## Acquiring English in Bilingual Friesland:

## A Study on the Influence of Lexical Closeness and Attitudes on the Acquisition

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## List of abbreviations

| ANOVA | Analysis of Variance |
| :--- | :--- |
| CITO | Centraal Instituut voor Toetsontwikekeling (Central Institute of Test Development) |
| DR | Drenthe, province of the Netherlands |
| FL | Flevoland, province of the Netherlands |
| FR | Friesland, province of the Netherlands |
| GD | Gelderland, province of the Netherlands |
| GR | Groningen, province of the Netherlands |
| HBO | Hoger Beroepsonderwijs (higher vocational education) |
| L1 | First language |
| L2 | Second language |
| L3 | Third language |
| LB | Limburg, province of the Netherlands |
| MBO | Middelbaar Beroepsonderwijs (intermediate vocational education) |
| NB | Noord-Brabant, province of the Netherlands |
| NH | Noord-Holland, province of the Netherlands |
| OV | Overijssel, province of the Netherlands |
| UT | Utrecht, province of the Netherlands |
| WO | Wetenschappelijke Onderwijs (University level) |
| ZH | Zuid-Holland, province of the Netherlands |
| ZL | Zeeland, province of the Netherlands |

## Chapter 1: Introduction

### 1.1 Introduction

In Europe, being bilingual or multilingual is very common. In fact, bi- and multilingualism has become the norm rather than the exception. This is due to the fact that the English language has become increasingly important, especially in international business. As a result, in most European countries children are required to learn English in addition to the language that is spoken in their country. In an already bilingual area, English is then learned in addition to the two languages that are acquired as first languages. In this thesis, I will examine the acquisition of English in the only officially acknowledged bilingual area in the Netherlands: the province of Friesland.

### 1.2 Overview

Two factors will be examined in this thesis that may have an influence on the acquisition of a new language: lexical closeness and held attitudes. First, I will try to determine whether knowledge of one of the two first languages of a bilingual helps the acquisition of a second language when there are (lexical) similarities between the languages. This will be determined through a case study. This case study involves the languages Frisian - which is a first or second first language for many inhabitants of Friesland besides Dutch - and English. As Frisian is genetically closer related to English than to Dutch, I will examine whether knowledge of Frisian helps children acquire English lexicon. This will be examined by a language test that is carried out among children in the fifth (generally 8-9 year olds) and sixth (generally 9-10 year olds) grade of primary school. This language test is carried out in Friesland in the city of Franeker and in the western Dutch city of Zoetermeer, in order for the results of bilingual Friesland to be compared to monolingual Zoetermeer. Second, I will test whether there is a correlation between the attitude towards a language and the (selfperceived) proficiency in this language. These attitudes and the level of proficiency are examined for the English and Frisian language on the basis of a questionnaire, which is answered by students in the province of Friesland and other provinces of the Netherlands.

### 1.3 Theoretical background

There are two statements that have been the inspiration to my two investigations. This first statement is that "many studies provide evidence for a factor of typological similarity: influence from L2 (a second language) is favoured if L2 is typologically close to L3 (a third language), especially if L1 (a first language) is more distant" (Hammarberg, 2001, p. 22). This statement has led me to think whether this is also applicable to the situation of Friesland, even though Frisian is often the first language there, Dutch the second first language and English (as well as German and French) a second language. Considering that Frisian and English are genetically closely related and Dutch is less closely related to English, we may expect that influence from the L1 is favoured in this case and that therefore knowledge of Frisian facilitates the acquisition of English lexicon. It must be pointed out, however, that the closeness between Frisian and English is historical and that this closeness is nowadays only noticeable in few words and sounds. But, these corresponding words and sounds may in fact facilitate the acquisition process of English lexicon for speakers of Frisian.

The second statement is that a "correlation between attitude and language proficiency is a controversial issue" (Atchade, 2002, p. 48). Atchade (2002) then continues that there are studies in
which a correlation was found between these two variables and that there are studies in which no such correlation was found. This has led me to think whether the held attitudes towards English and Frisian influence the proficiency in these languages for both the general language proficiency and the abilities understanding, speaking, reading and writing. The former thought formed my first research question and the latter thought formed my second research question.

### 1.4 Important themes and definitions

In this thesis, I use some terms that require explanation. One of these terms is 'Frisian'. When referring to Frisian, I mean the variety of Frisian that is based on Klaaifysk. This is the variety that has been standardised as the official Frisian language (Tiersma, 1999). This standardised variety is also commonly referred to as Westlawwer Fries and as Frysk.

Two other important terms are 'first language' and 'second language'. In this thesis, I will adopt the explanation by Saville-Troike (2012) for the term 'first language'. A 'first language' (L1) is a language that is "acquired during early childhood - normally beginning before the age of three -" and "they are learned as part of growing up among people who speak them" (Saville-Troike, 2012, p. 198). To be more specific, a first language is the language or languages that is/are acquired first by a child. A 'second language' (L2) then, is any language that is acquired after the first language(s).

As there are different definitions for the terms 'bilingualism' and 'multilingualism', these terms also require some explanation. In this thesis, I will use the definitions of the Oxford English Dictionary. This dictionary defines bilingualism as "the ability to speak two languages" and it defines a bilingual as "one who can speak two languages" (Oxford English Dictionary Online, n.d.). It defines multilingualism as "the ability to speak many languages" and a multilingual as "a person who is able to speak more than two languages" (Oxford English Dictionary Online, n.d.). So, in my thesis, I will use the term 'bilingual' or 'bilingualism' when two languages are in scope and I will use the term 'multilingual' or 'multilingualism' when more than two languages are in scope.

Another term that requires explanation is 'lexical closeness', as this term is of importance in this thesis. I will speak of 'lexical closeness' when two languages share (many) words that closely resemble each other, either phonetically or orthographically and also share their meaning. There is lexical closeness between English and Dutch, for instance, for the English word 'finger' and the Dutch word vinger.

### 1.5 Research gaps

The first investigation of this thesis will thus examine whether lexical closeness between two languages helps acquire the lexicon of a target language. No investigation like the present has been done on this with regard to Frisian and English and this investigation therefore fills a gap. The second investigation will provide information on whether there is a correlation between attitudes towards a language and proficiency in this language. As this is a controversial issue, this second investigation will provide more insight into the matter. Ytsma (2007) has performed research among Frisian students on the correlation between attitudes towards Frisian, Dutch and English and the achieved proficiency level for these languages. His research has proved that for all three languages there is indeed a correlation between the two variables (Ytsma, 2007). I will see with my second investigation whether this outcome is borne out for Frisian and English.

### 1.6 Research questions

In this thesis, I will try to determine whether Hammarberg's (2001) and Atchade's (2002) statements can be supported or opposed with respect to the acquisition of English in the province of Friesland. To examine the situation in this province, the following two research questions were created:
(1) Is there a correlation between the lexical closeness between Frisian and English and lexical acquisition success?
(2) Is there a correlation between attitudes towards Frisian, attitudes towards English, and acquisition success?

### 1.7 Hypotheses

I have formed two hypotheses. The first is that, in general, knowledge of an already acquired language will be used when there are lexical similarities between this language and a new language and that this will help the acquisition of lexicon of a new language. It can therefore be expected that on an incidental basis, knowledge of a specific language might aid with the acquisition of certain words in another language. However, with respect to Frisian and English, it is hypothesised that there is no correlation between the lexical closeness between Frisian and English and lexical acquisition success. This hypothesis is based on the findings of van Ruijven and Ytsma (2008) and on the fact that the closeness between English and Frisian is historical and is only to be seen in few words and sounds.

The second hypothesis is that, as Ytsma (2007) concluded, there is indeed a correlation between the attitudes towards languages and proficiency in these languages. So, it is hypothesised that there is a correlation between attitudes towards Frisian, attitudes towards English and acquisition success. For a further discussion and explanation of these hypotheses, I refer the reader to section 2.8 in chapter two.

### 1.8 Purpose

The purpose of this thesis is to gain a better insight into whether incidental lexical resemblances between two languages help learners to acquire lexicon of a new language and whether attitudes towards a language correlate with the proficiency in this language. The results of my investigations will be useful for designers of educational models, both nationally and internationally. If the first investigation shows that knowledge of the Frisian language helps children acquire English lexicon easier, then children who speak Frisian should be actively stimulated to apply this knowledge of Frisian as this will be beneficial to them. Moreover, if my second investigation demonstrates that there is a correlation between the attitude towards a language and the proficiency in this language, then the acquisition process of a new language will be facilitated if children are stimulated to have a positive attitude towards that language. So, if the abovementioned statements are supported by my findings, then it can help Frisian children acquire the English language easier, but it may also help other children in similar linguistic situations acquire a new language.

### 1.9 Thesis overview

In the next chapter, I will explore the literature on which my investigations are based. In that chapter I will touch upon several topics: I will introduce the province of Friesland and its linguistic
situation and I will discuss the contemporary Frisian language competence of the Frisians. Then, I will shortly discuss the close historical linguistic connection that Frisian had with English. Moreover, I will explain language education in primary schools in Friesland and demonstrate with that that three languages are acquired in these Frisian schools. This leads to discussing on which knowledge (of already acquired languages) is drawn when acquiring a new language and I will discuss the relationship between attitudes towards a language and proficiency in this language. I will then indicate the existing research gaps and on the basis of the theoretical background, I will provide hypotheses on the outcomes of my investigations.

In the third chapter, I will give a detailed description of my research steps. This chapter is divided into two sections. In the first section, I will focus on my first investigation: I will discuss the used material of this first investigation (the participants and the language test) and then I will thoroughly explain my research procedure. In the second section, I will do the same for my second investigation: the participants and the questionnaire will be discussed, followed by a thorough explanation of my research procedure.

In the fourth chapter, I will present and discuss my findings and I will compare them to the literature stated in chapter two. These findings allow me to provide answers to my research questions.

Finally, in the last chapter, I will summarise the main findings and I will discuss surprising findings. Lastly, I will discuss what can be done with the findings of this study and I will make suggestions for further research.

## Chapter 2: Literature

### 2.1 Introduction

It has often been claimed that bilinguals differ from monolinguals in multiple respects (e.g. Bassetti \& Cook, 2011). For instance, when acquiring a new language, bilinguals go through a different process than monolinguals. Also, the former may have different attitudes towards other languages than the latter. These differences may have an influence on the acquisition of a new language. These topics, among others, will be discussed in this chapter, focusing specifically on the bilingual province of Friesland and on the acquisition of English as a second language.

First, I will briefly introduce the province of Friesland and discuss the contemporary Frisian language competence of the Frisians. Then, I will discuss the historical connection that existed between English and Frisian. Moreover, I will discuss language education in primary schools in Friesland and indicate that three languages are acquired in primary school by the inhabitants of Friesland. I will then explain on which knowledge is drawn when acquiring a new language and I will explore the relationship between attitudes towards and proficiency in languages. This chapter will then come to a close with a short indication of the current research gaps, a conclusion and hypotheses.

### 2.2 Friesland and its linguistic situation

Friesland is one of the twelve provinces in the Netherlands and is situated in the north, as can be seen in image 2.1 below. This province has a surface of $3,350 \mathrm{~km}^{2}$ (Gorter \& van der Meer, 2008). On January the $1^{\text {st }} 2014$, this province had 646,317 inhabitants, which is about 3.8 per cent of the total population of the Netherlands (Centraal Bureau voor de Statistiek, 2015). In this province, there is a second official language besides the national official language Dutch, namely Frisian. Frisian has been an official language in Friesland since 1970, but on January the $1^{\text {st }}$ in 2014, a 'language law' was accepted in the Netherlands, which protects and promotes the Frisian language (van Ruijven \& Ytsma, 2008; Rijkesoverheid, 2014). This law states that inhabitants of Friesland are officially allowed to use Frisian or Dutch when in Frisian court and when communicating with governing bodies that are located in Friesland (Rijkesoverheid, 2014).


Image 2.1: The province of Friesland (Zien en Weten, 2014)
Contemporary language competence of Frisians
In the province of Friesland, both Dutch and Frisian are used in everyday communication. In 2009, there were approximately 400,000 speakers of Frisian in Friesland ( 64.0 per cent) (Bremmer, 2009; Centraal Bureau voor de Statistiek, 2015). Many inhabitants of this province learn Frisian as their first language and learn Dutch as an additional language. This is demonstrated by research that was
conducted by the province of Friesland in 2011. 346,942 inhabitants of Friesland ( 53.6 per cent) indicated that they have Frisian as their first language (Provincie Fryslan, 2014). This is in large contrast with the number of inhabitants that have Dutch as their first language: only 231,726 (35.8 per cent) (Provincie Fryslân, 2014). All inhabitants of Friesland can speak Dutch and are therefore bilingual if they also speak Frisian (Gorter \& van der Meer, 2008). This does not necessarily mean that these two languages are equally well developed as there are different types and degrees of bilingualism. For instance, one bilingual may have very high skills in both languages in writing and understanding, but may have low skills in reading and speaking, whereas another bilingual may show exactly the opposite pattern (Linguistic Society of America, 2012). It is, of course, also possible that instead of having high skills in writing and understanding in both languages, a bilingual may have high skills in writing and understanding in one language and high skills in reading and speaking in the other language. The fact that there are differing levels of skills in a language can be seen in table 2.1 below. This table shows the results of the province of Friesland's research that was done in 2011. In this research, inhabitants were asked to indicate their proficiency level in four different abilities: understanding, speaking, reading, and writing (Provincie Fryslân, 2014). To indicate their proficiency level, they could choose from 'very good', 'good', 'fairly good', 'with difficulty' and 'not at all'. This table only shows the number and percentages of inhabitants who indicated that their proficiency level was 'very good' or 'good' for these four abilities.

Table 2.1: Number of inhabitants and the matching percentages, who can understand, speak, read, and write Frisian 'very good' or 'good' (Provincie Fyyslân, 2014)

| Ability | Number of inhabitants | Percentage |
| :--- | :---: | :---: |
| Understand | 547,599 | 84.6 |
| Speak | 414,259 | 64.0 |
| Read | 314,578 | 48.6 |
| Write | 78,320 | 12.1 |

We can see in this table that 84.6 per cent of the inhabitants opted for the answers 'very good' or 'good' for the ability to understand Frisian and that 64.0 per cent of the inhabitants are able to speak this language on this level as well. The percentage of people who can read Frisian well is already much lower: 48.6 per cent. This percentage is particularly low for the ability to write: 12.1 per cent. Although these data provide a good insight into the Frisian language proficiency, it must be kept in mind that these data are self-assessed and that the real proficiency may be on a (slightly) higher or lower level.

### 2.3 Historical connection Frisian and English

As shown in image 2.2 below, Frisian, English, Dutch ('Netherlandic' as it is referred to in the image) and German belong to the West-Germanic language family. Frisian and English are the only two languages that stem from the Anglo-Frisian family branch within the West-Germanic language family and these languages are therefore genetically closest related to one another (Tiersma, 1999). This close relation has often been pointed out in the past. In fact, this claim was first made in the late medieval times (Bremmer, 2009). This claim has often been supported by the close resemblance between certain English and Frisian words, such as cheese (EN) and tsiis (FR), key (EN) and kaai (FR), and sweet (EN) and swiet (FR) (Ballester, 2005).


Image 2.2: Language family of Frisian and English (Encyclopædia Brittanica, 1998)

## Sound changes in Frisian and English

The historical relationship between Frisian and English is seen in five sound changes that have developed in both these languages, but not in Dutch and German, the other two languages within the West-Germanic language family. The first is that /e:y/ changed into / $\mathrm{\varepsilon i} /$ or /a:i/ in certain positions (Tiersma, 1999). This resulted in, for instance, rein in Frisian, rain in English and regen in Dutch and German (Tiersma, 1999). A second change is that the /x/ turned into a/j/ under specific circumstances (Tiersma, 1999). This can be seen in words such as juster in Frisian, yester(day) in English, gister(en) in Dutch and gestern in German (Tiersma, 1999). Similarly, /k/ changed into $/ \mathrm{t} \int /$ in English and into $/ \mathrm{t} \mathrm{f} /$ or $/ \mathrm{ts} /$ in Frisian (Tiersma, 1999). An example of this sound change is tsiis in Frisian, cheese in English, kaas in Dutch and Käse in German (Tiersma, 1999). A fourth change is that the $/ \mathrm{n} /$ before a voiceless fricative (/f/, / $/$ /, or $/ \mathrm{s} /$ ) became lost (Tiersma, 1999). This has led to ús in Frisian, us in English, ons in Dutch and uns in German (Tiersma, 1999). Lastly, the sound that is now pronounced as /iə/ in Frisian and /I/ in English resembles /a:/ in Dutch and German (Tiersma, 1999). An example of this is sliepe in Frisian, sleep in English, slapen in Dutch and schlafen in German (Tiersma, 1999).

## Developments

Nowadays, the historical connection between Frisian and English is hard to recognise. Of course, some resemblances have remained between the two languages, on a lexical level for instance, but many more differences have come into existence. In other words, English and Frisian have diverged from each other. This is due to influences from other languages: the English language has been heavily influenced by the French language since the Norman Conquest and the Frisian language has been heavily influenced by the Dutch language since the sixteenth century, when the province of Friesland was incorporated into the Republic of the Low Countries and the Kingdom of the Netherlands later on (Tiersma, 1999; Gorter \& van der Meer, 2008).

### 2.4 Language education in Friesland

Up to 1980, Dutch was the only official language that was taught and used as a language of instruction in Frisian primary schools, although Frisian was then already widely taught in these schools. In 1980, a law was established which officially stated that Frisian should, in addition to Dutch, be taught in Frisian primary schools (Meestringa, 1987; van Ruijven \& Ytsma, 2008). Nowadays, Frisian is also taught in secondary school (usually only for two years, after which it becomes an optional course) and the language is also offered by teacher training colleges (Gorter \&
van der Meer, 2008). In this section, I will focus solely on language education in primary schools in Friesland.

## Frisian in primary schools

Primary schools in Friesland are obligated to teach Frisian in the last two grades, namely in grade 7 and 8 (Gorter \& van der Meer, 2008). Most schools, however, already teach Frisian in a lower grade. These Frisian lessons usually start in the first grade, grade 1. In this grade and in grade 2, children are taught Frisian for half an hour per week (Gorter \& van der Meer, 2008). In grade 3 through 8, children are taught Frisian for 30 to 45 minutes per week (Gorter \& van der Meer, 2008). Due to the limited time that was dedicated to teaching Frisian in primary schools, the officially established attainment targets - which maintained that children need to master the Frisian language - were not achieved in 1994 and were still not achieved in 2006 (van Ruijven \& Ytsma, 2008).

## English in primary schools

In 1986, English became a compulsory course in the Netherlands and therefore also in Friesland (van Ruijven \& Ytsma, 2008). Although there is an increase in the number of schools that teach English from the first grade on, this language is usually only taught in the last two grades of primary school. Lessons in English typically take on average one hour per week, but this may differ per school (Gorter \& van der Meer, 2008; SLO, 2011). Attainment targets were also set for the English language and these maintained that children should be able to communicate on a basic level, concerning understanding, speaking and reading (van Ruijven \& Ytsma, 2008). Research has shown that these targets were also not achieved (van Ruijven \& Ytsma, 2008).

## Trilingual schools

In order to achieve the targets for Frisian and English, a project called trijetalige skoalle ('trilingual school') was set up in 1997 by the educational advisory centre Cedin and the Fryske Akademy (Gorter \& van der Meer, 2008). In trilingual schools, three languages are used as medium of instruction (Cenoz et al., 2001). There are different types of trilingual primary education, however. According to Ytsma's (2001) typology, there are 46 types. This typology is based on the linguistic context (i.e. trilingual area, bilingual area or monolingual area), the linguistic distance (i.e. three related languages, one non-related language or three non-related languages) and the programme design (i.e. are the languages taught simultaneously or consecutively) (Ytsma, 2001). What the different types of trilingual primary education have in common is that they all aim at functional trilingualism, which indicates that different levels of proficiency may be reached for each of the three languages although learners should have acquired basic communicative skills in each language (Ytsma, 2001).

In the trilingual school project in Friesland, seven primary schools used Frisian, Dutch and English as languages of instruction (van Ruijven \& Ytsma, 2008). In the first six grades, 50 per cent of the lessons were instructed in Dutch and 50 per cent in Frisian (van Ruijven \& Ytsma, 2008). In the last two grades, 40 per cent of the lessons were instructed in Dutch, 40 per cent in Frisian and 20 per cent in English (van Ruijven \& Ytsma, 2008). This project ended in 2006 (van Ruijven \& Ytsma, 2008). Between 1997 and 2006, children from these schools were tested on "vocabulary, technical reading, reading comprehension, and spelling" (van Ruijven \& Ytsma, 2008, p. 8). For the English language, the children were also tested on listening skills (van Ruijven \& Ytsma, 2008). The results for these children were then compared to the results from control schools (van Ruijven \& Ytsma, 2008). The general outcome of this research is that children from these trilingual schools
master Dutch equally well as children from the control schools and that the former master Frisian better than the latter (van Ruijven \& Ytsma, 2008). Moreover, the level of English is the same for both groups, although children from the trilingual schools speak English "more easily and confidently" (van Ruijven \& Ytsma, 2008, p. 8). These results are obviously positive and therefore many more primary schools wanted to use this educational model. In February 2014, there were 61 trilingual schools in Friesland (Taalinstrum Frysk, 2014).

In Friesland, primary school children are hence required to learn three languages, irrespective of whether they go to a trilingual school or to a 'regular' school. Previous research has indicated that the acquisition process of a new language is influenced by whether the learner is a monolingual or a bilingual and by the linguistic distance between the already acquired language(s) and the new language. This will be discussed below.

### 2.5 Acquiring a new language

In acquiring a new language, there is a difference between monolinguals and bilinguals. Whereas bilingual learners benefit from their prior knowledge of previous language learning and learning strategies, this knowledge is non-existent for monolingual learners (Wei, 2006). This results in a great advantage for the bilingual learners in comparison to the monolingual learners (Cenoz, 2003; Wei, 2006). Another advantage for the bilingual learners is that they have two languages as their base, whereas monolingual learners only have one language as their base (Cenoz, 2003). Bilingual learners can therefore draw from more linguistic knowledge than monolingual learners and this is useful when transfer is taking place.

## Transfer

When a new language is being acquired, transfer from one language to another often takes place. This transfer occurs in all aspects of language structure and language use, including vocabulary, pronunciation and grammar (Saville-Troike, 2012). Transfer from one language to another helps to acquire a language if there is positive transfer: when what is transferred from the first language is also present in the language that is being acquired and if it is used appropriately (Saville-Troike, 2012). So, the more resemblances between two languages, the easier the new language will be acquired. However, there can also be negative transfer. This is when what is transferred is not present in the language that is being acquired, or when it is not used appropriately (Saville-Troike, 2012). Consequently, negative transfer requires attention from the learner as this transfer needs to be corrected. According to Ytsma (2000), the relatedness between Dutch, English and Frisian facilitates positive transfer, but it may also lead to negative transfer.

For monolinguals, transfer takes place from their first to the second language, but for bilinguals, this transfer may come from their first or their second (first) language to the third language (Ringbom, 2001; Saville-Troike, 2012). For the latter learners, the amount of transfer of the first or the second language depends on multiple factors. Cenoz, Hufeisen and Jessner (2001) state that the results of several studies have indicated that the second language is often used as a 'default supplier' in the production of the third language. However, more important is the linguistic distance between the languages (i.e. how closely the first and the second languages are related with the third language) as "learners tend to borrow more terms from languages that are typologically closer to the target language" (Cenoz et al., 2001, p. 8). The latter has been proven by many researchers, such as Hammarberg (2001), for instance, who states that multiple researches have
shown that there is more transfer from the second language if it is closely related to the third language, especially when the first language is less closely related. For instance, if a learner acquires English as a third language and has acquired Chinese as their first language and French as their second language, this learner will largely - but not solely ${ }^{1}$ - employ their second language, French, during the acquisition of English (Cenoz, 2001; De Angelis, 2007; Hammarberg, 2001; Ringbom, 2007). In the Frisian situation, Dutch is, in most cases, the second (first) acquired language, but Frisian is typologically closer related to the target language, English. As the factor 'linguistic distance' is considered to be more important than the factor 'second language', we may assume that when acquiring English, Frisians will draw more on their knowledge of Frisian than on their knowledge of Dutch.

## Acquiring lexicon

As it is examined in this thesis whether Frisian primary school children perform better on an English words translation task than non-Frisian primary school children due to their knowledge of Frisian, it is important to know how knowledge of previously acquired languages influences the lexical acquisition process. When there is a small linguistic distance between two languages, this is extremely beneficial to the learner with respect to acquiring lexicon as this indicates that there are many similarities between the two languages. According to Ringbom (2001), "L3-learners at an early stage of learning will frequently make use of L2-words in their L3-production if the L2 and L3 are related and have a number of common cognates" (p. 60). This is also true when the learner of the third language only has a limited proficiency in the second language or when the learner has had little exposure to the second language (Ringbom, 2001). If this statement is applied to the situation in Friesland, this statement would suggest then that even though Frisian is more closely related to English, the Frisian learner of English will draw on their knowledge of Dutch lexicon rather than on their knowledge of Frisian lexicon as Dutch is the second (first) acquired language.

When acquiring words in a new language, learners tend to focus on the phonological similarities rather than the semantic similarities, especially early on in the language learning process (Ringbom, 1987). The later the stage in the language learning process, the less the learner focuses on phonological similarities and the more they focus on the semantic similarities (Ringbom, 1987). Learners must be careful, however, not to rely too heavily on similarities in lexical items between languages as 'false friends' also exist (Ringbom, 2007). These 'false friends' are words that show (close) formal similarity, but no semantic similarity (Ringbom, 2007). An example of a 'false friend' for English and Dutch is 'eventual' (English) and eventueel (Dutch), which is translated in English as 'potential'. Although 'false friends' will always be a source for mistakes, Ringbom (2007) states that the ratio for 'good friends' to 'false friends' is 11 to 1 in English and French, and this demonstrates that learners should still focus on similarities in lexical items between languages. Thus, as Nation (2003) discussed, deliberately exploring similarities between a learner's acquired language(s) and the target language will help acquiring the latter. This is especially true when the languages are closely related.

### 2.6 Attitudes towards and proficiency in Frisian and English

The acquisition process of a target language may also be influenced by the attitude that is held towards that target language. Multiple investigations have been conducted on the relationship

[^0]between attitudes towards and proficiency in a second or foreign language. These investigations, however, do not all reach the same conclusion: Atchade (2002) states that whereas some researchers (e.g. Chihara \& Oller, 1978; Genesee \& Hamayan, 1980) come to the conclusion that there is no correlation between attitude and proficiency in a second or foreign language, others (e.g. Ellis, 1994; Scherer \& Wertheimer, 1964) conclude that there is a correlation between them. According to Ellis (1994), the attitudes that learners have correlate with the achieved proficiency level and this, in turn, has an influence on the learners' attitude. Thus, learners with a positive attitude reach a high proficiency level and this success leads to an increased positive attitude. In contrast then, learners with a negative attitude do not reach a high proficiency level and this leads to an even more negative attitude (Ellis, 1994).

With respect to the attitudes of the inhabitants of the Netherlands towards Frisian, Dutch and English, multiple investigations have been conducted. These investigations were performed with different groups of respondents. I will focus here on the attitudes of primary school children and on the attitudes of students. In this thesis, only the attitude of the primary school children towards English is of importance, while for the students, the attitudes towards both Frisian and English are of importance.

## Attitudes of primary school children

In 2012, the Centraal Instituut voor Toetsontwik.keling (CITO) ('Central Institute for Test Development'), an institute that develops tests and exams, carried out a study on - among other aspects of English as a subject in primary school - the attitudes of children in their last year of primary school towards English. Schools from all over the Netherlands were included in the study and therefore also schools from the province of Friesland (CITO, 2012). The study involved a questionnaire, in which situations were sketched and the children were asked to indicate which response to the situation suited them best (CITO, 2012). These responses were then transcribed to a positive, neutral or negative attitude (CITO, 2012). Unfortunately, in their analysis, no distinction was made between the attitudes of Frisian primary school children and the non-Frisian primary school children. The results from this study were that the 44.0 per cent of the children answered with a neutral response to the statement 'I like English as a subject in school', 40.0 per cent answered with a positive response, while only 16.0 per cent answered with a negative response (CITO, 2012). The female children held a somewhat more positive attitude towards English than the male children ( 41.0 per cent as opposed to 38.0 per cent) (CITO, 2012). The results also indicate that the children do not find the language very easy to learn, but they do believe that it is important to learn the language (CITO, 2012).

No other studies have been conducted on the attitudes of Frisian primary school children towards English.

## Attitudes of students

Benedictus (2005) performed a language attitude research among teacher training students of the higher vocational education Cbristelijke Hogeschool Nederland and the Noordelijke Hogeschool Leeuwarden, which are both located in Leeuwarden, Friesland. The results from this research demonstrated that the students who acquired Frisian as their first language viewed the Frisian language more positively than the students who acquired Dutch as their first language (Benedictus, 2005). The former students also have a more positive view on trilingualism than the latter students (Benedictus, 2005).

Ytsma (2007) also carried out a language attitude research among teacher training students of the Christelijke Hogeschool Nederland. His results showed that seven of the 99 participants had an
unfavourable attitude towards Frisian, whereas all others had a neutral or favourable attitude towards this language (Ytsma, 2007). With regard to English, the same attitude pattern was found: seven participants expressed an unfavourable attitude towards the language and the others expressed a neutral or favourable attitude. Similar to Benedictus's (2005) research, Ytsma's (2007) research demonstrated that the students who indicated that they have Frisian as their first language have a more positive view towards Frisian than the bilingual students and the students who have Dutch as their first language. The latter students have a more positive view towards English than the former two groups of students, however (Ytsma, 2007). This research also indicated that male and female students do not differ from each other in their attitude towards the two languages (Ytsma, 2007). Moreover, this research demonstrates a correlation between the attitude towards a language and the self-perceived competence in that particular language (Ytsma, 2007). This correlation was highest for the Frisian language and was relatively high for the English language (Ytsma, 2007).

### 2.7 Research gaps

No research has been conducted on whether knowledge of Frisian facilitates the acquisition of English lexicon. This research is important as it may help Frisian children acquire the language. It may then also help children in similar linguistic situations acquire a new language. My investigation will thus fill this gap.

### 2.8 Conclusion and hypotheses

In this chapter, we have seen that a lot of research has been conducted on Friesland and its linguistic situation. More than half of the inhabitants of Friesland have Frisian as their first language and there are differences in the competence of the four abilities in Frisian: understanding, speaking, reading and writing (Provincie Fryslân, 2014). We have also seen that Frisian and English were very similar in the past, but have diverged from each other. Moreover, research has demonstrated that children of trilingual schools in Friesland show an equal command in Dutch and English (although these children are able to speak English more easily) when compared to children in control schools, but the former have a better command in Frisian than the latter children (van Ruijven \& Ytsma, 2008). Furthermore, we have seen that multiple studies have indicated that a close linguistic distance between two languages (with therefore many similarities) helps acquiring a new language. Lastly, it was shown that there is a likely correlation between competence in a language and the attitude towards that language (Ytsma, 2007).

Based on the literature and previous research discussed in this chapter, I can now form hypotheses for my own investigations. The first hypothesis is that there is no correlation between the lexical closeness between English and Frisian and lexical acquisition success. I have three reasons for this. First, literature has shown that English and Frisian have diverged so much from each other that this closeness is only to be noticed in few words and sounds. Second, the research that was done on trilingual schools does not show that the level of competence in the English language is higher there than on the control schools. On the trilingual schools, much more time is devoted to English as it is a language of instruction. The children of these schools therefore have more time to recognise similar patterns (e.g. on a lexical level) between English and Frisian and should then therefore have a better command of English than the children of the control schools, if there is indeed a correlation between the lexical closeness between English and Frisian and lexical acquisition success. The research has shown that these children do not have a better command of

English (van Ruijven \& Ytsma, 2008). Third, multiple researches indicate that acquiring a new language with many similarities to an already acquired language helps in the acquisition process, but according to Ringbom (2001), for the acquisition of lexicon, learners focus on their knowledge of their second (first) language, which is Dutch for most Frisians rather than Frisian. Therefore, I do not believe that there is a correlation between the lexical closeness between English and Frisian and lexical acquisition success.

The second hypothesis is that I assume that my second investigation will show that there is indeed a correlation between the attitudes towards Frisian and towards English and acquisition success. This hypothesis is based on the results of Ytsma's (2007) research.

These hypotheses will be tested in this thesis. The results of my investigations will be discussed in chapter four. But first, I will explain how my investigations were carried out. This will be done in the following chapter, chapter three.

## Chapter 3: Methodology

### 3.1 Introduction

This chapter will provide an explanation for how the two investigations for this thesis were conducted. For every investigation, I will first discuss the participants and the language test/questionnaire and then I will explain the research procedure. The first investigation (the language test) was carried out at primary school OBS de Fugelflecht in the Frisian city of Franeker and at primary school De Elrenhoek in the Dutch western city of Zoetermeer. The second investigation (the questionnaire) was carried out at the intermediate vocational school Nordwin College in Leeuwarden, at the higher vocational education schools Hogeschool Rotterdam in Rotterdam, Hogeschool van Amsterdam in Amsterdam, NHL Hogeschool in Leeuwarden, Hogeschool van Hall Larenstein in Leeuwarden and at Leiden University in Leiden.

### 3.2 Material of investigation 1: English vocabulary test

In this section, I will discuss the participants of this first investigation and I will discuss the language test which was created in order to establish whether primary school children in Friesland acquire vocabulary of the English language easier than primary school children in the monolingual area of Zoetermeer due to the close historical connection that English and Frisian had. I will start with stating which primary schools participated in this investigation and then I will describe the male/female ratio of the participants, followed by their age-ranges. I will then continue with explaining the language test. I will explain what this test entailed and what specific task the children were asked to perform.

## Participants

In the Frisian medium-sized city of Franeker, the primary school OBS de Fugelflecht participated. This school teaches Frisian in grades 3 through 8 - which means that all children from this school have knowledge of Frisian, whether this is (one of) their first language(s) or not - and teaches English only in grades 7 and 8. The school is located in the most eastern neighbourhood of Franeker. Children from grades 5 and 6 participated in the investigation. In total, 39 children participated. Of these children, 17 were male and 22 were female. The male/female ratio per grade can be seen in table 3.1 below. The children from this school were aged between 8 and 11. The participants all lived in Franeker. For more information on the Frisian participants, I refer the reader to table A. 1 in Appendix I.

In the western large city of Zoetermeer, the primary school De Elzenhoek, participated in the investigation. This school also teaches English only in grades 7 and 8. It is located in the city centre of Zoetermeer. Similar to the primary school in Franeker, children from grades 5 and 6 participated in the investigation. In total, there were 54 participants: 26 of the participants were male and 28 were female. In table 3.1 below, the male/female ratio is specified per grade. The participants were also aged between 8 and 11. All participants indicated that they lived in Zoetermeer. A list of all of the information on the non-Frisian participants of this investigation can be found in table A. 2 in Appendix I.

Table 3.1: Number of participant groups per grade

| Grade | Frisian participants <br> $\mathbf{( N = 3 9 )}$ |  | Non-Frisian <br> participants (N=54) |  |
| :---: | :---: | :---: | :---: | :---: |
|  | Male | Female | Male | Female |
| 5 | 5 | 8 | 14 | 12 |
| 6 | 12 | 14 | 12 | 16 |
| Total | $\mathbf{1 7}$ | $\mathbf{2 2}$ | $\mathbf{2 6}$ | $\mathbf{2 6}$ |

## Language test

The language test consisted of two parts. One part asked for personal information: the participants were asked to indicate their gender, age, hometown and in which grade they are currently. These questions allowed me to obtain the data presented in the participants section above. In the language test for the primary school children in Zoetermeer, one additional question was asked in this part. This question asked the participants to provide their opinion on the English language. In the language test for the primary school children in Franeker, this additional question was also asked, as well as the question 'which language do you speak at home?'.

The other part of the language test consisted of a task. The participants were asked to provide Dutch translations of 25 English words. Two different versions were distributed amongst the participants. The 25 English words remained the same, but there was a difference in the way these words were provided. In version one, the words were presented in their regular spelling. In version two, the words were presented phonetically. In this latter version, the word 'day', for instance, was presented as [dee]. The first version of the test can be found in Appendix II and the second version can be found in Appendix III. These two versions were provided to the primary school children in Zoetermeer. The two versions which were provided to the primary school children in Franeker can be found in Appendix IV and Appendix V.

### 3.3 Procedure of investigation 1: English vocabulary test

The following section will discuss the decisions that were made in the investigation and will provide more detailed information on the research steps that were taken.

## 25 English words

In order to test whether Frisian-speaking primary school children in a bilingual area acquire English lexicon easier than Dutch-speaking school children in a monolingual area, a list of words was made that included Frisian, English and Dutch words. Words were only included on this list if the Frisian words closely resembled the English equivalent, but differed from the Dutch equivalent. These Frisian words that resembled English were found on the internet and in dictionaries such as the Frisian-English dictionary by Dykstra (2000). The resemblance of words could be in different manners: they could be written in exactly the same manner, they could be almost identical in their spelling except for one or two letters or they could have phonetic resemblances. In this manner, a list of 87 words was created. These words were then categorised. Examples of categories are: animals, adjectives, and time and numbers. From this list, 25 English words were chosen. The selection of words was not done randomly. Four English words were chosen that have identical spellings (and meaning) in Frisian and English. These four words are 'boat', 'finger', 'it' and 'swan'. Two other words were also included that have the same spelling except for the circumflex and the acute accent that are present in Frisian. These English words are 'salt' and 'us' (Frisian: sâlt and ús).

As these six English words are thus spelled (almost) identically in Frisian, the Frisian participants should be able to benefit from the similarities and therefore perform better on these words than the non-Frisian participants. Moreover, I carefully looked at the five sound changes that have taken place in the past in both English and Frisian (but not in Dutch) as stated by Tiersma (1999) (see section 2.3 in chapter 2). This was done with the idea that, if the historical lexical closeness between English and Frisian indeed facilitates the acquisition of English for speakers of Frisian, the Frisian participants should definitely outperform the non-Frisian participants on these words as they should recognise the similar sound patterns sooner than the non-Frisian participants. For each of these five sound changes, words were selected and used in the language test. For the first mentioned sound change, where /e: $\gamma /$ became / $\varepsilon$ i/ or /a:i/, I selected the English words 'day' and 'way'. For the second mentioned sound change, where $/ \mathrm{x} /$ became $/ \mathrm{j} /$, I used the English word 'yesterday'. For the third sound change, where $/ \mathrm{k} /$ changed into $/ \mathrm{t} \mathrm{f} /$ in English and into $/ \mathrm{t} \mathrm{f} /$ or /ts / in Frisian, I chose the English word 'cheese'. The fourth change, which involved the omission of $/ \mathrm{n} /$, I used the English words 'us' (which is thus used for its sound change and for the almost identical spelling) and 'goose'. The last sound change, that is now pronounced as /iz/ in Frisian and /I/ in English, which resembles /a:/in Dutch, is represented by the English verb 'sleep' and the noun 'sheep'. The other twelve words of the language test were selected from the same categories as the words mentioned above. For instance, I had placed the word 'day' in the category 'time and numbers' and from this same category I also included the words 'three' and 'year' in the language test. For the other words that were included in the language test, I refer the reader to Appendix II or Appendix IV.

## Two versions

I deliberately chose to provide two different versions of the language test as I assumed that the children would perform differently if they see the words in their regular spelling than if they see the words written down in the way they are pronounced. This distinction between the two versions thus allowed me to establish whether children acquire the English language better through how words are spelled or through how they are pronounced.

## Transcribing the words

Transcribing the words for the children was done in the simplest way possible, in order for them to understand it. As a result, the phonetic transcriptions do not consist of signs they would not understand, do not contain stress markers and are transcribed keeping in mind the simplest way to pronounce the words instead of the official phonetic transcription rules. For instance, the Longman Pronunciation Dictionary (Wells, 2008) transcribes the word 'cheese' as $[\mathrm{t} j \mathrm{i}: \mathrm{z}]$, whereas I transcribed it as [tsjiez].

## Carrying out the language test and analysing the results

The two participating primary schools were approached via e-mail and they granted the permission to carry out the language test. For each grade, the method of carrying out the test was the same. The children in the grades were divided into groups of five. Each group was taken out of the classroom separately and were situated in the auditorium. Here they were told that they needed to provide Dutch translations of the 25 English words. The groups that received the second version of the test received a more thorough explanation. They were also instructed not to consult with each other. The participants were then given ten minutes to complete the test. After all the data was
collected from the two primary schools, it was entered into Excel and SPSS. This allowed me to clearly see the results and perform statistical tests. The statistical tests that were performed for the language test are Mann-Whitney $U$ test, the independent samples t-test, the one-way ANOVA (Analysis of Variance) test and the correlation test. The Mann-Whitney U test and the independent samples $t$-test determine whether there is a significant difference in the answers that were provided by two different groups (e.g. Frisian participants and non-Frisian participants). The difference in the Mann-Whitney $U$ test and the independent samples test lies in that the former is performed when the data is not normally distributed or when there is no equality of variance and that the latter is performed when the data is normally distributed and when there is equality of variance. The oneway ANOVA test determines whether there is a significant difference in the answers that were provided by more than two different groups. The p -value that these three tests provide expresses whether the difference is significant. The correlation test determines whether there is a significant correlation between two variables. This is also expressed in p-values. It holds for all tests that there is a significant difference or correlation if the p -value is below 0.05 . The lower the p -value, the stronger the difference or correlation: if the value is below 0.01 , there is a strong difference or correlation and if the value is below 0.001 , there is a very strong difference or correlation.

### 3.4 Material of investigation 2: attitudes and proficiency

Similar to the Material section above, I will discuss in this section the participants of this investigation and the questionnaire that was created in order to establish whether there is a correlation between the attitude towards a language and proficiency in this particular language. I will first give some general information on the participants: the male/female ratio, the age-ranges of the participants, their level of education, their hometowns and their first language(s). Then, I will describe the questionnaire. I will explain which questions were asked and what my motivations were for asking them.

## Participants

In total, 150 people participated in this investigation. There were two groups of participants in this investigation: Frisians and non-Frisians. 75 participants were Frisian and 75 participants were nonFrisian. The distribution of the participants per province can be seen in table 3.2 below.

Table 3.2: Number and matching percentages of non-Frisian participants per province of the Netherlands

| Western provinces | Province of the <br> Netherlands | Number of <br> participants <br> $\mathbf{( N = 1 5 0 )}$ | Percentage |
| :---: | :---: | :---: | :---: |
|  | Zuid-Holland | 46 | 30.7 |
|  | Noord-Holland | 13 | 8.6 |
|  | Utrecht | 1 | 0.7 |
|  | Friesland | 75 | 50.0 |
|  | Groningen | 5 | 3.3 |
|  | Flevoland | 3 | 2.0 |
|  | Gelderland | 2 | 1.3 |
|  | Noord-Brabant | 2 | 1.3 |
|  | Drenthe | 1 | 0.7 |
|  | Overijssel | 1 | 0.7 |
|  | Zeeland | 1 | 0.7 |

59 of the 150 participants ( 39.3 per cent) were male and 91 were female ( 60.7 per cent). This investigation was conducted amongst students only. This was done in order to be able to determine whether the results obtained by Ytsma (2007) are borne out by my investigation. As all participants are students, there are not very large differences in the ages of the participants. The youngest participant was 17 and the oldest was 25 . The number of participants (and the matching percentages) per educational level are shown in table 3.3 below.

Table 3.3: Number and matching percentages of participants per tertiary education level

| Educational level | Number of <br> participants <br> $\mathbf{( N = 1 5 0 )}$ | Percentage |
| :---: | :---: | :---: |
| Intermediate $(M B O)$ | 30 | 20.0 |
| High $(H B O)$ | 93 | 62.0 |
| Very high $(W O)$ | 27 | 18.0 |

More than three-quarters of the participants indicated that they had Dutch as their first language (117 participants: 78 per cent). 17 participants ( 11.3 per cent) had Frisian as their first language and 16 participants ( 10.7 per cent) had both Dutch and Frisian as their first language. A list of all the information on the participants of the questionnaire can be found in table A. 3 in Appendix VI.

## Questionnaire

In order to determine whether there is a correlation between the attitude towards a language and the self-perceived proficiency level in that language, a questionnaire was created. This questionnaire consisted of three sections.

In the first section, five personal questions were asked: the participants were asked to provide their gender, age, level of education, hometown and first language(s). These questions helped me generate the general information on the participants mentioned above and helped me determine whether these variables influence the held attitude.

The second section consisted of fourteen questions that focused on the level of proficiency in English and in Frisian and their attitudes towards these two languages. Regarding the level of proficiency in the two languages, the participants were asked to indicate their general level of proficiency in these languages, their understanding of the languages, their speaking skills in the languages, their reading skills in the languages and their writing skills in the languages. For each of these questions, the participants could choose from five answer possibilities: 'very good', 'good', 'average', 'moderate', and 'not applicable'. The province of Friesland used five (very similar) answer possibilities in their research on the proficiency in the four abilities (Provincie Fryslan, 2014). In order to be fully able to compare my results with their results, these five (very similar) answer possibilities were used in my investigation. To establish what the attitude of the participants is towards English and Frisian, the participants were asked to indicate whether they had a positive, neutral or negative attitude towards the languages. These three answer possibilities were used in Ytsma's (2007) research and using the same answer possibilities allowed me to compare my results with Ytsma's (2007) results. Besides indicating what their attitudes towards the languages were, the participants were also asked via an open question to explain why they had this certain attitude towards the languages.

The third section of the questionnaire consisted of two questions that only needed to be answered if the participant was an inhabitant of Friesland. The first of the two questions is: do you
generally prefer to use the Frisian or Dutch language, and why? The second question is: which language do you speak at home? The questionnaire (in Dutch) can be found in Appendix VII.

### 3.5 Procedure of investigation 2: attitudes and proficiency

In this section, I will explain how this investigation was conducted. I will discuss which decisions were made and which steps were taken.

## Designing the questionnaire

My intention was to replicate Ytsma's (2007) research. In his research, he examined the attitude towards Dutch, English and Frisian among students and their self-perceived proficiency in these languages. I was unable to find, however, the entire questionnaire that he used for his research. From his writings, however, I was able to deduce the question 'what is your general language proficiency in the Dutch, English and Frisian language?'. I used this question in my questionnaire for English and Frisian, but as research of the province of Friesland showed that, in general, Frisians have a fairly good understanding of Frisian, are able to speak the language quite well, but have considerably less knowledge of the language with regard to reading and writing, I decided to also ask the participants about their proficiency in these four abilities for both English and Frisian (Provincie Fryslân, 2014). This resulted in the five questions on language proficiency for both languages. From Ytsma's (2007) research, I was also able to deduce the question 'what is your attitude towards the Dutch, English and Frisian language?'. This question was also used in my investigation for the English and Frisian language, but I decided to allow the participants to provide an explanation for their opinion as well in order to gain more insight into the reasons behind the attitude. Related to the attitude question are the last two questions of the questionnaire which only needed to be answered if the participant lived in Friesland. These two questions allowed me to obtain more insight into the use of Frisian amongst Frisians and their attitudes towards the language. If a Frisian participant speaks the Frisian language at home, for instance, this participant is more likely to have a positive attitude towards the language than when a Frisian participant speaks Dutch at home.

## Carrying out and analysing the questionnaire

The (potential) participants were approached in several schools where they were asked to fill out a questionnaire. They were told that it was about the English and Frisian language. If the (potential) participants agreed to fill out the questionnaire they were given as much time as needed. This meant that most participants took three minutes to answer all the questions. When all the data was collected, it was entered in Excel and later in SPSS. These programmes helped me to generate results and perform statistical tests. For the data of the questionnaire, the same statistical were performed as for the language test. So, the Mann-Whitney U test, the independent samples t-test, the one-way ANOVA and the correlation test were performed. The results of both investigations will be discussed in the next chapter.

## Chapter 4: Results (I): the language test

### 4.1 Introduction

In this first part of the Results chapter, I will discuss the results that are related to my first research question. This question is: is there a correlation between the lexical closeness between Frisian and English and lexical acquisition success? This question will be answered on the basis of the results of the language test that was carried out among primary school children in the Frisian city of Franeker and the Dutch western city of Zoetermeer. I will show and discuss the results of both groups of participants for the first version of the language test, then I will do the same for the second version of the language test and make a comparison between these two sets of data. All these data will allow me to establish an answer to the first research question. Based on this answer, I can then state whether, in general, knowledge of a language with lexical closeness to another language will help children acquiring lexicon of the latter language.

As the language test measures knowledge of English lexicon, but also asks the participants to provide their attitude towards English, the language test allows me to provide an answer to my second research question as well ('is there a correlation between attitudes towards Frisian, attitudes towards English, and acquisition success?'), which will be further discussed in the second part of the Results chapter.

### 4.2 Language test: version 1

The language test asked the participating primary school children to provide Dutch translations of 25 English words. The first version of the language test showed the 25 words in their orthographic representation. Table 4.1 below demonstrates the results of the first version of the language test. For each of the 25 words, the table shows how many participants (both in numbers and percentages) provided a correct translation. In this table, a distinction is made between the Frisian participants (the primary school children of Franeker) and the non-Frisian participants (the primary school children of Zoetermeer) in order to determine who performed better.

Table 4.1: Number and percentages of correct answers of Frisian and non-Frisian participants for the 25 English words in their orthographic representation

| Word | Correct <br> answers <br> Frisian <br> participants <br> (N=21) |  | Correct <br> answers <br> non-Frisian <br> participants <br> (N=24) |  | Word | Correct <br> answers <br> Frisian <br> participants <br> (N=21) |  | Correct <br> answers <br> non-Frisian <br> participants <br> (N=24) |  |
| :--- | :---: | :---: | :---: | :---: | :--- | :--- | :--- | :--- | :--- |
| Day | 20 | $95.2 \%$ | 22 | $91.7 \%$ | Goose | 0 | $0.0 \%$ | 0 | $0.0 \%$ |
| Year | 19 | $90.5 \%$ | 19 | $79.2 \%$ | Eel | 0 | $0.0 \%$ | 0 | $0.0 \%$ |
| Yesterday | 4 | $19.0 \%$ | 0 | $0.0 \%$ | Swan | 4 | $19.0 \%$ | 2 | $8.3 \%$ |
| Three | 11 | $52.4 \%$ | 5 | $20.8 \%$ | Finger | 19 | $90.5 \%$ | 16 | $66.7 \%$ |
| Way | 5 | $23.8 \%$ | 1 | $4.2 \%$ | Boat | 13 | $61.9 \%$ | 18 | $75.0 \%$ |
| Cheese | 13 | $61.9 \%$ | 17 | $70.8 \%$ | Old | 9 | $42.9 \%$ | 4 | $16.7 \%$ |
| Salt | 6 | $28.6 \%$ | 4 | $16.7 \%$ | Red | 15 | $71.4 \%$ | 15 | $62.5 \%$ |
| Us | 3 | $14.3 \%$ | 0 | $0.0 \%$ | Thin | 0 | $0.0 \%$ | 0 | $0.0 \%$ |
| Sleep | 19 | $90.5 \%$ | 17 | $70.8 \%$ | It | 3 | $14.3 \%$ | 1 | $4.2 \%$ |
| Seek | 0 | $0.0 \%$ | 0 | $0.0 \%$ | Left | 6 | $28.6 \%$ | 4 | $16.7 \%$ |
| Thank | 15 | $71.4 \%$ | 11 | $45.8 \%$ | Nose | 8 | $38.1 \%$ | 4 | $16.7 \%$ |
| Hear | 0 | $0.0 \%$ | 0 | $0.0 \%$ | Nail | 4 | $19.0 \%$ | 7 | $29.2 \%$ |
| Sheep | 9 | $42.9 \%$ | 10 | $41.7 \%$ | Average $\%$ | - | $39.1 \%$ | - | $29.5 \%$ |

Looking at the percentages in this table, we can establish that the Frisian participants performed better on the language test than the non-Frisian participants as 17 of the 25 words were more frequently answered correctly by the former than by the latter. The 'Average $\%$ ' of correct answers also indicates that the Frisian participants performed better than the non-Frisian participants. For only three words did the non-Frisian participants perform better than the Frisian participants. These three words are: 'cheese', 'boat' and 'nail'. We can also see in the table that there are five words that were not answered correctly by any of the participants. These words are: 'seek', 'hear', 'goose', 'eel' and 'thin'. Although this table shows many differences between the two groups of participants, the Mann-Whitney $U$ test shows that, with a $p$-value of 0.265 , there are no significant differences between the groups for this version of the test in its entirety. Looking at the 25 words individually, the Mann-Whitney $U$ test shows that for two words there are significant differences between the Frisian and the non-Frisian participants. These two words are 'yesterday' and 'three'. For the former word the p -value is 0.042 and for the latter word it is 0.030 . We can see in table 4.1 above that for both these words the Frisian participants performed better than the non-Frisian participants.

## Words with sound changes

With regard to the eight words - 'day', 'way', 'yesterday', 'cheese', 'us', 'goose', 'sleep' and 'sheep' that represented the five sound changes that have taken place in Frisian and English, but not in Dutch (see section 2.3 in chapter two and section 3.3 in chapter three), we can see that, in general, the Frisian participants performed better than the non-Frisian participants: six of these eight words were more frequently answered correctly by the former than by the latter. The word 'cheese' was the only word that was more frequently answered correctly by the non-Frisian participants. The word 'goose' was not answered correctly by any of the participants. However, besides for 'yesterday', the Mann-Whitney U test has shown that the differences in performance between the Frisian and the non-Frisian participants for these words were not significant. We may conclude from this finding that the knowledge of Frisian (and thus the lexical closeness between Frisian and

English) did not help the Frisian participants perform significantly better with respect to these words.

## Words with (almost) identical spelling

The six words that were employed in the test because they are (almost) identically spelled as their Frisian equivalents - 'boat', 'finger', 'it', 'salt', 'swan' and 'us' - were all (except for 'boat') more frequently answered correctly by the Frisian participants, but these participants did not answer them significantly better than the non-Frisian participants. This is rather surprising, however. As these six words are all words that primary school children should know in Frisian and as the spelling of these words are (almost) the same in English and Frisian, we would expect that almost all Frisian participants know the correct translation. We can see in table 4.1 above that this is hardly the case. The two words 'boat' and finger' are known by 61.1 per cent and 90.5 per cent of the Frisian participants, but the words 'it', 'salt', 'swan' and 'us' are all answered correctly by less than 30 per cent of the participants. These differences in percentages may be explained by the fact that 'boat' and 'finger' are the only two words that differ from the Dutch equivalent in only one letter and are therefore easier to recognise than the other four words which differed from the Dutch equivalent in more than one letter. If this is the true explanation, this would suggest that the Frisian participants used their knowledge of Dutch instead of their knowledge of Frisian. Either way, the results indicate that the Frisian participants do not, surprisingly, significantly benefit from their knowledge of Frisian with regard to their performance of the English words as they did not perform significantly better on these words.

So, we may establish from these results that the lexical closeness between Frisian and English has not helped the Frisian participants to perform significantly better than the non-Frisian participants in this first version of the test, both for the words that represented sound changes and for the words that are spelled (almost) identically in the two languages.

### 4.3 Language test: version 2

The second version of the language test showed the 25 English words in their phonetic representation. The results of the second version of the language test are shown in table 4.2 below. Similarly to table 4.1 above, the table demonstrates the number and percentages of correct answers for both the Frisian and non-Frisian participants.

Table 4.2: Number and percentages of correct answers of Frisian and non-Frisian participants for the 25 English words in their phonetic representation

| Word | Correct answers Frisian participants ( $\mathrm{N}=18$ ) |  | Correct answers non-Frisian participants ( $\mathrm{N}=30$ ) |  | Word | Correct answers Frisian participants ( $\mathrm{N}=18$ ) |  | Correct answers non-Frisian participants$(\mathrm{N}=30)$ |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Day | 5 | 27.8\% | 12 | 40.0\% | Goose | 1 | 5.6\% | 1 | 3.3\% |
| Year | 11 | 61.1\% | 19 | 63.3\% | Eel | 0 | 0.0\% | 0 | 0.0\% |
| Yesterday | 2 | 11.1\% | 4 | 13.3\% | Swan | 0 | 0.0\% | 3 | 10.0\% |
| Three | 16 | 88.9\% | 27 | 90.0\% | Finger | 11 | 61.1\% | 24 | 80.0\% |
| Way | 3 | 16.7\% | 0 | 0.0\% | Boat | 11 | 61.1\% | 15 | 50.0\% |
| Cheese | 10 | 55.6\% | 18 | 60.0\% | Old | 6 | 33.3\% | 9 | 30.0\% |
| Salt | 0 | 0.0\% | 5 | 16.7\% | Red | 8 | 44.4\% | 14 | 46.7\% |
| Us | 2 | 11.1\% | 3 | 10.0\% | Thin | 0 | 0.0\% | 0 | 0.0\% |
| Sleep | 15 | 83.3\% | 28 | 93.3\% | It | 1 | 5.6\% | 2 | 6.7\% |
| Seek | 0 | 0.0\% | 0 | 0.0\% | Left | 3 | 16.7\% | 9 | 30.0\% |
| Thank | 6 | 33.3\% | 9 | 30.0\% | Nose | 2 | 11.1\% | 9 | 30.0\% |
| Hear | 0 | 0.0\% | 0 | 0.0\% | Nail | 0 | 0.0\% | 0 | 0.0\% |
| Sheep | 9 | 50.0\% | 6 | 20.0\% | Average \% | - | 27.1 | - | 28.9 |

Surprisingly, this table demonstrates that the non-Frisian participants performed better on this version of the language test than the Frisian participants: 13 of the 25 words are more frequently answered correctly by the former than by the latter and the average percentage of correct answers is higher for the non-Frisian participants than the Frisian participants. For the seven words 'way', 'us', 'thank', 'sheep', 'goose', 'boat' and 'old' the Frisian participants performed better than the nonFrisian participants. Again, there are five words that were not answered correctly by any of the participants. These five words are 'seek', 'hear', 'eel', 'thin' and 'nail'. This means that the four words 'seek', 'hear', 'eel' and 'thin' are not answered correctly by any of the 93 participants, which indicates that the participants are not familiar with any of these four words or were unable to recognise these words. Similarly to above, the Mann-Whitney U test demonstrates that, for this version of the test in its entirety, there are no significant differences between the Frisian and nonFrisian participants (p-value: 0.829). Looking at the words individually, the Mann-Whitney U test has shown that there are, again, only two words in which there is a significant difference in the performance between the two groups. These two words are 'salt' and 'sheep'. For the former the pvalue is 0.023 and for the latter it is 0.043 . Table 4.2 above demonstrates that the non-Frisian participants performed better on 'salt' and that the Frisian participants performed better on 'sheep'.

Table 4.3 below shows that the percentages of the correct answers have decreased considerably in the second version of the test in comparison to the first version, which suggests that the latter was found to be more difficult than the former. This table demonstrates that whereas the word 'day' was answered correctly by 95.2 per cent of the Frisian participants and by 91.7 per cent of the nonFrisian participants in the first version, this word is answered correctly by only 27.8 per cent of the former and by 40.0 per cent of the latter in the second version. These results then seem to indicate that children acquire English through spelling than through how words are pronounced.

Not only is there a decrease in the percentages of correct answers in the second version as compared to the first version, there is also a decrease in the differences of percentages of correct answers between the two groups of participants. Table 4.3 shows that whereas in the first version the difference in correct answers between the Frisian and non-Frisian participants was more than
15.0 per cent for eight words ('three', 'way', 'sleep', 'thank', 'finger', 'old' , 'nose' and 'yesterday'), in the second version there are now five words ('way', 'finger', 'nose', 'salt' and 'sheep') that demonstrate this difference of more than 15.0 per cent. Moreover, in the first version there were only two words ('day' and 'sheep') for which the difference in percentages between the groups was less than 5.0 per cent, as opposed to ten words ('three', 'thank', 'old', 'year', 'yesterday', 'cheese', 'us', 'goose', 'red' and 'it') in the second version (see table 4.3). Thus, the differences have become smaller.

Table 4.3: Percentages of correct answers of Frisian and non-Frisian participants for the 25 English words in the two versions of the language test

| Word | Version 1 <br> \% Correct <br> answers <br> Frisian <br> participants <br> (N=21) |  | Correct <br> answers <br> non-Frisian <br> participants <br> $\mathbf{( N = 2 4 )}$ | \% Correct <br> answers <br> Frisian <br> participants <br> (N=18) |
| :--- | :---: | :---: | :---: | :---: |
|  | 95.2 | 91.7 | \% Correct <br> answers <br> non-Frisian <br> participants <br> (N=30) |  |
|  | 52.4 | 20.8 | 88.9 | 40.0 |
| Way | 23.8 | 4.2 | 16.7 | 90.0 |
| Sleep | 90.5 | 70.8 | 83.3 | 0.0 |
| Thank | 71.4 | 45.8 | 33.3 | 93.3 |
| Finger | 90.5 | 66.7 | 61.1 | 30.0 |
| Old | 42.9 | 16.7 | 33.3 | 80.0 |
| Nose | 38.1 | 16.7 | 11.1 | 30.0 |
| Salt | 28.6 | 16.7 | 0.0 | 30.0 |
| Sheep | 42.9 | 41.7 | 50.0 | 16.7 |
| Year | 90.5 | 79.2 | 61.1 | 20.0 |
| Yesterday | 19.0 | 0.0 | 11.1 | 63.3 |
| Cheese | 61.9 | 70.8 | 55.6 | 13.3 |
| Us | 14.3 | 0.0 | 11.1 | 60.0 |
| Goose | 0.0 | 0.0 | 5.6 | 10.0 |
| Red | 71.4 | 62.5 | 44.4 | 3.3 |
| It | 14.3 | 4.2 | 5.6 | 46.7 |

## Words with sound changes

The word 'sheep' is the only one of the eight words that were used to represent the five sound changes on which the Frisian participants performed significantly better than the non-Frisian participants. Table 4.2 and table 4.3 above show that they also performed better - although not significantly better - on the words 'way', 'us' and 'goose' than the non-Frisian participants, but the latter performed better on the words 'day', 'yesterday', 'cheese' and 'sleep'. Of these eight words, only three were more frequently answered correctly by the Frisian participants in both versions of the language test. These three words are 'way', 'us' and 'sheep'. The words 'way' and 'day' have undergone the same sound change so the Frisian participants do not seem to be aware of this sound change in general as they would otherwise have performed better on both these words than the non-Frisian participants. This is also true for the word 'us' which has undergone the same sound change as 'goose' and for the word 'sheep' which has undergone the same sound change as 'sleep', as 'goose' and 'sleep' were not more frequently answered correctly in both versions of the language test. As a result, we may establish that the fact that the three words 'way', 'us' and 'sheep'
are more frequently answered correctly in both versions is probably not due to the lexical closeness between Frisian and English.

## Words with (almost) identical spelling

With respect to the six words that have an (almost) identical spelling in English and Frisian, it is only for the word 'salt' that there is a significant difference in performance between the two groups. As mentioned above, this word is more frequently answered correctly by the non-Frisian participants than by the Frisian participants. In fact, this is true for all six words with (almost) identical spellings, although the differences in correct answers between the two groups for the other five words are not significant according to the Mann-Whitney U test. It is still rather unexpected, however, that the non-Frisian participants performed better as the six words are thus also present in Frisian (but not in Dutch) and it therefore seems logical that the Frisian participants would perform better on these words, especially given the fact that the phonetic representation of these words either fully corresponds with their orthographic representation or differs from it in only one letter.

## Phonological similarities between languages

According to Ringbom (1987), learners of a new language tend to focus on the phonological similarities between languages rather than the semantic similarities, especially early on in the language learning process. Although the participants of the language test were not learners of English yet, it is interesting to mention that the participants did in fact see phonological (and semantic) similarities between Dutch and English. The English word 'hear', for instance, which was transcribed as [heer], corresponds with the Dutch word beer (which means 'man' or 'gentleman' in English) in both phonology and spelling. Of the participants who received the second version of the language test, 27.1 per cent provided a Dutch translation of heer for the English 'hear'. So, with respect to English and Dutch, we may state that there is indeed a tendency for the learners to focus on phonological similarities. For English and Frisian, this tendency was not found. If this tendency had been found, the Frisian participants would most likely have performed much better on this second version of the language test than the non-Frisian participants. Besides this tendency for Dutch and English, the sound changes and the identical spelling mentioned above, no other general trends were found.

Based on the findings of this research, we may reach the conclusion that there is no correlation between the lexical closeness between Frisian and English and lexical acquisition success.

### 4.4 Attitudes towards and proficiency in English

The language test also asked the primary school children to provide their attitudes towards English. The children were not provided with response categories; they were asked to provide their own opinion on the language. If their answers solely contained one or more positive words (e.g. 'beautiful' or 'easy'), I considered their attitude towards the language as positive. If their answers solely contained a neutral word or phrase (e.g. 'I don't know') or if it contained both positive and negative words, the attitude was considered to be neutral. If their answer solely contained negative phrases and words (e.g. 'ugly' and 'difficult'), the attitude was considered to be negative. In this section, I will explore the reported attitudes and I will examine whether the attitudes correlate with three variables: 'province' (i.e. whether one is Frisian or non-Frisian), 'first language' and 'gender'.

The attitudes of the primary school children allow me to compare these results with the attitudes of the students which will be discussed in the second part of the Results chapter. Moreover, the attitudes of the primary school children towards English will allow me to determine whether there is a correlation between the attitude towards English and proficiency in English.

The attitude of all the participants towards English proved to be clearly divided: 53 of the 93 participants ( 57.0 per cent) expressed a negative attitude, whereas 40 participants ( 43.0 per cent) expressed a positive attitude. These findings are in contrast with CITO's (2012) findings, where most participants indicated that they had a neutral attitude ( 44.0 per cent) or a positive attitude ( 40.0 per cent) and only 16.0 per cent of the participants indicated that they had a negative attitude. To determine whether the attitude in this investigation is influenced by the three variables, the results are subdivided in table 4.4 below.

Table 4.4: Attitudes of the participants towards English in percentages, subdivided by the variables 'province', 'first language' and 'gender'

| Variables | Participants |  |  | Positive | Neutral |
| :--- | :--- | :--- | :---: | :---: | :---: |
| Negative |  |  |  |  |  |
| Province | Frisians | $(\mathrm{N}=39)$ | 61.5 | 0.0 | 38.5 |
|  | Non-Frisians | $(\mathrm{N}=54)$ | 29.6 | 0.0 | 70.4 |
| First language | L1: Dutch | $(\mathrm{N}=84)$ | 41.7 | 0.0 | 58.3 |
|  | L1: Frisian | $(\mathrm{N}=3)$ | 33.3 | 0.0 | 66.7 |
|  | L1: Dutch \& Frisian | $(\mathrm{N}=6)$ | 66.7 | 0.0 | 33.3 |
| Gender | Male | $(\mathrm{N}=43)$ | 37.2 | 0.0 | 62.8 |
|  | Female | $(\mathrm{N}=50)$ | 48.0 | 0.0 | 52.0 |

In the table above, we can see that there are differences in attitude between the Frisian and nonFrisian participants. The independent samples t-test indicates that these differences in attitude are significant: the p -value is 0.002 . The table shows that for the variable 'first language', the three groups of participants expressed more or less the same attitude. The one-way ANOVA test shows with a p-value of 0.470 that there are no significant differences in the attitudes between the three groups. The table also demonstrates similar results for the variable 'gender' and the independent samples t-test shows that there are no significant differences in the answers that were provided by the sexes. The p-value for this test variable is 0.300 . So, we may come to the conclusion that the variable 'province' does significantly influence the attitude, whereas the variables 'first language' and 'gender' do not.

Having established the attitude towards and the proficiency in English in the sections above, we are now able to determine whether there is a correlation between these two variables. For the Frisian participants, the correlation test provides a p -value of 0.032 , which means that the correlation is significant at the 0.05 level. The p-value for the non-Frisian participants is 0.003 , which means that the correlation is significant at the 0.01 level. Thus, for the non-Frisian participants, this correlation between attitude and proficiency is even stronger than for the Frisian participants. So, for the primary school children, the answer to the research question 'is there a correlation between attitudes towards Frisian, attitudes towards English, and acquisition success?' is that there is a correlation between the attitudes towards English and acquisition success.

### 4.5 Conclusion

In this first part of the chapter, we have seen that there were, with regard to the first version of the
language test in its entirety, no significant differences between the performance of the Frisian and non-Frisian participants (p-value: 0.265). For two words, however, the Frisian participants performed significantly better (p-value 'yesterday': 0.042; p-value 'three': 0.030). This means that, in general, the lexical similarities between English and Frisian did not help the Frisian participants to perform significantly better than the non-Frisian participants. With regard to the second version of the language test, both groups of participants performed worse and again, no significant differences between the two groups were found ( $p$-value: 0.829). For one word the Frisian participants performed significantly better ( $p$-value 'salt': 0.023 ) and for one word the non-Frisian participants performed significantly better ( p -value 'sheep': 0.043). As the Frisian participants did not perform significantly better on the entire language test, we may come to the conclusion that there is no correlation between the lexical closeness between Frisian and English and lexical acquisition success.

We have also seen in this first part of the chapter that the attitude towards English was mainly negative. The variable 'province' has a significant influence on the attitude ( p -value: 0.002 ), whereas the variables 'first language' (p-value: 0.470) and 'gender' (p-value: 0.300) do not. Having explored the proficiency in English and the attitudes towards English in this chapter, we may come to the conclusion that there is a correlation between the attitude towards English and lexical acquisition success, both for the Frisian participants (with a p-value of 0.032) and for the nonFrisian participants (with a p-value of 0.003). The more positive the attitude is towards the language, the higher the proficiency in the language.

## Chapter 4: Results (II): the questionnaire

### 4.6 Introduction

In this second part of the Results chapter, I will discuss the results that are related to my second research question: is there a correlation between attitudes towards Frisian, attitudes towards English, and acquisition success? I will determine whether there is a correlation between the attitudes towards these languages and the (self-perceived) proficiency level for these languages by first looking at the attitude towards Frisian and English and whether this attitude is influenced by four variables: 'province', 'first language', 'gender' and 'educational level'. Then, I will examine the self-perceived proficiency level of the participants for both the general knowledge of Frisian and English and for the four abilities: understanding, speaking, reading and writing. I will then be able to perform a correlation test and provide an answer to my second research question. This answer then provides information on whether, in general, there is a correlation between attitudes towards a language and proficiency in this language.

### 4.7 Attitudes towards Frisian and English

To examine the attitude towards Frisian and English, the participants were asked to indicate whether they have a positive, neutral or negative attitude towards these languages. Table 4.5 below demonstrates the attitudes of the participants towards the two languages.

Table 4.5: Attitudes of the participants towards Frisian and English in percentages

| Language | Number of <br> participants | Positive | Neutral | Negative |
| :--- | :---: | :---: | :---: | :---: |
| Frisian | 150 | 36.0 | 51.3 | 12.7 |
| English | 150 | 70.0 | 25.3 | 4.7 |

We may establish from this table that the general attitude of the participants towards Frisian is neutral and that the general attitude towards English is positive. These two attitudes are in line with Ytsma's (2007) findings, but the general attitude towards English is in contrast with the primary school children's attitude towards English, which was mainly negative. As was indicated by previous research (Benedictus, 2005; Ytsma, 2007), the attitude that participants have is highly likely to be influenced by several variables. In this investigation, the effects of the variables 'province', 'first language', 'gender' and 'educational level' on the attitude are examined.

## Effect of province on attitudes

In this section, I will examine the effect of the variable 'province' on the attitudes towards Frisian and English. Per language, the attitudes of the Frisian and non-Frisian participants can be seen in table 4.6 below.

Table 4.6: Attitudes of the participants towards Frisian and English in percentages, subdivided by the variables 'province', 'first language', 'gender' and 'education'

| Language | Variables | Participants |  | Positive | Neutral | Negative |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Frisian | Province | Frisians | ( $\mathrm{N}=75$ ) | 57.3 | 29.3 | 13.4 |
|  |  | Non-Frisians | ( $\mathrm{N}=75$ ) | 14.7 | 73.3 | 12.0 |
|  | First language | L1: Dutch | ( $\mathrm{N}=117$ ) | 18.8 | 65.0 | 16.2 |
|  |  | L1: Frisian | ( $\mathrm{N}=17$ ) | 100.0 | 0.0 | 0.0 |
|  |  | L1: Dutch \& Frisian | ( $\mathrm{N}=16$ ) | 93.8 | 6.2 | 0.0 |
|  | Gender | Male | ( $\mathrm{N}=59$ ) | 42.4 | 39.0 | 18.6 |
|  |  | Female | ( $\mathrm{N}=91$ ) | 31.9 | 59.3 | 8.8 |
|  | Educational level | MBO | ( $\mathrm{N}=30$ ) | 50.0 | 36.7 | 13.3 |
|  |  | HBO/WO | ( $\mathrm{N}=120$ ) | 32.5 | 55.0 | 12.5 |
| English | Province | Frisians | ( $\mathrm{N}=75$ ) | 65.3 | 32.0 | 2.7 |
|  |  | Non-Frisians | ( $\mathrm{N}=75$ ) | 74.7 | 18.7 | 6.6 |
|  | First <br> language | L1: Dutch | ( $\mathrm{N}=117$ ) | 70.9 | 23.9 | 5.2 |
|  |  | L1: Frisian | ( $\mathrm{N}=17$ ) | 64.7 | 29.4 | 5.9 |
|  |  | L1: Dutch \& Frisian | ( $\mathrm{N}=16$ ) | 68.8 | 31.2 | 0.0 |
|  | Gender | Male | ( $\mathrm{N}=59$ ) | 64.4 | 30.5 | 5.1 |
|  |  | Female | ( $\mathrm{N}=91$ ) | 73.6 | 22.0 | 4.4 |
|  | Educational level | MBO | ( $\mathrm{N}=30$ ) | 60.0 | 40.0 | 0.0 |
|  |  | HBO/WO | ( $\mathrm{N}=120$ ) | 72.5 | 21.7 | 5.8 |

The table shows that there are considerable differences in the attitude towards Frisian between the participants living in the province of Friesland and the participants living in the other provinces of the Netherlands. The independent samples t-test shows that this difference is significant as the pvalue is below 0.001 . This difference in attitude is very likely the result of the fact that hardly any of the non-Frisian participants comes in (close) contact with the Frisian language and they therefore do not know much about it and what to think of it, whereas, of course, the Frisian participants do come in close contact with the language and therefore hold a stronger opinion on this language.

Smaller differences are found between the Frisian and non-Frisian participants in their attitude towards English. The independent samples t-test demonstrates that these smaller differences in attitude are not significant: the p-value is 0.567 . These rather small differences in the attitude towards English may simply be the result of the fact that all participants come in close contact with the English language via television and internet, for instance, whether they live in the province of Friesland or not.

Interestingly, table 4.6 shows that a larger percentage of the Frisian participants expressed a positive attitude towards English than towards Frisian. Unsurprisingly, this is also true for the nonFrisian participants. This could perhaps be explained by the fact that English is more useful in international communication than Frisian and that the former language is therefore valued more than the latter language.

## Effect of first language on attitudes

As was expected from the data in the table, the one-way ANOVA test shows that there is a significant difference between the three groups with different first languages in their expressed attitude towards Frisian. The p-value for this social variable is below 0.001. A post hoc analysis indicated that participants with Dutch as their first language differ significantly in their attitude from the participants with Frisian and with Dutch and Frisian as their first language (p-value: below 0.001). This analysis also indicated that the latter two groups do not differ significantly from each
other in their attitude ( p -value: 0.940). This finding matches Benedictus's (2005) finding, which showed that students with Frisian as their first language had a more positive attitude towards the language than the students with Dutch as their first language. These findings are not very surprising as it is only logical that people who speak Frisian have a more positive attitude towards it than those who do not speak it. While discussing the influence of the first language, it is also interesting to mention that two-thirds of the bilingual participants and the participants with Frisian as their first language who had a positive attitude indicated that they prefer to use the Frisian language over the Dutch language ( 24 of 33 participants: 72.7 per cent) and that almost all indicated that they speak the Frisian language at home ( 31 of 33 participants: 93.9 per cent) (see also tables A. 4 and A. 5 in Appendix VIII).

For English, the one-way ANOVA test demonstrates that there are no significant differences among the three groups with different first languages ( p -value: 0.867). This finding is therefore in contrast with Ytsma's (2007) research, which showed that bilingual students and students with Dutch as their first language had a more positive view towards English than students with Frisian as their first language. This result may be due to the fact that the English language has become increasingly important since 2007 and that therefore the students with Frisian as their first language have come to value English more since then.

## Effect of gender on attitudes

Table 4.6 above shows that there are also differences between the attitudes of the male and female participants for Frisian. According to the independent samples t-test, these differences in attitude are not significant. The p -value that the test provides is 0.955 . Similar results are found for English as the independent samples t-test provides a p-value of 0.298. Ytsma's (2007) research showed that for the attitude towards Frisian and English, male and female participants showed a similar attitude. This finding is thus borne out by my investigation.

## Effect of educational level on attitudes

Differences are also found in the attitude towards Frisian per educational level (see table 4.6). However, both for Frisian and English the independent samples t-test has shown that there is no significant difference between the two groups. The p -value that the test provides for this variable is 0.217 for Frisian. For English, the p-value of the test is 0.567 .

## Reasons behind the attitudes

To gain more insight into the reasons behind the attitude, the participants were asked via an open question to explain why they had their particular attitude towards the two languages. Per language, the two main reasons that were provided by the participants for each attitude are shown in table 4.7 below. For the other reasons that were provided for the two languages, see table A. 6 in Appendix VIII.

Table 4.7: Two main reasons behind the attitude towards Frisian and English subdivided per attitude

| Language | Attitude | Reasons | Percentage |
| :---: | :---: | :---: | :---: |
| Frisian | Positive ( $\mathrm{N}=54$ ) | 'Language is part of the cultural heritage' | 44.4 |
|  |  | 'It is my own language' | 35.2 |
|  | Neutral ( $\mathrm{N}=77$ ) | 'I don't know much about it' | 54.5 |
|  |  | 'It does not help you get anywhere' | 26.0 |
|  | Negative ( $\mathrm{N}=19$ ) | 'You should speak Dutch in the Netherlands' | 42.1 |
|  |  | 'It is an ugly language' | 37.5 |
| English | Positive | 'It is a world language that can be used internationally to communicate’ | 69.5 |
|  |  | 'It is a beautiful language' | 19.0 |
|  | Neutral | 'It is a world language that can be used internationally to communicate' | 52.6 |
|  |  | 'I use it when I need it' | 31.6 |
|  | Negative ( $\mathrm{N}=7$ ) | 'It is a difficult language' | 71.4 |
|  |  | 'It is an ugly language' | 28.6 |

### 4.8 Self-perceived proficiency level for Frisian and English

In order to determine the proficiency level for Frisian and English, participants were asked to indicate their self-perceived proficiency level with regard to the general language proficiency and the four abilities: understanding, speaking, reading and writing. The response categories were: 'very good', 'good', 'average', 'moderate' and 'not applicable'. With this last response category, the participants indicated that they have no knowledge of Frisian or English at all.

## General language proficiency

For both the general language proficiency and the four abilities, the mean of the answers that were provided for Frisian and English are shown in table 4.8 below. In this table, 'not applicable' was coded with 1 and 'very good' was coded with 5 , so: the higher mean, the more knowledge of the language.

Table 4.8: Mean of provided answers for the proficiency in Frisian and English ( $1=$ 'not applicable', $5=$ 'very good') divided by Frisian and non-Frisian participants

| Language | Participants | General | Understand | Speak | Read | Write |
| :--- | :--- | :---: | :---: | :---: | :---: | :---: |
| Frisian | Frisian | 3.43 | 3.99 | 3.15 | 2.97 | 2.40 |
|  | Non-Frisian | 1.16 | 1.29 | 1.08 | 1.12 | 1.05 |
| English | Frisian | 3.45 | 3.92 | 3.23 | 3.71 | 3.28 |
|  | Non-Frisian | 3.84 | 4.32 | 3.60 | 4.05 | 3.53 |

This table demonstrates that there are large differences in proficiency in Frisian between the Frisian and non-Frisian participants for the general language proficiency and for the four abilities. The independent samples $t$-test has shown that, for the general language proficiency, this difference is significant as the p -value is below 0.001 . This significant difference is obviously the result of the lack of knowledge of Frisian for the non-Frisian participants and the considerable knowledge of Frisian of the Frisian participants (see table A. 7 in Appendix VIII for the provided answers of the participants). For the general language proficiency of English, the difference in mean between the Frisian and non-Frisian participants is small, but according to the independent samples $t$-test, this difference is significant ( p -value: 0.004 ). This p -value indicates that the non-Frisian participants
considered their general knowledge of English to be significantly better than the Frisian participants. For the provided answers of the participants, see table A. 7 in Appendix VIII.

## The ability to understand

For the ability to understand Frisian, the independent samples t-test has shown that, again, there is a significant difference between the two groups of participants as the p-value is below 0.001 . Research on the self-perceived proficiency for the Frisian language was also carried out by the province of Friesland. In this research, participants were asked to indicate their proficiency level for the four abilities. The options were: 'very good', 'good', 'fairly good', 'with difficulty' and 'not at all' (Provincie Fryslan, 2014). The findings of this research were that 84.6 per cent of the inhabitants of Friesland opted for 'very good' or 'good' (Provincie Fryslân, 2014). This percentage is considerably higher than the percentage that was found in my investigation: 69.3 per cent (see also table A. 8 in Appendix VIII). A possible explanation for this difference is that in this investigation, students of large schools in Friesland are examined and it is likely that some of these students recently moved to the province of Friesland for their studies and therefore do not have much or any knowledge of the Frisian language. Consequently, this influences the general results.

For the ability to understand English, the independent samples t-test demonstrates that there is again a significant difference between the Frisian and non-Frisian participants. The p-value is 0.001 . Again, the non-Frisian participants indicated that they have a significantly higher level of English than the Frisian participants (see also table A. 8 in Appendix VIII).

## The abilities to speak, read and write

For the abilities to speak, read and write Frisian, the independent samples t-test provides for all three a p-value below 0.001, which indicates that there are, again, significant differences in the proficiency level between the Frisian and the non-Frisian participants. For these three abilities, research of the province of Friesland showed that 64.0 per cent of the inhabitants of Friesland indicated that their proficiency level for speaking the language was 'very good' or 'good', 48.6 per cent indicated this for the ability to read and only 12.1 per cent indicated this for the ability to write the language (Provincie Fryslan, 2014). The findings of my investigation differ again from these findings. For the ability to speak, 46.7 per cent opted for 'very good' or 'good', for the ability to read, 40.0 per cent chose one of these two answers and this was the case for 18.7 per cent for the ability to write (see tables A.9, A. 10 and A. 11 in Appendix VIII). Whereas the percentages of my investigation are lower than the percentages of the province of Friesland, for the abilities to understand, speak and read the language, the percentage of my investigation for the ability to write is higher than the percentage that was found in their research (Provincie Fryslân, 2014).

For the ability to speak and the ability to read English, the independent samples t-test has shown that there is a significant difference between the groups: the p -value is 0.006 for the first ability and 0.011 for the second ability (see also tables A. 9 and A. 10 in Appendix VIII). The p-value for the ability to write is 0.063 , which indicates that there is no significant difference between the two groups for this ability (see tables A. 11 in Appendix VIII). Table 4.8 above indicates that both the Frisian and the non-Frisian participants consider their proficiency in the ability to understand and in the ability to read to be of a higher level than their proficiency in the ability to speak and in the ability to write. This indicates that they believe that their passive knowledge of the English language is better than their active knowledge.

### 4.9 Correlation attitudes and self-perceived proficiency in Frisian and English

In order to be able to determine whether we may expect a correlation between the attitude towards and the proficiency in Frisian and in English, table 4.9 below demonstrates the mean of the provided answers for the self-perceived proficiency level for each language per attitude.

Table 4.9: Mean of provided answers for the proficiency in Frisian and English ( $1=$ 'not applicable', $5=$ 'very good') divided by attitude

| Language | Attitude |  | Mean |
| :--- | :--- | :--- | :---: |
| Frisian | Positive | $(\mathrm{N}=54)$ | 3.67 |
|  | Neutral | $(\mathrm{N}=77)$ | 1.55 |
|  | Negative | $(\mathrm{N}=19)$ | 1.42 |
| English | Positive | $(\mathrm{N}=105)$ | 3.90 |
|  | Neutral | $(\mathrm{N}=38)$ | 3.13 |
|  | Negative | $(\mathrm{N}=7)$ | 2.57 |

These means indicate for both languages that the more positive the attitude, the higher the indicated self-perceived proficiency level. Therefore, we may assume that there is a correlation between the attitude towards and proficiency in Frisian and between the attitude towards and proficiency in English. This assumption is borne out by the correlation test. This test provides a pvalue below 0.001 for Frisian, as well as for English. For both languages, the correlation is thus significant at the 0.01 level. So, for both Frisian and English, there is a strong correlation between the attitude towards the language and the self-perceived proficiency level in the language. This finding is in line with Ytsma's (2007) findings. We may then come to the conclusion (and thereby answer the second research question) that there is a correlation between attitudes towards Frisian, attitudes towards English, and acquisition success. The more positive the attitude is towards the language, the higher the proficiency in the language.

### 4.10 Conclusion

In this second part of the chapter we have seen that there is, in general, a neutral attitude towards Frisian. This attitude is significantly influenced by the variables 'province' and 'first language' (pvalue for both variables: below 0.001), but not by the variables 'gender' ( p -value: 0.955) and 'educational level' (p-value: 0.217). The general attitude towards English is positive and the variables 'province' ( $p$-value: 0.567), 'first language' ( $p$-value: 0.867 ), 'gender' ( $p$-value: 0.298 ) and 'educational level' (p-value: 0.567 ) do not significantly influence this attitude.

With regard to proficiency in Frisian, there are large differences between the Frisian and non-Frisian participants. The independent samples t-test has shown that there is a significant difference between the two groups of participants for the general language proficiency and the four abilities understanding, speaking, reading and writing. The p-value is for all five below 0.001 . Regarding the general language proficiency and the four abilities for English, smaller differences are found between the two groups of participants. The independent samples t-test has shown that there are significant differences between the two groups for the general language proficiency ( p -value: 0.004 ) and for the abilities to understand ( p -value: 0.001 ), speak ( p -value: 0.006 ) and read ( p -value: 0.011 ), but not for the ability to write ( p -value: 0.063 ). The non-Frisian participants perceive themselves to be better in English than the Frisian participants. As the mean for the abilities to
understand and read are highest for both groups, we may conclude that they perceive that their passive knowledge of the language is better than their active knowledge.

On the basis of all these results, the correlation test has indicated that there is a strong correlation ( p -value: below 0.001; it is significant at the 0.01 level) both between the attitude towards and proficiency in the Frisian language and between the attitude towards and proficiency in English. The final answer to my second research question is therefore that there is a correlation between attitudes towards Frisian, attitudes towards English, and acquisition success. Consequently, we may also state that, in general, there is a correlation between the attitudes towards a language and proficiency in this language.

## Chapter 5: Conclusion

### 5.1 Introduction

In today's world, bilingualism is very common. In bilingual areas where English is not one of the two first languages that are acquired, English becomes an additional, second language that people acquire. In this thesis, two aspects were examined that may have an influence on the acquisition of English in the Dutch bilingual province of Friesland: lexical closeness and held attitudes. This examination was done on the basis of two investigations: a language test and a questionnaire. The language test was conducted among 39 Frisian and 54 non-Frisian primary school children and was created in order to investigate whether there is a correlation between the lexical closeness between Frisian and English and lexical acquisition success of speakers. The questionnaire was conducted among 75 Frisian and 75 non-Frisian students and was made in order to investigate whether there is a correlation between attitudes towards Frisian, attitudes towards English, and acquisition success. The answers to these two questions provide more insight into whether, in general, lexical closeness between two languages facilitates the acquisition of lexicon of a new language and into whether there is a correlation between attitudes towards a language and proficiency in this language - and thus whether having a particular attitude towards a language facilitates the acquisition of that language.

### 5.2 Main findings

In this section, the main findings of the two investigations will be discussed. Where possible, I will shortly indicate how my findings fit into the existing literature.

## Lexical closeness English and Frisian

In the language test, the participants were asked to translate 25 English words - that closely resemble the Frisian equivalent, but deviate from the Dutch equivalent - into Dutch and they were asked to provide some personal information (i.e. gender, age, grade, hometown and their opinion on the English language). There were two versions of the language test. In both the first version (in which the 25 words were in their orthographic representation) and the second version (in which the 25 words were in their phonetic representation), no significant difference between the performance of the Frisian and the non-Frisian participants was found (p-value first version: 0.265; p-value second version: 0.829 ) (see section 4.2 and 4.3 in chapter 4). This finding indicates that the Frisian participants do not significantly benefit from their knowledge of Frisian with respect to English lexicon as, even though sixteen words were included in the language test because they either have an (almost) identical spelling in English and Frisian or because they represent the five sound changes that took place in English and Frisian, the Frisian participants did not manage to perform significantly better than the non-Frisian participants (see section 2.3 in chapter 2 and section 3.3 in chapter 3). The results even showed that in some instances knowledge of Dutch was used when translating the English words (see section 4.3 in chapter 4). This finding then seems to indicate that Ringbom's (2001) statement that learners of lexicon of a third language draw on their knowledge of their second language rather than on their knowledge of their first language when the second and third language are related and share a number of cognates is applicable to this situation, even though Frisian is most often the first first language here, Dutch the second first language and English the second language (see section 2.5 in chapter 2).

## Attitudes

Both the language test and the questionnaire provided data on the attitude of the participants towards English and Frisian. The language test indicated that the primary school children mainly have a negative attitude towards English ( 57.0 per cent) (see section 4.4 in chapter 4 ). This finding is in contrast with CITO's (2012) finding, in which the attitude was mainly neutral ( 44.0 per cent) and only 16.0 per cent of the primary school children indicated to have a negative attitude (see section 2.6 in chapter 2). The questionnaire showed that, in general, the attitude of students towards Frisian is neutral ( 51.3 per cent), whereas the attitude towards English is positive ( 70.0 per cent) (see table 4.5). These findings are in line with Ytsma's (2007) findings of the attitudes of students towards these languages (see section 2.6 in chapter 2 ).

## Language proficiency

With respect to the proficiency in Frisian, there are significant differences between the Frisian and the non-Frisian participants for both the general language proficiency and the four abilities: the pvalues for these are all below 0.001 (see section 4.8 in chapter 4). For the English language, significant differences are found between the two groups of participants for the general language proficiency ( $p$-value: 0.004 ), the ability to understand ( $p$-value: 0.001 ), the ability to speak ( $p$-value: 0.006 ) and the ability to read ( p -value: 0.011 ), but not for the ability write ( p -value: 0.063 ) (see section 4.8 in chapter 4 ).

## Correlations and conclusions

Based on the data of the language test, the conclusion is reached that there is no correlation between the lexical closeness between Frisian and English and lexical acquisition success. It can then also be stated that, in general, lexical closeness between two languages does not (necessarily) facilitate the lexical acquisition process of a new language.

For the data of the language test, the correlation test has indicated that there is a correlation between the attitude towards and the proficiency in English, both for the Frisian and the nonFrisian primary school children. For the former, the provided p-value is 0.032 and for the latter, the provided p-value is 0.003 (see section 4.4 in chapter 4). The results of the questionnaire for students are similar: the correlation test demonstrated that there is both a correlation between the attitude towards English and the proficiency level for this language and between the attitude towards Frisian and the proficiency level for this language. For both languages, the p-value is below 0.001 (see section 4.9 in chapter 4). These findings, again, correspond with Ytsma's (2007) findings on the correlation between the two variables for these languages (see section 2.6 in chapter 2). The conclusion is then that there is a correlation between attitudes towards Frisian, attitudes towards English, and acquisition success. Furthermore, it can be stated that, in general, there is a correlation between the attitude towards a language and the proficiency in this language. The more positive the attitude is towards a language, the higher the proficiency in this language.

### 5.3 Discussion and conclusion

In this section, I will discuss the surprising findings and indicate what can be done with the findings of this study. This chapter will come to a close with a final message.

## Surprising findings

This study has been a true eye opener as it provided me with lots of new information and insight into (the relationship of) multiple aspects: attitudes, the English and the Frisian language, the acquisition of a new language, proficiency in languages and the bilingual province of Friesland. Despite the fact that my two hypotheses have been confirmed by the investigations (see section 1.7 in chapter 1 and section 2.8 in chapter 2) - which means that the main findings of the investigations were not extremely surprising - multiple surprising findings were found in this study. I found it surprising, for instance, that the average percentages - but not the Mann-Whitney U test - indicated that the non-Frisian participants had scored better on the second version of the language test than the Frisian participants. Moreover, it was surprising to find that the primary school children had a primarily negative attitude towards English, whereas the students had a primarily positive attitude towards this language. The fact that Frisian students expressed a more positive attitude towards English than towards Frisian was also surprising, for instance. Moreover, I found it surprising that, as this study investigates whether the historical connection between English and Frisian facilitates the acquisition of English lexicon for Frisians, the non-Frisian participants indicated that they perceived their proficiency level for the English language to be of a higher level than the Frisian participants.

## What to do with these findings

My findings of the first investigation provide more insight into whether lexical closeness between two languages correlates with lexical acquisition success. The fact that no correlation between these two variables was found is useful for policy makers as well as for researchers. Policy makers should adjust their education policy according to these findings and try to stimulate teachers and learners more to actively explore (lexical) similarities between the two languages. In this manner, the existing similarities are more likely to facilitate the acquisition process of the target language. With respect to this investigation, the Frisian primary school children would then at least perform better on the English words that (almost) entirely correspond with the Frisian equivalent and they would perhaps also perform better on the words that represent the five sound changes that have taken place in both Frisian and English, but not in Dutch. A suggestion for further research is to also examine whether closeness between two languages correlates with other important aspects of languages, such as grammar or pronunciation. In this way, all resemblances between the two languages can be exploited and may facilitate the acquisition process.

My findings of the second investigation provide more insight into whether there is a correlation between the attitude towards a language and the proficiency in this language. These findings are again useful for researchers and policy makers: if a study is done on what the most effective way is to evoke and maintain a positive attitude for the learner towards a language and if policy makers are able to create an education policy that suits these findings, then it is very likely that the proficiency in this language improves.

## What to remember

All in all, this study has produced multiple interesting and important findings. The most important finding to remember from the two investigations is that in the acquisition of English in bilingual Friesland, the lexical closeness between English and Frisian does not positively (but also not negatively) influence the acquisition process, but that a positive attitude towards English does positively influence the acquisition of English.

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## Appendix I. Tables participants language test

Table A.1: Gender, age, grade, hometown and first language of the Frisian participants of the language test

| Gender | Age | Grade | Hometown | First language |
| :---: | :---: | :---: | :---: | :---: |
| Male | 8 | 5 | Franeker | Dutch |
| Female | 9 | 5 | Franeker | Frisian |
| Female | 9 | 5 | Franeker | Dutch |
| Female | 8 | 5 | Franeker | Frisian |
| Male | 9 | 5 | Franeker | Dutch |
| Male | 8 | 5 | Franeker | Dutch |
| Male | 9 | 6 | Franeker | Frisian / Dutch |
| Male | 10 | 6 | Franeker | Dutch |
| Male | 11 | 6 | Franeker | Dutch |
| Male | 10 | 6 | Franeker | Dutch |
| Male | 10 | 6 | Franeker | Dutch |
| Male | 11 | 6 | Franeker | Dutch |
| Male | 10 | 6 | Franeker | Dutch |
| Female | 9 | 6 | Franeker | Dutch |
| Female | 9 | 6 | Franeker | Dutch |
| Female | 10 | 6 | Franeker | Dutch |
| Female | 10 | 6 | Franeker | Frisian / Dutch |
| Female | 9 | 6 | Franeker | Dutch |
| Female | 10 | 6 | Franeker | Frisian / Dutch |
| Female | 10 | 6 | Franeker | Dutch |
| Female | 8 | 6 | Franeker | Dutch |
| Male | 8 | 5 | Franeker | Dutch |
| Male | 9 | 5 | Franeker | Dutch |
| Female | 9 | 5 | Franeker | Dutch / Frisian |
| Female | 9 | 5 | Franeker | Dutch |
| Female | 9 | 5 | Franeker | Dutch |
| Female | 9 | 5 | Franeker | Frisian / Dutch |
| Female | 8 | 5 | Franeker | Dutch |
| Female | 9 | 6 | Franeker | Dutch |
| Female | 10 | 6 | Franeker | Dutch |
| Female | 9 | 6 | Franeker | Frisian |
| Female | 10 | 6 | Franeker | Dutch |
| Female | 10 | 6 | Franeker | Dutch |
| Female | 9 | 6 | Franeker | Dutch |
| Male | 9 | 6 | Franeker | Dutch |
| Male | 11 | 6 | Franeker | Dutch |
| Male | 10 | 6 | Franeker | Dutch |
| Male | 10 | 6 | Franeker | Dutch |
| Male | 10 | 6 | Franeker | Frisian / Dutch |

Table A.2: Gender, age, grade and hometown of the non-Frisian participants of the language test

| Gender | Age | Grade | Hometown |
| :---: | :---: | :---: | :---: |
| Female | 8 | 5 | Zoetermeer |
| Male | 9 | 5 | Zoetermeer |
| Female | 9 | 5 | Zoetermeer |
| Female | 8 | 5 | Zoetermeer |
| Male | 8 | 5 | Zoetermeer |
| Male | 9 | 5 | Zoetermeer |
| Male | 9 | 5 | Zoetermeer |
| Female | 9 | 5 | Zoetermeer |
| Female | 8 | 5 | Zoetermeer |
| Male | 8 | 5 | Zoetermeer |
| Female | 9 | 5 | Zoetermeer |
| Male | 9 | 5 | Zoetermeer |
| Female | 9 | 6 | Zoetermeer |
| Female | 10 | 6 | Zoetermeer |
| Male | 10 | 6 | Zoetermeer |
| Male | 10 | 6 | Zoetermeer |
| Male | 10 | 6 | Zoetermeer |
| Female | 9 | 6 | Zoetermeer |
| Female | 10 | 6 | Zoetermeer |
| Female | 9 | 6 | Zoetermeer |
| Male | 9 | 6 | Zoetermeer |
| Male | 9 | 6 | Zoetermeer |
| Female | 10 | 6 | Zoetermeer |
| Female | 10 | 6 | Zoetermeer |
| Male | 9 | 6 | Zoetermeer |
| Female | 9 | 6 | Zoetermeer |
| Female | 9 | 6 | Zoetermeer |
| Male | 10 | 6 | Zoetermeer |
| Male | 10 | 6 | Zoetermeer |
| Female | 10 | 6 | Zoetermeer |
| Male | 8 | 5 | Zoetermeer |
| Female | 8 | 5 | Zoetermeer |
| Female | 9 | 5 | Zoetermeer |
| Male | 8 | 5 | Zoetermeer |
| Male | 9 | 5 | Zoetermeer |
| Male | 9 | 5 | Zoetermeer |
| Male | 9 | 5 | Zoetermeer |
| Female | 9 | 5 | Zoetermeer |
| Female | 9 | 5 | Zoetermeer |
| Male | 9 | 5 | Zoetermeer |
| Female | 9 | 5 | Zoetermeer |


| Male | 8 | 5 | Zoetermeer |
| :---: | :---: | :---: | :---: |
| Female | 8 | 5 | Zoetermeer |
| Male | 8 | 5 | Zoetermeer |
| Female | 9 | 6 | Zoetermeer |
| Female | 10 | 6 | Zoetermeer |
| Female | 10 | 6 | Zoetermeer |
| Female | 9 | 6 | Zoetermeer |
| Male | 10 | 6 | Zoetermeer |
| Female | 10 | 6 | Zoetermeer |
| Female | 10 | 6 | Zoetermeer |
| Male | 11 | 6 | Zoetermeer |
| Male | 10 | 6 | Zoetermeer |
| Male | 10 | 6 | Zoetermeer |

## Appendix II. Questionnaire primary school children Zoetermeer - version 1

DEEL 1. Geef voor elk van deze 25 Engelse woorden een Nederlandse vertaling.

1. day
2. year
3. yesterday
4. three
5. way
6. cheese
7. salt
8. us
9. sleep
10. seek
11. thank
12. hear
13. sheep
14. goose
15. eel
16. swan
17. finger
18. boat
19. old
20. red
21. thin
22. it
23. left
24. nose
25. nail

DEEL 2. Geef antwoord op de volgende vragen.

1. Ben je een jongen of een meisje?
2. Hoe oud ben je?
3. In welke groep zit je?
4. In welke plaats woon jii?
5. Wat vind je van de Engelse taal? (bijv. een mooie of lelijke taal; een makkelijke of moeilijke taal)

## Appendix III. Questionnaire primary school children Zoetermeer - version 2

DEEL 1. Hieronder zie je tussen de haakjes hoe Engelse woorden worden gezegd. Geef voor elk van deze 25 Engelse woorden een Nederlandse vertaling.

1. [dee]
2. [jeer]
3. [jesterdee]
4. [thrie]
5. [wee]
6. [tsjiez]
7. [solt]
8. [us]
9. [sliep]
10. [siek]
11. [thengk]
12. [heer]
13. [sjiep]
14. [goes]
15. [iel]
16. [swon]
17. [finger]
18. [boot]
19. [oold]
20. [red]
21. [thin]
22. [it]
23. [left]
24. [nooz]
25. [neel]

DEEL 2. Geef antwoord op de volgende vragen.

1. Ben je een jongen of een meisje?
2. Hoe oud ben je?
3. In welke groep zit je?
4. In welke plaats woon jii?
5. Wat vind je van de Engelse taal? (bijv. een mooie of lelijke taal; een makkelijke of moeilijke taal)

## Appendix IV. Questionnaire primary school children Franeker - version 1

DEEL 1. Geef voor elk van deze 25 Engelse woorden een Nederlandse vertaling.

1. day
2. year
3. yesterday
4. three
5. way
6. cheese
7. salt
8. us
9. sleep
10. seek
11. thank
12. hear
13. sheep
14. goose
15. eel
16. swan
17. finger
18. boat
19. old
20. red
21. thin
22. it
23. left
24. nose
25. nail

DEEL 2. Geef antwoord op de volgende vragen.

1. Ben je een jongen of een meisje?
2. Hoe oud ben je?
3. In welke groep zit je?
4. In welke plaats woon jij?
5. Welke taal spreek jij thuis: het Fries, het Nederlands of een andere taal?
$\qquad$
$\qquad$
6. Wat vind je van de Engelse taal? (bijv. een mooie of lelijke taal; een makkelijke of moeilijke taal)
$\qquad$
$\qquad$

## Appendix V. Questionnaire primary school children Franeker - version 2

DEEL 1. Hieronder zie je tussen de haakjes hoe Engelse woorden worden gezegd. Geef voor elk van deze 25 Engelse woorden een Nederlandse vertaling.

1. [dee]
2. [jeer]
3. [jesterdee]
4. [thrie]
5. [wee]
6. [tsjiez]
7. [solt]
8. [us]
9. [sliep]
10. [siek]
11. [thengk]
12. [heer]
13. [sjiep]
14. [goes]
15. [iel]
16. [swon]
17. [finger]
18. [boot]
19. [oold]
20. [red]
21. [thin]
22. [it]
23. [left]
24. [nooz]
25. [neel]

DEEL 2. Geef antwoord op de volgende vragen.

1. Ben je een jongen of een meisje?
2. Hoe oud ben je?
3. In welke groep zit je?
4. In welke plaats woon jij?
5. Welke taal spreek jij thuis: het Fries, het Nederlands of een andere taal?
$\qquad$
$\qquad$
6. Wat vind je van de Engelse taal? (bijv. een mooie of lelijke taal; een makkelijke of moeilijke taal)

## Appendix VI. Table participants questionnaire

Table A.3: Gender, age, hometown, Frisian/non-Frisian, educational background and first language of the participants of the questionnaire

| Gender | Age | Hometown | Frisian/nonFrisian | Educational Background | First language |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Male | 21 | Zoetermeer (ZH) | Non-Frisian | WO | Dutch |
| Female | 22 | Den Haag (ZH) | Non-Frisian | WO | Dutch |
| Female | 23 | Boskoop (ZH) | Non-Frisian | WO | Dutch |
| Female | 22 | Yerseke (ZL) | Non-Frisian | WO | Dutch |
| Female | 21 | s-Gravenzande (ZH) | Non-Frisian | WO | Dutch |
| Female | 22 | Leiden (ZH) | Non-Frisian | WO | Dutch |
| Female | 24 | Katwijk (ZH) | Non-Frisian | WO | Dutch |
| Female | 23 | Rotterdam (ZH) | Non-Frisian | WO | Dutch |
| Female | 21 | Leiden (ZH) | Non-Frisian | WO | Dutch |
| Female | 23 | Leiden (ZH) | Non-Frisian | WO | Dutch |
| Female | 23 | Leiden (ZH) | Non-Frisian | WO | Dutch |
| Female | 23 | Leiden (ZH) | Non-Frisian | WO | Dutch |
| Female | 21 | Leiden (ZH) | Non-Frisian | WO | Dutch |
| Male | 21 | Zoetermeer (ZH) | Non-Frisian | HBO | Dutch |
| Male | 23 | Zoetermeer (ZH) | Non-Frisian | MBO | Dutch |
| Male | 22 | Zoetermeer (ZH) | Non-Frisian | HBO | Dutch |
| Female | 21 | Leiden (ZH) | Non-Frisian | WO | Dutch |
| Female | 20 | Zoetermeer (ZH) | Non-Frisian | HBO | Dutch |
| Male | 21 | Zoetermeer (ZH) | Non-Frisian | MBO | Dutch |
| Male | 20 | Zoetermeer (ZH) | Non-Frisian | HBO | Dutch |
| Male | 22 | Zoetermeer (ZH) | Non-Frisian | HBO | Dutch |
| Female | 25 | Leiden (ZH) | Non-Frisian | WO | Dutch |
| Female | 20 | Oud-Alblas (ZH) | Non-Frisian | WO | Dutch |
| Male | 22 | Leiden (ZH) | Non-Frisian | WO | Dutch |
| Female | 21 | Leiden (ZH) | Non-Frisian | WO | Dutch |
| Female | 20 | Leiden ( ZH ) | Non-Frisian | WO | Dutch |
| Female | 23 | Amsterdam (NH) | Non-Frisian | WO | Dutch |
| Female | 21 | Leiden ( ZH ) | Non-Frisian | WO | Dutch |
| Male | 19 | Leiden (ZH) | Non-Frisian | WO | Dutch |
| Male | 19 | Schiedam (ZH) | Non-Frisian | WO | Dutch |
| Female | 22 | Leeuwarden (FR) | Frisian | HBO | Dutch |
| Male | 21 | Hedel (NB) | Non-Frisian | HBO | Dutch |
| Female | 25 | Leeuwarden (FR) | Frisian | HBO | Dutch |
| Female | 21 | Oosterlittens (FR) | Frisian | HBO | Frisian/Dutch |
| Female | 24 | Oosterend (FR) | Frisian | HBO | Dutch |
| Female | 20 | Oosternijkerk (FR) | Frisian | HBO | Frisian |
| Female | 23 | Grou (FR) | Frisian | HBO | Frisian/Dutch |
| Male | 25 | Giekerk (FR) | Frisian | HBO | Dutch |


| Female | 21 | Onderdendam (GR) | Non-Frisian | HBO | Dutch |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Female | 20 | Bergum (FR) | Frisian | HBO | Dutch/Frisian |
| Male | 25 | Sneek (FR) | Frisian | HBO | Frisian |
| Male | 23 | Leeuwarden (FR) | Frisian | HBO | Dutch |
| Male | 21 | Oosterwolde (FR) | Frisian | HBO | Dutch |
| Male | 18 | Zeegse (DR) | Non-Frisian | HBO | Dutch |
| Female | 24 | Leeuwarden (FR) | Frisian | HBO | Dutch |
| Female | 24 | Franeker (FR) | Frisian | HBO | Dutch |
| Male | 17 | Wartena (FR) | Frisian | HBO | Frisian |
| Male | 19 | Ried (FR) | Frisian | HBO | Frisian |
| Female | 19 | Meeden (GR) | Non-Frisian | HBO | Dutch |
| Male | 20 | Zuidhorn (GR) | Non-Frisian | HBO | Dutch |
| Male | 24 | Beerzerveld (OV) | Non-Frisian | HBO | Dutch |
| Male | 21 | Houwerzijl (GR) | Non-Frisian | HBO | Dutch |
| Female | 20 | Groningen (GR) | Non-Frisian | HBO | Dutch |
| Male | 23 | Hoorn (NH) | Non-Frisian | HBO | Dutch |
| Female | 19 | Bergum (FR) | Frisian | MBO | Dutch |
| Female | 17 | Gorredijk (FR) | Frisian | MBO | Dutch |
| Female | 18 | Leeuwarden (FR) | Frisian | MBO | Dutch |
| Female | 17 | Harlingen (FR) | Frisian | MBO | Dutch |
| Female | 17 | Buitenpost (FR) | Frisian | MBO | Frisian |
| Male | 19 | Dokkum (FR) | Frisian | MBO | Dutch |
| Male | 21 | Oosterlittens (FR) | Frisian | HBO | Dutch/Frisian |
| Male | 19 | Makkum (FR) | Frisian | HBO | Dutch |
| Male | 20 | Stiens (FR) | Frisian | HBO | Dutch |
| Female | 21 | Hindeloopen (FR) | Frisian | HBO | Dutch |
| Female | 22 | Leeuwarden (FR) | Frisian | MBO | Dutch |
| Female | 17 | Wijckel (FR) | Frisian | MBO | Frisian |
| Male | 23 | Buitenpost (FR) | Frisian | HBO | Dutch/Frisian |
| Male | 20 | Leeuwarden (FR) | Frisian | HBO | Dutch |
| Male | 21 | Leeuwarden (FR) | Frisian | HBO | Dutch |
| Female | 25 | Oldeboorn (FR) | Frisian | HBO | Dutch |
| Female | 24 | Gorredijk (FR) | Frisian | HBO | Dutch/Frisian |
| Male | 24 | Lippenhuizen (FR) | Frisian | HBO | Dutch/Frisian |
| Female | 17 | Twijzel (FR) | Frisian | MBO | Frisian |
| Female | 19 | Engwierum (FR) | Frisian | MBO | Dutch |
| Male | 24 | Leeuwarden (FR) | Frisian | HBO | Dutch |
| Female | 20 | Joure (FR) | Frisian | HBO | Dutch/Frisian |
| Male | 21 | Minnertsga (FR) | Frisian | HBO | Frisian |
| Male | 19 | Leeuwarden (FR) | Frisian | HBO | Dutch |
| Female | 23 | De Wilgen (FR) | Frisian | HBO | Dutch |
| Male | 21 | Oosterlittens (FR) | Frisian | HBO | Frisian |
| Male | 20 | Kollumerzwaag (FR) | Frisian | HBO | Frisian/Dutch |


| Male | 19 | Joure (FR) | Frisian | MBO | Dutch |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Female | 17 | Scharsterbrug (FR) | Frisian | MBO | Dutch/Frisian |
| Female | 19 | Sneek (FR) | Frisian | HBO | Dutch |
| Female | 20 | Leeuwarden (FR) | Frisian | HBO | Dutch |
| Male | 20 | Harlingen (FR) | Frisian | MBO | Frisian/Dutch |
| Male | 19 | Leeuwarden (FR) | Frisian | MBO | Dutch |
| Female | 18 | Rotsterhaule (FR) | Frisian | MBO | Dutch |
| Female | 18 | Franeker (FR) | Frisian | MBO | Frisian/Dutch |
| Female | 19 | Leeuwarden (FR) | Frisian | MBO | Dutch |
| Female | 17 | Molkwerum (FR) | Frisian | MBO | Dutch/Frisian |
| Female | 22 | Lemmer (FR) | Frisian | HBO | Frisian |
| Male | 18 | Beetgumermolen (FR) | Frisian | MBO | Dutch/Frisian |
| Male | 18 | Drachten (FR) | Frisian | MBO | Dutch |
| Male | 21 | Oldeboorn (FR) | Frisian | MBO | Frisian/Dutch |
| Female | 19 | Leeuwarden (FR) | Frisian | MBO | Dutch |
| Male | 21 | Vinkega (FR) | Frisian | HBO | Dutch |
| Female | 21 | Bergum (FR) | Frisian | HBO | Dutch |
| Female | 22 | Oldeboorn (FR) | Frisian | HBO | Frisian |
| Female | 25 | Leeuwarden (FR) | Frisian | HBO | Dutch |
| Female | 17 | Leeuwarden (FR) | Frisian | MBO | Dutch |
| Male | 20 | Zoetermeer (ZH) | Non-Frisian | MBO | Dutch |
| Male | 21 | Berkel en Rodenrijs (ZH) | Non-Frisian | HBO | Dutch |
| Male | 21 | Pijnacker (ZH) | Non-Frisian | MBO | Dutch |
| Male | 21 | Den Haag (ZH) | Non-Frisian | HBO | Dutch |
| Female | 21 | Zoetermeer (ZH) | Non-Frisian | HBO | Dutch |
| Female | 21 | Breda (NB) | Non-Frisian | HBO | Dutch |
| Female | 22 | Zoetermeer (ZH) | Non-Frisian | HBO | Dutch |
| Female | 21 | Leiden (ZH) | Non-Frisian | WO | Dutch |
| Female | 20 | Zoetermeer (ZH) | Non-Frisian | HBO | Dutch |
| Female | 19 | Zoetermeer (ZH) | Non-Frisian | HBO | Dutch |
| Male | 25 | Zoetermeer (ZH) | Non-Frisian | HBO | Dutch |
| Female | 25 | Den Haag (ZH) | Non-Frisian | HBO | Dutch |
| Male | 24 | Delft (ZH) | Non-Frisian | HBO | Dutch |
| Male | 23 | Rotterdam (ZH) | Non-Frisian | WO | Dutch |
| Male | 24 | Voorhout (ZH) | Non-Frisian | WO | Dutch |
| Male | 25 | Den Haag (ZH) | Non-Frisian | WO | Dutch |
| Female | 18 | Putten (GD) | Non-Frisian | HBO | Dutch |
| Female | 21 | Haarlem (NH) | Non-Frisian | HBO | Dutch |
| Female | 20 | Katwijk (ZH) | Non-Frisian | HBO | Dutch |
| Female | 19 | Amsterdam (NH) | Non-Frisian | HBO | Dutch |
| Female | 18 | Rijnsburg (ZH) | Non-Frisian | HBO | Dutch |
| Female | 22 | Amersfoort (UT) | Non-Frisian | HBO | Dutch |
| Female | 21 | Almere (FL) | Non-Frisian | HBO | Dutch |


| Female | 19 | Amsterdam (NH) | Non-Frisian | $H B O$ | Dutch |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Female | 22 | Amsterdam (NH) | Non-Frisian | $H B O$ | Dutch |
| Female | 21 | Amsterdam (NH) | Non-Frisian | $H B O$ | Dutch |
| Female | 20 | Amsterdam (NH) | Non-Frisian | $H B O$ | Dutch |
| Female | 19 | Almere (FL) | Non-Frisian | $H B O$ | Dutch |
| Female | 18 | Monnickendam (NH) | Non-Frisian | $H B O$ | Dutch |
| Female | 21 | Naarden (NH) | Non-Frisian | $H B O$ | Dutch |
| Female | 18 | Almere (FL) | Non-Frisian | $H B O$ | Dutch |
| Female | 19 | Amsterdam (NH) | Non-Frisian | $H B O$ | Dutch |
| Female | 23 | Ede (GD) | Non-Frisian | $H B O$ | Dutch |
| Female | 20 | Amsterdam (NH) | Non-Frisian | $H B O$ | Dutch |
| Female | 22 | Den Haag (ZH) | Non-Frisian | $H B O$ | Dutch |
| Female | 24 | Amsterdam (NH) | Non-Frisian | $H B O$ | Dutch |
| Male | 25 | Langezwaag (FR) | Frisian | $H B O$ | Frisian |
| Male | 24 | Oude Leije (FR) | Frisian | $H B O$ | Frisian |
| Female | 18 | Joure (FR) | Frisian | $H B O$ | Frisian/Dutch |
| Female | 19 | Sneek (FR) | Frisian | $M B O$ | Dutch |
| Female | 18 | Ferwerd (FR) | Frisian | $M B O$ | Dutch |
| Male | 17 | Damwoude (FR) | Frisian | $M B O$ | Dutch |
| Male | 18 | Leeuwarden (FR) | Frisian | $H B O$ | Dutch |
| Male | 21 | Oosterlittens (FR) | Frisian | $H B O$ | Dutch |
| Female | 17 | Leeuwarden (FR) | Frisian | $H B O$ | Dutch |
| Male | 21 | Leeuwarden (FR) | Frisian | $H B O$ | Frisian |
| Male | 19 | Sneek (FR) | Frisian | $H B O$ | Frisian |
| Female | 20 | Heerenveen (FR) | Frisian | $H B O$ | Frisian |
| Male | 22 | Grou (FR) | Frisian | $H B O$ | Frisian |

## Appendix VII. Questionnaire attitudes and language proficiency

DEEL 1. Geef antwoord op de volgende vragen.

1. Wat is je geslacht?
2. Wat is je leeftijd? $\qquad$
3. Wat is je woonplaats?
4. Wat is je opleidingsniveau? (middelbare school, MBO, $\mathrm{HBO}, \mathrm{WO}$ ) $\qquad$
5. Wat is je moedertaal of zijn je moedertalen?

DEEL 2. Geef aan wat voor jou van toepassing is.

1. In het algemeen is mijn kennis van de Engelse taal:
Zeer goedgoed $\square$ gemiddeldmatign.v.t.
2. Ik versta de Engelse taal:
Zeer goed $\square$ goedgemiddeld $\square$ matign.v.t.
3. Mijn spreekvaardigheid voor de Engelse taal is:
$\square$ Zeer goed $\square$ goed $\square$ gemiddeld $\square$ matign.v.t.
4. Mijn leesvaardigheid voor de Engelse taal is:Zeer goed $\square$ goed $\square$ gemiddeldmatig

5. Mijn schrijfvaardigheid voor de Engelse taal is:
$\square$ Zeer goed $\square$ goed $\square$ gemiddeld $\square$ matign.v.t.
6. Wat is, over het algemeen, jouw houding ten opzichte van de Engelse taal?
$\square$
Positief $\square$ neutraal $\square$ negatief
7. Leg kort uit waarom dit jouw houding ten opzichte van Engels is.
$\qquad$
$\qquad$
8. In het algemeen is mijn kennis van de Friese taal:
$\square$ Zeer goed $\square$ goed $\square$ gemiddeldmatig
9. Ik versta de Friese taal:
Zeer goed $\square$ goed $\square$ gemiddeld $\square$ matig $\square$ n.v.t.
10. Mijn spreekvaardigheid voor de Friese taal is:
$\square$ Zeer goed $\square$ goed $\square$ gemiddeld $\square$ matign.v.t.
11. Mijn leesvaardigheid voor de Friese taal is:Zeer goedgoed $\square$ gemiddeld $\square$ matig $\square$ n.v.t.
12. Mijn schrijfvaardigheid voor de Friese taal is:Zeer goed $\square$ goed $\square$ gemiddeldmatign.v.t.
13. Wat is, over het algemeen, jouw houding ten opzichte van de Friese taal?
Positief
$\square$ neutraal $\square$ negatief
14. Leg kort uit waarom dit jouw houding ten opzichte van Fries is.
$\qquad$
$\qquad$

DEEL 3. Alleen in te vullen door inwoners van Friesland.
13. Gebruik je over het algemeen liever de Friese taal of de Nederlandse taal?
14. Welke taal spreek je thuis?
$\qquad$

## Appendix VIII. Additional tables

Table A.4: Answers of bilingual participants and participants with Frisian as their first language to 'which language do you prefer?'

| Participants' first language |  | Frisian |
| :--- | :---: | :---: |
| L1: Dutch/Frisian (N=16) | 9 | 7 |
| L1: Frisian $\quad(\mathrm{N}=17)$ | 15 | 2 |

Table A.5: Answers of bilingual participants and participants with Frisian as their first language to 'which language do you speak at home?'

| Participants' first language |  | Frisian |
| :--- | :---: | :---: |
| L1: Dutch/Frisian (N=16) | 14 | Dutch |
| L1: Frisian | (N=17) | 17 |

Table A.6: Reasons behind the attitude towards Frisian and English subdivided per attitude

| Language | Attitude | Reasons | Frequency |
| :---: | :---: | :---: | :---: |
| Frisian | Positive ( $\mathrm{N}=54$ ) | 'Language is part of the cultural heritage' | 24 |
|  |  | 'It is my own language' | 19 |
|  |  | 'I like the language' | 6 |
|  |  | 'My parents speak Frisian' | 3 |
|  |  | 'I have a positive attitude towards different languages' | 2 |
|  | Neutral ( $\mathrm{N}=77$ ) | 'I don't know much about it' | 42 |
|  |  | 'It does not help you get anywhere' | 20 |
|  |  | 'It belongs to Friesland' | 15 |
|  | Negative ( $\mathrm{N}=19$ ) | 'You should speak Dutch in the Netherlands' | 8 |
|  |  | 'It is an ugly language' | 6 |
|  |  | 'I don't understand the language' | 3 |
|  |  | 'No relevance to learn the language' | 2 |
| English | Positive ( $\mathrm{N}=105$ ) | 'It is a world language that can be used internationally to communicate' | 73 |
|  |  | 'It is a beautiful language' | 20 |
|  |  | 'I grew up with the language' | 7 |
|  |  | 'The language is easy to learn' | 4 |
|  |  | 'I can express myself better through this language' | 1 |
|  | Neutral ( $\mathrm{N}=38$ ) | 'It is a world language that can be used internationally to communicate' | 20 |
|  |  | 'I use it when I need it' | 12 |
|  |  | 'It is a difficult language' | 6 |
|  | Negative ( $\mathrm{N}=7$ ) | 'It is a difficult language' | 5 |
|  |  | 'It is an ugly language' | 2 |

Table A.7: Answers of the participants to 'what is your general language proficiency in Frisian/English?'

| Language | Participants | Very <br> good | Good | Average | Moderate | Not <br> applicable |  |
| :--- | :--- | :--- | :---: | :---: | :---: | :---: | :---: |
|  | Frisians | $(\mathrm{N}=75)$ | 20 | 23 | 8 | 17 | 7 |
|  | Non-Frisians | $(\mathrm{N}=75)$ | 0 | 0 | 2 | 8 | 65 |
| English | Frisians | $(\mathrm{N}=75)$ | 5 | 31 | 32 | 7 | 0 |
|  | Non-Frisians | $(\mathrm{N}=75)$ | 18 | 30 | 24 | 3 | 0 |

Table A.8: Answers of the participants to 'I can understand the Frisian/English language:'

| Language | Participants | Very <br> good | Good | Average | Moderate | Not <br> applicable |  |
| :--- | :--- | :--- | :---: | :---: | :---: | :---: | :---: |
|  | Frisians | $(\mathrm{N}=75)$ | 37 | 15 | 12 | 7 | 4 |
|  | Non-Frisians | $(\mathrm{N}=75)$ | 0 | 1 | 3 | 13 | 58 |
| English | Frisians | $(\mathrm{N}=75)$ | 16 | 39 | 18 | 2 | 0 |
|  | Non-Frisians | $(\mathrm{N}=75)$ | 34 | 32 | 8 | 1 | 0 |

Table A.9: Answers of the participants to 'I can speak the Frisian/English language:'

| Language | Participants | Very <br> good | Good | Average | Moderate | Not <br> applicable |  |
| :--- | :--- | :--- | :---: | :---: | :---: | :---: | :---: |
|  | Frisians | $(\mathrm{N}=75)$ | 23 | 12 | 6 | 21 | 13 |
|  | Non-Frisians | $(\mathrm{N}=75)$ | 0 | 0 | 0 | 6 | 69 |
| English | Frisians | $(\mathrm{N}=75)$ | 2 | 26 | 34 | 13 | 0 |
|  | Non-Frisians | $(\mathrm{N}=75)$ | 13 | 26 | 29 | 7 | 0 |

Table A.10: Answers of the participants to 'I can read the Frisian/English language:'

| Language | Participants | Very <br> good | Good | Average | Moderate | Not <br> applicable |  |
| :--- | :--- | :--- | :---: | :---: | :---: | :---: | :---: |
|  | Frisians | $(\mathrm{N}=75)$ | 9 | 21 | 15 | 19 | 11 |
|  | Non-Frisians | $(\mathrm{N}=75)$ | 0 | 0 | 0 | 9 | 66 |
| English | Frisians | $(\mathrm{N}=75)$ | 10 | 38 | 22 | 5 | 0 |
|  | Non-Frisians | $(\mathrm{N}=75)$ | 26 | 31 | 14 | 4 | 0 |

Table A.11: Answers of the participants to 'I can write the Frisian/English language:'

| Language | Participants | Very <br> good | Good | Average | Moderate | Not <br> applicable |  |
| :--- | :--- | :--- | :---: | :---: | :---: | :---: | :---: |
|  | Frisians | $(\mathrm{N}=75)$ | 5 | 9 | 14 | 30 | 17 |
|  | Non-Frisians | $(\mathrm{N}=75)$ | 0 | 0 | 0 | 4 | 71 |
| English | Frisians | $(\mathrm{N}=75)$ | 1 | 30 | 33 | 11 | 0 |
|  | Non-Frisians | $(\mathrm{N}=75)$ | 14 | 20 | 33 | 8 | 0 |


[^0]:    ${ }^{1}$ Ringbom (2007) also notes that "even totally unrelated non-native languages may provide support in the form of positive transfer" (p. 79).

