Batman or Bad Man? Differences in Pronunciation Proficiency of Young Dutch Learners of English Taught by a Native and a Non-native Speaker Teacher

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S1183141

MA Thesis

15-06-2015

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Abstract

Nowadays, early foreign language learning in the Netherlands is booming and generally preferred over language learning starting at a later stage due to its presumed positive effects on pronunciation, vocabulary, and grammar acquisition (Groot & Deelder, 2014). In (early) second language acquisition classrooms, native speaker teachers are often preferred over non-native speaker teachers due the model of language they can present; native speakers have reached the so-called target L2 learners try to obtain (Cook, 2008, p. 185). Furthermore, in the Netherlands, it is generally assumed that learners who are taught by a native speaker will become more proficient in the target language than learners who are taught by a non-native speaker, especially in terms of pronunciation (SLO, 2011). However, hardly any research has focused on whether this assumption is true. This research attempts to fill this gap by examining whether early English language learners taught by a native speaker attain a more native-like pronunciation than learners taught by a non-native speaker. Pupils of two Dutch primary schools were tested on their English pronunciation (segmentals), with one group following an early learning programme in which they were (partly) taught by a native speaker teacher, and another group following such a programme during which they were taught by a non-native speaker. Results show that learners taught by a non-native speaker produce more native-like consonants than speakers taught by a native speaker. In addition, learners taught by a non-native speaker produce fewer Dutch-like vowels than learners taught by a native speaker. However, it cannot be concluded with certainty that, therefore, the learners taught by a non-native speaker also produced more native-like vowels. Yet, based on the results of this research, it can be concluded that, in terms of pronunciation, learners taught by a native speaker teacher are not more native-like than learners taught by a non-native speaker. It is arguable that being taught by a native speaker teacher does not lead to better pronunciation results.

Chapter 1: Introduction

In the past few decades, there has been a remarkable increase in Europe in the number of schools offering early foreign language learning programmes, a development which has also been observed in the Netherlands. According to Groot and Deelder (2014), nowadays, more than 1,050 primary schools in the Netherlands offer early foreign language learning programmes, a number which increases every year. Early foreign language learning is generally preferred over language learning starting at a later stage, due to its presumed positive effects on pronunciation, vocabulary, and grammar acquisition. Especially regarding pronunciation, so it is argued (i.e. Lennenberg, 1967; Scovel, 1988) that early foreign language learners will attain native-like levels, since young children are good at imitating sounds. Furthermore, research shows that engagement in spare-time activities in English has a positive influence on (early) second language acquisition (Reinders & Wattana, 2011; Sundqvist, 2009; Sylvén, 2004). In (early) second language acquisition classrooms, native speaker teachers are often preferred over non-native speaker teachers, as is reflected in job ads for second language acquisition teachers (Cook, 2008, p. 185); native speaker teachers are extremely desirable for several reasons, the most obvious one being the model of language that this person can present, since he or she reached the so-called target second language learners try to obtain. The preference for native speaker teachers has also been observed in the Netherlands: in 2011, 541 teachers of Dutch primary schools were asked by the Dutch National Expertise Centre of Curriculum Development to indicate what they think is necessary to improve English education in Dutch primary schools; almost 30 per cent of the participating teachers expressed the need for more native speaker teachers (SLO, 2011, p. 15). Furthermore, in the Netherlands, it is generally assumed that learners who are taught by a native speaker will become more proficient in the target language than learners who are taught by a non-native speaker, especially in terms of pronunciation (SLO, 2011). However, strikingly, hardly any research has focused on whether this assumption is true.

1.1 Research Question and Hypotheses

This research aims to answer the question whether there are differences in terms of pronunciation proficiency between Dutch early learners of English taught by a native speaker teacher and Dutch early learners of English taught by a non-native speaker. Pupils of two Dutch primary schools were tested on their English pronunciation, with one group following an early learning programme in which they were (partly) taught by a native speaker teacher,

and another group following such a programme during which they were taught by a non-native speaker. At the time of testing, all pupils were in their final year of primary school. This research will focus on the following research question:

Do learners of early English learning programmes in Dutch primary schools (partly) taught by a native speaker attain a more native-like pronunciation than learners in such programmes who are not taught by a native speaker?

The research question will be answered by means of looking into two sub-questions:

Sub-question 1: Are there any differences between the learners in terms of pronunciation as reflected in the outcomes of the speech analyses?
Sub-question 2: Does the amount of input and exposure to English outside the classroom influence the learners' pronunciation?

Taking into account the views of Dutch parents and those of Lennenberg (1967) and Scovel (1988), it will be hypothesised that learners of early English learning programmes in Dutch primary schools (partly) taught by a native speaker attain a more native-like pronunciation than learners in such programmes who are not taught by a native speaker. Therefore, considerable differences in terms of pronunciation will be expected between the two groups, with learners taught by a native speaker attaining a more native-like level as regards segmentals than learners taught by a non-native speaker teacher. Furthermore, since previous research (Reinders & Wattana, 2011; Sundqvist, 2009; Sylvén, 2004) has shown that spare-time activities influence second language vocabulary acquisition, it is expected that these activities influence pronunciation as well.

1.2 Thesis Overview

This thesis starts with a literature review, in which the main views and theories on (early) second language acquisition (SLA) and pronunciation within SLA are presented and discussed, and which will provide the theoretical framework for the conducted research. In chapter 3, the methodology is described and in chapter 4, the results are presented. In chapter 5, the results are analysed and interpreted by means of using the theoretical framework and

the answers to the research (sub)questions will be provided. In addition, recommendations for further research will be discussed.

Chapter 2: Theoretical Framework

This chapter will give insight into the main views and theories regarding second language acquisition (SLA) and early second language acquisition. Furthermore, the chapter will focus on pronunciation within SLA and the native-speaker norm. In addition, the current situation in the Netherlands regarding the introduction of early foreign language learning programmes in primary schools will be discussed, including one specific educational programme currently introduced in the Netherlands, namely EarlyBird. The chapter will conclude with highlighting the main research question of this MA thesis and two subquestions, followed by hypotheses.

2.1 Second Language Acquisition

2.1.1 Second Language Acquisition versus Foreign Language Acquisition

Second language acquisition (SLA) and *foreign language acquisition* are terms which are contrasted often within the field of language acquisition. According to Cook (2008), the distinction between the two terms refers to the prevailing situation in which the learning takes place: foreign language acquisition can be defined as the process by which people learn a second language (L2) in addition to their first language (L1), also known as the mother tongue. The second language (L2) is acquired for long-term future uses and often takes place in a country where the second language is not an everyday medium of communication. Second language acquisition, on the other hand, involves the same process of learning an L2 in addition to one's mother tongue, but the L2 is acquired for immediate use within the same country (Cook, 2008, p. 12). Cook (2008) acknowledges the convenience for contrasting the two terms, but highlights that, without proper research evidence, it cannot be taken for granted that second language learners and foreign language learners learn in two different ways (p. 12). Ellis (1997, p. 3) seems to agree with Cook by stating that the terms should not be contrasted since the learning of second languages and foreign languages employ the same fundamental processes, be it in different situations. In this MA thesis, I will follow Ellis' and Cook's view on second and foreign language acquisition by not making a distinction between the two terms. According to Cook's definitions, English language learning in Dutch primary schools should be defined as foreign language acquisition since, in the Netherlands, English is not an everyday medium of communication. However, nowadays, the English language is used more frequently as a means of communication in the Netherlands, which, in this case, blurs the distinction between the two categories. Therefore, for the purpose of this study, I

will use the terms *second language acquisition* and *foreign language acquisition* interchangeably when referring to learning English in Dutch primary schools.

2.1.2 Differences between Second Language Acquisition and First Language Acquisition

There are several noteworthy differences between the acquisition of a second and a first language. Appel and Vermeer (2001, p. 350) mention the starting moment of acquisition as an important difference between learning an L1 and an L2; while first language acquisition starts right after the moment one is born, it is possible to start learning a second language at any given time during one's life. Connected to this relative freedom in choosing when to start is the fact that, for L2 learners, exposure to the target language varies, both in quantity and in quality, depending upon whether the learner is immersed in the target language environment or is learning in a classroom or alone with a book or a computer (Chenu & Jisa, 2009, p. 23). For L1 learners, exposure to and input from the target language is relatively stable. Furthermore, due to the L2 learner's different starting moments and backgrounds, L2 learners will not all go through the different stages of the acquisition process in the same tempo, whereas first language learners more or less do. Moving on to another difference between L1 and L2 learners, motivation plays an important role for the L2 acquisition process. While L1 learners learn their language to fulfill their cognitive and communicative needs as developing individuals, L2 learners need to be somehow intrinsically motivated to learn a second language (Hadley, 2002, p. 46). L2 learners' motivations usually fall into one of two categories: integrative motivation, which encourages a learner to acquire the new language in order to take part in the culture of its people, or instrumental motivation, which encourages a learner to acquire the new language for a career goal or other practical reason (Gardner & Lambert, 1972, cited in Lightbown & Spada, 2006, p. 56).

A possible link can be made between instrumental motivation and foreign language acquisition as well as between integrative motivation and second language acquisition, which puts my remark on the difficulty of attributing learning English in Dutch primary schools to one of the two acquisition categories in a slightly different perspective. However, according to the European Platform, English language education in primary schools has as its main goals to promote the learners' overall linguistic development and to promote international awareness and collaboration (European Platform, 2015). While these aims both have a practical sense (instrumental motivation), it can be argued that, in international collaboration, an L2 learner in a sense takes part in the culture of the language learned, which can be seen as

integrative motivation. Therefore, I believe my previous remark is still relevant for the purpose of this research.

Apart from motivation, the way in which a language is learnt is also relevant in defining differences between L1 and L2 acquisition. According to Appel and Vermeer (2001, p. 351), second language learners already have implicit knowledge of another language (their L1), which may influence the acquisition process of the second language. This notion of L1 influence is also known as transfer, a topic which will shortly be discussed in section 2.3.1. Furthermore, the mother tongue is usually acquired in a natural way by which the acquisition process is rather unconscious, whereas second language learners approach learning a language more consciously due to their awareness of the function of language and the different concepts regarding language proficiency (Appel & Vermeer, 2001, p. 352).

2.1.3 Different Types of Second Language Acquisition

In the field of second language acquisition, a distinction can be made between simultaneous and successive acquisition. When another language is learned after the mother tongue (L1) has been fluently acquired, this is referred to as successive acquisition. The first and the second language are learned successively, with the mother tongue being acquired first (Mushi, 2010, p. 350). Since successive language learners have already learnt a first language, they are able to use these previously acquired language skills to learn the new language (transfer). According to Appel and Vermeer, the language development of children can benefit from successive acquisition, as the access to previously acquired language skills enables them to consciously deal with language and language differences at a very young age (2001, p. 354). Simultaneous acquisition, on the other hand, is the term used to refer to two languages being acquired at the same time. The languages are learned simultaneously as the learner usually needs both languages during childhood to interact meaningfully with their surroundings (Mushi, 2010, p. 350). According to Cantone (2007) and McLaughlin (1984), the simultaneous acquisition process can only be seen as such up to the age of three years. If a second language is acquired after the age of three years, this is designated successive acquisition (Cantone, 2007, p. 4; McLaughlin, 1984, p. 32.). Taking Cantone's and McLaughlin's view into consideration, learning English in Dutch primary schools starting from group 1 can be classified as successive language acquisition.

In addition to the distinction between simultaneous and successive acquisition, a distinction is made in the available literature between classroom and naturalistic acquisition.

Naturalistic acquisition refers to the process of acquiring a language without formal instruction or study, whereas classroom acquisition refers to learning a language by formal study (Saville-Troike, 2006, p. 2). Furthermore, the notion of how the language learner's cultural background relates to the background projected by the L2 culture is an important factor which contributes to another distinction in the field of SLA, namely the dichotomy between subtractive and additive bilingualism (Cook, 2008, p. 140). Additive bilingualism refers to the process of learning a second language which adds to the learner's capabilities in some way without taking anything away from what they already know. In subtractive bilingualism, on the other hand, something is subtracted from the learner's capabilities; learners may feel that the learning of a new language threatens what they have already gained for themselves (Lambert, 1990; Cook, 2008). According to Cook, learners who have a negative view towards the second language will have more difficulties acquiring the language than learners who acquire their L2 in additive situations (2008, p. 141). However, it is also possible that instead of a negative view towards the second language, the first language will be neglected when the second language is acquired, due to a negative view or image of the first language and its social status in a new environment. In addition to this neglect of the L1, subtractive bilingualism may lead to semilingualism, which means that both languages are mastered below the standard (Gramley, 2008, p. 305).

2.2 Age and Second Language Acquisition

2.2.1 The Critical Period Hypothesis

The question whether there is a possible link between age and the ability to learn a language is one of the most debated topics in the field of SLA. The idea that (young) children are faster than adults in acquiring a second language is a topic discussed by many researchers, and various researchers (i.e. Brown, 2000; Lightbown & Spada, 2006; Patowski, 1980) claim that children will become more proficient in the L2 due to their faster rate of acquisition. The notion of a critical period was first posited by Lennenberg, who hypothesised that there is a neurologically based critical period, ending around the onset of puberty, beyond which the ability to learn a language naturally degenerates, making complete mastery of a language no longer possible (1967, p. 164). Lennenberg added that learners who start to acquire a second language within the critical period are able to achieve native-like mastery, provided that they are continuously exposed to sufficient input from native speakers of the language (1967, p. 164). Lennenberg's Critical Period Hypothesis was examined by, amongst others, Patowski,

whose results support the existence of a sensitive, or critical period (1980, p. 468). In the discussion about a critical period, pronunciation has tended to occupy a special position as it has been claimed to be the first aspect of language to be affected by such a period (Long, 1990; Seliger, 1978; Walsh & Diller, 1981). According to Long, "the ability to attain native-like phonological abilities in an L2 begins to decline by age six in many individuals and to be beyond anyone beginning later than age twelve, no matter how motivated they might be or how much opportunity they might have" (1990, p. 280). However, such a statement is somewhat conjecture-based and disregards that the ability to attain native-like phonological proficiency depends on individuals' capabilities. Yet, Scovel (1988) argues that pronunciation is the only aspect that is subject to critical period constraints, as it is "the only aspect of language performance that has a neuromuscular basis", requires "neuromotor involvement" and has a "physical reality" (p. 101). Like Long and Lennenberg, Scovel argues that learners who start to learn an L2 after the critical period will never be able to pass themselves off as native speakers and, thus, will be easily identified as non-native speakers of the language (1988, p. 185). More recent research by Appel and Vermeer (2005) further supports the idea of a critical period for the acquisition of pronunciation as their results indicate that one is able to speak with native-like pronunciation only when acquisition occurs before puberty (p. 63).

Nevertheless, the idea of a critical period has been questioned by many researchers and some even claim this period to be non-existent (Bialystok & Hakuta, 1999, p. 178). For example, Nikolov and Djigunovic mention that the Critical Period Hypothesis does not hold as recent studies show that adults who started learning the target language after puberty are able to attain native-like proficiency as well (Nikolov & Djigunovic, 2006, p. 6). Furthermore, the results from an extensive study on late L2 learners and native-like pronunciation by Bongaerts et al. (2000) suggest that, in spite of the claims of the Critical Period Hypothesis, late L2 learners are able to achieve a native-like accent, and that factors such as input, motivation and instruction may compensate for the neurological disadvantages of a late start (2000, p. 298). This comment is in line with findings by Munoz, who concludes that "second language learning success in a foreign language context may be as much a function of exposure as of age" (Munoz, 2006, p. 34). However, up until now, research has not been able to provide enough significant evidence to either confirm or dispute the existence of a critical period.

2.3 Pronunciation within SLA

Pronunciation is considered to be one of the most complex human motor skills (Levelt, 1989), which can be attributed to its physical component. One's ability to perceive new speech sounds cannot be simply linked to the command and aptitude one has over one's speech organs as these skills may work partly independently from each other in such a way that the ability to recognise sounds does not always automatically results in an ability to produce them (Smakman & De France, 2014, p. 288). Due to this physical component, L2 learners often have considerable problems with pronunciation while the acquisition of grammar and lexis may be nearly effortless; a separation of capabilities also referred to as the Joseph Conrad Phenomenon[1] (Reiterer et al., 2011, p. 1). The problems L2 learners face regarding articulation often result in considerable individual differences when it comes to the pronunciation of a foreign language; there is great variation in L2 pronunciation proficiency, both regarding segmentals (speech sounds such as consonants and vowels) and suprasegmentals (prosodic features such as intonation and rhythm) (Hu et al., 2012, p. 1).

2.3.1 Transfer

In the acquisition of a second language phonology, the transfer of phonological knowledge from a speaker's first language (L1) plays an important role (Zampini, 1994, p. 471). Unlike L1 learners, L2 learners already have established a first language in their brains which they are able to access and use while learning and speaking a new language. When a person who knows two languages transfers certain aspects from one language to the other, this is understood as cross-linguistic transfer (Cook, 2008, p. 76). Sometimes this transfer will be facilitative (positive transfer), resulting in correct language use. Other times, items and structures which are not the same in both languages may be transferred, which is also known as negative transfer, and which ultimately results in language errors. As regards phonology, the sounds of the second language are often treated systematically as equivalents of the first language sounds by L2 learners. As mentioned by Eckman, Elreyes and Iverson (2003) in their paper on second language phonology principles, areas of the native language that are different from the target language may interfere with the acquisition of pronunciation and what can be transferred depends largely on the relationship between the two languages in

[1] Joseph Conrad, a famous Polish-born author, possessed an excellent command of the lexis, syntax, and morphology of English, as displayed in his literary works. However, his English speech remained partly unintelligible to English speakers throughout his life (Scovel, 1988).

question (p. 170). The authors identify three learning situations which involve the target language having different phonemic contrasts from the native language: the first language has neither of the contrasting L2 sounds and, thus, the L2 learner has to learn new phonemes from scratch, the native language contains one of the phonemes which are in contrast in the target language, or, both the native language and the target language have the same relevant phones, but these constitute separate phonemes in the target language whereas they are allophones of the same phoneme in the native language (Eckman et al., 2003, p.170-171). At first glance, one would expect the first situation to cause most difficulties for learners. Brown (2000) adopts this view and argues that missing sounds in the L1 will be unacquirable in the L2 (p.20). However, according to Cook (2008), acquiring totally new sounds does not seem to create particular problems for learners. Rather, the last situation, in which two allophones of one L1 phoneme appear as two phonemes in the L2, appears to be the trickiest (p. 77). Connected to the notion of perceptual similarity is Flege's Speech Learning Model, which aims to account for variation in the extent to which individuals learn – or fail to learn – to accurately produce and perceive phonetic segments in an L2 (Flege, 2003, p. 8). According to Flege, the more dissimilar an L2 speech sound is from the native language, the easier it will be to acquire (2003, p. 12).

2.3.2 The Issue of Having a Foreign Accent

Casual observation tells us that most speakers of an L2, especially when acquisition has occurred beyond childhood, have foreign accents; a notion which may be linked to the Critical Period Hypothesis mentioned above (Hawkins & Lozano, 2006, p. 67). In their article on factors affecting the degree of foreign accent in an L2, Piske, Mackay and Flege argue that the strength and nature of foreign accents vary according to the speakers' first language, the starting age of acquisition, the use of both languages and speakers' motivations (Piske, MacKay, & Flege, 2001, p. 191). The question whether having a foreign accent is unfavourable is a topic which receives much attention, both in research as well in language courses. Munro mentions that a considerable number of people regard an accent itself as an undesirable characteristic, and that negative attitudes toward L2 user speech are sometimes unintentionally promoted even by teachers and researchers (Munro, 2009, p. 39). However, according to Morley, having a foreign accent should not be seen as problematic as native-like pronunciation is not a necessary condition for comprehensible communicative output (1991, p. 498). Moreover, Morley adds that native-like pronunciation levels are virtually

unattainable for many learners, whichever model is chosen (1991, p. 498). Yet, Lippi-Green (1997) does not seem to agree with this view and highlights that speaking with a foreign accent may result in negative social evaluation and discrimination (p. 83). Connected to the notion of discrimination and negative evaluation are the results from multiple studies that have shown that native-speaker listeners tend to downgrade non-native speakers simply because of their foreign accent (Derwing & Munro, 1995, p. 74). In addition, it is often assumed that having a foreign accent reduces intelligibility in interactions with native speakers as well as interactions with non-native speakers. However, Derwing and Munro mention that the situation is not so straightforward as, in their study, heavily accented speech samples turned out to be completely intelligible (1995, p. 90). Furthemore, research by Hendriks et al. (2015) concludes that, unlike speakers with a strong Dutch accent, speakers with a slight Dutch accent in English are not generally evaluated negatively by native speaker listeners (p. 15).

Instead of being an undesirable characteristic, foreign-accented speech may also be perceived as an asset. For example, choosing not to conform to native-like pronunciation rules can be desirable for the L2 learner who wants to keep their L1 identity. Furthermore, since a foreign accent clearly signals to a native-speaker interlocutor that the L2 speaker is non-native, the native speaker may modify their input according to their perception of the L2 speaker's proficiency (Gass & Varonis, 1984, p. 66). Moreover, L2 speakers who retain their foreign accent may be evaluated as more friendly, dependable and humorous than L2 speakers producing native-like speech due to the possible covert prestige of their non-standard variant (Flege, 1987, p. 171). Taking all these findings into consideration, it is possible to ask the question whether L2 speakers need to conform to native-speaker norms; a goal which is often encouraged by teachers and researchers (Timmis, 2002, p. 240).

2.3.3 English Pronunciation Instruction in the Netherlands

Research results suggest that explicit pronunciation training is beneficial for L2 speech production as it helps L2 learners develop phonological awareness and has a significant effect on L2 speech intelligibility and comprehensibility, especially in sentence-reading tasks (Saito, 2011; Derwing & Munro, 2005; Venkatagiri & Levis, 2007). However, according to Saito, while pronunciation instruction seems to have an effect on comprehensibility and intelligibility, there is no evidence that it reduces foreign accent (2011, p. 45). This, however, is a rather bold remark and many pronunciation teachers and researchers argue the opposite

(i.e. Couper, 2003; Derwing et al., 1997, 1998; Barrera Pardo, 2004). For the past few decades, there has been a debate about what are appropriate norms and models for the classroom in which the use of native-speaker models has been questioned; for example, Jenkins argues that the focus should lie on those core aspects of pronunciation that are essential to international communication since there is no pedagogic relevance of a native variety of English in the context of English as an international language (1998, p.126)

In the Netherlands, at English departments of several universities and teacher training colleges, English pronunciation is taught intensively, with the aim to lift students' pronunciation to a higher level by means of native speaker models (Smakman & De France, 2014, p. 289). Despite the recent attacks on the use of native speaker models (i.e. by Jenkins, 1998), in the Netherlands, there is still a feeling among teachers that native speaker competence – in British English especially – is the benchmark of perfection (Timmis, 2002, p. 243). However, students themselves also seem to have a preference for acquiring native-like speech, a preference mentioned by Smakman and De France (2014) and reflected in research by Timmis (2002), who found that, given a choice between sounding like a native speaker or having the accent of one's country, 67 per cent of students preferred to speak like a native (p. 242). In Europe, the Received Pronunciation model is used most due to its perceived status, both by teachers and students. As far as secondary and primary education is concerned, there are very few schools where English pronunciation is taught explicitly. In primary schools, pronunciation seems to be the least important factor concerning English language acquisition; the focus in English courses in primary and secondary education mainly lies on the acquisition of reading and writing skills and lexis. However, in the Netherlands, it is assumed by both primary schools and parents, that when children are exposed to native English speech (by means of a native speaker teacher), native-like pronunciation will be acquired effortlessly (SLO, 2011, p. 15).

2.3.4 Pronunciation Issues for Dutch speakers

The Dutch and English sound systems are broadly similar due to both languages being part of the Germanic branch of the Indo-European language family. Therefore, speakers of Dutch usually do not have serious problems recognising or producing English sounds. However, similar to other groups of learners of English sharing a language background, Dutch learners of English as an L2 tend to produce a particular, predictable set of errors (Smakman & De France, p. 289, 2014). A few general problems for Dutch learners are:

- confusion of the fortis/lenis contrast; word-final lenis consonants are often replaced by fortis consonants.
- a corresponding over-shortening of vowels preceding lenis consonants (i.e. *dock* for *dog*, *leaf* for *leave*).
- postvocalic /r/. Dutch learners often pronounce a highly audible postvocalic /r/ whenever it occurs in the spelling instead of omitting this consonant, which is the norm in Standard British English. In turn, the insertion of /r/ results in a false concept of the English vowel system and may affect the vowels /ɑː, ɔː, ɜː, ə, ɪə, ɛə, ʊə/.
- a much narrower intonation range, not reaching the same low pitch areas as in English (Collins & Mees, 2003; Collins et al., 2011; Tops et al., 2001).

2.3.4.1 Consonants

According to, amongst others, Collins and Mees (2003), Collins et al. (2011), Van den Doel (2006), Smakman and De France (2014), and Tops et al. (2001), there are a number consonant-related pronunciation issues which pose difficulties for Dutch learners. For the present research, I will describe the six most important issues which these sources refer to:

1. Syllable-final voiced plosives /b, d, g/. These consonants are often confused with /p, t, k/ in syllable-final position.
2. Syllable-final voiced labio-dental fricative, /v/. In syllable-final position, /v/ tends to be replaced by /f/.
3. Syllable-initial voiceless plosives/p, t, k/. Dutch speakers lack aspiration in a stressed syllable-initial context. Furthermore, medial /t/ is often pronounced with a weaker sound, closer to that of /d/, which may be due to the influence of American English.
4. Voiced dental fricative, /ð/. This sound does not occur in Dutch, and, when in initial or medial position, Dutch speakers generally substitute this sound with /d/, the closest alternative in the Dutch articulatory system. In final position, the voiced dental fricative is often replaced by /t/ or /s/.
5. Voiceless dental fricative, /θ/. Similar to the voiced dental fricative, this sound does not occur in Dutch. Dutch speakers generally replace the sound with /s/ or /t/.

6. Postvocalic /r/. As mentioned above, Dutch learners often pronounce, rather than omit, postvocalic /r/ whenever it occurs in the spelling, even when Standard British English is the spoken variant.

2.3.4.2 Vowels

Besides consonant-related errors, there are some vowel-related pronunciation difficulties for Dutch learners of English as well. According to Gussenhoven & Broeders (1997), Collins et al. (2011), Collins and Mees (2003), and Smakman and De France (2014), the vowels /e, æ, ɒ, ɔː, uː, ʊ/ are problematic for Dutch learners. One of the major and persistent errors of Dutch speakers of English is the confusion between the vowels /e/ and /æ/. Dutch speakers often confuse the English vowel /e/ (as in the English word *dress*) with the vowel /æ/ (as in the English word *trap*), and speakers of all areas in the Netherlands tend to have a too open /e/ before /n/ or /l/ (Collins & Mees, 2003, p. 288). The confusion of /e/ with /æ/ is also persistent the other way around; Dutch speakers almost invariably replace /æ/ with the Dutch /ɛ/, blurring, or even neutralising, the distinction between minimal pairs such as *bat* and *bet* (Smakman and De France, 2014, p. 290). According to Collins et al. (2011), the phoneme /ɒ/ (as in *lot*) is generally replaced by Dutch /ɔ/, which is too close, over-tense, excessively lip-rounded and causes constriction in the throat due to the placement of the tongue which tends to be too far back (p. 63). Smakman and De France (2014) add that, due to a possible influence of General American English, Dutch learners may also produce a vowel which resembles /ɑ/ (like English *palm*), as this is the typical General American counterpart to /ɒ/ (p. 290). With /ɔː/ (as in *thought*), the main difficulty for Dutch speakers is that they tend to use the too short and pharyngealised Dutch vowel /ɔ/ (as in Dutch *zot*, English transl. *fool*) (Collins & Mees, 2013, p. 288). In addition, a fair number of Dutch speakers produce too open a vowel due to the General American English tendency to merge /ɒ/ and /ɔː/ into /ɑ/ (Smakman & De France, 2014, p. 290). Finally, similar to the confusion of /e/ and /æ/, there is a loss of contrast between the phonemes /uː/ and /ʊ/ as they are both generally replaced by Dutch /u/ (as in Dutch *moe*, English transl. *tired*) (Collins & Mees, 2013, p. 289).

2.4 SLA and Language Teaching

2.4.1 The L2 User and the Native Speaker

A central issue in language teaching and second language research revolves around the concept of the native speaker (Cook, 2008, p. 171). Bloomfield (1933) is one of the first to use the term and defines 'native language' as "the first language a human being learns to speak"; a native speaker is a speaker of their native language (p.43). Another definition is "a person who has spoken a certain language since early childhood" (McArthur, 1992). Besides definitions based on birth, knowledge and use may also be used to define 'native speaker'. For example, Stern (1983) mentions creativity of language use and subconscious knowledge as a few characteristics of a native speaker (p. 174). However, these characteristics may also be applicable to L2 users since L2 users may be able to acquire these characteristics as well. Yet another approach to define the notion of native speaker involves language identity and use; a more sociolinguistic approach. According to Cook (2008), one's native speech "shows the groups that we belong to, [...] whether in terms of age [...], gender [...], or religion" (p.171). While there exist many different definitions, there are also many different types of native speakers; a language often has multiple varieties, which can be attributed to factors such as the speaker's country of origin, region, and class. Due to this diversity it becomes a daunting task for second language teachers to decide which native speaker should be the target (Cook, 2008, p. 171). However, the assumption that the aim of language teaching should be to make students resemble native speakers has come under increasing attack in recent SLA research (i.e. Cook, 2008; Piller, 2001; Jenkins, 1998). For example, in her article on who is a native speaker, Piller (2001) mentions research by Major (1997) which shows that native speakers of English who had lived in Brazil for an extended period had adopted the shorter voice onset time of Portuguese into their English. Piller concludes that it does not make sense to grant native speakers "a special place as the arbiters of correct usage" since native speakers' competence is subject to change and even loss under conditions of language contact (2001, p. 6). Moreover, Cook (2008) suggests that it is impossible for an L2 learner to become a native speaker if one adopts the definition of 'a person who has spoken a certain language since early childhood'. Thus, the native-speaker model is not a possible measure for L2 success (Cook, 2008, p.174). However, in many language teaching classrooms, the goal has been to make second language learners resemble native speakers. L2 learners are generally expected to sound like a native speaker in all aspects of the language (Gonzalez-Bueno, 1997, p. 261), and are assessed accordingly. In language teaching, the native

speaker's 'proficiency' is often still used as a (necessary) point of reference for the second language proficiency concept (Stern, 1983, p. 341), and, thus, learners are judged on 'proficiency' or 'success' according to how close they resemble a native speaker, in vocabulary, grammar, and pronunciation in particular.

2.4.2 Native and Non-Native Speaker Teachers

Related to the assumption that L2 learners should become (near-)native speakers is the question whether it is better to be taught by a native speaker teacher or a non-native speaker teacher. Despite the fact that in SLA research the goal of sounding native-like seems to have come under attack in the past few years (i.e. Cook, 2008; Piller, 2001; Jenkins, 1998), in practice, native speaker teachers are often still preferred over non-native speaker teachers, as is reflected in job ads for EFL teachers (Cook, 2008, p. 185). Native speakers are still extremely desirable for several reasons, the most obvious one being the model of language that this person can present, as he or she reached the so-called target L2 learners try to obtain. In addition, since native speakers do not experience (negative) transfer from other languages, they provide a good model for pronunciation. However, it is arguable that native speakers are, in fact, better language teachers than non-native speakers. Results from a survey among some 220 native speaker teachers and non-native speaker teachers working in ten countries revealed that 68 per cent of the respondents did perceive differences between native and non-native teachers (Medgyes, 1992, p. 345). While the differences are not specified in the article, Medgyes found that they were fundamental and closely related to linguistic issues (p.345). These results should, however, be interpreted with caution since the study is based on respondents' perceptions rather than classroom observations. Nevertheless, language competence is certainly not the only variable which plays a decisive role in the teaching/learning process. Experience, motivation, charisma, age, sex and aptitude all exert influence on teacher competence, but, since they are not language-specific, they can apply to both native and non-native speaker teachers. Hypothetically speaking, if all these non-language-specific variables are equal for both types of teachers, language competence is the only factor in which non-natives are disadvantaged. However, according to Cook, these disadvantages may be turned into assets since non-native speaker teachers are models of L2 users and are therefore able to discuss L2 learning strategies from their own experience. In addition, they are explicitly aware of the features of the language and, thus, are able to anticipate learning problems. Non-native speaker teachers can also use the learners' L1 in the

classroom and are able to empathise with their students' learning experience (Cook, 2008, p. 187). Furthermore, research by Larson-Hall (2008) suggests that differences between native and non-native speaker teachers only become relevant after about 1200-2200 hours of input (p. 56). Moreover, whereas it is assumed that native speakers have an advantage over non-native speakers in terms of language competence, this may not always turn out to be true. As Bonheim (1999) mentions in an official newsletter of the German Association of University Teachers of English, native speaker lecturers often do not speak good English, especially those teachers who have a certificate in teaching English as a foreign language (p. 235). While young language learners are generally assumed to reach native-like pronunciation levels (Lennenberg, 1967; Scovel, 1988), hardly any research has focused on whether there are differences between learners exposed to native or non-native speech. In addition, little research on the topic of early language learning and native-like pronunciation has focused on classroom environments. Therefore, it still remains questionable whether there are differences in terms of pronunciation levels between L2 learners taught by native speaker teachers and L2 learners taught by non-native speaker teachers.

2.5 Early Second Language Learning in Primary Schools

2.5.1 Types of Early Learning Programmes

In primary schools in Europe, several different types of early learning programmes are used. One type of programme is Content and Language Integrated Learning (CLIL), in which the second language is used as a medium for teaching non-language content for about fifteen to fifty per cent of the total class time per week. According to Dalton-Puffer, "CLIL classrooms are seen as environments which provide opportunities for learning through acquisition rather than through explicit teaching" (2007, p. 3). Another type of early learning programme is total immersion teaching, best known from Canadian educational experiments, in which the whole curriculum is taught through the second language with the aim of getting pupils to become proficient in both languages (Herder & De Bot, 2005, p. 17). Since the foreign language is both the language of instruction and the target language, pupils are thus immersed in the foreign language (Codina & Smiths, 2001, p. 11). Another type of early learning programme is when the foreign language is offered as a separate subject in which acquiring the target language is the main learning objective. In primary schools in the Netherlands, this last type of early learning programme is used most.

2.5.2 Early Second Language Learning in the Netherlands

According to a report on teaching languages at school in Europe published by the European Commission (2012), children are starting to learn foreign languages at an increasingly early age in Europe, with most pupils beginning when they are six to nine years old. In the past few decades, many countries have lowered the starting age for compulsory foreign language learning, a trend which can also be observed in the Netherlands. Nowadays, an increasing number of Dutch primary schools offer early learning programmes, with English being the most taught foreign language. The following figure illustrates the rapid increase in the number of schools offering early learning programmes:

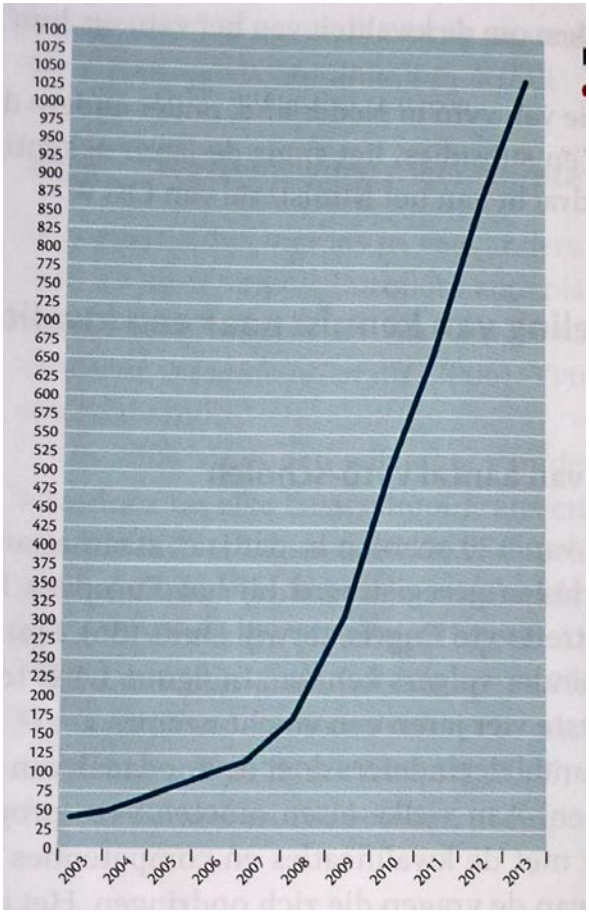

Figure 1. Increase in the Number of Dutch Schools offering Early Language Learning Programmes per Year (Groot & Deelder, 2014).

In the Netherlands, primary schools are able to select their own teaching method in addition to the amount of time they would like to reserve for English education. This freedom of curriculum design results in significant differences between Dutch primary schools, both

in the amount of exposure time and the quality of the programme. In order to create more uniformity in the curriculum and to get a better assessment of the quality of early (English) language learning programmes, in 2011, the European Platform established the *Landelijke Standaard vvto* (National Standard Early Foreign Language Learning). The *Landelijke Standaard vvto* describes the conditions schools offering early learning programmes must meet to provide high quality early language learning.

Besides being relatively free in designing their English courses, Dutch primary schools are also free to decide when to introduce English education. Up until now, most primary schools still choose to introduce English education in groups 7 and/or 8 (age 10-12), following the unofficial standard resulting from the introduction of English education in primary schools in 1986 (Groot & Deelder, 2014, p. 25-26). However, as the above figure shows, nowadays, primary schools offering early learning programmes are taking the upper hand. Most of these schools choose to introduce their early learning programme in groups 1 or 2 (age 4-6), whereas a small percentage chooses to introduce their programme in groups 5 or 6 (age 8-10). According to the European Platform, there are several advantages for offering an early learning programme starting from group 1:

- The acquisition process is naturalistic as one first learns orally and later learns to write; it is similar to acquiring a first language.
- Children can easily acquire the proper pronunciation and make it their own.
- If one starts at a young age, speaking (and listening) in a foreign language will become natural for the learner.
- Dyslexic or language-impaired children have a major advantage when learning a foreign language orally: they do not have to struggle with writing and, because of their early start, have more time to acquire reading and writing skills in the higher grades.
- Young children are very proud and motivated language learners (European Platform, 2015).

Related to this last advantage are findings by Wright (2007) and Samuels and Griffore (1979), who suggest that early foreign language education positively influences children's attitudes towards language learning and that it ultimately boosts children's confidence.

In general, in the Netherlands, early English learning programmes are most often taught by the classroom teacher. However, native speaker teachers are generally preferred

over classroom teachers due to the assumption that learners taught by a native speaker will become more proficient in the target language than learners who are taught by a non-native speaker, especially in terms of pronunciation. Results from a survey distributed among 541 Dutch primary school teachers indicate that especially schools offering early learning programmes express the need for more native speaker teachers in order to improve their English education (SLO, 2011, p. 15). While native speaker teachers are preferred over classroom teachers due to their linguistic competence and the model they represent, qualified native speaker teachers are quite hard to find. In addition, schools may choose not to work with native speakers, as hiring an additional teacher is not very cost-efficient when currently employed teachers are able to teach as well.

2.5.3 EarlyBird

EarlyBird is one of the leading early foreign language programmes in the Netherlands. EarlyBird was established in 2003, in response to the need for the standardization and further development of bilingual efforts at elementary schools. The EarlyBirdnproject was first launched in several primary schools in Rotterdam with the mission to "enhance the quality of primary education in Rotterdam by means of offering naturalistic English in primary schools, in order to give learners optimal access to an international society" (Herder & De Bot, 2007, p. 17). From 2003, EarlyBird has become active outside of Rotterdam as well and has expanded into a nation-wide network, with currently approximately 250 member schools (Groot & Deelder, 2014, p. 30). The methodology of EarlyBird is designed to let children become acquainted with English knowledge in a natural way and is based on the principle of simultaneous language acquisition. The EarlyBird methodology consists of three separate phases with each having its own level of intensity regarding the input and exposure to English, of which Herder and De Bot (2007) provide a detailed explanation in their paper on early English in the Dutch language curriculum. In groups 1 and 2 (age 4-6), the children are offered four to five hours a week of classroom or group activities in English taught by a native speaker; the learning process is mostly implicit and centres on play-related activities. In groups 3, 4 and 5 (age 6-9), the children are offered one to two hours a week of English activities by means of interacting with a native speaker; this period focuses mainly on maintaining and expanding the acquired language skills. In groups 6, 7 and 8 (age 9-12), the children are offered nine hours a week of English education taught by their own teacher or a native speaker. In groups 3, 4 and 5, the amount of exposure time is more limited in

comparison to the other groups, because all the attention is paid to learning how to read and write (Herder & De Bot, 2007, p. 16). However, the EarlyBird methodology is flexible and can be considered a guideline rather than a strict set of rules. Each individual school is able to customise the programme to their own goals and ambitions, taking into account factors such as school or group size and pedagogical-didactic concepts.

2.6 Influence of Spare-Time Activities in English on SLA

Due to the increasing availability of international TV programmes, music, books and (video) games, teenagers and children often come into contact with English outside the classroom (Forsman, 2004; Sylvén, 2004). Because of this development, it is arguable that these spare-time activities exert influence on their English (Crystal, 2001, p. 237). However, it is important to note that research on this specific topic is very scarce and, therefore, no such claims can yet be made with certainty. Still, of the few studies available on this topic, recent research by Reinders and Wattana (2011), Sundqvist (2009), and Sylvén (2004) concludes that engagement in spare-time activities positively influences second language acquisition. Most of these studies have focused on (video) games as the main spare-time activity and whether or not this activity influences vocabulary acquisition. According to Reinders and Wattana (2011), playing (video) games encourages more interaction in the second language, which ultimately contributes to second language acquisition (p. 6). Sylven (2004) and Sundqvist (2009) both come to the conclusion that engagement in spare-time activities in English has a positive influence on learners' vocabulary and that the involvement in video games proved to be an important factor contributing to results on this particular feature of acquisition. Unfortunately, up until now, hardly any research has focused on the influence of spare-time activities on (English) pronunciation. In her article on extramural English, Sundqvist (2009) does mention that activities that require learners to be active and rely on their language skills, such as reading books and playing video games, have a greater impact on learners' oral proficiency and vocabulary than activities where learners can remain fairly passive, such as listening to music or watching TV (p. 204). However, it is important to note that, in Sundqvist's study, oral proficiency is defined as 'the learner's ability to speak and use English in actual communication with an interlocutor' (Sundqvist, 2009, p. 39). Oral proficiency in this sense strongly relates to fluency and vocabulary; pronunciation in terms of segmentals and suprasegmentals was not a main factor of interest.

2.7 Research Questions and Hypotheses

In the past few decades, there has been a remarkable increase in Europe in the number of schools offering early foreign language learning programmes, a development also monitored in the Netherlands (Groot & Deelder, 2014). Early foreign language learning is generally preferred over language learning starting at a later stage, due to its presumed positive effects on pronunciation, vocabulary and grammar acquisition. In addition, especially regarding pronunciation, so it is argued (i.e. Lennenberg, 1967; Scovel, 1988) that early foreign language learners are able to attain native-like levels, since young children are good at imitating sounds. In (early) foreign language learning environments, native speaker teachers are generally preferred over non-native speaker teachers due to the model of language that these persons can represent (Cook, 2008) and, in the Netherlands, it is generally assumed by both parents and primary schools that learners taught by a native speaker will become more proficient in the target language than learners who were taught by a non-native speaker, especially in terms of pronunciation (SLO, 2011). Yet, hardly any research has focused on whether this assumption is true. In particular, research on whether being taught by a native or a non-native speaker teachers influences learners' pronunciation levels in the Netherlands is very scarce. This research gap calls attention to my research question:

Do learners of early English learning programmes in Dutch primary schools (partly) taught by a native speaker attain a more native-like pronunciation than learners in such programmes who are not taught by a native speaker?

The research question will be answered by means of looking into two sub-questions:

Sub-question 1: Are there any differences between the learners in terms of pronunciation as reflected in the outcomes of the speech analyses?
Sub-question 2: Does the amount of input and exposure to English outside the classroom influence the learners' pronunciation?

As the starting point of this research, I will adopt the views of Lennenberg (1967) and Scovel (1988) by hypothesising that, since children are good at imitating sounds, learners of early English learning programmes in Dutch primary schools (partly) taught by a native speaker attain a more native-like pronunciation than learners in such programmes who are not taught

by a native speaker. Therefore, I expect there to be considerable differences in terms of pronunciation between the two groups investigated in this study, with the group taught by a native speaker having a more native-like level regarding segmentals than the group taught by their class teacher. Furthermore, since previous research (Reinders & Wattana, 2011; Sundqvist, 2009; Sylvén, 2004) has shown that spare-time activities influence second language vocabulary acquisition, I expect these activities (activities in which speaking and listening are the main components in particular) to influence pronunciation as well.

Chapter 3: Methodology

As mentioned in the previous chapter, this research will look into differences in terms of English pronunciation between young learners of English in the Netherlands who are (partly) taught by a native speaker and learners who are not taught by a native speaker. In order to answer the research questions, 30 pupils of two Dutch primary schools were tested on their English pronunciation. The participants were divided into two separate groups, which from now own will be referred to as group A (experimental group) and group B (control group). The participants of group A all followed the same early learning programme and have been learning English from group 1 (age four) onwards, partly by means of a native speaker teacher. The participants of group B also followed an early learning programme by which they have been learning English from group 1 onwards, but were not taught by a native speaker teacher. In order to examine their English pronunciation, the participants' speech was recorded and subsequently analysed by means of the computer program Praat (Boersma & Weenink, 2014), as well as by means of transcriptions and a panel of native and non-native speakers of English. In addition, a short listening test was used to gain insight into the participants' awareness of native English speech. The participants were also asked to formulate their opinion on what constitutes good English speech and a questionnaire was used to shed light on the participants' contact with English outside the classroom. This chapter will further elaborate on the execution of the research.

3.1 Respondents

3.1.1 Passe-Partout Rotterdam

At the moment of testing (May 2015), all 30 participants were in their final year of primary school; group 8 (age 11-12) of the school year 2014-2015. Of the 30 tested participants in this study, 15 came from the Passe-Partout school in Rotterdam. Passe-Partout Rotterdam is part of the EarlyBird network and pupils of this school start learning English in their first year. In the lower grades, English education is mainly based on the children's natural process of development. Therefore, in groups 1 and 2 (age 4-6), the methods *Cookie and Friends* and *Fun English* are used, which both focus on listening and speaking and help develop pre-reading and pre-writing skills. In groups 3 and 4 (age 6-8), the method *Happy House* is used, which is similar to the ones used in groups 1 and 2 in that it introduces young children to English first through listening and speaking, and then provides a gentle introduction to reading and writing. In groups 5 until 8 (age 8-12), two follow-up methods are used, *Happy*

Street and *Happy Earth*, which focus mainly on reading and writing skills as well as the acquisition of a relevant vocabulary size. As regards teachers, from group 1 until 4, the participants are taught English by a native speaker teacher (South African English). The native speaker teacher has a so-called Cultivated South African English pronunciation, which closely resembles the British norm of Received Pronunciation (Lass, 2002, p.111). In group 1 and 2, the participants are taught English two hours a week by the native speaker, as well as one hour by the class teacher. In group 3, the amount of time used for English education is reduced to 60 minutes a week taught by the native speaker and 30 minutes taught by the class teacher, as, in this year, the main focus lies on the development of (Dutch) reading and writing skills. In group 4, the participants receive 60 minutes a week of English education by the class teacher, plus 30 minutes of Content and Language Integrated Learning (CLIL) provided by the native speaker. In groups 5 until 8, the native speaker is not involved in the English curriculum; the participants are taught English by the class teacher. Participants in groups 5 until 8 are taught English 60 minutes a week using the teaching methods, as well as 30 minutes a week of CLIL. In addition, every week, every pupil participates in a so-called project week, in which the children are expected to speak English for an extra 30 minutes based on different topics and/or tasks designed for each level. All class teachers engage in special teacher training for teaching English provided by the native speaker teacher as well as external courses and workshops. The tested group consisted of 6 boys and 9 girls, of which eight participants were 11 years old and seven participants were 12 years old. An overview of the number of participants in this research is provided in table 1. For this research, only pupils who started learning English in group 1 were tested. Pupils who entered the school at a later stage and who therefore did not start learning English in group 1 were excluded from this research. All participants from group A were tested with prior consent from their parents or caretakers.

3.1.2 Prinseschool Enschede

The participants who were not taught by a native speaker teacher came from the Prinseschool in Enschede; this group (group B) consisted of 15 participants. At the Prinseschool, pupils start learning English in group 1 (age 4-5) by means of the method *Take it Easy* and all classes are taught by the class teacher. *Take it Easy* is an IWB English teaching method for primary schools in which digital native-speaking co-teachers are able to assist the class teacher and which provides a continuous learning track from group 1 until group 8 (age 11-

12). The aim of the method is to immerse pupils into the British-English language. In groups 1 until 4 (age 4-8), pupils receive around two hours a week of English education; in the higher grades the amount of English education is extended to four hours a week. Similar to the Passe-Partout school, teachers of the Prinseschool all follow an English training programme in which teachers develop their English skills and are able to acquire the Cambridge Certificate of Proficiency in English. Group B differed slightly from group A, as group B consisted of 9 boys and 6 girls. Of the fifteen participants, eight participants were 11 years old and seven participants were 12 years old. Once again, only pupils who started learning English in group 1 were tested. Pupils who entered the school at a later stage and who therefore did not start learning English in group 1 were excluded from this research. All participants from group B were tested with prior consent from their parents or caretakers as well.

Total Number of Participants Group A	15	Total Number of Participants Group B	15
Boys Group A	6	Boys Group B	9
Girls Group A	9	Girls Group B	6
Median Age Group A	11	Median Age Group B	11
Oldest Participant Group A	12	Oldest Participant Group B	12
Youngest Participant Group A	11	Youngest Participant Group B	11

Table 1. Number and age of participants group A and B.

3.2 Research Tools

For this research, four separate tools were used to gain insight into the participants' level of English pronunciation and the amount of their input/exposure to English outside the classroom. First, a picture description task and a reading task were used to elicit English speech by the participants. Secondly, a short listening test was added to the test so as to gain insight into the participants' awareness of native-like speech. Finally, the participants were asked to fill out a questionnaire on the amount of input/exposure to English outside the school curriculum.

3.2.1. Picture Description Task

To elicit natural, connected English speech, a picture description task was used. The participants were shown a cartoon of children playing in a park (see Figure 2) and were asked to describe what they saw in as much detail as possible. During this task, the participants' speech was recorded. When, during recording, the participants did not know what to say or were struggling, they were encouraged to tell something about the different colours in the picture.

Figure 2. Picture used in the picture description task.

3.2.2. Reading Task

The second part of the recording consisted of a short reading task, in which participants had to read the following five sentences aloud:

1. Do you think there any dogs in the zoo?
2. The bad man likes to read a book before going to bed.
3. No, the paper is not in my pocket.
4. Did you know he caught a fish for that beautiful girl?
5. You're late!

The sentences contain several pronunciation target features based on the pronunciation issues for Dutch speakers of English mentioned in the previous chapter (section 2.3.4). Target features include the vowels /e, æ, ɒ, ɔː, uː, ʊ/, the syllable-final voiced plosives /d, g/, the

syllable-initial voiceless plosives /p, k/, and the voiced and voiceless dental fricatives /ð/ and /θ/, post-vocalic /r/. Tables 2 and 3 provide a more specific overview of the total number of occurrences and the phonetic contexts of the target vowels and consonants. Since almost all participants had trouble pronouncing the word ‘caught’, its vowel and consonantal tokens were not analysed.

Vowel (phoneme)	Number of Occurrences	Phonetic/phonological context	Examples
/e/	1	preceding lenis consonant	bed
/æ/	2	preceding lenis consonant	bad, man
/ɒ/	2	cVc	not, pocket
/ɔː/	1	preceding lenis consonant	dogs
/uː/	2	syllable-final position	zoo, beautiful
/ʊ/	1	cVc	book

Table 2. The total number of occurrences of each target vowel and their phonetic contexts.

Consonant (phoneme)	Number of Occurrences	Phonetic/phonological context	Examples
Syllable-final voiced plosive /d/	3	word-final position, vC	bad, read, bed
Syllable-final voiced plosive /g/	1	syllable-final position, preceding voiceless fricative /s/	dogs
Syllable-initial voiceless plosive /p/	2	syllable-initial position, aspirated	paper, pocket
Syllable-initial voiceless plosive /k/	1	syllable-initial position, aspirated	caught
Voiced dental fricative /ð/	5	syllable-initial position	there, the, that
Voiceless dental fricative /θ/	1	syllable-initial position	think
Post-vocalic /r/	4	syllable-final position, vC	before, for, girl, you’re

Table 3. The total number of occurrences of each target consonant and their phonetic contexts.

3.2.3. Listening Test

In order to gain insight into the participants' awareness of (native-like) pronunciation, a short listening test was added. For this listening test, the participants individually listened to three short audio fragments of English speech uttered by speakers of different language backgrounds; a native speaker of British-English, a native speaker of American-English and a native speaker of Dutch (who had a stereotypical Dutch accent). All three speakers spoke for less than a minute about what they did last weekend, so as to keep the subject as neutral as possible and not to give anything away about their language background. The three audio fragments were played separately for each subject, after which the participants were asked which country/region they thought the speaker was from. Prior to the listening test, they were told the speakers could be from any country or region in the world. In cases of doubt, the participants were allowed to hear the fragment twice.

3.2.2 Questionnaire

In order to shed light on the participants' contact with English outside the classroom, the participants were asked to fill out a questionnaire together with their parents. In this questionnaire, questions were asked regarding the amount of time spent on several English language-related activities, such as watching English television programmes and reading English texts. The data of this questionnaire can be used in order to gain insight into the extent to which groups A and B correspond with each other, wherein they differ, and what the possible effects of the exposure to English outside the classroom are on the participants' level of English pronunciation. The questionnaire can be found in Appendix B. In addition, all participants were asked the question of what they think constitutes good English speech, which they were allowed to answer orally during the moment of testing.

3.3 Procedure

Before the moment of testing, the participants were asked to fill out the questionnaire together with their parents. Only the participants who had handed in the completed survey at school were able to participate in this research. In both groups, the tests were conducted during regular class time and participants were taken separate for about fifteen minutes to complete the tasks. Before starting with the recordings, clear instructions were given orally in Dutch so as not to influence their English pronunciation. It was made sure that all participants

understood what they were being asked to do before testing began. In both schools, the tests were conducted in an enclosed space so as to avoid possible distraction. The tester and the pupil sat next to each other in order to lessen any possible tension from the subject and to be able to achieve the best quality recordings. The participants' speech was recorded by both a laptop and a cell phone to ensure at least one good recording of each individual subject. The participants' answers of the listening test were written down by the tester and it was made sure that the participants were not able to see what answers other participants had given. The same procedure was used regarding the answers to the question of what the participants believe constitutes good English speech.

For all the 30 pupils who participated in this research, the recordings were submitted to the speech analysis computer program Praat (Boersma & Weenink, 2014). Acoustic measurements were performed for the target vowels /e, æ, ɒ, ɔː, uː, ʊ/, which were individually extracted from preselected words that speakers had read out during the reading task. According to Smakman and De France (2014, p. 292), vowel analysis is most typically performed by examining the frequencies of resonance peaks, or formants, in the speech signal. In the spectrum of a vowel, the value of the first and second formant usually determine the perceived vowel and they are generally sufficient to properly identify a vowel (Deterding, 1997, p. 48). The first formant (F1) is very sensitive to the degree of opening of the mouth and the higher the frequency, the more open the vowel is. The second formant (F2) is usually associated with the place where the tongue creates a constriction in the vocal tract, also known as the place of articulation. The higher the frequency of the F2, the more fronted the vowel is (Rietveld & Van Heuven, 2009, p. 151). Thirty speakers times ten vowel occurrences times two formants led to 600 measurements in total. The measured formant frequencies of group A were compared to those of group B to see whether there were any differences between the two groups. Furthermore, vowel durations were measured as well to examine whether there were any differences between the two groups regarding vowel length.

Since measuring formant frequencies is problematic for consonants, the target consonants were transcribed by means of a consensus transcription. In a consensus transcription, two or more transcribers simultaneously listen to speech and attempt to come to a transcription that both, or all transcribers agree on in order to avoid intra and intertranscriber variation (Smakman, 2006, p. 92). Several researchers (i.e. Vieregge & Broeders, 1993; Shirberg et al., 1984; Ting, 1970) have indicated that consensus transcription can reduce errors as a results of inattention and other flaws of transcribers. For this research, a transcriber pair, of which the researcher was a member, transcribed speech samples of the

reading task; as graduate students of the Leiden University Department of English, both transcribers possessed expertise with regard to the transcription of phonemes and/or the pronunciation of English. The speech samples were transcribed with the aid of the Praat speech-synthesis program (Boersma & Weenink, 2014) and it was made sure that all speech samples were clearly audible. In total, 510 consonantal tokens (17 occurrences times 30 speakers) were listened to and judged by the transcriber pair, but also some attention was payed to the target vowels mentioned above. Each consonantal token was judged as either a successful or an unsuccessful realisation of the issue in question. However, the syllable-initial voiceless plosives /p,k/ were judged differently. Intuitive benchmarks were designed for categorising the successes and failures of the learners regarding the pronunciation of each consonant. The pronunciation of the target consonants was graded by means of the following system: the syllable-final voiced plosives /d,g/ were given a 1 when they were pronounced correctly (voiced) and a 0 when they were pronounced incorrectly (i.e. voiceless instead of voiced). This grading system was also used for the voiceless and voiced dental fricatives /ð/ and /θ/ and post-vocalic /r/. As mentioned before, for the syllable-initial voiceless plosives /p,k/, a slightly different grading system was used; a 2 was given when there was strong aspiration, a 1 when there was slight aspiration, and a 0 when this consonant was pronounced without aspiration. In addition, the deviant realisations of the consonant tokens which received a 0 were written down.

In addition, a panel of 4 native speakers and 8 non-native speakers were asked to judge the pronunciation of twenty participants in terms of the speakers' nativeness and intelligibility. Judgements were made on a scale from 1 to 10 in which 1 stood for heavily accented non-native speech and unintelligible and 10 stood for native-like speech and very intelligible. For this judgement task, speech samples of the picture description task were used as these provided the most natural speech. Finally, the data were processed by means of SPSS, Statistical Package for the Social Sciences (version 22). For comparing the speech productions of the two groups, an independent samples T-test was used; this test is used to compare the means on a dependent variable for two unrelated groups in order to determine whether there is a statistically significant difference between these means. A Pearson correlation coefficient was used to find a possible correlation between the amount of input/exposure to English outside the classroom and the outcomes of the speech analyses. This correlation coefficient is used to find a linear relationship between two variables. However, due to a limited sample size no further statistical analyses were performed for the

outcomes of the listening test, the grading survey, and the answers to the question ‘what constitutes good English?’.

Chapter 4: Results

In this chapter, the research results will be presented on the basis of the sub-questions introduced in chapter 1 and elaborated on in chapter 2. While the first sub-question deals with differences between the groups in terms of pronunciation as reflected in the outcomes of the speech analyses, the second sub-question focuses on the influence the participants' exposure to English outside the classroom exerts on their English pronunciation. First, the general statistics of the acoustic measurements and the transcriptions will be presented, followed by data of the listening test, the question concerning what constitutes good English speech, the grading survey, and the questionnaire regarding the participants' exposure to English outside the classroom. In addition, the outcomes of independent samples T-tests and a Pearson product-moment correlation coefficient will be presented.

4.1 Descriptive Data

4.1.1 Raw Data Acoustic Measurements Vowels

Table 4 shows the mean Hz values of the vowels produced by the 30 participants. Figures 3 and 4 provide a more visual representation of the mean Hz values. In total, 600 vowel tokens were measured (thirty speakers times ten vowel occurrences times two formants). In table 4, the range between the highest and lowest mean measurements per vowel has been indicated as well.

		Group A	Group B	Range Group A	Range Group B
/ɔ:/	F1	691	701	496-898	615-868
	F2	1301	1358	685-1529	1070-1680
/u:/	F1	443	438	375-558	381-507
	F2	1637	1903	1167-2253	1402-2582
/ʊ/	F1	447	449	327-552	365-559
	F2	1104	1058	776-2438	822-1328
/ɒ/	F1	702	644	548-879	495-770
	F2	1317	1265	1066-1899	973-1441
/æ/	F1	703	700	555-911	605-848
	F2	2239	2144	2018-2600	1179-2463
/e/	F1	666	637	536-910	420-814
	F2	2221	2052	1963-2655	1429-2287

Table 4. Mean values in Hz of F1 and F2 of all six vowels produced by group A and B.

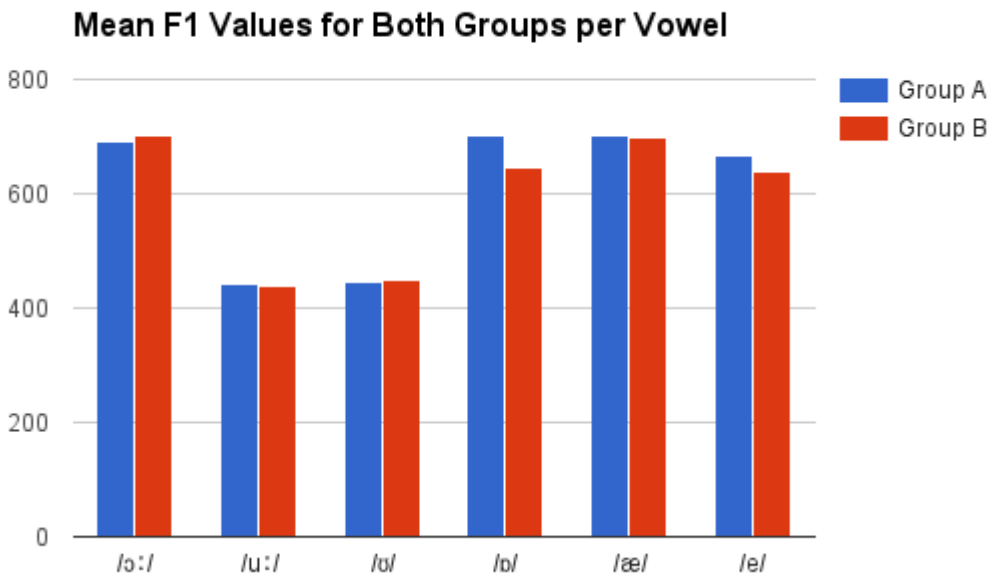

Figure 3. Comparison of the mean F1 values in Hz group A and B.

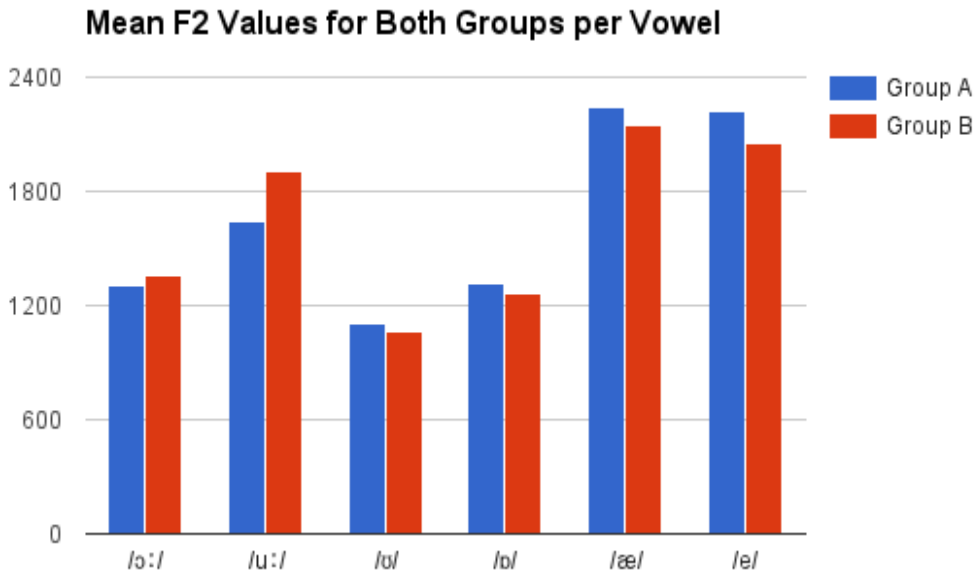

Figure 4. Comparison of the mean F2 values in Hz group A and B.

The data shows that for the vowel /ɔ:/ (preceding the lenis consonant /g/), the mean F1 and F2 values of group B (701 and 1358) were slightly higher than those of group A (691 and 1301). In other words, participants of group B had a slightly more open and more front /ɔ:/ than speakers of group A. However, from the mean formant values alone, it cannot be said with certainty whether participants of group B had a more British English pronunciation than participants of group A, who, seen the difference in values, may have had a pharyngealised Dutch pronunciation (as in Dutch *zot*), as it is also plausible that participants of group B had a more American English pronunciation seen the degree of openness of the vowel. However, during the transcriptions of the consonants, the transcriber pair also paid some attention to the vowels in question, but they did not perceive any instance of a too open /ɔ:/ due to a possible General American English influence. Rather, more instances of a shortened, pharyngealised /ɔ:/ were perceived in group A than in group B, an observation which was also monitored when the average vowel lengths of both groups were compared. Table 5 shows the mean vowel durations in seconds of the target vowels presented in chapter 3, and shows that group A has a shorter vowel length for /ɔ:/ (0.100213) than group B (0.112781).

	/ɔː/ *dogs*	/uː/ *zoo, beautiful*	/ʊ/ *book*	/ɒ/ *not, pocket*	/æ/ *bad, man*	/e/ *bed*
Group A	0.100213	0.133898	0.078188	0.067605	0.110294	0.095667
Group B	0.112781	0.125786	0.094114	0.080818	0.129514	0.116533

Table 5. Vowel length in seconds per vowel.

For the vowel /uː/ (in syllable-final position), the mean F1 value of group A (443) was slightly higher than the mean value of group B (438), resulting in a more open pronunciation of this vowel by speakers of group A. Furthermore, as can be seen in table 5, group B produced a slightly shorter /uː/ (0.125786) than group A (0.133898). Since group B produced a shorter and closer vowel than group A, it is arguable that group B's pronunciation is closer to Dutch /u/ than group A's. However, group B's mean F2 value for /uː/ (1903) was higher than that of group A (1637), which means that group B produced an /uː/ which was more front. Interestingly, hardly any difference was found between the two groups in terms of the degree of opening of the mouth as regards the vowels /ʊ/ (as in *book*) and /æ/ (preceding lenis consonants); the mean F1 values for both groups were relatively similar (447 and 449; 703 and 700). However, Group B's vowels were longer in terms of duration than those of group A and, therefore, it is arguable that group A over-shortened their /æ/. Yet, the transcriber pair did not perceive clear differences between the two groups regarding this vowel in terms of duration and they concluded that for almost all speakers, this vowel was relatively short. Group B's longer vowel length of /ʊ/ might be an indication of a more Dutch pronunciation, as in British and Cultivated South African English, this vowel is relatively short. However, once more, the transcriber pair was not able to identify remarkable differences in terms of vowel length between the two groups.

As regards /ɒ/, group A had a slightly higher F1 and F2 than group B, which means that group A produced a more open and more front vowel. This difference was also observed by the transcriber pair, who mentioned that several speakers of group A pronounced /ɒ/ more like /ɑ/ (as in *palm*), a result which was not, or in a lesser extent, found in group B. Furthermore, for /e/, group A also had higher values for both formants than group B. Taking into account group A's shorter vowel length for /æ/ and the higher formant values for /e/, it is plausible to assume that speakers of group A had more difficulty with the /e - æ/ contrast than speakers of group B.

Table 6 shows the mean Hz values of the vowels produced by the girls and the boys of both groups. A remarkable difference was found between the F2 values of /uː/ produced by the girls of group A (1681) and the girls of group B (2018), a difference which was also found between the boys of group A (1570) and the boys of group B (1825). The differences between the groups can be linked to the finding that, overall, group B has a higher F2 value for /uː/ than group A (see table 4). Another striking difference was found between the F2 values for /e/ produced by the girls of group A (2315) and the girls of group B (2095); the girls of group A had a remarkably more front /e/ than the girls of group B, a tendency which was also observed when the mean F2 values of both groups were compared (see table 4). Furthermore, another striking difference between the girls of group A and B was found with respect to the F2 values of /æ/. While the girls of group A had a value of 2276, the girls of group B had a much lower value of 2032, which means that the girls of group A had a more front /æ/ than the girls of group B. No such remarkable difference was found between the boys of group A and B.

		Girls Group A	Girls Group B	Boys Group A	Boys group B
/ɔː/	F1	690	677	692	718
	F2	1306	1345	1292	1367
/uː/	F1	457	439	421	437
	F2	1681	2018	1570	1825
/ʊ/	F1	451	460	441	442
	F2	1186	1022	982	1082
/ɒ/	F1	728	659	664	633
	F2	1420	1272	1163	1260
/æ/	F1	726	705	668	697
	F2	2276	2032	2182	2219
/e/	F1	719	676	586	611
	F2	2315	2095	2081	2023

Table 6. Mean values in Hz of F1 and F2 of all six vowels produced by girls and boys of both groups.

Two independent samples t-tests were conducted to compare the F1 (open/close dimension) and F2 (front/back dimension) values in native speaker teacher (group A) and class teacher conditions (group B). An independent samples t-test is used to compare the means on a dependent variable for two unrelated groups in order to determine whether there is a statistically significant difference between these means. As can be seen in table 7, the differences between the F1 values of group A and B were not statistically significant ($t(178) = 0.681$, $p = 0.496$). In addition, as shown in table 8, the differences between the group A's and B's F2 values were also not statistically significant ($t(178) = 0.088$, $p = 0.930$).

Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means						
									95% Confidence Interval of the Difference	
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
F1	Equal variances assumed	1,461	,228	,681	178	,496	13,83333	20,30108	-26,22843	53,89510
	Equal variances not assumed			,681	174,811	,497	13,83333	20,30108	-26,23343	53,90010

Table 7. Independent Samples T-Test F1 values group A and B.

Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means						
									95% Confidence Interval of the Difference	
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
F2	Equal variances assumed	,895	,345	,088	178	,930	6,58889	75,00400	-141,42256	154,60034
	Equal variances not assumed			,088	176,872	,930	6,58889	75,00400	-141,42902	154,60680

Table 8. Independent Samples T-Test F2 values group A and B.

4.1.2 Raw Data Consonant Transcriptions

The results of the consonant transcriptions of group A and group B were compared to determine which group produced the six consonants correct most. Table 9 shows the percentage of tokens successfully produced by each group; all correct utterances of the 510 tokens were calculated and divided by the total number of tokens per consonant to yield a "percentage correct" figure. The syllable-initial voiceless plosive /p/ was treated slightly different due to its deviant grading system; table 9 shows both the percentages of tokens which received a 2-point grade (good aspiration; correct) and tokens which received a 1-point grade (slight aspiration; getting there). As shown in table 9, the percentage correct for syllable-final /g/ was the same for both groups. However, group B had higher percentages of correct consonant productions than group A regarding syllable-final /d/ (53.3%), the voiced

and voiceless dental fricatives /θ, ð/ (60%, 25.3%), and postvocalic /r/ (18.3%). As regards the syllable-initial voiceless plosive /p/, group B had a higher percentage correct in terms of the 2-points grade (10%) than group A (6.6%). Yet, group A had a higher percentage correct regarding this consonant in terms of the 1-point grade (16.6%).

Consonant (phoneme)	Syllable-final /g/	Syllable-final /d/	/θ/	/ð/	DEL- /r/	/p/ 2 points	/p/ 1 point
Group A	6.6	44.4	40	14.6	6.6	6.6	16.6
Group B	6.6	53.3	60	25.3	18.3	10	10

Table 9. The percentage of tokens successfully produced per consonant by group A and B. All correct utterances per consonant were calculated and divided by the total number of tokens per consonant.

Table 10 shows the percentage of tokens successfully produced by each group divided by sex. Interestingly, none of the girls in both groups were able to produce syllable-final /g/ correctly, as they all produced a lenis consonant instead of a fortis one. Furthermore, all of the boys of group A produced a highly audible /r/, which is unusual in British and (Cultivated) South African English. What is striking is that, while approximately 50 per cent of the tokens for syllable-final /d/ were pronounced correctly by the girls of both groups and the boys of group B, only 33.33 per cent of these tokens were pronounced correctly by group A's boys. Furthermore, there was a striking difference between the girls in group A and B as regards the percentages for the voiceless fricative /θ/; whereas 66.66 per cent of the tokens for this consonant were produced correctly by the girls of group B, only 33.33 per cent were produced correctly by the girls of group A.

	Syllable-final /g/	Syllable-final /d/	/θ/	/ð/	DEL- /r/	/p/ 2 points	/p/ 1 point
Group A Girls n=9	0	51.85	33.33	17.77	11.11	11.11	16.66
Group A Boys n=6	16.66	33.33	50	10	0	8.33	16.66
Group B Girls n=6	0	50	66.66	13.33	16.66	11.11	11.11
Group B Boys n=9	11.11	51.85	55.55	33.33	19.44	5.55	5.55

Table 10. Group A and B's percentage correct for the six consonantal features divided by sex.

An independent samples t-test was conducted as well to compare the scores of the consonant pronunciations in native-speaker teacher (group A) and class teacher conditions (group B). As can be seen in table 11, once more, the differences between the scores of the two groups were not statistically significant ($t(28) = -1.648$, $p = 0.111$).

Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means						
									95% Confidence Interval of the Difference	
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
Consonant Score	Equal variances assumed	,198	,659	-1,648	28	,111	-1,33333	,80908	-2,99065	,32398
	Equal variances not assumed			-1,648	27,528	,111	-1,33333	,80908	-2,99193	,32526

Table 11. Independent Samples T-Test consonant scores group A and B.

4.1.3 Raw Data Listening Test

Of the 15 participants of group B, 10 participants were able to correctly tell which countries all three model speakers were from. In group A, only 8 of the 15 participants were able to give the correct answers for all three speakers. As can be seen in table 12, the participants of group A seemed to have more difficulty connecting English speech to the speaker's country of origin than participants of group B. In group A, two participants were not able to differentiate the speech of the British English speaker and the speech of the American English speaker, whereas in group B, this only counted for one participant. Yet, in both

groups, multiple participants were not able to guess correctly where the American English speaker was from. Strikingly, 4 of the 15 participants of group A thought that speaker 2, a native speaker of Dutch, was Asian.

	Group A (native speaker teacher) n=15	Group B n=15
Speaker 1 - England (London)	2 (USA)	1 (USA)
Speaker 2 - the Netherlands	5 (1x USA, 4x Asia)	1 (Germany)
Speaker 3 - USA (Mid-West)	4 (3x Great Britain, 1x Spain/Italy)	4 (3x Great Britain, 1x NL)

Table 12. Total number of wrong answers per fragment given by participants of both groups during the listening test.

4.1.4 Raw Data Question 'What Constitutes Good English Speech?'

Table 13 shows the most frequently mentioned answers of both groups to the question of what the participants believe constitutes good English speech. According to both groups, when a person pronounces words correctly, this means that he or she is a good speaker of English; the phrase was uttered by 11 participants of group A and 10 participants of group B and suggests that in both groups, participants deem proper pronunciation the most important feature in speaking good English. However, when participants mentioned the phrase, they were asked to clarify it in more detail. For participants of both groups, pronouncing words correctly relates to intelligibility and comprehensibility and the idea that as a speaker you know what you are saying. Making pronunciation mistakes, such as confusing vowels, or inserting Dutch sounds, was deemed incorrect according to participants of both groups. In group B, several additional features were mentioned, such as good articulation and fluency. There was a slight difference in the number of participants who mentioned accent to be an important factor in speaking good English (4 in group A and 6 in group B). However, the participants of both groups believed that having a strikingly foreign accent means one is not a good speaker of English, a concept which was also mentioned with regard to correct pronunciation. In addition, 6 participants of group A and 4 participants of group B mentioned that British English is more 'chic' and more 'beautiful' than American English. Interestingly, two participants of group A and one participant of group B explicitly mentioned that having a

native-like accent is not important for speaking proper English. Related to the notion of nativeness, three participants of group A and four participants of group B mentioned that when a person is born in an English-speaking country, this automatically entails he or she has a good command of English, both grammatically and pronunciation/accent wise. Furthermore, whereas 7 participants of group A claimed that grammatical correctness plays an important part in speaking proper English, only 4 participants of group B believe this feature is important.

Answers	Group A (n=15)	Group B (n=15)
When he/she pronounces words properly	11	10
When he/she is a native speaker	3	4
When you have a good accent	4	6
When it is grammatically correct	7	4

Table 13. What constitutes good English speech? Most frequently mentioned answers group A and B and the number of participants who gave these answers.

4.1.5 Raw Data Grading Survey

As shown in table 14, the mean grades of the participants' level of nativeness and intelligibility of both groups lie relatively close together. Participants of group B received a slightly higher score regarding their level of nativeness (5.36) than the participants of group A (5.24). However, the participants of group A scored slightly higher on intelligibility (7.30) than the participants of group B (7.01).

	Group A (native speaker teacher) n=10	Group B n=10
Mean Grade Nativeness	5.24	5.36
Mean Grade Intelligibility	7.30	7.01

Table 14. Mean grades nativeness and intelligibility group A and B.

Furthermore, as shown in table 15, the native speaker raters gave slightly higher grades regarding the participants' level of nativeness than the non-native speaker raters. In addition, the native speaker raters also gave slightly higher grades for group A's level of intelligibility (7.45 versus 7.27), whereas the non-native speaker raters gave higher grades for group B' s level of intelligibility (7.12 versus 7.01). As can be seen in tables 14 and 15, remarkably, the mean grades regarding the participants' level of nativeness all lie somewhat in the middle. It is possible that the raters did not dare to give grades that were more towards the outer edges (i.e. 1-10), but rather chose for a safe option, namely the middle (5). This safe option could possibly have been avoided by providing a scale range (i.e. an 8-point scale) which does not allow raters to opt for a middle position. However, most raters commented that they did not perceive remarkable differences between the speakers, and mentioned that the speakers' productions were especially similar in terms of their degree of nativeness. Therefore, it is questionable whether the raters used the middle point (5) as a safe option rather than as an actual representation of their perceptions.

	Group A (native speaker teacher) n=10	Group B n=10
Mean Grade Native Speaker Nativeness	5.63	5.64
Mean Grade Native Speaker Intelligibility	7.45	7.01
Mean Grade Non-native Speaker Nativeness	5.19	5.36
Mean Grade Non-native speaker Intelligibility	7.27	7.12

Table 15. Mean grades native speaker raters and non-native speaker raters for group A and B.

Most of the raters mentioned the use of Dutch and/or over-shortened vowels, a lacking fortis/lenis contrast and the mixing of British English and American English by the same speaker as features that influenced the speakers' scores regarding their level of nativeness mostly. Furthermore, fluency seemed to be an important factor contributing to higher levels of nativeness according to the raters; as mentioned by several raters, great fluency 'helps', even when there are grammatical or phonological mistakes. In addition, according to the raters, the use of Dutch and/or over-shortened vowels influenced the participants' intelligibility mostly in a negative way.

4.1.6 Influence of Spare-Time Activities in English

The data shows that the amount of time spent on spare-time activities in English is relatively similar for group A and B; on average, group A spends 466.67 minutes per week on extramural English, whereas group B spends 469 minutes per week on English spare-time activities.

	Group A (native speaker teacher) n=15	Group B n=15
Stories	25	25.33
Games	110	155.33
Conversations	12.33	2.33
Television	160	135.33
Music	149	146.67
Repetition of what is taught at school	10.33	4

Table 16. Average number of minutes per week spent on English input outside the school curriculum and classroom.

As can be seen in table 17, all participants of group A watch English television and listen to English music. In group B, there is only one participant who does not listen to English music and two participants who do not watch English TV. Taking into account these slight differences, as can be seen in table 16, the amount of time spent on these activities is relatively similar for both groups. Interestingly, all participants of group A mentioned they

solely watch American English television and films. In group B, all participants watch American English TV-programmes and films as well, but two participants mentioned they also watch British English TV.

There is a striking difference in the percentage of participants who do not speak English outside the classroom. In group A, 7 participants do not speak English outside the classroom (46.7%), whereas in group B, 13 participants do not engage in English conversations outside the classroom (86.7%). This difference is also seen in the average amount of time spent on speaking English outside the classroom, as group A spends 12.33 minutes per week conversing in English and group B only 2.33 minutes. These findings can possibly be linked to the fact that, in group A, 8 participants claim to hear significantly more English when on holidays abroad, whereas in group B this only counts for 3 participants. There is also a notable difference in the percentages of participants who, at home, do not revise what was taught at school during their English classes. For group A, this goes for 4 participants (26.7%), whereas in group B there are 12 such participants (80%). Further, the average number of minutes per week spent studying and revising what was taught at school is also remarkably higher in group A (10.33) when compared to that of group B (4). Interestingly, while in group A there are more participants (9) who claim to read English stories than in group B (4), the average amount of time for this activity is strikingly similar for both groups. This means that, while, in group B, there are fewer participants who engage in reading English texts, these participants seem to spend more time on this activity than the participants of group A.

	Group A (native speaker teacher) n=15	Group B n=15
Stories	6 (40%)	11 (73.3%)
Games	3 (20%)	1 (6.7%)
Conversations	7 (46.7%)	13 (86.7%)
Television	0 (0%)	2 (13.3%)
Music	0 (0%)	1 (6.7%)
Repetition of what is taught at school	4 (26.7%)	12 (80%)
Exposure to English during holidays	2 (13.3%)	6 (40%)

Table 17. Number and percentage of participants per variable who are not exposed to English outside the school curriculum.

A Pearson product-moment correlation coefficient was computed to assess the relationship between the scores of the consonant transcriptions and the number of minutes per week spent on English outside the classroom. The Pearson correlation coefficient is used to find a linear relationship between two variables. If the Pearson correlation is close to 1, the two variables are highly correlated. Table 18 shows the outcomes of three separate Pearson correlation coefficients computed for group A.

	Number of minutes per week spent on English outside the classroom		
	Pearson Correlation	Sig. (2-tailed)	N
Consonant Grades	0.095	0.737	15
F1 Values	-0.308	0.263	15
F2 Values	-0.060	0.832	15

Table 18. Pearson Correlation Coefficients of the consonant grades, the F1 values, the F2 values, and the number of minutes per week spent on English outside the classroom - Group A.

The consonant grades, the F1 values and the F2 values of group A were subsequently paired with the number of minutes per week spent in this group on English outside the classroom to examine whether there was a linear relationship between the variables. The table shows that, in group A, no significant correlation was found between between the number of minutes per week spent on English outside the classroom and the three separate variables.

A Pearson product-moment correlation coefficient was also computed to assess the relationship between group B's consonant scores, F1 values, F2 values, and the number of minutes per week spent on English outside the classroom. The data presented in table 19 shows that, in group B, also no significant correlation was found between the the number of minutes per week spent on English outside the classroom and the three variables.

	Number of minutes per week spent on English outside the classroom		
	Pearson Correlation	Sig. (2-tailed)	N
Consonant Grades	0.253	0.363	15
F1 Values	0.053	0.852	15
F2 Values	-0.216	0.439	15

Table 19. Pearson Correlation Coefficients of the consonant grades, the F1 values, the F2 values, and the number of minutes per week spent on English outside the classroom - Group B.

Chapter 5: Conclusion

This research has examined whether learners of early English learning programmes in Dutch primary schools (partly) taught by a native speaker attain a more native-like pronunciation in terms of segmentals than learners in such programmes who are not taught by a native speaker. Research was conducted to determine whether there were any differences between the learners in terms of pronunciation and whether the amount of input and exposure to English outside the classroom exerts influence on the learners' pronunciation. To investigate this, the participants' speech was recorded and analysed by means of the computer program Praat (Boersma & Weenink, 2014), as well as by means of transcriptions. In addition, speech samples of 20 participants were rated on their degree of nativeness and intelligibility. Furthermore, a listening test was used to gain insight into the participants' awareness of native English speech and participants were also asked to formulate their opinion on the question 'what constitutes good English speech?'. A questionnaire was used to shed light on the participants' contact with English outside the classroom. At the time of testing, all participating subjects were in group 8 (age 11-12) of primary school. The results based on the research question and sub-questions will be elaborated upon in this chapter.

5.1 Differences between Formant Frequencies

No statistically significant difference was found between the formant values of the participants (partly) taught by a native speaker teacher (group A) and the participants taught by their classroom teacher (group B). Both groups' formant frequencies for /ʊ/ were very similar, and, therefore, no specific comments can be made regarding the degree of openness and the tongue position of this vowel. In addition, while the data shows that group B had a slightly longer realisation of /ʊ/ than group A (table 5), the transcriber pair perceived no remarkable differences between the two groups in terms of vowel duration. However, differences were found between the groups' formant frequencies of the other five target vowels (/e, æ, ɒ, ɔː, uː/) and from the comparison of the groups' mean formant values, vowel lengths, and the observations of the transcriber pair, it can be argued that, as regards these vowels, group A experienced more influence from their L1 (Dutch) and/or General American English than participants of group B.

Preceding word-final voiced plosive /d/, group A produced a more open and front /e/ than group B. In addition, group A's realisations of /æ/ were shorter than those of group B. Therefore, it is arguable that group A had more difficulty contrasting /e/ and /æ/ – one of the

major and persistent errors of Dutch speakers of English (Collins & Mees, 2003; Collins et al., 2011) – than group B and which blurred the distinction between the words *bad* and *bed*. It is likely that the production of a shorter /e/ and /æ/ was due to a confusion of the fortis/lenis contrast; speakers of group A produced fewer correct tokens for syllable-final /d/ than speakers of group B, as word-final /d/ (as in *bad*, *bed*) was almost invariably replaced by a fortis consonant. Furthermore, it is arguable that group A exhibited influence of General American English in regard to /ɒ/, since participants of group A used a more open and front vowel than participants of group B. The transcriber pair identified group A's realisations of /ɒ/ to be similar to /ɑ/ (as in *palm*), the typical General American counterpart to /ɒ/ (Smakman & De France, 2014, p. 290). This result was not, or in a lesser extent, found in group B. However, it is also arguable that group A's realisation of /ɒ/ was closer to (Cultivated) South African English, as, according to Lass (2002, p. 115), this vowel is slightly more open and centralised than in British English (RP). As regards /ɔː/, more instances of a too short, pharyngealised Dutch vowel /ɔ/ were perceived in group A than in group B. As highlighted by Collins and Mees (2013, p. 288), this is a typical pitfall for Dutch speakers of English. However, for /uː/, speakers of group B had a shorter, and more front realisation than speakers of group A, and it is therefore arguable that group B's realisation was closer to Dutch /u/ (as in *moe*, transl. *tired*) than group A's realisations. However, the transcriber pair did not perceive striking differences between the two groups.

Since no reference measure could be used and the formant frequencies were compared only with each other, it is very difficult to argue which group produced the most native-like vowels. Whereas, based on the above data, it can be argued that speakers of group A produced more Dutch-like vowels than speakers of group B, it cannot be argued with certainty whether, therefore, speakers of group B produced more native-like vowels than speakers of group A. Further research is needed to determine in what degree the participants' formant values truly resemble those of Cultivated South African English, British English, and possibly Dutch and/or General American English. Unfortunately, mean formant values of children speaking these language varieties are not readily available in the existing literature and comparing the formant values of children with those of adults (which are available in the existing literature) may influence the results due to the disparities in size of the speech organs of adults and young children.

5.2 Differences between Consonant Productions

Similar to the formant values, no statistically significant difference was found between the consonant grades of the participants (partly) taught by a native speaker teacher (group A) and the participants taught by their classroom teacher (group B). However, the data shows that, in general, participants of group A had more difficulty producing correct consonantal tokens than participants of group B. Therefore, it could be argued that, concerning consonants, group B's productions were more native-like than group A's. Strikingly, this result was unexpected as it was hypothesised that learners of early English learning programmes in Dutch primary schools (partly) taught by a native speaker attain a more native-like pronunciation than learners in such programmes who are not taught by a native speaker. While, in the Netherlands, primary schools and parents often believe native speaker teachers are an asset for early English language education, especially in regard to pronunciation (SLO, 2011), it can be questioned whether this is really the case. However, since this research only examined a small set of subjects of a limited number of schools, more extensive research on this topic should be conducted before such generalisations can be made.

Further, it is questionable to what extent the difference in correct consonant productions between the groups relates to the differences in types of teachers; a possible explanation for the difference in correct realisations is that participants of group B experienced more hours of English input and exposure at school than participants of group A. This is in line with research by Munoz (2006) and Bongaerts et al. (2006), who suggest that the amount of input and exposure to the target language plays an important role in second language learning success. In addition, the participants of group A were taught by the native speaker teacher only during the first four years of primary education, after which she was replaced by the class teacher. As highlighted by Larson-Hall (2008), the differences between native and non-native speaker teachers in terms of learners' phonological proficiency only become relevant after about 1,200-2,200 hours of input. The participants who were taught by the native speaker teacher were taught only a fraction of this number (approximately 220 hours over a time span of eight years) and, thus, the limited amount of native input may have inhibited group A's phonological abilities. However, as this research did not look into the possible effects of the amount of input and exposure to the target language on English pronunciation, no such claims can be made and this requires more research on this topic.

5.3 Remarks on Foreign Accentedness

The results of the grading survey show that native and non-native speaker raters did not perceive remarkable differences between the two groups in terms of their degree of nativeness. Both groups were given a mark close to 5, which suggests that the raters perceived a (mild) foreign accent in all speech samples. According to most raters, the use of Dutch and/or over-shortened vowels, a lacking fortis/lenis contrast and the mixing of British English and American English influenced the speakers' scores regarding their level of nativeness mostly. Since the speech samples of both groups were given similar grades concerning their degree of nativeness, it could be argued whether, for pronunciation, it matters if pupils are taught by a native speaker or a non-native speaker. However, due to differences between the groups in the amount of English input during class time and the fact that the native speaker teacher only taught the first four years of primary schools, further research is needed to examine this issue.

Interestingly, for all speakers, higher grades were given for the degree of intelligibility than nativeness, which is in line with research performed by Derwing and Munro (1995), who argue that heavily accented speech samples can be completely intelligible. Furthermore, this result suggests that, since the participants were still able to produce fairly intelligible communicative output, having a foreign accent does not seem to be problematic. This idea is in agreement with research by Morley (1991), who mentions that a native-like accent is not a necessary condition for comprehensible communicative output. However, according to participants of both groups, speaking English with a foreign (Dutch) accent is undesirable as it suggests a lesser command of the English language than speakers who have a native-like accent. Furthermore, according to participants of both groups, a British English accent is deemed more desirable than an American English accent. As reflected in the outcomes of the listening test, participants of both groups were relatively able to distinguish non-native English speech from native English speech, and to distinguish British English from American English. These findings suggests that speakers of both groups are able to perceive and distinguish English speech sounds fairly well. However, in both groups, participants produced a highly audible /r/ and participants of group A seemed to display some influence of General American English in their vowel productions. Moreover, as reflected in the outcomes of the vowel and consonant analyses, the participants of both groups (those group A in particular) exhibited considerable negative transfer from their L1 (Dutch). The inconsistency between the participants' view on and perception of English pronunciation and

their productions can be linked to Smakman and De France's comment that the ability to recognise sounds does not always automatically results in an ability to produce them as these skills may work partly independently from each other (2014, p. 288). As research results suggest that explicit pronunciation training is beneficial for L2 speech production (Saito, 2011; Derwing & Munro, 2005; Venkatagiri & Levis, 2007), it is likely that (more) explicit pronunciation instruction could lessen these inconsistencies.

5.4 Influence of English outside the Classroom

Based on the results of the questionnaire, it was found that, in both groups, the amount of input and exposure to English outside the classroom is similar and extensive. Almost all participants listen to English music, play English (video) games and watch English TV. Interestingly, every participant watches American English TV shows and films, whereas only 2 of the 30 participants watch some additional British English TV. This finding is remarkable, since, in both groups, British English (Received Pronunciation) models are used for instruction and participants of both groups believe that British English is more desirable than American English. Between both groups, there were striking differences in the number of subjects who do not engage in English conversations outside the classroom and in the number of subjects who, at home, do not revise what was taught during class. Furthermore, participants of group B spend more minutes per week on playing English games than participants of group A. Taking into account previous research (i.e. Reinders & Wattana, 2011; Sylven, 2004; Sundqvist, 2009) which suggests that playing (video) games contributes to second language acquisition and positively influences learners' vocabulary acquisition, it can be argued that, since group B also produced more correct consonantal tokens, playing (video) games positively influences pronunciation as well. Furthermore, it is arguable that the extensive exposure to General American English outside the classroom may have influenced group A's vowel productions, as well as both groups' production of a highly audible /r/ (the rhotic /r/ may, however, have been the result of negative transfer from Dutch). Nevertheless, since no significant correlations were found by means of calculating the Pearson correlation coefficient, a relationship between the amount of input/exposure to English outside the school curriculum and the participants' vowel and consonant productions cannot be established with certainty. It would be worth exploring the relationship between the learners' pronunciation and the amount of input/exposure to English outside the classroom in more detail with a larger group of participants.

5.5 Limitations of the Study

A key limitation of this study was the short amount of time available for doing research. It was extremely difficult to find schools that met the set requirements (i.e. offering an early learning programme taught by a native speaker teacher), and which were not too busy with 'CITO' tests[2], school musicals, and holidays. Due to this limitation, I was only able to test 30 participants of two different schools. As mentioned before, the pupils who were taught English by means of a native speaker teacher were only taught by this teacher during their first four years of primary school. Partly due to the difficulty of finding schools that were willing to participate in this research, there were differences between the groups in terms of the amount of English taught in the school curriculum. Overall, participants who were taught English by the class teacher were taught considerably more minutes per week than the participants who were taught by the native speaker. However, since primary schools in the Netherlands are relatively free in selecting the amount of time they would like to reserve for English education, finding schools with similar hours reserved for English education is already quite challenging. The limitations mentioned above may have influenced the results and further research on this topic with a larger, more homogenous group of subjects is therefore highly recommended. Future research may also focus on a more homogenous group of subjects in regard to the subjects' language background, as speakers of certain areas/dialects in the Netherlands may have more difficulty pronouncing English sounds than others. It may also prove useful to examine pupils of the participating schools at the end of their first four years of primary school. While it also may have been better to examine pupils that were exposed to the same variety of English, the comparison between pupils exposed to British English (group B) with those exposed to the Cultivated South African English accent of the native speaker teacher (group A) did not cause any difficulties as the latter variety approximates that of Received Pronunciation (Lass, 2002).

In regard to the methodological design of the research tools, the total number of tokens may have been too limited, both concerning the target vowels and the target consonants to provide representative outcomes. For future research, it would be advisable to include more tokens, possibly in a larger number of different phonetic/phonological contexts. Finally, this research did not take into account suprasegmentals, such as intonation and stress, which could be of influence in determining speakers' pronunciation levels.

[2] CITO is a test administered in the last year of primary school which determines the pupils' relative intelligence levels in order to establish what corresponding secondary school they can attend.

5.6 Conclusion

The main conclusion of this MA thesis is that, unfortunately, no clear-cut answer can be given to the question of whether learners of early English learning programmes in Dutch primary schools (partly) taught by a native speaker attain a more native-like pronunciation than learners in such programmes who are not taught by a native speaker. The results of the consonant transcriptions show that learners taught by a non-native speaker produce more native-like consonants than speakers taught by a native speaker. The results of the vowel analyses indicate that learners taught by a non-native speaker produce fewer Dutch-like vowels than learners taught by a native speaker. Yet, it cannot be concluded with certainty that, therefore, the learners taught by a non-native speaker produced more native-like vowels since the vowel productions of these learners may have been deviant realisations as well. Moreover, the results of the grading survey indicate that all participants were perceived to have a similar degree of foreign accent. However, based on the results of this research, it can be concluded that, in terms of pronunciation, learners taught by a native speaker teacher are certainly not *more* native-like than learners taught by a non-native speaker. Therefore, it can be argued, considering pronunciation acquisition, whether it is beneficial for early language learners to be taught by native speaker teachers. In the Netherlands, primary schools offering early language learning programmes still actively express the need for more native speaker teachers as they believe that being taught by a native speaker contributes to second language acquisition success (SLO, 2011). Furthermore, the idea that being taught by a native speaker results in better pronunciation acquisition is strongly promoted by primary schools working with such teachers. Yet, this research does not provide support for promoting early learning programmes taught by native speaker teachers as regards pronunciation acquisition. Being taught by a native speaker may, however, be beneficial for other language acquisition aspects, but as this research did not look into this topic, no such claims can be made and more research on this topic is required. If primary schools offering early learning programmes believe they should employ a native speaker teacher, it should first be established how many teaching hours are needed to contribute to effective early foreign language acquisition. Nowadays, primary schools in the Netherlands are still relatively free in organising their English courses, which results in significant differences between schools, both in the amount of exposure time and the quality of the programme. Previous studies (Munoz, 2006; Bongaerts et al., 2006) suggest that the amount of input and exposure to the target language is of crucial importance for second language acquisition success and it is plausible that the

learners taught by a native speaker teacher did not outperform the learners taught by a non-native speaker teacher due to a difference in the amount of English classes per week. In addition, research suggests that explicit pronunciation instruction will reduce a foreign accent (Saito, 2011; Derwing & Munro, 2005; Venkatagiri & Levis, 2007). Therefore, if primary schools want to promote their programme as resulting in a native-like proficiency in their pupils, they may consider (more) pronunciation instruction in order to reduce learners' foreign accents.While this research did not find a significant correlation between the learners' speech productions and the amount of input/exposure to English outside the classroom, it has become clear that all subjects were engaging in several English-related activities outside the school curriculum. For now, it is plausible that the exposure to these activities will positively influence pronunciation, but in order to establish whether these activities really exert any influence on the subjects' pronunciation in English, further research has to be conducted.

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Appendix A

Letter to the Parents

Leiden, april 2015

Betreft: onderzoek naar uitspraak vroeg Engels op basisscholen

Geachte ouder/verzorger,

Mijn naam is Inge Hindriks en ik studeer Engelse Taal en Taalwetenschap aan de Universiteit Leiden. Op dit moment ben ik bezig met mijn afstudeerscriptie over de invulling van vroeg vreemdetalenonderwijs, wat steeds populairder wordt in Nederland. Ik ga onderzoeken of er uitspraakverschillen zijn tussen leerlingen die deelnemen aan zulke programma's en (grotendeels) les hebben gehad van een moedertaalspreker van het Engels en leerlingen die niet van een moedertaalspreker les hebben gehad. Binnenkort ga ik beginnen met mijn onderzoek op de
….school.

Waarom is het belangrijk om mee te doen?
Natuurlijk helpen u en uw kind mijn onderzoek enorm door mee te werken, maar daarnaast zal het
onderzoek scholen helpen het meeste te halen uit Engels onderwijs. Door het onderzoek kunnen
scholen beter geadviseerd worden. De school kan vervolgens beter inspringen op de wensen van
uw kind(eren).

Wat betekent meedoen aan dit onderzoek voor u en uw kind?
Om een beter beeld te krijgen over de hoeveelheid Engels die uw kind buiten school aangeboden
krijgt, vraag ik u (samen met uw kind) de bijgevoegde vragenlijst in te vullen. Hierdoor kan ik de
effecten van Engels op school beter onderzoeken. Voor uw kind betekent meedoen aan mijn onderzoek daarnaast het uitvoeren van een speelse taak in het Engels van ongeveer 15 minuten (uiteraard onder schooltijd).

Zou u de bijgevoegde vragenlijst in willen vullen en deze aan uw kind mee willen geven naar school
voor ...? Door het invullen van de vragenlijst kan uw kind in aanmerking komen voor
mijn onderzoek. De naam van uw kind zal niet worden genoemd in mijn onderzoek en alle gegevens

worden anoniem verwerkt. Als u nog vragen heeft kunt u deze sturen naar i.m.hindriks@umail.leidenuniv.nl, of u kunt mij bellen op 06-[…].

Alvast hartelijk bedankt voor de tijd en medewerking van u en uw kind! Ik hoop uw zoon of dochter straks terug te zien bij mijn onderzoek.

Met vriendelijke groet,

Inge Hindriks

Appendix B

Questionnaire

Vragenlijst Onderzoek Engels

Hoeveel minuten besteedt uw kind thuis wekelijks aan:

	Aantal min. per week
Engelstalige verhaaltjes (zelf lezen/luisteren)	…… min/week
Engelstalige spelletjes (bordspellen/computer/ Playstation etc.)	…… min/week
Engelstalige gesprekken met familieleden/vrienden	…… min/week
Engelstalige tv-programma's	…… min/week
Engelstalige liedjes	…… min/week
Het herhalen van wat je op school tijdens Engels hebt geleerd	…… min/week

Als uw kind Engelse TV-programma's kijkt of (online) spellen speelt, zijn deze dan meestal in het Brits-Engels of Amerikaans-Engels?

0 Brits-Engels

0 Amerikaans-Engels

0 Anders, namelijk: ……..

Met hoeveel verschillende mensen spreekt uw kind Engels?
0 Met niemand
0 Alleen op school met de juf/meester
0 Anders: met _____ personen
Waarvan _____ personen moedertaalsprekers van het Engels zijn.

Zijn er periodes (bijvoorbeeld tijdens vakanties naar het buitenland/familiebezoek) waarin uw kind veel meer Engels hoort dan gewoonlijk?
0 Ja, ik hoor veel meer Engels: _____ weken per jaar
0 Ja, ik hoor iets meer Engels: _____ weken per jaar
0 Nee

Bent u, als ouder, moedertaalspreker van het Engels?
0 Ja, een van de ouders heeft Engels als zijn/haar moedertaal.
0 Ja, allebei de ouders hebben Engels als hun moedertaal.
0 Nee

_____(naam ouder) geeft Inge Hindriks toestemming om aan het einde van het schooljaar 2014/2015 een Engelse taak af te nemen bij _____(naam kind). Persoonlijke gegevens en de Engelse taken zullen anoniem verwerkt worden en zullen onder geen enkel beding zonder expliciete toestemming aan derden verstrekt worden.

Datum _____ Plaats _____

Handtekening _____