is therefore relevant to measuring the impact of the Erasmus+ Programme. Parents or close friends likely can observe changes that the person in question is not even aware of. Qualitative research can partly compensate for this factor by going deeper into certain aspects and presenting concrete examples during interviews. In addition, the recent retrospective qualitative study by De Korte and others (2019)<sup>42</sup> shows that students do state that an Erasmus+-trip did have impact on their self-reliance and certain social and communicative skills, results that are not supported by this multi-annual study.

### Consequences of the COVID-19 outbreak on the study design

The measures put into effect by the Dutch government and internationally in response to the COVID-19 pandemic have had unprecedented consequences for international passenger transport and air traffic. This of course has had consequences for the Erasmus+ Programme. Recent research by the European Commission<sup>43</sup> shows that the activities of 74% of the mobility participants in Erasmus+ Programme and the European Solidarity Corps (74% students or pupils and 26% staff) were or are being influenced by the COVID-19 outbreak. Out of this group of affected persons, 22% saw their activities temporarily halted and 36% had their activities completely cancelled. In the case of 42% of the respondents, the activities were continued through various arrangements (i.e., remote or online learning). Three-quarters of those affected eventually returned home.<sup>44</sup>

---

41 Naayer, H., Maslowski, R., Oonk, G. H., van der Werf, M. P. C., & Bresser, W. (2011). The European and international orientation in bilingual secondary education. University of Groningen.

42 Kurver, B., Nas, K., Korte, de, K. & J. Warps (2019). A foreign experience for all? Baseline measurement into impact and inclusivity of the Erasmus+-mobility programme. Nijmegen: ResearchNed.

43 The questionnaire was sent to more than 57,000 participants and equals 40% of the estimated number of people in mobility at the time of the COVID-19 outbreak. Nearly 11,800 respondents filled in the questionnaire (74% were either students or pupils and 26% staff).

44 European commission (2020) Survey on the impact of COVID-19 on learning mobility activities.

The impact of these consequences was such that for the purpose of this study we chose not to conduct an initially planned fourth and final measurement in mid May or June (in the middle of the COVID crisis). This meant a shorter period in which we were able to follow the group of students and thus a reduction of the number of students in the study population who eventually went abroad. This has had consequences for the breakdowns that could be made in the test analyses: no relevant statements can be made when the groups are too small. This is why the free movers and the Erasmus+ students were taken together in the study and the impact of a foreign stay was examined in a general sense. The results from the cross-sectional study already showed only minimal differences between free movers and Erasmus+ students. Another consequence is that any possible long-term effects of a foreign stay could not or only partly be delineated. More specifically, this concerns the study of the duration of certain effects and of the consequences for the labour market. At the start of the study, for instance, we stated our wish to examine whether the impact of the Erasmus+ Programme is a lasting one, and whether certain attitudes and skills persist over a longer period of time. Research into this question was not possible with the available study data.

#### Response and respondent selection

In light of the data in table A.1, we can conclude that net response in measurements 1 and 2 was substantially higher than in the 0 measurements. This is because the final two measurements comprised only those students who stated their willingness to be approached again. For the sake of a high response, the largest possible number of students were approached in the first measurement. The relatively low response in the 0 measurement is due to a number of reasons. First off, this is a very specific subject, which maybe at first sight does not motivate all students to fill in a questionnaire, for instance, because they do not immediately appreciate its relevance. Secondly, our mailing list probably included some outdated email addresses as a substantial number of the contact data of Erasmus+ students dated back to 2014. Despite the fact that students who were not reached or actively opted out were filtered out of the “total number of students approached”, it is possible that the email addresses who were approached are no longer in active use. For instance, because the respondent is no longer a student and now uses a different email address. In measurement 1, only a small number of the students who participated (n=2,447) fell outside the target group because they eventually did not go, ended their studies without a diploma or temporarily stopped their studies and are not currently abroad (ca 2%). The same applies to measurement 3: out of the participating students (n=2,795) only a very small group (1,5%) fell outside the target group.

Table A.1: Response calculation per measurement

	Measurement 0		Measurement 1		Measurement 2	
	Number	Response %	Number	Response %	Number	Response %
Total number approached	84,905	100%	5,080	100%	4,932	100%
Selection student panel	62,899	74.1%				
Selection Erasmus+	22,006	25.9%				
Total number of participants	9,622	11.3%	2,447	48.2%	2,795	56.7%
Participation student panel	7,247	8.5%				
Participation Erasmus+	2,375	2.8%				
Gross response	9,622	11.3%	2,447	48.2%	2,795	56.7%
Outside of Target Group						
Did not start	845	1.0%	48	0.9%	37	0.8%
No Permission	100	0.1%				
Stopped without diploma	112	0.1%	24	0.5%	36	0.7%
Graduated longer than 4 years ago	125	0.1%				
Temporarily stopped and not abroad	76	0.1%	19	0.4%		
VET students	149	0.2%				
Graduated	1,818	2.1%	736	14.5%	1,117	22.6%
Eventual target group (net response)	8,215	9.7%	2,356	46.8%	2,722	55.2%

Source: Erasmus+, 2018 - 2020

The three measurements were eventually integrated into one data file to facilitate the execution of an impact analysis over time. Over 2,700 respondents were left out of consideration in this data file because of the fact that they had already been abroad at the time of the baseline measurement (table A.2). For this group, it is impossible to determine to what extent their foreign visit had an impact on the attitude of the students. After all, it is not known what their attitude was prior to their foreign stay. Subsequently, there was a group of about 2,000 respondents about whom we had no information whether they had been abroad or not. This group was therefore also excluded from the study population. In addition, this impact analysis is intended to determine to what extent the students' attitudes changes over time, which is why the students with just one measurement (n=1,734) were also left out. Finally, the response group included a limited number of graduates. Around 3% had already graduated at the time of the first measurement. Because we intended this study to determine the impact of Erasmus+ on students' attitude, we decided the student had to be a student still at the time of the 0 measurement. As 234 students had already graduated at that time, they were also left out of consideration. All of this taken together led to a total of 1,482 students actually being included in the descriptive statistics.

Table A.2: Response overview trend file including all three measurements

	Measurements 0, 1 and 2	
	Number	Response %
Total number of respondents (Gross response)	8,215	100%
Measurement 0	8,215	100%
Measurement 1	2,356	28.7%
Measurement 2	2,722	33.1%
Been abroad in first measurement	2,779	33.8%
Foreign stay unknown	1,986	24.2%
Students with only 1 measurement	1,734	21.1%
Number of graduates in measurement 0	234	2.8%
Eventual Target Group	1,482	18.0%

Source: Erasmus+, 2018 - 2020

## Appendix B: Tables and Figures

Table B.1: Intra-class correlation co-efficient per attitude and/or skill

Personal and intercultural skills	Percentage	Significance
Self-image and sense of self-esteem	80%	,000
Assertiveness/self-reliance	78%	,000
Flexibility	76%	,000
Faith in others	66%	,000
Cultural orientation	71%	,000
International outlook	78%	,000
European outlook	67%	,000

Table B.2: Scale construct self-image: The extent to which the student has a positive self-image

'Items	Communalities			Factor loadings			Self-esteem			Reliability		
	M0	M1	M2	M0	M1	M2	M0	M1	M2	M0	M1	M2
1. Generally, I'm happy with myself		.610	.628	.773	.781	.793						
2. Sometimes I feel like there is nothing I'm any good at*	.521	.543	.532	.722	.737	.729						
3. I feel that I have a number of good qualities	.369	.366	.375	.607	.605	.612						
4. I'm just as capable of doing things well as most other people	.297	.310	.321	.545	.557	.566						
5. I Feel I don't have much to be proud of*	.556	.542	.545	.745	.736	.738						
6. I sometimes feel useless*	.437	.426	.453	.661	.653	.673	4.897	4.945	5.063	.897	.898	.903
7. I feel that I'm valuable, at least as valuable as other people	.484	.512	.531	.696	.715	.729						
8. I wish I had more self-respect*	.388	.378	.401	.623	.615	.633						
9. All-in all, I feel like I'm a failure*	.582	.587	.592	.763	.766	.770						
10. I have a positive attitude toward myself	.665	.672	.687	.816	.819	.829						

\* Variable recoded (therefore: the higher the score, the more positive the self-image)

Table B.3: Scale construct study attitude

Items	Communalities			Factor loadings			Self-esteem			Reliability		
	M0	M1	M2	M0	M1	M2	M0	M1	M2	M0	M1	M2
1. I use all available time to graduate as quickly as possible	.635	.681	.520	.500	.469	.446						
2. I always try to score the highest grade possible	.278	.290	.242	.514	.535	.488						
3. I find it difficult to independently plan my studies*	.505	.501	.537	.690	.696	.718						
4. My extra-curricular activities prevent me from fully focusing on my study*	.218	.189	.197	.454	.416	.429						
5. Why graduate faster than strictly necessary, it's the best time of my life*	.338	.377	.470	.217	.266		.957	4.181	4.082	.840	.851	.842
6. I can only study well in fits and starts	.487	.571	.537	.691	.743	.729						
7. I'm happy with the study results I've achieved so far	.224	.241	.209	.471	.490	.444						
8. I find it difficult to put in an effort for uninteresting study subjects*												
9. I tend to put off obligations*	.572	.616	.625	.742	.768	.786						
10. I have great self-discipline	.648	.681	.666	.788	.813	.809						
11. I should invest more time in my study*	.536	.558	.553	.731	.747	.742						

\* Variable recoded (Therefore: the higher the score, the more motivated the student)

Table B.4: Scale construct assertiveness/self-reliance

Items	Communalities			Factor-loadings			Self-esteem			Reliability		
	M0	M1	M2	M0	M1	M2	M0	M1	M2	M0	M1	M2
1. When I need help with my study, I have no problem stepping up to the teacher in question	,226	,257	,246	,475	,507	,496						
2. During group work, I don't like taking the Floor*	,379	,416	,417	,616	,645	,646						
3. I have no problems talking to a fellow student I don't know well	,470	,453	,469	,686	,673	,685	1,450	1,526	1,528	,687	,706	,706
4. I have a problem meeting people in a new environment (class or group)*	,375	,401	,936	,612	,633	,629						

\* Variable recoded (Therefore: the higher the score, the more assertive the student)

Table B.3: Scale construct flexibility: The extent to which a person is open to travel and other cultures

Items	Communalities			Factor Loadings			Self-esteem			Reliability		
	M0	M1	M2	M0	M1	M2	M0	M1	M2	M0	M1	M2
1. I handle change badly; I prefer leaving things the way they are	,407	,405	,408	,638	,637	,639						
2. Whenever I'm travelling or on holiday, it takes me a long time adjusting to the new environment	,509	,551	,566	,714	,742	,753	1,402	1,414	1,445	,667	,668	,675
3. I get homesick, whenever I'm away from home for more than a few days	,325	,303	,328	,570	,550	,573						
4. I don't think I have much in common with people from other cultures	,160	,155	,142	,400	,394	,377						

Table B.4: Scale construct trust in others: The level of trust in others and other cultures

Items	Communalities			Factor Loadings			Self-esteem			Reliability		
	M0	M1	M2	M0	M1	M2	M0	M1	M2	M0	M1	M2
1. Generally speaking, <b>people can be trusted</b>	,691	,697	,720	,831	,835	,848						
2. People are helpful in most cases	,452	,469	,512	,673	,685	,715	1,463	1,506	1,578	,725	,739	,755
3. People will take advantage of you given half a chance*	,319	,340	,347	,565	,583	,589						

\* Variable recoded (Therefore: the higher the score the higher the level of trust)

Table B.5: Scale construct cultural orientation: Cultural orientation and interaction with others

Items	Communalities			Factor loadings			Self-esteem			Reliability		
	M0	M1	M2	M0	M1	M2	M0	M1	M2	M0	M1	M2
1. We can learn much from people from other cultures	,292	,356	,341	,626	,596	,584						
2. In a livable society different cultures respect each other	,328	,333	,321	,573	,577	,566	1,260	1,338	1,204	,626	,647	,600
3. Money spent on development aid would be better invested at home*	,184	,237	,158	,429	,487	,397						
4. Migrants contribute to The prosperity of the Netherlands	,356	,413	,385	,597	,643	,621						

\* Variable recoded (Therefore: the higher the score the stronger the cultural orientation)

Table B.6: Scale construct international outlook: the extent of international orientation

Items	Communalities			Factor loading			Self-esteem			Reliability		
	M0	M1	M2	M0	M1	M2	M0	M1	M2	M0	M1	M2
1. I can see myself living abroad for a short or longer period after graduation	,636	,615	,575	,798	,784	,758						
							1,350	1,356	1,341	,643	,647	,643
2. There is nowhere I'd rather be than at home with my family and friends*	,324	,344	,395	,569	,586	,628						

\* Variable recoded (Therefore: the higher the score the stronger the international orientation)

Table B.7: Scale construct European outlook: The extent to which a person identifies as European

Items	Communalities			Factor loading			Self-esteem			Reliability		
	M0	M1	M2	M0	M1	M2	M0	M1	M2	M0	M1	M2
1. I regard myself as a European	,555	,580	,568	,745	,762	,754						
2. I am proud to be living in Europe	,555	,580	,568	,745	,762	,754	1,111	1,160	1,137	,714	,735	,725

Table B.8. Number of students per measurement sorted by basic background characteristics

		Measure ment 0		Measurement 1						Measurement 2					
		No Foreign Experience		No Foreign Experience		Foreign Experience		Foreign Experience		No Foreign experience		Foreign Experience		Ho	
Educational level	HVE	39%	578	37%	370	30%	18	37%	388	39%	404	31%	57	38%	461
	UE	61%	904	63%	620	70%	42	63%	662	61%	632	69%	124	62%	756
	Total	100%	1,482	100%	990	100%	60	100%	1,050	100%	1,036	100%	181	100%	1,217
Gender	Female	72%	1,047	71%	698	76%	44	72%	742	71%	729	74%	134	71%	863
	Male	28%	412	29%	281	24%	14	28%	295	29%	301	26%	46	29%	347
	Total	100%	1,459	100%	979	100%	58	100%	1,037	100%	1,030	100%	180	100%	1,210
Ethnicity	Dutch	90%	1,329	90%	891	82%	49	90%	940	90%	936	90%	163	90%	1,099
	Migration background	10%	153	10%	99	18%	11	10%	110	10%	100	10%	18	10%	118
	Total	100%	1,482	100%	990	100%	60	100%	1,050	100%	1,036	100%	181	100%	1,217
Age	< 20	41%	602	19%	183	3%	2	18%	185	3%	32	0%	0	3%	32
	20 - 22	43%	626	58%	568	50%	29	58%	597	57%	586	58%	105	57%	691
	23 - 25	11%	167	17%	163	41%	24	18%	187	30%	310	30%	54	30%	364
	26 or older	4%	64	7%	65	5%	3	7%	68	10%	104	12%	21	10%	125
Disability	Total	100%	1,459	100%	979	100%	58	100%	1,037	100%	1,032	100%	180	100%	1,212
	None	66%	968	66%	640	78%	45	66%	685	64%	666	72%	131	66%	797
	1 of more disabilities	34%	491	34%	335	22%	13	34%	348	36%	369	28%	50	34%	419
Educational level parents	Total	100%	1,459	100%	975	100%	58	100%	1,033	100%	1,035	100%	181	100%	1,216
	First generation HE	37%	519	37%	346	36%	21	37%	367	37%	370	33%	58	36%	428
	Second generation HE	63%	891	63%	600	64%	37	63%	637	63%	625	67%	120	64%	745
Financial situation parents	Total	100%	1,410	100%	946	100%	58	100%	1,004	100%	995	100%	178	100%	1,173
	Situation is not good or not at all good	47%	680	48%	468	41%	24	48%	492	48%	492	41%	74	47%	566
	Situation is good or very good	53%	775	52%	509	59%	34	52%	543	52%	539	59%	106	53%	645
	Total	100%	1,455	100%	977	100%	58	100%	1,035	100%	1,031	100%	180	100%	1,211

