

**Interlingual and developmental errors in the spoken production of young Dutch
learners of English: an error analysis**

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Abstract

This paper examined English language learning progress of young Dutch learners of English. The participants were in grade 4, around age 10, at the first moment of testing and in grade 6, around age 12 at the last testing moment. This study focused on the different types of errors these children made. An error analysis was done, and errors were split into interlingual, developmental, and other. The distribution of interlingual and developmental errors in Dutch learners of English across three years was investigated. It was found that the participants made more developmental than interlingual errors overall, which was in line with the hypothesis. Three types of analysis were run, a coarse-grained analysis, an item analysis, and a fine-grained analysis. Significant differences were found per grade, category, and item. The fine-grained analysis examined the different types of errors these children made per item. The findings showed Dutch interference in L2 English in some areas.

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1. Theoretical Background

1.1. Transfer or Cross linguistic influence

Researchers generally agree that a speaker's first language affects their learning of additional languages (Odlin, 2012; Van de Ven et al., 2018). This is called cross-linguistic influence or transfer. Whether transfer is seen as having a positive or negative influence depends on a researcher's theoretical stance. There have been some that stated that the first language interferes during the acquisition of new languages (Gvarishvili, 2013; Bennui, 2016), while others view transfer as having the potential for positive and negative influence (Benson, 2002; Cenoz, 2003; Odlin, 2012). In aspects where languages have been nearly identical positive transfer could occur because, knowledge of the L1 was directly applicable to the L2. Negative transfer occurred when learners used their L1 in aspects of the L2 that did not follow the same rule (Benson, 2002). Furthermore, learners might have avoided certain structures, because they did not occur in their L1 (Benson, 2002). An aspect of crosslinguistic influence that has been less obvious is the acceleration or delay of developmental stages in language learning. Blom et al. (2012) showed that the inflectional properties of the first language influenced the acquisition of third-person singular -s. Participants whose L1 had similar inflectional properties to English performed better (Blom et al., 2012). Learners of English as a second or foreign language have gone through roughly the same developmental stages as children learning English as their first language; however, there have been differences. Dulay and Burt (1973) proposed that L2 learners of English used universal strategies in acquiring certain grammatical morphemes. Dulay and Burt (1973) had participants from three different backgrounds, however, they all had Spanish as their first language. Dulay and Burt (1973) confirmed their proposed universal strategy in a later study with L1 Chinese children. Krashen (1977) proposed a natural order of acquisition based on previous literature. This natural order would be the same for L2 learners of English regardless of language background. However, later studies have debunked the natural order (Luk & Shirai, 2009;

Murakami & Alexopoulou, 2016). Luk & Shirai (2009) have found that learners with different L1's were highly affected by their native language in acquiring grammatical morphemes. They stated that a learner's L1 could be used to predict which grammatical aspects would be difficult for a learner. Additionally, based on the learners' native language, some learners might go through developmental stages faster or more slowly than others. Transfer has been a way to fill in gaps in lacking L2 knowledge and occurred frequently in the process of learning an L2. The above-mentioned studies provided some insight into the order of morpheme acquisition, however, to my knowledge, there is no such study focused on young Dutch learners of L2 English. Furthermore, there has been limited attention on acceleration of developmental stages based on the L1.

1.2. Error analysis

Section 1.1 provided information on crosslinguistic influence. In this section an approach to studying L1 influence is discussed. Error analysis is, as the name suggests, a method that analysed learner errors. In the context of language learning it has been a tool that could be used to determine the errors made by learners and remedies for those errors. The difference between mistakes and errors is that mistakes occur infrequently and are not indicative of a speaker's language skill, whereas errors are systematic and are caused by insufficient skill (Sompong, 2013 pp., 113-114). There have been two types of errors that have been made by foreign language learners, namely intralingual or developmental errors and interlingual or transfer errors (Richards, 1974). Developmental errors are part of a transitional stage in language learning. These types of errors are made by children learning the language as their first language and learners from different language backgrounds. A frequent developmental error is overgeneralisation. This occurred when learners falsely applied a concept to a context where it did not apply. For example, the use of a regular form on a word that is irregular. This error was found often when creating plurals. Learners know that, in order to create a plural,

they must add an -s or -es to a word, i.e., *horse – horses*, *chair – chairs*. They would falsely apply the same principle to irregular forms, i.e., *sheep – sheeps**, *child, childs** or *childes**.

Interlingual errors are based on the first language of the learner; these are transfer errors. When differentiating between developmental and interlingual errors it is useful to look at instances of child speech in the target language. If the error occurred systematically in children learning the target language as their L1 it is a developmental error. It is part of the process of learning that language. Further developmental errors are those that have been found in L2 learners of varying language backgrounds (Richards, 1974). It is difficult to classify interlingual errors because they are L1 dependent. Little research has been done on specific errors made by Dutch children learning English. Usually determining interlingual errors has been done intuitively by asking whether an error could have been a direct translation, or an example of a corresponding structure in the learners L1, (Wu & Garza, 2014; Taher, 2011; Dulay & Burt, 1973), which means it is less convincing. Typically, interlingual errors indicated an earlier stage in language learning, whereas developmental errors indicated a later stage. This is because, in order to make a developmental error a learner must have more knowledge of the target language.

Error analysis has been used to find what stage the learner has reached in their development and can be indicative of learner strategies (Corder, 1967, as cited in Sompong, 2013). Sompong (2013) concluded that error analysis provided valuable information on the types of errors learners were likely to make. Previous studies utilizing error analyses have focused on written production. Taher (2011) and Wu and Garza (2014) both focused on texts to analyse the grammatical skills of the participants. Their participants were foreign language learners of English. The contexts of their studies were vastly different. Wu and Garza's (2014) participants had Mandarin Chinese as their first language. They found that most student errors were examples of transfer. Their explanation was that the students still relied

heavily on their L1. They had not yet developed enough skill in English for developmental errors to occur (Wu & Garza, 2014). Taher's (2011) study was based on Swedish junior high school students. Taher (2011) also used written production to analyse the grammatical skills of her participants. She found that these Swedish students made numerous verb tense errors, as well as preposition errors. She attributed most of the errors to transfer or lack of grammatical knowledge. It could be argued that the transfer errors that the Swedish students made would be less hindering in communication when compared to the Mandarin Chinese speaking students, because Swedish and English share more similarities in structure. These two studies measured at one moment and focused on written production, which provided limited insight into the participant's progress.

1.3. Typological similarity

One of the aspects affecting transfer is the typological and psychotypological similarity of languages. Typological similarity classifies how closely related two languages are; this is objective, the distance between two languages does not change. Psychotypology, however, is the perceived similarity of two languages. It classifies how closely a speaker believes two languages to be related. This can be affected by exposure and experience and can change over time (Nelson et al., 2021, p. 177). Learners might consciously or subconsciously make assumptions about the L2, if they perceive the L2 as closely related to the L1. Dutch and English are both Indo-European Germanic languages and are thus more closely related than, for example, Spanish and English. Dutch learners of English could benefit from the relative similarity of the languages with vocabulary or syntax. Dutch and English share numerous cognates and often have similar grammatical structures. This could help Dutch learners of English, because they can use their already existing knowledge to support their still lacking English skills. However, these assumptions could lead to transfer errors in areas where the languages differ. This could be the case with grammar or with words that are similar but have

different meanings, false friends. The actual and perceived similarities between Dutch and English are clear enough that they would facilitate transfer.

1.4. Input and English education in the Netherlands

English in the Netherlands has a unique status. It is not classified as an official language; therefore, it is not seen as a second language. This means that English is technically a foreign language. However, typically this would mean that the language is only used in rare instances or mostly in the classroom. This would be the case for, for example, French and German. These are two foreign languages that are taught starting in high school. English, however, has a high status and is present in the everyday lives of Dutch people, for example on social media or in films, as well as in higher education. Van Oostendorp (2012) states that the Netherlands has gone from a multilingual society to a bilingual society; French and German have become less prominent, whereas English has been on the rise. Furthermore, reportedly most Dutch people are relatively competent in English, especially in comparison to speakers in other European countries (Van Oostendorp, 2012). The high status of English in the Netherlands is part of the reason English education starts at a relatively young age in the Netherlands. There are even primary schools and day cares that offer English lessons for young children (Unsworth et al., 2015). Children are expected to start receiving English lessons in fifth grade (Toorenburg & van Oostdam, 2002). These lessons are focused mostly on learning some words and phrases in a more playful manner. There is little focus on the strict teaching of grammar rules. There is substantial debate about the usefulness of certain approaches to language teaching at a young age; particularly the strict teaching of grammar has been widely contested (Abdu & Nagaratnam, 2011).

There are various approaches to teaching language. It is generally assumed that young children are better language learners than adolescents and adults, as proposed by the critical period hypothesis. The critical period hypothesis states that children are more likely to attain nativelike competence in a second or foreign language. This hypothesis suggests that

children's brains have a higher degree of plasticity and are therefore better language learners. Data supporting this is often based on language learners in naturalistic settings (Newport et al., 2001). A problem with this hypothesis is the impossibility to generalize these results to a formal learning setting, because the learning process is vastly different. Naturalistic settings provide a high volume and variety of input, which cannot be replicated in a classroom. DeKeyser (2000) found that younger children have an advantage, especially when learning implicitly. Adult outliers that did reach a nativelike proficiency had high levels of verbal analytical ability and were not part of the norm (DeKeyser, 2000). The question remains whether similar results are to be expected in a classroom. Age is not the only factor influencing language learning. Other important factors include motivation, language status, and input. In the Netherlands, English has a high status and is present in the everyday lives of children; thus, they are not solely in contact with the language in the classroom. This makes the language learning situation more of a middle ground between a foreign language learning context and a naturalistic language learning context.

2. Research Question

As discussed in the theoretical background two types of errors can be found in learners' production, namely interlingual errors and developmental errors. Interlingual errors occur when a learner still relies on their L1 and are L1 specific, whereas developmental errors can be found in the production of learners of English with different language backgrounds and children learning English as an L1 (Richards, 1974). The distinction between these errors is important because they are indicators of the developmental stages learners go through. Interlingual errors indicate an earlier stage and developmental errors indicate a later stage in a learner's progress. Error analysis is a way to determine which type of errors learners make. Research has, thus far, been mostly focused on written production as in Taher (2011) and Wu and Garza (2014) and has mainly used data taken at one point in time. This leaves a gap in our knowledge on the distribution of both types of errors over a longer period, therefore the following research question was formulated:

What is the distribution of interlingual versus developmental errors in the spoken production of young Dutch learners of English and does the distribution change across three years?

In order to answer this question, it was divided into three sub questions

- What is the distribution of interlingual and developmental errors per category across three years?
- What is the distribution of interlingual and developmental errors per item across three years?
- Which specific errors do the participants make per item across three years?

3. Hypothesis and predictions

H1: There is a difference in the ratio between interlingual and developmental errors over time.

We can expect that the pupils will make more developmental errors in the third year of their learning, because they will have gone through more of the developmental stages and rely less on their L1.

Based on previous research on transfer, second language learning, and error analysis several predictions could be made. It was expected that children still rely heavily on their first language when using English. Children might rely on their L1 grammar knowledge because they received limited grammar instruction in English. Furthermore, they might make incorrect assumptions about similarities in Dutch and English grammar based on similarities in vocabulary. Another type of error that can be expected is overgeneralisation of the limited grammar rules the pupils do know. They might assume that certain inflections work the same for all words and not yet be aware of irregularities.

Wu and Garza (2014) and Taher (2011) found evidence of interlingual and developmental errors. We can expect to find similar results, however these results were based on written production. Writing assignments or tests generally give participants more time to think about their grammar than the task that was analysed in this paper. Therefore, it is possible that a different ratio of error is found. Furthermore, this study will analyse data from three different years, we can expect there to be some development in the English skills of the participants, which can influence the number of errors as well as the types of errors they make. The ratio between developmental errors and interlingual errors can shift.

4. Method

This thesis uses existing data from the ORWELL project (Leona et al., 2021). The ORWELL project used a large test battery of which one test is included in the present study. Information on participants, materials, and procedure is based on previous accounts of the ORWELL project (Leona et al., 2021).

4.1. Participants

three hundred and seven different pupils from seven primary schools in the Netherlands were part of this study over the course of three years. The two hundred sixty-six participants that completed the task in all three years were included in this study. The schools were located in the Randstad area. Parental permission (active consent) was obtained for each participant. The participants came from diverse socio-economic backgrounds and different environments, as well as different language backgrounds.

4.2. Materials

In order to examine the participants FL morpho-syntactic production the Word Structure from the Clinical Evaluation of Language Fundamentals was used (CELF-4, Semel et al., 2003). This test measured the participants' skill in the use of appropriate pronouns to refer to people. It also assessed their skill in applying morphological rules to mark inflection and comparison. The original test included thirty-two items; this number was reduced to 12 based on a pilot study. The administration differed slightly from the standard. All instructions were in Dutch. The participants saw a picture and heard a recording by a female native speaker of British English. Their task was to complete the target sentence in English. The sentence could be played twice if necessary. Incorrect answers were coded with numbers based on the type of mistake. This will be explained further in the following Error Analysis section.

4.3. Error Analysis

All errors had a numerical code from 1 through 9; these were recoded as either interlingual, developmental, or other for the coarse-grained analysis and item analysis. Some error codes had a direct correspondence to either category, however some required some more attention

and were categorized individually. The steps to determining whether an error was developmental or interlingual were, firstly, to look for examples of the error in child speech. Secondly, to determine if the error was common across learners of different language backgrounds, and lastly, by determining whether the error was the result of clear influence from Dutch. For clarity's sake only the errors that were assigned to the interlingual and developmental categories are presented, these can be found in Appendix A. The remaining errors were classified as other.

4.3.1. Coarse grained analysis

Ten items were included in the coarse-grained analysis. These were split into two categories according to the CELF, namely phonological forms or irregular forms and derivational forms (CELF-4, Semel et al., 2003). The phonological forms included item 1 (*books*), 2 (*horses*), 3 (*children*), 4 (*reads*), and 5 (*king's*). Derivational forms included item 8 (*faster*), 9 (*fastest*), 10 (*better*), 11 (*best*), and 12 (*lucky*). Phonological forms are words that have allomorphs which are affected by their phonological environment. For example, the two allomorphs of the plural *-s* morpheme, namely *-s* and *-es*. The irregular form in this case would be item 3 (*children*). The derivational forms are based on a root word. By adding a suffix, a different word is formed. For example, *lucky* is formed from the root *luck* by adding *-y*. This category also included irregular forms, namely item 10 *better* and item 11 *best*; however, these two words follow roughly the same pattern as the other comparative and superlative.

4.3.2. Item analysis

The item analysis included twelve items for which the errors were recoded to interlingual, developmental, or other. Item 1 (*books*) was taken as the baseline item for the statistical analysis to determine between item differences.

4.3.3. Fine-grained analysis

Every item response was coded with a 0 or 1 for an incorrect and correct answer, respectively. The incorrect answers were then coded with numbers 1 through 9. Numbers 5 through 9 were the same category for all sentences, namely 5, assistant's error, 6, Dutch answer, 7, mixture of

Dutch and English in the answer, 8, other answers, 9, participant indicated they did not know the answer. Numbers 1 through 4 were sentence specific; these can be found in Appendix A.

5. Results

The findings are discussed in order of the three sub questions. The coarse-grained analysis, meaning the phonological versus derivational forms is presented first. These results are followed by the item analysis and the fine-grained analysis.

5.1. Phonological conditioning and irregular forms versus derivational forms

The research question for this section was: What is the distribution of interlingual and developmental errors per category across three years? In order to answer this question descriptive statistics are presented first, followed by the statistical analysis.

Table 1

Frequencies of different types of errors for two categories, derivational and phonological

| Category | Year | Developmental | Interlingual | Other | Correct |
|--------------|---------|---------------|--------------|-------|---------|
| Derivational | grade 4 | 349 | 140 | 440 | 401 |
| | grade 5 | 245 | 129 | 290 | 666 |
| | grade 6 | 196 | 113 | 148 | 873 |
| Phonological | grade 4 | 555 | 72 | 156 | 547 |
| | grade 5 | 425 | 46 | 101 | 758 |
| | grade 6 | 315 | 54 | 41 | 920 |

Table 1 shows the frequencies of the different types of errors per category. The phonological category included items 1 through 5 and the derivational category included items 8 through 12. The participants made relatively more developmental errors on the phonological forms when compared to the derivational forms. They made more other errors on the derivational forms. The participants improved each year.

All analyses were carried out in R (R Core Team, 2015) using the function `multinom` from the `nnet` package to estimate a multinomial logistic regression model for these data. The ternary predictor Grade had three levels (4, 5, 6) and the binary predictor

Category form had two levels (phonological, derivational). The outcome variable Error type was multinomial (no, developmental, interlingual, other). The level of outcome that was used as baseline was no error, i.e., correct answer. The contrasts show how much more likely developmental, interlingual, and other errors occurred for the predictors Grade and Category form. The results are significant, meaning that both predictors have an effect on the type of error children make. To be precise, for the predictor Category form, when moving from derivational to phonological, the log odds of making a developmental error vs. no error increase by 0.327 ($z = 5.839, p < .001$); the log odds of making an interlingual error vs. no error decrease by 0.958 ($z = -9.836, p < .001$); the log odds of making a other error vs. no error decrease by 1.261 ($z = -16.636, p < .001$). For the predictor Grade, when moving from grade 4 to grade 6 the log odds of making a developmental error vs. no error decrease by 1.195 ($z = -17.439, p < .001$); the log odds of making an interlingual error vs. no error decrease by 0.912 ($z = -8.148, p < .001$); the log odds of making a other error vs. no error decrease by 1.831 ($z = -19.412, p < .001$). For the predictor Grade, when moving from grade 4 to grade 5 the log odds of making a developmental error vs. no error decrease by 0.700 ($z = -10.581, p < .001$); the log odds of making an interlingual error vs. no error decrease by 0.617 ($z = -5.550, p < .001$). The log odds of making a other error vs. no error decrease by 0.852 ($z = -10.749, p < .001$).

Figure 1

The probabilities for the derivational forms for grades 4, 5, and 6

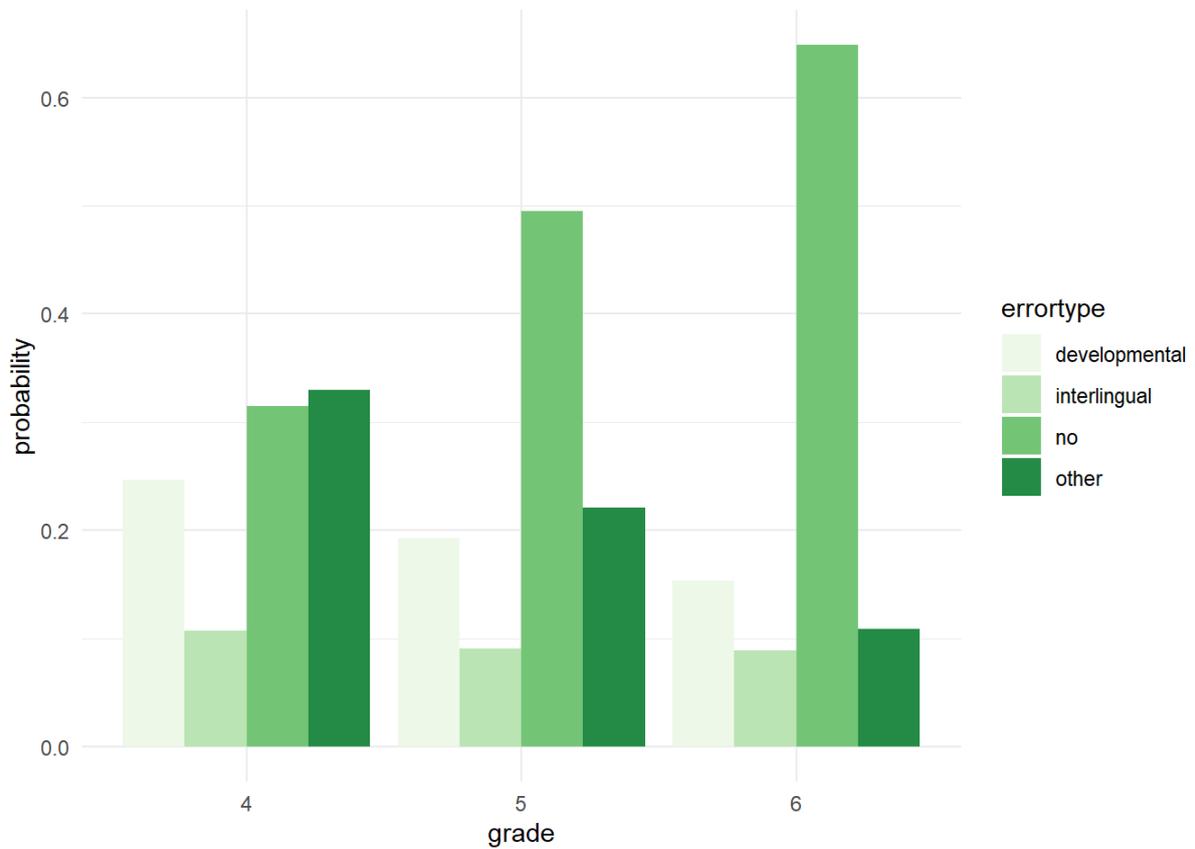


Figure 1 shows a bar chart for the derivational forms. The probability of making no error steadily increased each year, while the probability of making a developmental, interlingual, or other error steadily decreased. The probability of making an other error was relatively high in grade 4 when compared to developmental and interlingual errors. In grade 6 the probability of making a developmental was higher compared to the interlingual and other errors.

Figure 2

The probabilities for the phonological forms for grades 4, 5, and 6

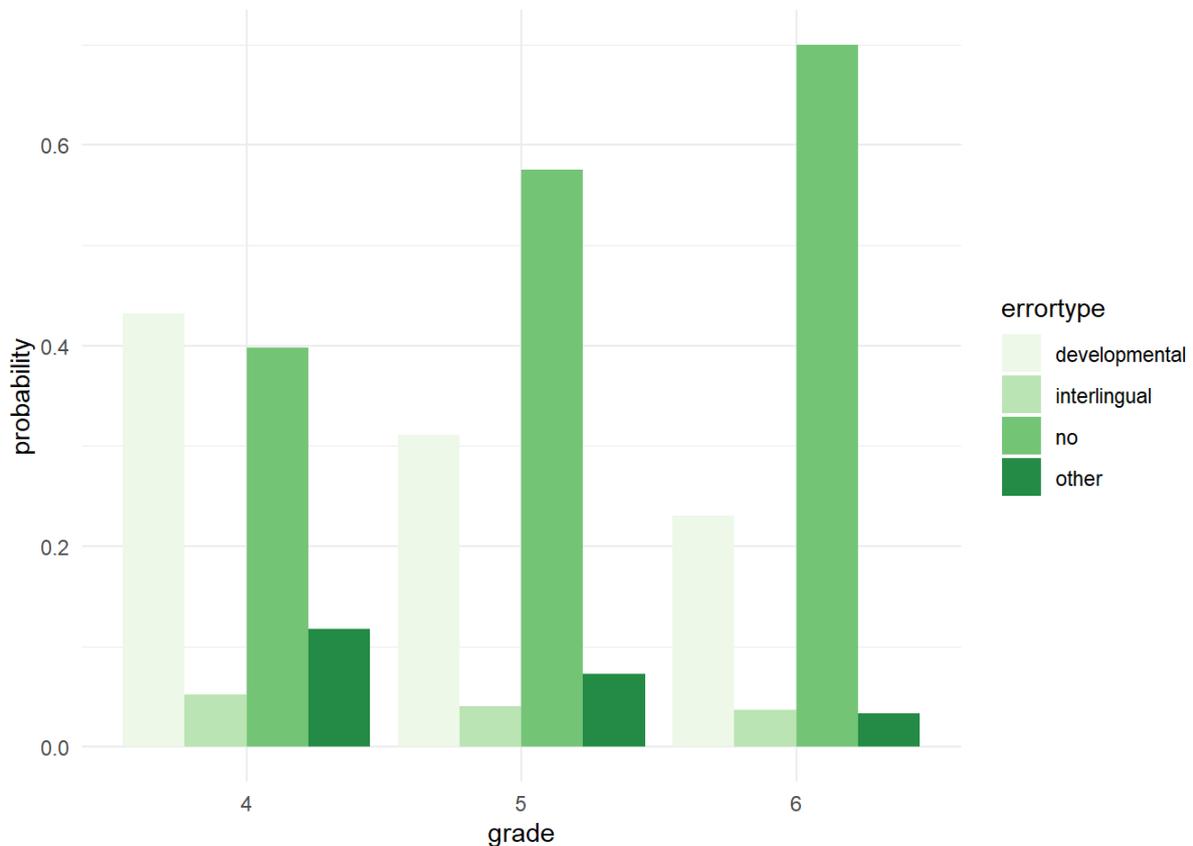


Figure 2 shows the bar chart for the phonological forms. The probability of giving a correct answer increased steadily. The probability of making a developmental error was significantly higher for the phonological forms compared to the derivational forms. Participants were more likely to make other errors on the derivational forms.

5.2. Item analysis

The sub question for this section was: What is the distribution of interlingual and developmental errors per item across three years? The frequencies of interlingual, developmental, and other errors per item over three years is presented in table 2. This is followed by the statistical analysis detailing the differences between items. The probability of making each error per item is presented in figures 3, 4, and 5.

Table 2*Frequencies of different types of errors per item*

| Item | Grade | Developmental | Interlingual | Other | Correct |
|-------------|--------------|----------------------|---------------------|--------------|----------------|
| 1 | grade 4 | 56 | 8 | 7 | 195 |
| | grade 5 | 19 | 4 | 1 | 242 |
| | grade 6 | 6 | 0 | 1 | 259 |
| 2 | grade 4 | 108 | 13 | 4 | 141 |
| | grade 5 | 45 | 7 | 5 | 209 |
| | grade 6 | 31 | 2 | 0 | 233 |
| 3 | grade 4 | 177 | 13 | 30 | 46 |
| | grade 5 | 185 | 5 | 21 | 55 |
| | grade 6 | 127 | 32 | 4 | 103 |
| 4 | grade 4 | 72 | 17 | 85 | 32 |
| | grade 5 | 99 | 12 | 45 | 110 |
| | grade 6 | 99 | 2 | 24 | 141 |
| 5 | grade 4 | 142 | 21 | 30 | 73 |
| | grade 5 | 77 | 18 | 29 | 142 |
| | grade 6 | 52 | 18 | 12 | 184 |
| 6 | grade 4 | 73 | 24 | 69 | 100 |
| | grade 5 | 20 | 5 | 35 | 206 |
| | grade 6 | 14 | 2 | 11 | 239 |
| 7 | grade 4 | 114 | 15 | 34 | 103 |
| | grade 5 | 38 | 9 | 18 | 201 |
| | grade 6 | 24 | 1 | 6 | 235 |
| 8 | grade 4 | 34 | 8 | 112 | 112 |

| | | | | | |
|----|---------|-----|----|-----|-----|
| | grade 5 | 27 | 7 | 62 | 169 |
| | grade 6 | 15 | 1 | 35 | 215 |
| 9 | grade 4 | 84 | 36 | 91 | 55 |
| | grade 5 | 58 | 58 | 60 | 90 |
| | grade 6 | 40 | 73 | 35 | 118 |
| 10 | grade 4 | 107 | 20 | 57 | 82 |
| | grade 5 | 84 | 4 | 31 | 147 |
| | grade 6 | 61 | 3 | 5 | 197 |
| 11 | grade 4 | 60 | 71 | 42 | 93 |
| | grade 5 | 34 | 59 | 27 | 146 |
| | grade 6 | 25 | 36 | 10 | 195 |
| 12 | grade 4 | 64 | 5 | 138 | 59 |
| | grade 5 | 42 | 1 | 109 | 114 |
| | grade 6 | 55 | 0 | 63 | 148 |

Table 2 shows the frequencies of the error types per item. The most frequent errors for most items were developmental errors. Exceptions were items 4 (*reads*), 8 (*faster*), 9 (*fastest*), and 12 (*lucky*) for which the other error was most frequent. The participants steadily improved each year.

All analyses were carried out in R (R Core Team, 2015) using the function `multinom` from the `nnet` package to estimate a multinomial logistic regression model for these data. The ternary predictor Grade had three levels (4, 5, 6) and the categorical predictor Item had twelve levels (1 - 12). The outcome variable Error type was multinomial (no, developmental, interlingual, other). The level of outcome that was used as baseline was no error, i.e., correct answer. The contrasts show how much more likely developmental,

interlingual, and other errors occurred for the predictors Grade and Item. The results are significant (apart from two), meaning that both predictors have an effect on the type of error children make. To be precise, for the predictor Grade, when moving from grade 4 to grade 6 the log odds of making a developmental error vs. no error decrease by 1.580 ($z = -22.888, p < .001$); the log odds of making an interlingual error vs. no error decrease by 1.271 ($z = -11.345, p < .001$); the log odds of making a other error vs. no error decrease by 2.159 ($z = -23.302, p < .001$). For the predictor Grade, when moving from grade 4 to grade 5 the log odds of making a developmental error vs. no error decrease by 1.007 ($z = -15.361, p < .001$); the log odds of making an interlingual error vs. no error decrease by 0.884 ($z = -8.102, p < .001$). The log odds of making a other error vs. no error decrease by 1.076 ($z = -13.942, p < .001$).

For the predictor Item, when moving from item 1 (*books*) to item 2 (*horses*) the log odds of making a developmental error vs. no error increase by 1.061 ($z = 7.138, p < .001$); the log odds of making an interlingual error vs. no error increase by 0.836 ($z = 2.294, p < .001$). The log odds of making a other error vs. no error increase by 0.253 ($z = 0.532, p < .001$). For the predictor Item, when moving from item 1 (*books*) to item 3 (*children*) the log odds of making a developmental error vs. no error increase by 3.293 ($z = 22.091, p < .001$); the log odds of making an interlingual error vs. no error increase by 2.872 ($z = 8.623, p < .001$). The log odds of making a other error vs. no error increase by 3.373 ($z = 9.090, p < .001$). For the predictor Item, when moving from item 1 (*books*) to item 4 (*reads*) the log odds of making a developmental error vs. no error increase by 2.128 ($z = 14.430, p < .001$); the log odds of making an interlingual error vs. no error increase by 1.834 ($z = 5.271, p < .001$). The log odds of making a other error vs. no error increase by 3.816 ($z = 10.840, p < .001$). For the predictor Item, when moving from item 1 (*books*) to item 5 (*king's*) the log odds of making a developmental error vs. no error increase by 1.935 ($z = 13.272, p < .001$); the log odds of making an interlingual error vs. no error increase by 2.255 ($z = 6.933, p < .001$). The log odds

of making a other error vs. no error increase by 2.833 ($z = 7.826, p < .001$). For the predictor Item, when moving from item 1 (*books*) to item 6 (*she is happy*) the log odds of making a developmental error vs. no error increase by 0.621 ($z = 3.841, p < .001$); the log odds of making an interlingual error vs. no error increase by 1.275 ($z = 3.685, p < .001$). The log odds of making a other error vs. no error increase by 2.912 ($z = 8.242, p < .001$). For the predictor Item, when moving from item 1 (*books*) to item 7 (*this boy is eating an apple*) the log odds of making a developmental error vs. no error increase by 1.126 ($z = 7.507, p < .001$); the log odds of making an interlingual error vs. no error increase by 1.068 ($z = 2.992, p < .001$). The log odds of making a other error vs. no error increase by 2.233 ($z = 6.116, p < .001$). For the predictor Item, when moving from item 1 (*books*) to item 8 (*faster*) the log odds of making a developmental error vs. no error increase by 0.417 ($z = 2.400, p = .016$); the log odds of making an interlingual error vs. no error increase by 0.744 but this is not significant ($z = 1.920, p = .055$). The log odds of making a other error vs. no error increase by 3.663 ($z = 10.521, p < .001$). For the predictor Item, when moving from item 1 (*books*) to item 9 (*fastest*) the log odds of making a developmental error vs. no error increase by 2.031 ($z = 12.984, p < .001$); the log odds of making an interlingual error vs. no error increase by 3.808 ($z = 12.300, p < .001$). The log odds of making a other error vs. no error increase by 4.312 ($z = 12.252, p < .001$). For the predictor Item, when moving from item 1 (*books*) to item 10 (*better*) the log odds of making a developmental error vs. no error increase by 1.789 ($z = 12.237, p < .001$); the log odds of making an interlingual error vs. no error increase by 1.436 ($z = 4.059, p < .001$). The log odds of making a other error vs. no error increase by 3.026 ($z = 8.476, p < .001$). For the predictor Item, when moving from item 1 (*books*) to item 11 (*best*) the log odds of making a developmental error vs. no error increase by 0.999 ($z = 6.228, p < .001$); the log odds of making an interlingual error vs. no error increase by 3.216 ($z = 10.485, p < .001$). The log odds of making a other error vs. no error increase by 2.818 ($z =$

7.836, $p < .001$). For the predictor Item, when moving from item 1 (*books*) to item 12 (*lucky*) the log odds of making a developmental error vs. no error increase by 1.717 ($z = 10.968$, $p < .001$); the log odds of making an interlingual error vs. no error will increase by 0.289 but this is not significant ($z = 0.571$, $p = .568$). The log odds of making a other error vs. no error increase by 4.635 ($z = 13.318$, $p < .001$).

Figures 3, 4, and 5 show the predicted probability for each type of error per item.

Figure 3

The probabilities for different errors per item in grade 4

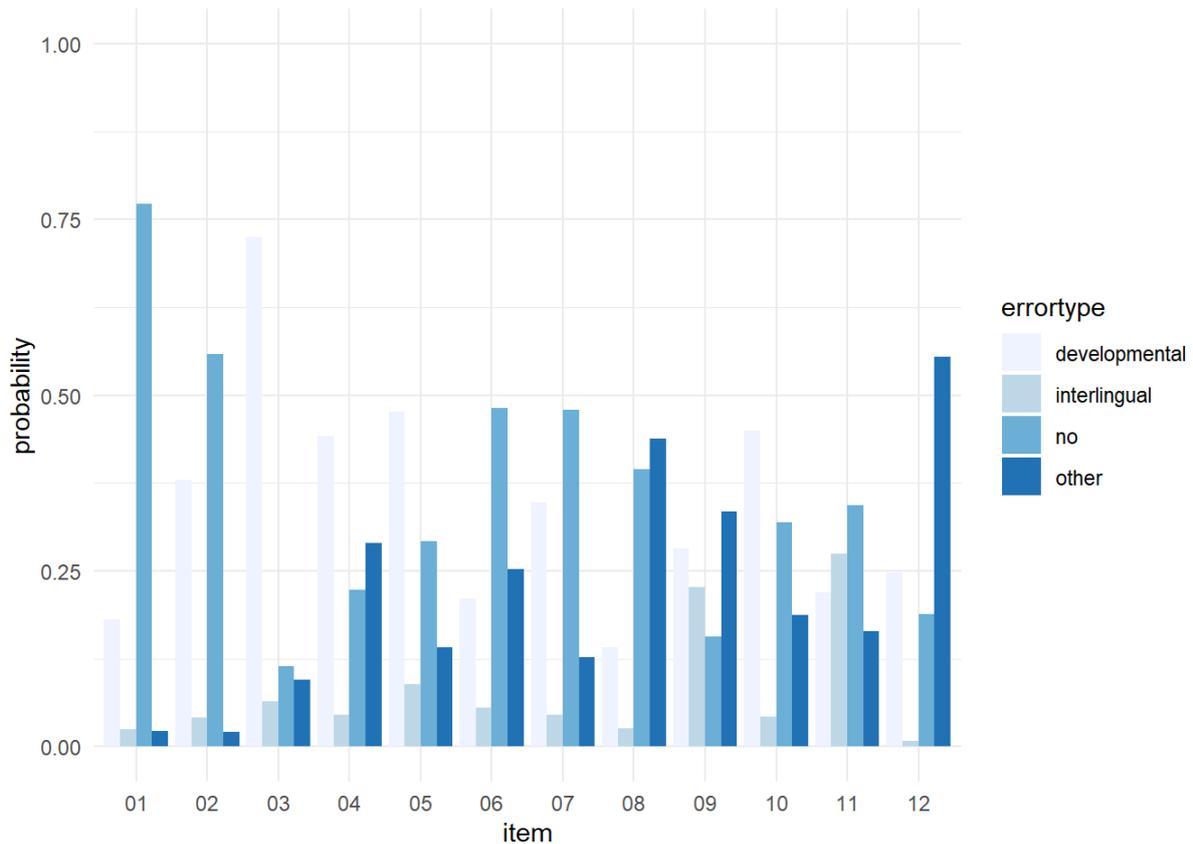


Figure 3 shows the bar chart of probabilities for the different error types per item in grade 4. It is clear that some items are more difficult than others; furthermore, each item has a different distribution of errors. For most items, the probability of making no error is well under the 0.50 mark or even the 0.25 mark. When looking at the error types we can see that the participants are more likely to make developmental errors than interlingual errors for all items. For item 6, item 8, item 9, and item 12 participants were more likely to make an other error, in other words an error that could not be classified as either developmental or interlingual.

Figure 4

The probabilities for different errors per item in grade 5

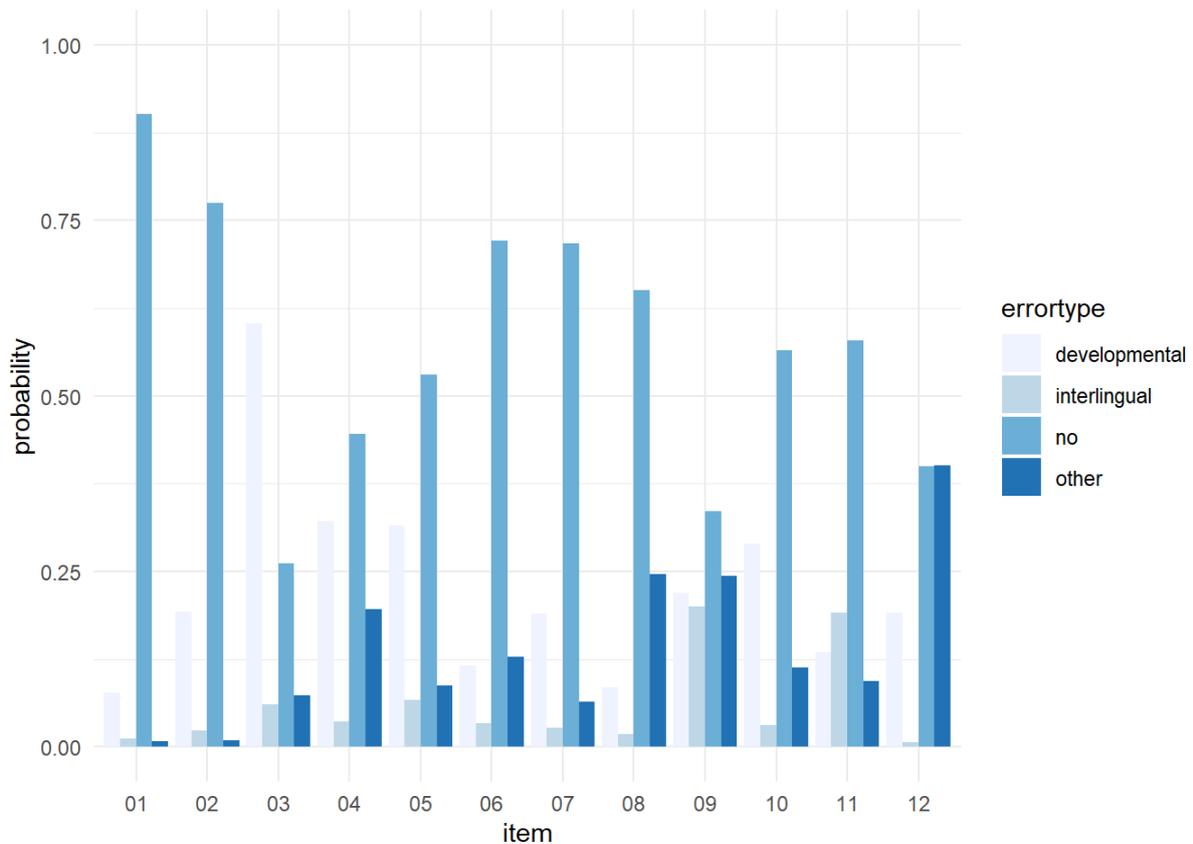


Figure 4 shows the bar chart of probabilities for the different error types per item in grade 5.

We can see that the distribution of probabilities for each type of error changes. The probability of making no error is higher than compared to grade 4. For most items, the participants are most likely to not make an error. Exceptions are item 3 and item 12.

Participants also still struggle with item 9 (*fastest*), although the probability of a correct answer for item 8 (*faster*) is quite high.

Figure 5

The probabilities for different errors per item in grade 6

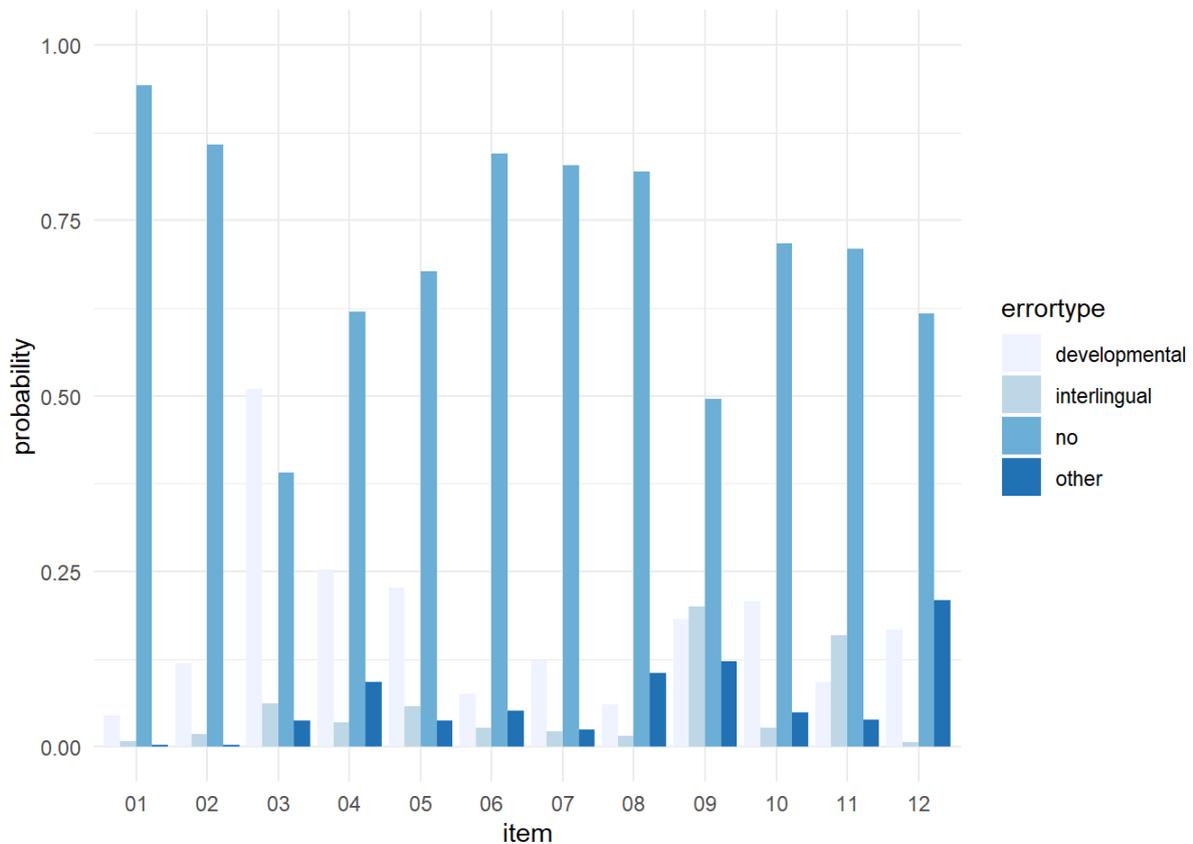


Figure 5 shows the bar chart of probabilities for the different error types per item in grade 6. There is a different distribution of probabilities to make each error per item. For nearly all items, except item 3 participants are most likely to make no error. This is quite different from the probabilities visualised in Figure 3; the probability of making an error was higher than the probability of not making an error for most items in grade 4. The probability of making no error for most items is at least 0.50 in grade 6. The only item that does not reach this halfway point is item 3. The probability of not making an error increased and the probability of errors decreased; however, the participants were still likely to make a developmental error for this item.

5.3. Fine-grained analysis

The research question for this section was: Which specific errors do the participants make per item across three years? The frequency and percentage of each error are given in table 3 through 14.

Table 3

Frequency and percentage of errors for item 1 across three years.

| Grade | Error | Frequency (Percent) |
|------------------|----------------------|------------------------|
| Grade 4 N=266 | Singular | 56 (21.1%) |
| | Singular + <i>en</i> | 8 (3.0%) |
| | Other | 4 (1.5%) |
| | Don't know | 1 (0.4%) |
| Grade 5 N=266 | Singular | 19 (7.1%) |
| | Singular + <i>en</i> | 4 (1.5%) |
| | Other | 1 (0.4%) |
| Grade 6 N=266 | singular | 6 (2.3%) |
| | other | 1 (0.4%) |

Note. Item 1: [Here is one book, here are two] **books**.

Table 3 shows the frequencies and percentages of the errors made in the three years for item 1 (*books*). In grade 4 the correct answers amounted to 72.6%, which went up to 91.0% in grade 5 and 97.4% in grade 6. The most frequent error in all years was the use of the singular, i.e., *book* starting at 21.1% in grade 4, dropping down to 7.1% in grade 5 and 2.3% in grade 6. The Dutch plural marker *-en* was used in 3.0% of answers in grade 4. This was halved by grade 5, dropping to 1.5% and no longer occurred in grade 6.

Table 4

Frequency and percentage of errors for item 2 across three years.

| Grade | Error | Frequency (Percent) |
|---------|----------------------|------------------------|
| Grade 4 | Singular | 108 (40.6%) |
| | Singular + <i>en</i> | 12 (4.5%) |
| | Dutch and English | 1 (0.4%) |
| | Other | 2 (0.8%) |
| N=266 | Missing | 2 (0.8%) |
| Grade 5 | Singular | 45 (16.9%) |
| | Singular + <i>en</i> | 7 (2.6%) |
| | Other | 4 (1.5%) |
| N=266 | Don't know | 1 (0.4%) |
| Grade 6 | Singular | 31 (11.7%) |
| | Singular + <i>en</i> | 2 (0.8%) |
| N=266 | Double plural | 1 (0.4%) |

Note. Item 2: [Here is one horse. Here are two] **horses**.

Table 4 shows the frequencies and percentages of the errors made for item 2 (*horses*) in the three years. In grade 4 52.3% of the answers were correct, this went up to 78.6% in grade 5 and 87.2% in grade 6. The most frequent error was the use of the singular at 40.6% in grade 4. This error occurred nearly twice as frequently in grade 4 for this item when compared to item 1 (*books*). The singular dropped the most from grade 4 to grade 5, to 16.9% and dropped further to 11.7% in grade 6.

Table 5*Frequency and percentage of errors for item 3 across three years.*

| Grade | Error | Frequency (Percent) |
|---------|-------------------------|------------------------|
| Grade 4 | Singular | 60 (22.6%) |
| | Singular + <i>-en</i> | 11 (4.1%) |
| | Singular + <i>-(e)s</i> | 106 (39.8%) |
| | Double plural | 11 (4.1%) |
| | Dutch | 1 (0.4%) |
| | Dutch and English | 1 (0.4%) |
| | Other | 10 (3.8%) |
| N=266 | Don't know | 15 (5.6%) |
| Grade 5 | Singular | 20 (7.5%) |
| | Singular + <i>-en</i> | 5 (1.9%) |
| | Singular + <i>-(e)s</i> | 124 (46.6%) |
| | Double plural | 41 (15.4%) |
| | Other | 14 (5.3%) |
| N=266 | Don't know | 7 (2.6%) |
| Grade 6 | Singular | 10 (3.8%) |
| | Singular + <i>en</i> | 32 (12.0%) |
| | Singular + <i>-(e)s</i> | 90 (33.8%) |
| | Double plural | 27 (10.2%) |
| | Other | 3 (1.1%) |
| N=266 | Don't know | 1 (0.4%) |

Note. Item 3 [here is one child. Here are three] **children.**

Table 5 shows the frequencies and percentages of the errors made for item 3 (*children*) in the three years. In grade 4 16.5% of answers were correct. There was an improvement in grade 5, to 20.7% and in grade 6 to 38.7%. A large portion of participants used the regular plural form for this item in grade 4, i.e., singular + (*e*)s (*childs* or *childes*) at 39.8%. This error became more frequent in grade 5, 46.6%. It dropped to 33.8% in grade 6, but it still made up a relatively large portion of the errors. The use of the singular was still relatively high in grade 4 (22.6%), but this error dropped to 7.5% in grade 5 and 3.8% in grade 6. There was an increase in the use of a double plural (i.e., *childrens*), from 4.1% in grade 4 to 15.4% in grade 5, this decreased to 10.2% in grade 6.

Table 6

Frequency and percentage of errors for item 4 across three years.

| Grade | Error | Frequency (Percent) |
|---------|-------------------------------------|------------------------|
| Grade 4 | Sounds like read | 54 (20.3%) |
| | Sounds like reads | 36 (13.5%) |
| | Incorrect tense, but grammatical | 7 (2.6%) |
| | Incorrect tense, ungrammatical | 11 (4.1%) |
| | Error test administrator | 1 (0.4%) |
| | Dutch | 7 (2.6%) |
| | Dutch and English | 10 (3.8%) |
| | Other | 23 (8.6%) |
| N=266 | Don't know | 56 (21.1%) |
| Grade 5 | Sounds like read | 48 (18.0%) |

| | | |
|---------|-------------------------------------|------------|
| | Sounds like reads | 24 (9.0%) |
| | Incorrect tense, but grammatical | 26 (9.8%) |
| | Incorrect tense, ungrammatical | 25 (9.4%) |
| | Error test administrator | 2 (0.8%) |
| | Dutch | 3 (1.1%) |
| | Dutch and English | 9 (3.4%) |
| | Other | 13 (4.9%) |
| N=266 | Don't know | 30 (11.3%) |
| Grade 6 | Sounds like read | 44 (16.5%) |
| | Sounds like reads | 8 (3.0%) |
| | Incorrect tense, but grammatical | 32 (12.0%) |
| | Incorrect tense, ungrammatical | 23 (8.6%) |
| | Error test administrator | 1 (0.4%) |
| | Dutch | 1 (0.4%) |
| | Dutch and English | 1 (0.4%) |
| | Other | 8 (3.0%) |
| N=266 | Don't know | 15 (5.6%) |

Note. item 4: [the boy likes to read. Every day he] **reads**.

Table 6 shows the frequencies and percentages of the errors made for item 4 (*reads*) in the three years. The correct answers amounted to 20.3% in grade 4, 32.3% in grade 5, and 50.0% in grade 6. The most frequent error in grade 4 was ‘sounds like read’ (20.3%), this dropped to

18.0% in grade 5 and 16.5% in grade 6. There was an increase of answers using incorrect tense. The grammatical errors, i.e., he's reading started at 2.6% in grade 4, this jumped to 9.8% in grade 5 and 12.0% in grade 6. The ungrammatical errors, (*to read* or *reading*) started at 4.1%, this increased to 9.4% in grade 5 and dropped to 8.6% in grade 6.

Table 7

Frequency and percentage of errors for item 5 across three years.

| Grade | Error | Frequency (Percent) |
|---------|-----------------------------------|------------------------|
| Grade 4 | King/queen, or crown | 133 (50.0%) |
| | No genitive marker | 3 (1.1%) |
| | Genitive through preposition | 6 (2.3%) |
| | Genitive incorrect preposition | 11 (4.1%) |
| | Dutch | 3 (1.1%) |
| | Dutch and English | 7 (2.6%) |
| | Other | 2 (0.8%) |
| | N=266 | Don't know |
| Grade 5 | King/queen, or crown | 58 (21.8%) |
| | No genitive marker | 7 (2.6%) |
| | Genitive through preposition | 12 (4.5%) |
| | Genitive incorrect preposition | 6 (2.3%) |
| | Error test administrator | 5 (1.9%) |

| | | |
|---------|-----------------------------------|------------|
| | Dutch | 7 (2.6%) |
| | Dutch and English | 5 (1.9%) |
| | Other | 6 (2.3%) |
| N=266 | Don't know | 18 (6.8%) |
| <hr/> | | |
| Grade 6 | King/queen, or crown | 28 (10.5%) |
| | No genitive marker | 3 (1.1%) |
| | Genitive through preposition | 21 (7.9%) |
| | Genitive incorrect preposition | 7 (2.6%) |
| | Dutch and English | 11 (4.1%) |
| | Other | 2 (0.8%) |
| N=266 | Don't know | 10 (3.8%) |

Note. Item 5: [this is a king. whose crown is this? It is the] **king's**.

Table 7 shows the frequencies and percentages of the errors made for item 5 (*king's*) in the three years. In grade 4 the correct answers amounted to 26.7%, this doubled in grade 5 to 53.4% and increased further in grade 6 to 69.2%. The most frequent error in grade 4 was the use of just king/queen or crown at 50.0%. There was a stark drop in grade 5 to 21.8% and in grade 6 to 10.5%. The results showed an increase in the use of a preposition to construct the genitive. In grade 4 2.3% of participants used a 'correct' prepositional genitive construction (*crown of the king*) and 4.1% used an incorrect prepositional genitive construction (*crown from the king*). In grade 5 the use of the 'correct' prepositional construction increased to 4.5% and in grade 6 to 7.9%. The use of the incorrect prepositional construction dropped to 2.3% and increased slightly to 2.6% in grade 6.

Table 8*Frequency and percentage of errors for item 6 across three years.*

| Grade | Error | Frequency (Percent) |
|---------|--------------------------|------------------------|
| Grade 4 | Missing subject | 17 (6.4%) |
| | Missing copula | 51 (19.2%) |
| | Copula only | 5 (1.9%) |
| | Error test leader | 3 (1.1%) |
| | Dutch | 15 (5.9%) |
| | Dutch and English | 9 (3.4%) |
| | Other | 13 (4.9%) |
| N=266 | Don't know | 51 (19.2%) |
| Grade 5 | Missing subject | 17 (6.4%) |
| | Missing copula | 1 (0.4%) |
| | Copula only | 2 (0.8%) |
| | Error test administrator | 7 (2.6%) |
| | Dutch | 1 (0.4%) |
| | Dutch and English | 4 (1.5%) |
| | Other | 4 (1.5%) |
| N=266 | Don't know | 24 (9.0%) |
| Grade 6 | Missing subject | 11 (4.1%) |
| | Missing copula | 3 (1.1%) |
| | Copula only | 1 (0.4%) |
| | Error test administrator | 2 (0.8%) |
| | Dutch and English | 2 (0.8%) |

| | | |
|-------|------------|----------|
| | Other | 2 (0.8%) |
| N=266 | Don't know | 7 (2.6%) |

Note. Item 6: [this girl is sad. Tell me about *this* girl] **she is happy.**

Table 8 shows the frequencies and percentages of the errors made for item 6 (*happy*) in the three years. In grade 4 36.8% of answers was correct, there was a stark increase to 77.4% in grade 5 and 89.5% in grade 6. In grade 4 the most frequent mistake was the missing copula (i.e., *happy*) at 19.2%. In grade 5 there was only one instance of a missing copula (0.4%), although this increased to 1.1% in grade 6. In grade 4 there were relatively more answers in Dutch (5.9%) or Dutch and English (3.4%) compared to the other items.

Table 9

Frequency and percentage of errors for item 7 across three years.

| Grade | Error | Frequency (Percent) |
|---------|--------------------------|------------------------|
| Grade 4 | <i>is</i> missing | 61 (22.9%) |
| | Incorrect verb tense | 46 (17.3%) |
| | Missing subject | 7 (2.6%) |
| | Error test administrator | 7 (2.6%) |
| | Dutch | 2 (0.8%) |
| | Dutch and English | 13 (4.9%) |
| | Other | 10 (3.8%) |
| N=266 | Don't know | 14 (5.3%) |
| Grade 5 | <i>is</i> missing | 14 (5.3) |
| | Incorrect verb tense | 17 (6.4%) |
| | Missing subject | 7 (2.6%) |
| | Error test leader | 4 (1.5%) |

| | | |
|---------|----------------------|-----------|
| | Dutch | 2 (0.8%) |
| | Dutch and English | 7 (2.6%) |
| | Other | 7 (2.6%) |
| N=266 | Don't know | 7 (2.6%) |
| <hr/> | | |
| Grade 6 | <i>is</i> missing | 13 (4.9%) |
| | Incorrect verb tense | 7 (2.6%) |
| | Missing subject | 4 (1.5%) |
| | Ungrammatical | 24 (9.0%) |
| | Error test leader | 1 (0.4%) |
| | Dutch and English | 1 (0.4%) |
| N=266 | Other | 5 (1.9%) |

Note. Item 7: [look at the children at school. Can you tell me what each one is doing? This boy is cutting and] **this boy is eating (an apple).**

Table 9 shows the frequencies and percentages of the errors made for item 7 (*eating*) in the three years. In grade 4 38.0% of answers were correct, this increased the most in grade 5 to 75.6% and increased slightly more in grade 6 to 79.3%. The most frequent errors in grade 4 were -is missing (22.9%) and incorrect verb tense (17.3%). Both errors dropped in frequency in grade 5 to 5.3% for -is missing and 6.4% for the incorrect verb tense. In grade 6 the most frequent error was an ungrammatical answer at 9.0%. In grade 4 5.7% of participants gave an answer in Dutch or Dutch and English.

Table 10

Frequency and percentage of errors for item 8 across three years.

| | | Frequency |
|--------------|--------------|------------------|
| Grade | Error | (Percent) |
| Grade 4 | Positive | 23 (8.6%) |

| | | |
|---------|--------------------------|------------|
| | Superlative | 4 (1.5%) |
| | Comparative + noun | 7 (2.6%) |
| | Dutch | 5 (1.9%) |
| | Dutch and English | 3 (1.1%) |
| | Other | 53 (29.9%) |
| N=266 | Don't know | 55 (20.7%) |
| Grade 5 | Positive | 20 (7.5%) |
| | Superlative | 4 (1.5%) |
| | Comparative + noun | 3 (1.1%) |
| | Error test administrator | 1 (0.4%) |
| | Dutch | 6 (2.3%) |
| | Dutch and English | 1 (0.4%) |
| | Other | 35 (13.2%) |
| N=266 | Don't know | 27 (10.2%) |
| Grade 6 | Positive | 11 (4.1%) |
| | Superlative | 4 (1.5%) |
| | Error test administrator | 3 (1.1%) |
| | Dutch | 1 (0.4%) |
| | Other | 22 (8.3%) |
| N=266 | Don't know | 10 (3.8%) |

Note. Item 8: [this woman is a fast runner, but this woman is even] **faster**.

Table 10 shows the frequencies and percentages of the errors made for item 8 (*faster*) in the three years. The correct answers amounted to 41.4% in grade 4, this increased to 63.5% in grade 5 and 80.8% in grade 6. In grade 4 most errors were categorized as other (29.9%), or the participants indicated they did not know the answer (20.7%). In grade 5 the 'other'

category amounted to 13.2% of errors and in grade 6 to 8.3%. Fewer participants indicated they did not know in grade 5 (10.2%) and in grade 6 (3.8%).

Table 11

Frequency and percentage of errors for item 9 across three years.

| Grade | Error | Frequency (Percent) |
|---------|--------------------------|------------------------|
| Grade 4 | Positive | 57 (21.4%) |
| | Incorrect superlative | 28 (10.5%) |
| | Comparative | 14 (5.3%) |
| | Double marked | 5 (1.9%) |
| | Dutch | 8 (3.0%) |
| | Dutch and English | 8 (3.0%) |
| | Other | 38 (14.3%) |
| | N=266 | Don't know |
| Grade 5 | Positive | 45 (16.9%) |
| | Incorrect superlative | 52 (19.5%) |
| | Comparative | 5 (1.9%) |
| | Double marked | 7 (2.6%) |
| | Error test administrator | 2 (0.8%) |
| | Dutch | 4 (1.5%) |
| | Dutch and English | 3 (1.1%) |
| | Other | 32 (12.0%) |
| N=266 | Don't know | 26 (9.8%) |
| Grade 6 | Positive | 31 (11.7%) |
| | Incorrect superlative | 72 (27.1%) |

| | | |
|-------|--------------------------|-----------|
| | Comparative | 5 (1.9%) |
| | Double marked | 2 (0.8%) |
| | Most fast | 2 (0.8%) |
| | Error test administrator | 3 (1.1%) |
| | Dutch | 1 (0.4%) |
| | Dutch and English | 1 (0.4%) |
| | Other | 19 (7.1%) |
| N=266 | Don't know | 14 (5.3%) |

Note. item 9 [and this woman is the] **fastest**.

Table 11 shows the frequencies and percentages of the errors made for item 9 (*fastest*) in the three years. In grade 4 19.9% of answers were correct, this became 33.8% in grade 5 and increased further to 43.6% in grade 6. In each year this is about half of the correct answers given for item 8, even though both items ask for a degree of comparison. The most frequent error in grade 4 was the use of the positive (i.e., fast) at 21.4%. In grade 5 the most frequent error was the incorrect superlative (i.e., *fastst*, *eventst*) at 19.5%. There was an increase in this error in grade 6 to 27.1%.

Table 12

Frequency and percentage of errors for item 10 across three years.

| Grade | Error | Frequency (Percent) |
|---------|---------------------|------------------------|
| Grade 4 | Positive | 65 (24.4%) |
| | Superlative | 12 (4.5%) |
| | Comparative regular | 41 (15.8%) |
| | Double marked | 3 (1.1%) |
| | Dutch | 5 (1.9%) |

| | | |
|---------|--------------------------|------------|
| | Dutch and English | 3 (1.1%) |
| | Other | 14 (5.3%) |
| N=266 | Don't know | 38 (14.3%) |
| Grade 5 | Positive | 49 (18.4%) |
| | Superlative | 2 (0.8%) |
| | Comparative regular | 35 (13.2%) |
| | Error test administrator | 1 (0.4%) |
| | Dutch | 1 (0.4%) |
| | Dutch and English | 1 (0.4%) |
| | Other | 3 (1.1%) |
| N=266 | Don't know | 27 (10.2%) |
| Grade 6 | Positive | 37 (13.9%) |
| | Superlative | 4 (1.5%) |
| | Comparative regular | 23 (8.6%) |
| | Other | 2 (0.8%) |
| N=266 | Don't know | 3 (1.1%) |

Note. Item 10 [this picture is good, but this picture is even] **better**.

Table 12 shows the frequencies and percentages of the errors made for item 10 (*better*) in the three years. In grade 4 30.1% of answers were correct. This steadily increased to 55.3% in grade 5 and 74.1% in grade 6. The most frequent error in grade 4 was the use of the positive at 24.4%, this decreased to 18.4% in grade 5 and 13.9% in grade 6. The use of a regular comparative (i.e., *gooder*) was a frequent error as well at 15.8% in grade 4, 13.2% in grade 5 and 8.6% in grade 6.

Table 13*Frequency and percentage of errors for item 11 (best) across three years.*

| Grade | Error | Frequency (Percent) |
|---------|--------------------------|------------------------|
| Grade 4 | Positive | 48 (18.0%) |
| | Incorrect superlative | 73 (27.4%) |
| | Comparative | 1 (0.4%) |
| | Double marked | 2 (0.8%) |
| | Dutch | 4 (1.5%) |
| | Dutch and English | 3 (1.1%) |
| | Other | 13 (4.9%) |
| N=266 | Don't know | 26 (9.8%) |
| Grade 5 | Positive | 18 (6.8%) |
| | Incorrect superlative | 67 (25.2%) |
| | Comparative | 1 (0.4%) |
| | Double marked | 2 (0.8%) |
| | Dutch | 5 (1.9%) |
| | Other | 4 (1.5%) |
| N=266 | Don't know | 23 (8.6%) |
| Grade 6 | Positive | 7 (2.6%) |
| | Incorrect superlative | 45 (16.9%) |
| | Comparative | 3 (1.1%) |
| | Double marked | 4 (1.5%) |
| | Error test administrator | 1 (0.4%) |
| | Dutch and English | 1 (0.4%) |

| | | |
|-------|------------|----------|
| | Other | 2 (0.8%) |
| N=266 | Don't know | 8 (3.0%) |

Note. Item 11 [and this picture is the very] **best**

Table 13 shows the frequencies and percentages of the errors made for item 11 in the three years. In grade 4 34.2% of answers were correct. This increased to 54.9% in grade 5 and 73.3% in grade 6. The most frequent error was the use of an incorrect superlative (i.e., *goodst*, *goodest*, *bigst*). In grade 4 this amounted to 27.4% of errors, in grade 5 this was 25.2% and 16.9% in grade 6.

Table 14

Frequency and percentage of errors for item 12 (lucky) across three years.

| Grade | Error | Frequency (Percent) |
|---------|--------------------------|------------------------|
| Grade 4 | Noun | 47 (21.4%) |
| | Lucky, incorrect phrase | 3 (1.1%) |
| | Different suffix | 14 (5.3%) |
| | Error test administrator | 1 (0.4%) |
| | Dutch | 3 (1.1%) |
| | Dutch and English | 2 (0.8%) |
| | Other | 27 (10.2%) |
| N=266 | Don't know | 104 (39.1%) |
| Grade 5 | Noun | 19 (7.1%) |
| | Lucky, incorrect phrase | 6 (2.3%) |
| | Different suffix | 17 (6.4%) |
| | Dutch | 1 (0.4%) |
| | Other | 18 (6.8%) |

| | | |
|---------|-------------------------|------------|
| N=266 | Don't know | 91 (34.2%) |
| Grade 6 | Noun | 17 (6.4%) |
| | Lucky, incorrect phrase | 2 (0.8%) |
| | Different suffix | 36 (13.5%) |
| | Other | 15 (5.6%) |
| N=266 | Don't know | 48 (18.0%) |

Note. [Jill said: "Al, you have all the luck." she could have said: "Al, you are] **lucky**

Table 14 shows the frequencies and percentages of the errors made for item 12 in the three years. In grade 4 21.4% of answers were correct. This became 42.9% in grade 5 and 55.6% in grade 6. 39.1% of participants indicated they did not know the answer in grade 4. This steadily decreased to 34.2% in grade 5 and was halved to 18.0% in grade 6. The second most frequent error in grade 4 was the use of the noun. This answer was given by 21.4% of participants.

6. Discussion

The research question was formulated as follows: What is the distribution of interlingual versus developmental errors in the spoken production of young Dutch learners of English and does the distribution change across three years? In order to answer this question three sub questions were divided about the distribution of interlingual versus developmental errors in each year. It was found that the participants made more developmental than interlingual errors in all grades. The participants did make relatively more interlingual errors in grade 4 than they did in grade 6. They made fewer errors each year, showing clear progress. This was partially in line with the hypothesis. It was hypothesised that the participants would make more interlingual errors than developmental errors in grade 4, however this was not the case. The higher number of developmental errors in grade 6 compared to grade 4 was in line with the hypothesis.

6.1. Coarse-grained analysis

There were two predictors for this analysis, namely Grade and Category Form. The categories were phonological versus derivational forms. The predictors were both significant, meaning that they both influenced the type of error made by the participants. The likelihood of a correct answer increased each year. Meaning that the participants improved in each year. When looking at the predictor Category Form we see that the participants were more likely to make a developmental error on the phonological forms, whereas the likelihood of making an interlingual error or other error was lower.

Overall, the participants performed better on the phonological forms. They had more correct answers in grade 4 as well as more developmental errors, which are an indication of a further stage in L2 learning. The participants made more other errors and relatively more interlingual errors on the derivational forms. A possible explanation for the higher probability of making a other error is that this error type included error code 9, which was 'Don't know'. The fine-grained analysis showed that this was a frequent answer for the items in this

category, which might have skewed the probabilities. Another explanation for the participants' better performance on the phonological forms could be the relatively similar structure English and Dutch have for these words. The first three items asked for a plural, which is created by adding *-s*. The Dutch creation of a plural operates similarly, namely by adding *-en*. Research has shown that it is easier for learners of a foreign language to grasp concepts that exist in their own language (Benson, 2002; Blom et al., 2012). The items that tested derivational forms showed similarity to Dutch as well. Based on the literature it could be expected that the participants would benefit for these items as well. A possible reason why this was not the case is the nature of the items. Four of the items tested degrees of comparison, either the regular or irregular form. In the Netherlands pupils start learning formally about the degrees of comparison in grade 3 or 4. This means that, especially in grade 4, they would most likely still struggle with at least the irregular forms. Item 10 (*better*) and item 11 (*best*) are remarkably similar to their Dutch counterparts, which would facilitate positive transfer. However, in this case it is possible that the participants lacked some knowledge of their L1 that could have helped them in the L2. These findings support the notion that first language ability is a strong predictor of second language learning (Van de Ven et al., 2018). The participants in this study performed better on the phonological forms, possibly, because they had more experience with the Dutch counterparts for these forms than they had with the Dutch counterparts for the derivational forms.

6.2. Item analysis

The analysis had two predictors, namely "grade" which had three levels, and the categorical predictor "item" which had twelve levels. Apart from two, the results were significant. For most items, the participants made more developmental errors than interlingual or other errors. On items 4, 8, and 12 they made more other errors, although the difference between developmental and other errors for item 4 was relatively small. The only item where the interlingual errors were the main category was item 11 (*best*).

Nearly all results were significant, the exceptions were the distribution of interlingual vs no error on items 8 and 12. A possible reason for this was that item 1 (*books*) was taken as the baseline. Participants scored relatively high on this item in each year and made few interlingual errors. The error distribution between the interlingual error and no error were similar between the baseline item 1 and item 8 (*faster*), although this result did approach significance. The distribution of interlingual error and no error for item 12 were also similar to the distribution for item 1. The other two error types, developmental and other, did show significant differences for these items. Items 1 and 8 were similar, because the participants performed quite well on both items from the start, although they did make more other errors for item 8. Item 12 had the highest number of other errors. There were few opportunities for the participants to make an interlingual error on this item, which is why the distribution between the interlingual vs no error was similar to that of item 1, where they performed quite well, but made slightly more interlingual errors.

Multiple items showed interesting distributions of errors. Item 8 (*faster*) and item 9 (*fastest*) were an interesting couple. These were part of one sentence using degrees of comparison going from *fast*, to *faster*, to *fastest*. Participants performed very well on item 8 in grade 4 having approximately twice as many correct answers compared to item 9. It is likely that this is an example of positive transfer occurring. The suffix for the comparatives is *-er* in both Dutch and English. Positive transfer occurs when grammatical constructions overlap and learners can rely on their L1 to give the correct answer. We can see that they relied on their L1 in the error distribution for item 9. The amount of interlingual errors increased for this item, while the developmental and other errors became less frequent. The interlingual errors included answers like *fastst*. This answer breaks with English phonotactic constraints, which is something that does not occur in child's speech in English as a native language (Taylor & Houghton, 2005; Graf, Estes & Saffran, 2011).

Items 10 (*better*) and 11 (*best*) showed roughly the same pattern as items 8 and 9. The participants performed better on the comparative when compared to the superlative. They made more developmental errors for item 10 than for item 11, although the correct answers were roughly the same. The higher number of developmental errors for item 10 can be explained by Dutch influence. The comparatives are remarkably similar, furthermore the possible error they would make in Dutch, (*goed, goeder*) is the same as an error made by English children, which would be (*good, gooder*). This does not hold for the superlative, where applying the Dutch rule would result in a consonant cluster that does not exist in English, i.e., *goodst, goodste*. These instances would therefore be seen as an interlingual error.

Another interesting difference between the items is how much improvement can be seen between the grades. For items 1 (*books*) and 2 (*horses*) there was a jump up in the correct answers between grades 4 and 5. This was even more apparent for items 4 (*reads*), 5 (*king's*). These items showed a stark difference between grade 4 and grade 5; for item 4 the correct answers more than tripled. There was an increase in developmental errors as well, showing that the participants had reached a further developmental state. For item 5 the correct answers nearly double from grade 4 to grade 5, while the developmental errors halved. The other and interlingual errors saw a steady decline. For both items, the participants also improved from grade 5 to grade 6, however the improvement seemed not as drastic as in the previous year. This can be explained by the fact that at the grade 4 test participants had hardly had any instruction in English. The exposure to English and the instruction they received were beneficial.

There was one item that was especially difficult for the participants, namely item 3 (*children*). For item 3 less than half of the participants gave the correct answer, even in grade 6. For this item, the participants made more interlingual errors in grade 6 than they did in grade 4, which shows that it is rather difficult. The participants made more developmental

errors in grade 5 than they did in grade 4, but this decreased in grade 6. Item 3 was the only item where the number of developmental errors was higher than the number of correct answers in grade 6.

6.3. Fine grained analysis

The first three items concerned plurals. Two of these were regular forms, although they had different allomorphs, the third was an irregular form. The participants struggled more with the second item, item 2 (*horses*) than they did with item 1 (*books*) even though they ask for a similar response. Although this might be explained by a simple lack of understanding, items 1 and 3 indicate something else. The use of the singular was quite common for item 2, which might indicate that the participants did not know how to use the correct allomorph. The most frequent error for item 3 (*children*) was the use of the singular + *-(e)s*. Which indicates that the participants were aware of the rule for making a plural, namely singular + *-(e)s*, however item 2 (*horse*) already ends in an *-s* sound, therefore the difficulty might be with how to correctly apply the rule without it resulting in a double *-s*. The irregular form, item 3 (*children*) was one of the most difficult items for the participants.

There were some interesting findings for item 5 as well. The participants sometimes used a prepositional genitive construction (i.e., *crown of the king* or *crown from the king*). This answer is a direct translation of the Dutch phrase (*kroon van de koning*). This is a good example of L1 influence on grammatical constructions. Previous research has shown that grammar is quite sensitive to L1 interference (Wu & Garza, 2014). Language similarity also comes into play; it could lead the participants to make incorrect assumptions about grammatical structures. These errors became more frequent throughout the years. Especially the use of *crown of the king*, which would be an accurate translation of the Dutch phrase. This phrase is not technically wrong in English; however, it is pragmatically strange to use in this context. This could be an indication of an increased understanding in the participants of what was expected, although it shows a lack of knowledge as well. The participants know the

question is asking for a genitive; however, they cannot form the correct answer in English. In order to fill the gap in their knowledge they use a construction from the L1 that is possible in English, even though it is pragmatically strange to use it in this context. Transfer occurs where languages partially overlap, which is the case here (source from tb).

Regarding item 6 (*she is happy*) and 7 (*this boy is eating*) the participants mostly made verb tense errors, or they omitted part of the answer. Interesting to note is that these two items saw the highest percentage of Dutch or Dutch and English answers compared to the other items. Dutch or mixed answers occurred rarely or did not occur at all in the other items. An explanation for this could be that they were asked to complete the answer with a short phrase, instead of a single word. There would be more words they could swap out for a Dutch word.

Further interesting findings in the fine-grained analysis were the use of Dutch consonant clusters. These occurred in item 9 (*fastest*) and 11 (*best*). The participants applied Dutch constraints to English resulting in answers like *fastst*, or *goodst*. The consonant cluster that the Dutch children use does not exist in English and is not an example of child's speech in monolingual English children (Taylor & Houghton, 2005; Graf, Estes & Saffran, 2011). Children break the 'rules' of their native language frequently, in this area there was no example of the same phenomenon occurring in English L1 speakers. This shows that a learners' L1 can influence phonotactic constraints. Previous research has shown that the L1 can influence several linguistic features, such as vocabulary and grammar. Research has also been done on the perception of certain sounds, finding that phonotactic constraints in the L1 can influence how well a learner can perceive differences in sounds in the L2 (Flege & Wang, 1989; Carlson et al., 2016) as well as on identifying non-words that are possible or not in an L2 (Trapman, 2007). The breaking of consonant clusters in production was present in this group of L2 learners and might be found in other groups as well. Some further research might be worthwhile on this topic to determine whether this type of error occurs in different types of

learners. The breaking of phonotactic constraints in this way was the most notable interlingual error.

7. Limitations and Further Research

Due to the fact that the data used for this thesis was gathered as part of a different research project it was not specifically designed with the current research topic in mind. The errors had already been coded and some of the error codes had to be separated to code interlingual and developmental mistakes, this was the case for items 8, 9, 10, and 11. Furthermore, the items were not selected to test for type of error. Therefore, for some items there were very few interlingual errors that could be made, or that could definitively be classified as either an interlingual or developmental error. One of these items was item 12 (*lucky*); the only interlingual error the participants could make here was the use of Dutch in their answer. For other items there were more developmental errors to be made, or possible Dutch influence could be seen as developmental, because the languages are similar. It was therefore not always possible to determine whether an error was the result of Dutch influence or not. There were clear differences between categories and items. Furthermore, evidence of positive transfer was found, in items 8 and 10, as well as evidence of negative transfer in items 5, 9, and 11. A study specifically designed to determine Dutch influence or interlingual versus developmental errors could provide us with more conclusive results.

There were some difficulties with the statistical analysis. In order to do the coarse-grained analysis and item analysis a baseline had to be established. For the coarse-grained this was not necessarily an issue, however for the item analysis one of the items had to be used. In this case that was item 1 (*books*). The other items were compared to item 1. Further research could be done establishing a different baseline to focus more on, for example, in item differences, as opposed to between item differences.

One of the findings was that Dutch children tended to break English phonotactic constraints on the items that asked for a superlative. As has been discussed previously there has been quite a significant amount of research on the perception of phonotactic constraints and non-words. However, to my knowledge, there has not been research on breaking

phonotactic constraints in speech production in the L2. This could be an interesting topic for further research, especially because speech production has been underrepresented in error analyses as well. Comparable research done using an error analysis used written production where this type of error could not realistically be made.

8. Conclusion

In this paper the following research question was answered: What is the distribution of interlingual versus developmental errors in the spoken production of young Dutch learners of English and does the distribution change across three years? I found that overall, the participants made more developmental errors than interlingual errors in all three years. Their overall number of errors decreased each year, which shows that their English improved each year. The distribution of interlingual versus developmental errors changed as well.

Developmental errors were slightly more frequent in grade 6 as compared to grade 4, which indicates that the participants had reached a further stage in their English language learning.

In other words, their English language skills and understanding had improved. Some noteworthy findings were the breaking of phonotactic constraints and the participants' trouble with different allomorphs for plural *-s*. Overall the findings showed that L1 Dutch influenced the participants' L2 English both positively and negatively. The amount of influence was determined by their first language skills and the similarity between Dutch and English forms.

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Appendix A

Table 15

Interlingual and developmental error codes for item 1: [here is one book. Here are two] books.

| Error | Type | Category | Explanation |
|--------------|--------------|-----------------|--|
| 1 | Singular | Developmental | The omission of plural -s occurs across learners of English from different language backgrounds, as well as with children learning English as their L1 (Dulay & Burt, 1974; Luk & Shirai, 2009; Murakami & Alexopoulou, 2016). |
| 2 | Dutch plural | Interlingual | Participants know that they need to make a plural, however, they do not know how to do so in English and rely on their L1 by using the Dutch plural. |

Note: Error code 6, Dutch, and error code 7, mix Dutch and English, were not used, because there is no audible difference between book/boek and boeken/boeken.

Table 16

Interlingual and developmental error codes for item 2: [here is one horse. Here are two] horses.

| Error | Type | Category | Explanation |
|--------------|--------------|-----------------|--|
| 1 | Singular | Developmental | The omission of plural -s occurs across learners of English from different language backgrounds, as well as with children learning English as their L1 (Dulay & Burt, 1974; Luk & Shirai, 2009; Murakami & Alexopoulou, 2016). |
| 2 | Dutch plural | Interlingual | Participants know that they need to make a plural, however, they do not know how to do so in English and rely on their L1 by using the Dutch plural. |

| | | | |
|---|-------------------|--------------|--|
| 6 | Dutch | Interlingual | Using the L1 to fill in gaps in the L2 is an example of interlingual error. |
| 7 | Dutch and English | Interlingual | In this case the participants were able to use the English plural, but did not know the correct English word. For example, two paards. They filled their gap in English vocabulary by using the Dutch word and added the English plural. |

Table 17

Interlingual and developmental error codes for item 3: [Here is one child. Here are two] children.

| Error | Type | Category | Explanation |
|--------------|-----------------------|-----------------|--|
| 1 | Singular | Developmental | The omission of plural -s occurs across learners of English from different language backgrounds, as well as with children learning English as their L1 (Dulay & Burt, 1974; Luk & Shirai, 2009; Murakami & Alexopoulou, 2016). |
| 2 | Dutch plural | Interlingual | Participants know that they need to make a plural, however, they do not know how to do so in English and rely on their L1 by using the Dutch plural. |
| 3 | Child + plural -(e) s | Developmental | Participants overgeneralize the plural -s, an error that is seen in L1 learners of English and L2 learners with different language backgrounds (Richards, 1974). |
| 4 | Double plural | Developmental | This is also an overgeneralisation, except in this case participants have <i>children</i> in their lexicon without it being classified as the plural of <i>child</i> . They, therefore, mistakenly add the plural -s. |
| 6 | Dutch | Interlingual | Using the L1 to fill in gaps in the L2 is an example of interlingual error. |

| | | | |
|---|-------------------|--------------|---|
| 7 | Dutch and English | Interlingual | Using the L1 to fill in gaps in the L2 is an example of interlingual error. |
|---|-------------------|--------------|---|

Table 18

Interlingual and developmental error codes for item 4: [the boy likes to read. Every day he] reads.

| Error | Type | Category | Explanation |
|--------------|--------------------------------|-----------------|--|
| 1 | Sounds like read | Developmental | Participants repeat the word read, they do not use tense inflection. This is a mistake also made by L1 learners of English (Luk & Shirai, 2009). |
| 3 | Incorrect tense, grammatical | Developmental | This mistake is also made by L1 learners of English (Luk & Shirai, 2009). There is no obvious Dutch influence. |
| 4 | Incorrect tense, ungrammatical | Developmental | This mistake can also be made by L1 learners of English (Luk & Shirai, 2009). There is no obvious Dutch influence. |
| 6 | Dutch | Interlingual | Using the L1 to fill in gaps in the L2 is an example of interlingual error. |
| 7 | Dutch and English | Interlingual | Participants used their knowledge of English to the best of their abilities, by applying, for example, English grammatical rules to Dutch. |

Note: Error code 2 was coded as other, because participants gave answers that rhymed with reads, but were not the correct word, for example, streets, treats.

Table 19

Interlingual and developmental error codes for item 5: [This is a king. Whose crown is this? It is the] king's

| Error | Type | Category | Explanation |
|--------------|--|-----------------|--|
| 1 | King/queen or crown | Developmental | The genitive marker is missing, or they answer only with crown, thus the answer is mostly incomplete. This could stem from a lack of understanding, but that would still be a part of language development. |
| 2 | Omitted genitive marker (king crown) | Developmental | The genitive marker is not very salient, it is usually acquired at a later stage in English development both for L1 children and L2 learners of different backgrounds (Luk & Shirai, 2009) |
| 3 | Genitive marker using preposition | Interlingual | Participants used a translation from Dutch, namely crown of the king. It is pragmatically strange to give such an answer in English. L1 children do not make the same mistake. It is based on Dutch, which makes it an interlingual error. They used their L1 to give an answer in the L2. |
| 4 | Genitive marker, using incorrect preposition | Interlingual | Participants used a direct translation from Dutch, namely crown from the king. They used their L1 to give an answer in the L2. |
| 6 | Dutch | Interlingual | Using the L1 to fill in gaps in the L2 is an example of interlingual error. |
| 7 | Dutch and English | Interlingual | There were attempts to directly translate Dutch to English. |

Table 20

Interlingual and developmental error codes for item 6: [this girl is sad. Tell me about this girl] she is happy.

| Error | Type | Category | Explanation |
|--------------|-------------------|-----------------|--|
| 1 | Missing subject | Developmental | Subjects are also omitted in child's speech in L1 English (Chang & Zheng, 2018). |
| 2 | Copula omission | Developmental | The copula is also omitted by L1 English children (Becker, 2004). |
| 6 | Dutch | Interlingual | Using the L1 to fill in gaps in the L2 is an example of interlingual error. |
| 7 | Dutch and English | Interlingual | Participants applied English pronunciation or grammar to Dutch in order to give an answer. |

Note: Some answers labelled as error 7 were not related to the actual sentence, paying attention to the colour of something in the picture for example, those were labelled as 'other'.

Note 2: Error 3, is... was usually followed by silence or by the participants saying they did not know the answer, these will therefore be recoded to 9.

Table 21

Interlingual and developmental error codes for item 7: [this boy is cutting and] this boy is eating.

| Error | Type | Category | Explanation |
|--------------|-----------------|-----------------|--|
| 1 | 'is' missing | Developmental | 'is' is also be omitted by L1 English children (Becker, 2004). |
| 2 | Incorrect tense | Developmental | Tense matching is an area where errors occur in L1 English. |
| 3 | Missing subject | Developmental | Subjects are also omitted in child's speech in L1 English (Chang & Zheng, 2018). |
| 6 | Dutch | Interlingual | Using the L1 to fill in gaps in the L2 is an example of interlingual error. |

| | | |
|---|-------------------|--------------|
| 7 | Dutch and English | Interlingual |
|---|-------------------|--------------|

Table 22

*Interlingual and developmental error codes for item 8: [this woman is a fast runner, but this woman is even] **faster**.*

| Error | Type | Category | Explanation |
|-------|--------------------|---------------|---|
| 1 | Positive | Developmental | This error is also made by children learning English as an L1 (Syrett, 2009). |
| 2 | Superlative | Developmental | This error is also made by children learning English as an L1 (Syrett, 2009). |
| 3 | Comparative + noun | Developmental | |
| 6 | Dutch | Interlingual | Using the L1 to fill in gaps in the L2 is an example of interlingual error. |
| 7 | Dutch and English | Interlingual | |

Table 23

*Interlingual and developmental error codes for item 9: [and this woman is the] **fastest**.*

| Error | Type | Category | Explanation |
|-------|--|---------------|--|
| 1 | Positive | Developmental | This error is also made by children learning English as an L1 (Syrett, 2009). |
| 2 | Incorrect superlative using <i>-st</i> | Interlingual | For example, <i>fastst</i> or <i>eventst</i> , this is a consonant cluster that does not exist English but does exist in Dutch. The breaking of phonotactic constraints rarely happens and is not an example of child's speech (Taylor & Houghton, 2005; Graf, Estes & Saffran, 2011). Therefore, the use of these clusters stems from Dutch |
| | Incorrect superlative (<i>best</i>) | Developmental | This error is also made by children learning English as an L1 (Syrett, 2009). |

| | | | |
|---|-------------------|---------------|---|
| 3 | Comparative | Developmental | This error is also made by children learning English as an L1 (Syrett, 2009). |
| 4 | Double marked | Developmental | This error is also made by children learning English as an L1 (Syrett, 2009). |
| 6 | Dutch | Interlingual | Using the L1 to fill in gaps in the L2 is an example of interlingual error. |
| 7 | Dutch and English | Interlingual | |

Table 24

Interlingual and developmental error codes for item 10: [this picture is good, but this picture is even] better.

| Error | Type | Category | Explanation |
|--------------|--|-----------------|---|
| 1 | Positive | Developmental | This error is also made by children learning English as an L1 (Syrett, 2009). |
| 2 | Superlative (<i>Goodest</i>) | Developmental | This error is also made by children learning English as an L1 (Syrett, 2009). |
| | Superlative (<i>Goodst</i> , <i>eventst</i>) | Interlingual | These clusters do not exist English but do exist in Dutch. The breaking of phonotactic constraints rarely happens and is not an example of child's speech (Taylor & Houghton, 2005; Graf, Estes & Saffran, 2011). Therefore, the use of these clusters stems from Dutch |
| 3 | Regular comparative | Developmental | Overgeneralisation, this error is also made by children learning English as an L1 (Syrett, 2009). |
| 4 | Double marked | Developmental | This error is also made by children learning English as an L1 (Syrett, 2009). |
| 6 | Dutch | Interlingual | Using the L1 to fill in gaps in the L2 is an example of interlingual error. |
| 7 | Dutch and English | Interlingual | |

Table 25

*Interlingual and developmental error codes for Item 11: [and this picture is the very] **best**.*

| Error | Type | Category | Explanation |
|--------------|--|-----------------|---|
| 1 | positive | Developmental | This error is also made by children learning English as an L1 (Syrett, 2009). |
| 2 | Superlative (<i>goodst, bigst</i>) | Interlingual | These clusters do not exist English but do exist in Dutch. The breaking of phonotactic constraints rarely happens and is not an example of child's speech (Taylor & Houghton, 2005; Graf, Estes & Saffran, 2011). Therefore, the use of these clusters stems from Dutch |
| | Superlative (<i>biggest, veriest</i>) | Developmental | This error is also made by children learning English as an L1 (Syrett, 2009). |
| 3 | Regular comparative | Developmental | This error is also made by children learning English as an L1 (Syrett, 2009). |
| 4 | Double marked | Developmental | This error is also made by children learning English as an L1 (Syrett, 2009). |
| 6 | Dutch | Interlingual | Using the L1 to fill in gaps in the L2 is an example of interlingual error. |
| 7 | Dutch and English | Interlingual | Using the L1 to fill in gaps in the L2 is an example of interlingual error. |

Table 26

*Interlingual and developmental error codes for item 12: [Jill said: "Al, you have all the luck." she could have said: "Al, you are] **lucky**.*

| Error | Type | Category | Explanation |
|--------------|-------------------------------|-----------------|--------------------|
| 1 | Noun | Developmental | |
| 2 | Lucky, incorrect phrase | Developmental | |

| | | | |
|---|----------------------------|---------------|---|
| 3 | Luck - incorrect suffix | Developmental | |
| 6 | Dutch | Interlingual | Using the L1 to fill in gaps in the L2 is an example of interlingual error. |
| 7 | Dutch and English | Interlingual | Using the L1 to fill in gaps in the L2 is an example of interlingual error. |

Appendix B

Table 27

Sentence specific error codes.

| Sentence | Target | EA 1 | EA 2 | EA 3 | EA 4 |
|----------|---|--|--------------------------|-----------------------------|---------------------------------|
| 1 | [here is one book. here are two] books | Singular | Dutch plural | | |
| 2 | [here is one horse. here are two] horses | Singular | Dutch plural | | |
| 3 | [here is one child. Here are three] children | Singular | Dutch plural | Singular + s | Double plural |
| 4 | [the boy likes to read. Every day he] reads | Sounds like <i>read</i> | Sounds like <i>reads</i> | Incorrect verb, grammatical | Incorrect verb, not grammatical |
| 5 | [this is a king. Whose crown is this? It is the] king's | Only <i>king/queen</i> or <i>crown</i> | Genitive marker omitted | Preposition, correct | Preposition, incorrect |
| 6 | [this girl is sad. Tell me about <i>this</i> girl] she is happy | Omitted subject | Omitted copula | Copula only | |
| 7 | [look at the children at school. can you tell me what each one is doing? this boy is cutting and] this boy is eating (an apple) | <i>Is</i> omitted | Incorrect verb tense | Omitted subject | |

| | | | | | |
|----|---|----------|----------------------------------|----------------------------|---------------|
| 8 | [this woman is a fast runner, but this woman is even] faster | Positive | Superlative | Comparative + noun | |
| 9 | [and this woman is the] fastest | Positive | Incorrect superlative | Comparative | Double marked |
| 10 | [this picture is good, but this picture is even] better | Positive | Superlative | Comparative + noun | Double Marked |
| 11 | [and this picture is the very] best | Positive | Incorrect superlative | Comparative | Double marked |
| 12 | [Jill said: "Al, you have all the luck." she could have said: "Al, you are] lucky | Noun | <i>Lucky</i> incorrect phrase | Luck + different suffix | |