

**Grammatical and Lexical Improvement in the  
L2 Writing Products of Dutch Secondary School  
Pupils**

Kristel Wessels – 3495922

BA Thesis English Language and Culture, Utrecht University.

Supervisor: Merel Keijzer

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## 1. Introduction

The past half century, researchers have shown an increased interest in second language writing of English by second language (L2) learners. More specifically, second language acquisition (SLA) by secondary school pupils has become an increasingly important area of research in the last twenty years (Matsuda & De Pew, 2002). This increased interest has resulted in increasingly rapid advances in the field of L2 writing and teaching methods.

L2 writing is seen as an important component of SLA. It is “considered of vital importance to L2 development” and it is important because “learners also need to be pushed to actively use and produce the target language” (Van Beuningen, 2011:3). Saville-Troike has proposed that “writing is probably the most dependent of the four language activities on linguistic knowledge”, for there is nothing in the environment of writers that can help them when producing sentences and Saville-Troike has also claimed that “writing can potentially push learners closer to the limits of their current level of linguistic knowledge”(Saville-Troike, 2006:164).

For Dutch *VMBO-t*<sup>1</sup> writing is one of the exercises of the Dutch national exams at the end of a pupil’s school career. As part of the formulated core goals, pupils are expected to achieve a certain level of writing at the end of their school career. Pupils start with the basic level A1 and are expected to develop their writing onto a higher A2/B1 level. These core goals and levels are stipulated by the Dutch *Europees Referentie Kader (ERK)* (in Great-Britain known as the CEF(R)). The level of English writing for Dutch pupils at the end of *VMBO-t* is set by the *ERK* at A2/B1.

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<sup>1</sup> The Dutch secondary school system consists of 3 levels: VWO / HAVO / VMBO, with VWO as the highest and VMBO as the lowest level. VMBO itself is subdivided into a (higher) theoretical level, VMBO-t and three more practical sublevels, VMBO-gemend, VMBO-kader and VMBO-beroeps. The VMBO-t trajectory, which forms the focus of this study, spans 4 years.

So far, however, little attention has been paid to the actual writing products of Dutch *VMBO-t* pupils. The research to date has tended to focus on how teachers can directly improve the mistakes made in pupils' L2 writing rather than the progress pupils make in their own writing using everything they have implicitly been taught in the L2 lessons. Numerous studies have examined which feedback on L2 writing works best for L2 learners (Bitchener et al., 2005; Chandler, 2003; Bitchener, 2008) but those studies have not taken into account everything a pupil has learned over time and uses in his or her own writing. There is little research concerning the overall progress of pupils' writing products in their school careers.

This paper will examine the writing products of Dutch *VMBO-t* pupils in a cross-sectional design at every grade of their school career and in particular will investigate in more detail the effects of repetition and time pressure as method found valid for oral fluency. Particularly, this paper will seek to address the following questions:

- Do the writing products of Dutch *VMBO-t* level pupils improve grammatically and lexically throughout their school careers?
- Do repetition and time pressure affect the grammaticality and the lexical diversity in the writing products of Dutch *VMBO-t* level pupils?

## **2. Theoretical Framework**

In order to answer these research questions, this section will start with an overview of the theoretical background relevant for the current study. First, the general aspect of second language writing will be discussed in 2.1. Then, studies on progression in L2 writing will be studied in 2.2. This section will itself be split into two subsections, grammatical progression and lexical progression. Subsequently, 2.3 will discuss language learning pedagogies, where the focus will be on task-based writing and studies on task repetition and time pressure. Finally, predictions based on the theoretical foundation and specifically geared towards the present study are presented in the final section of 2.4.

### **2.1 Second Language Writing**

On the whole, beginning L2 writers face many difficulties in developing their writing skills. In her book on second language acquisition, Savielle-Troike briefly touches on the subject of L2 writing (2006). She describes the most difficult problems L2 writers encounter and the difficulties L2 writers encounter in comparison to other L2 activities. According to Savielle-Troike (2006) “writing is the most important productive activity for L2 learners to develop if they will use the language for academic purposes”, as writing is mostly the medium that is used to test the learners in formal classroom settings. L2 writers have a more difficult task because in writing the L2 writers cannot test at the very same time whether the things they are writing are correct or not by their environment and input, which they can do when speaking. On the other hand, L2 writers have more time to think things through and can correct themselves more easily than speakers can. Savielle-Troike also states that because beginning L2 writers lack much linguistic information of the L2 it may be easier to

write with the L1 as initial linguistic product and then try to encode it as best as they can to the L2, for they are familiar with the linguistics of their L1. In addition, Saville-Troike suggests that while beginning L2 writers may feel more comfortable with tasks that require minimal linguistic input from the writer and that follow strict models, they will not benefit from them, for those tasks will not linguistically challenge them enough. They may even fossilize in their development for they can only write alongside the taught models. In line with the view that L2 writers should be challenged to become better at their L2, Van Beuningen (2011) says: “Learners’ active manipulation of language forms, functions, and concepts is thought to play a crucial role in their language learning process, because output production forces learners to process language more deeply and with more mental effort (...)” (2011: 3).

Another difficulty, according to Van Beuningen (2011), is the aspect of writing as a cognitively demanding task. Van Beuningen states that, since writing a text in one’s L1 is sometimes demanding enough, writing in a L2 would be even more demanding. Writing in the L2 is, therefore, more difficult for L2 writers since, as it does not come automatically like their L1, they have to focus more on one particular form, for example language form, and this means that they can focus less on other aspects of writing. However, how difficult writing in the L2 may be, L2 writing is an important aspect of learning the language.

At the same time, other processes complicate L2 learning and consequently L2 writing. As Sanderson (2012) discusses in his MA thesis on L2 proficiency, working memory and closely related executive functions as inherent characteristics of the L2 learner can be decisive for later L2 proficiency. To clarify: “Working Memory (WM) (...) is a cognitive component that allows for the temporary storage and manipulation of information, which can be linguistic in nature. Executive functions (EFs) are the

cognitive controls that regulate other systems and processes.” (Sanderson, 2012: 38). Various studies have investigated the effects of the WM and EFs in second language acquisition. Especially the findings of studies on EFs (Andersson, 2010; Levy et al., 2007; Segalowitz & Frenkiel-Fishman, 2005) seem to suggest that individual differences in EFs correlate highly with an individual’s proficiency (Sanderson, 2012). Consequently, WM and EFs may be one of the factors why some pupils reach a higher level of L2 writing proficiency than others who were taught in the same way and receiving the same amount of instruction and exposure.

## **2.2 Progression in L2 writing**

Little research has been conducted on the actual progress of secondary school pupils’ L2 writing. However, a few studies do describe the grammatical and lexical progression of language learners and the focus here will be on those studies that resemble the current study most in terms of design.

### **2.2.1 Grammatical progression in L2 writing**

One common way of measuring grammatical progression of language learners is by carrying out various so-called T-unit counts on their writing products. A T-unit is defined “as an independent clause and all its dependent clauses” (Polio, 1997:138 ). Newkirk (2003, 397) describes how “a major index of language growth became words/T-unit” by discussing various studies that have shown the connection between maturation of the language learners and the length of their T-units. Newkirk, however, focuses entirely on first language (L1) learners.

However, one of the clearest studies to be found on the grammatical progress of L2 writers is a study by Casanave (1994). Casanave analysed the journal writing

products of 16 of her students. These Japanese students followed a three-semester course on foreign language, in their case English, at a private university and Casanave was curious if their writing products showed any progress over those three semesters. She analysed her students' journals by doing a variety of T-unit counts and ended up with three counts that showed the most remarkable results. In her study, Casanave draws the attention to the results of analyses on "T-unit length, complexity and accuracy" (1994: 186,187). She reports that "two thirds of the students were writing longer T-units" (1994: 187) at the end of the third semester. Nonetheless, the students did not show this progress on all accounts. Casanave points out that the students did not do as well on the categories of accuracy and complexity; she states: "over one third of the students were writing longer, but less complex, less accurate T-units than they were at the beginning of the first semester; the error-free T-units they wrote, however, seemed to be getting longer" (1994: 187). She then goes on to describe five different students who all progressed differently throughout the semester, since there were large individual differences in the progress of the students. Consequently, Casavane concludes that the most interesting part of her findings is the individual diversity that the analyses showed.

A more Dutch oriented study which shows resemblances with the current study is the study by Present-Thomas, Weltens & de Jong (2012). Their study analysed different writing products of incoming Dutch university students on syntactic complexity by measuring the length of the T-units and clauses and by analysing the dependent clauses and coordinate phrases. This study is similar to the current study because it studies the differences in syntactic complexity across CEF-levels. The students in the Present-Thomas et al. study, however, all resembled each other in terms of age and the CEF-level they had self-ascribed to themselves.

Nonetheless, since the current study assumes that year 1 pupils are at a lower CEF-level than the year 4 pupils it is interesting to look at the results of Present-Thomas et al.. Their study finds that the general complexity and the sub-clausal complexity found in the writing products of the students increases from one CEF-level to the next. This seems to indicate that students use more complex sentences and longer clauses when they get more proficient in the L2, which is, as pointed out earlier, what Newkirk (2003) also found in L1 learners.

### **2.2.2 Lexical Progression in L2 writing**

On lexical progression in L2 writing little research is available. Nevertheless, a longitudinal case study by Li and Schmitt (2009) reported on a case study of the acquisition of lexical phrases by one L2 student. Li analysed the writing products of this one student throughout one year and specifically looked at the use of lexical phrases and the student's progress on those lexical phrases. Li found that "there was considerable variation among the assignments and it is difficult to discern any clear pattern of improvement in the diversity of lexical phrase use over the year." (2009: 91). Furthermore, Li showed that the lexical phrase variety in the student's writing products "varied in range between 13.3 and 18.7" (2009: 91). Although most previous studies are valid and pioneering studies in their own right, larger-scale studies are needed to shed more light on the phenomenon of second language writing, progressing much along the lines of the work done by Present-Thomas et al..

### **2.3 Language learning pedagogies**

In the last decades pedagogies employed in the teaching of a foreign language have shifted from an audiolingual or oral-situational method to a method known as

communicative language teaching (CLT). Whereas the audiolingual or oral-situational method used to focus on the correctness of the used language, CLT nowadays focuses on the use of the language itself. The most important goal of CLT is that L2 learners can communicate the best they can in L2 situations (Ellis, 2003).

An important means of achieving CLT in the language classroom is by providing the learners with tasks that are based on real-life situations. Task-based learning and CLT assumes that “learners do not first acquire language as a structural system and then learn how to use this system in communication but rather actually discover the system itself in the process of learning how to communicate.” (Ellis, 2003: 28). This is achieved by making the task as life-like and as meaningful as possible, to prepare students for their later lives when they may have to communicate in their L2 in those real-life situations.

### **2.3.1 Task repetition and time pressure**

The increase of task-based language learning in classrooms has resulted in an increase of research on task-based L2 writing. So far, research on task-based L2 writing has tended to focus on task complexity rather than other aspects (Ong & Jun Zhang, 2010; Kuiken & Vedder, 2008). However, this focus solely based on the complexity of tasks seems to be only reserved for L2 writing, since research on L2 speaking focuses more on other areas such as the effects of task-repetition and time pressure on fluency and complexity. There is, for instance, a method to study the effects of task repetition (the 4/3/2 task), but so far this method has only been applied to study oral fluency (De Jong, 2012; De Jong & Perfetti, 2011; Nation, 1989). The 4/3/2 task is a task designed to investigate oral fluency. The task combines repetition and time pressure, since the

speakers are asked to talk about a topic for 4 minutes, which they will have to repeat twice, but they will get one minute less each time.

De Jong & Perfetti's study (2011) focused purely on the task repetition aspect of the 4/3/2 task and its effect on fluency. The study compared students who repeated the same speech in several 4/3/2 tasks to students who spoke of a different subject each time. It was found that repetition affected fluency positively, such as longer fluent runs and decreasing pause length.

De Jong's latest study (2012) also looked into the effects of time pressure on oral fluency, since the decrease of time in the 4/3/2 task also leads to time pressure. The method for this study consisted of a comparison between students who repeated their speech three times with decreasing time each time and students who repeated their speech three times with a constant time each time. This study found that more time pressure resulted in more fluent deliveries compared to the students on whom no time pressure was imposed when they repeated their speech. This time the study also analysed if there were effects on grammatical complexity. De Jong found that neither time pressure nor repetition resulted in improvement in complexity, however the students did seem to maintain their level of complexity throughout their speech deliveries.

An earlier study by Nation (1989) on the effects of the 4/3/2 task on oral fluency did find an increase in complexity. Nation did no comparison, but simply analysed the recorded speeches of six advanced adults who performed the 4/3/2 task. Nation found that the 4/3/2 task not only had an effect on fluency and accuracy, the participants also used more complex sentences when they had less time to convey their message.

## 2.4 Predictions

After the discussion of the studies in this theoretical framework, a prediction can be made regarding the possible outcomes of the research questions. Based on the studies by Casanave (1994) and Present-Thomas et al. (2012) the current study is expected to find improvement of grammatical complexity throughout the years. However, a large degree of individual diversity can also be expected (Casanave, 1994; Li & Schmidt 2009; Sanderson, 2012). The effect of repetition and time pressure on the pupils' writing products is more difficult to anticipate since the discussed studies who focused on grammatical complexity (De Jong, 2012; Nation, 1989) differ in their findings. Based on the findings of De Jong (2012) no improvement but at least a maintenance of grammatical complexity is expected. However, based on the study by Nation an increase in complexity is expected.

### 3. Method

#### 3.1 Participants

In order to answer this paper's research questions, four groups of participants were tested, divided over the 4 academic years of VMBO-t. Each group consisted of at least 18 and at most 24 Dutch pupils who had had eight months of schooling in the year they were tested. All participants were enrolled in the same secondary school: RSG 't Rijks located in rural Bergen op Zoom, The Netherlands. Furthermore, each academic year was an existing class at the school. A cross-sectional design was chosen because of time limitations. The classes and, therefore, the subjects were randomly selected.

There were 18 first-year pupils, half which were girls and the other half were boys. The second year counted 24 pupils; 11 girls and 13 boys. In the third year 24 pupils were counted of which 8 were girls and 16 were boys. Finally, there were 7 boys and 13 girls of a total 20 fourth-year pupils. The classes had two teachers in total, one taught the first and second years and the other the third and fourth years (see Table 1).

Table 1: The number of pupils tested per year

	<b>First year</b>	<b>Second year</b>	<b>Third year</b>	<b>Fourth year</b>
<b>N =</b>	18	24	24	20

#### 3.2 Materials and Procedure

To determine whether pupils improved on their second language writing throughout their school careers it was decided that the best method to adopt for this investigation was to let pupils produce a short free writing product and subsequently analyse those products on grammaticality and lexical diversity. A task regarding the personal life of the pupils was chosen to produce a piece of writing. The topic was chosen because of

the core goals stipulated by the ERK/CEF(R)). As was stated before, VMBO-t pupils are expected to reach an A2/B1 level, which in free writing means being able to write short pieces about topics familiar and well-known to the pupil. The task was taken from an IELTS speaking test. Specifically, it was taken from the IELTS speaking test part 2/number 3. The task, as given to the pupils, is given below (also for examples of the pupils' writing products see the Appendix).

### **WRITING EXERCISE**

Describe:

- >Someone in your family that you really admire.
- >What relation this person is to you
- >What are your first/favourite memories of this person
- >How often you see this person
- >And say why you really admire this member of your family

Furthermore, the method to study the effects of task repetition and time pressure used by De Jong (2012) was altered and used in order to answer the second research question. To ensure that the method was suitable for writing instead of speaking, the time limit of the task was adjusted. The time limits for the decreasing time condition were set at 8, 6 and 4 minutes, respectively. This means a reduction of 25% each time and this was chosen deliberately since De Jong (2012) used the same reduction percentage. The time limit for the constant condition was changed to six minutes, since this seemed to be a reasonable time to finish the above-mentioned task (for more details on the two conditions see below).

At the start of the lesson, the pupils were given an instruction in order to prepare them for the task. First, the pupils were asked to write their names on three separate pieces of paper which were numbered for the repetition task and which were on their tables when they arrived in the classroom. Then, the pupils were randomly assigned to two groups; group one was the decreasing time group and group 2 was the constant time group (for numbers of pupils per group see Table 2 below). As a next step, the pupils were told about the upcoming task. Particularly, they were told that they had to write a piece of text three times and they were informed about the time limit that they would get each time. Additionally, they were asked to keep writing until their time was up and it was explained that their writing products would later be analysed, but it was clarified that their writing products would not be graded or be judged on right or wrong so as to reduce anxiety. Subsequently, they were handed the actual task. First, they were given the time to read the task themselves. Then, any uncertainties and questions about the task were cleared up by discussing them in class. Lastly, since it proved difficult for the first group of pupils tested (year 3) to keep writing until the time was up, they, and also the consecutive groups, were more elaborately instructed on what they could write about. After the instructions the pupils were asked to start the task. They were timed by two different alarms, one for each group and students knew when to stop upon the signal. In between the three tasks the pupils were given a break of 5 minutes. These 5 minutes were filled with a game of 'Who Am I' in English. This was done in an effort to keep pupils communicating in English, but with less pressure to ensure that they could unwind from the task. On completion of the task the products were collected in order to analyse them. Furthermore, the subjects were not allowed to use tools to help them, such as

dictionaries or textbooks, to ensure that all products purely represented their knowledge of the L2.

Table 2: Number of pupils per condition per year

	<b>First year</b>	<b>Second year</b>	<b>Third year</b>	<b>Fourth year</b>
<b>Total of pupils</b>	18	24	24	20
<b>Group 1 / N = Decreasing Time</b>	9	12	14	11
<b>Group 2 / N = Constant Time</b>	9	12	10	9

### 3.3 Data analysis

On basis of the research questions it was decided to analyse the pupils' writing products on a grammatical and lexical level. To date various methods have been developed and introduced to measure L2 writing (Polio; 1997). Previous studies close to this study in aims and design (Casanave, 1994; Present-Thomas, 2012) have measured syntactical complexity in L2 writing using T-units. A T-unit is defined "as an independent clause and all its dependent clauses" (Polio, 1997:138 ). An example is the difference between 'I don't see my mother often. She works a lot.' (two T-units) and 'I don't see my mother often, because she works a lot.' (one T-unit). The last sentence is an example of a more complex sentence because of the subordination. Following this trend and the conclusion of Polio in her comparison between different measures of linguistic accuracy it was decided to analyse the syntactical complexity of the products using T-units. These T-units and other measures of syntactical complexity were calculated automatically by means of the L2 Syntactic Complexity Analyzer (L2SCA; Lu, 2010). This program calculates different measures for syntactic complexity and a few such measures were chosen for the current study.

Following Present-Thomas (2012), four measures of syntactical complexity were chosen to ensure that, apart from analysing the length of the T-units, the strategies to accomplish a longer T-unit were also analysed. The chosen measures were decided to be:

- mean length of T-unit (MLT)
- mean length of clause (MLC)
- coordinate phrases per T-unit (CP/T)
- T-unit complexity ratio (C/T).

The first two measures, MLT and MLC, were chosen to represent the mean length of and complexity of the pupils' writing products. The last two measures were chosen to measure if the pupils used a certain strategy such as coordination (CP/T) or subordination (C/T) to create syntactically more complex sentences.

Furthermore, it was decided to analyse the lexical variety using Type Token Ratio (TTR). This analysing method can be used to show the lexical diversity of written products. A TTR analysis based on lexical variety is achieved by comparing the number of different words (number of types) to the total number of words (number of tokens). This ratio between the number of types and number of tokens then shows how many different words the pupils use and this analysis is therefore a good way to examine lexical diversity. Apart from these measures, it was also decided to look at the total number of words per writing product, as a lexical measure and as a measure closest to a fluency measure.

## 4. Results

As was stated in the method section, it was decided to analyse the writing products on six different measures. To give a clear overview of the results, the analysis of each measure will be looked at separately. In the following sections, the results will be presented in Table format for the measures: *Total Number of Words (TW)*, *Mean Length of T-Unit (MLT)*, *Mean Length of Clause (MLC)*, *T-Unit Complexity Ratio (C/T)*, *Coordinate Phrases per T-unit (CP/T)* and *Type-token Ratio (TTR)*.

Each section will be divided in 4 different comparisons. First, the mean scores will be compared and possible tendencies and patterns will be discussed. The scores will later be discussed by means of their statistical significance in the three sections that follow. Second, a comparison between years will be made. ANOVA tests of variance were used for these comparisons. Next, a comparison between the writing products will be made to study the effect of repetition. In other words, comparisons from writing product 1 to 2 and from 2 to 3. For these comparisons the scores were analysed by means of paired-samples t-tests. Lastly, a comparison between the two conditions, on the basis of paired-samples t-tests, will be made to study the effect of time-pressure.

#### 4.1 Total number of words

##### *Mean scores*

Table 3 shows the mean scores and standard deviations of the pupils' writing products concerning their total number of words.

Table 3: mean scores and standard deviations for *Total Number of Words* per year, per writing product and split out per condition

	<b>TW1</b>	<b>TW2</b>	<b>TW3</b>
<b>Year 1 – decreasing (n=9)</b>	62.78 (28.84)	67.78 (25.30)	59.78 (19.18)
<b>Year 1 – constant (n=9)</b>	56.89 (23.41)	73.44 (25.75)	68.33 (22.24)
<b>Year 2 – decreasing (n=12)</b>	89.33 (39.33)	89.17 (25.25)	79.58 (15.31)
<b>Year 2 – constant (n=12)</b>	59.83 (13.74)	70.25 (24.34)	63.67 (27.85)
<b>Year 3 – decreasing (n=14)</b>	65.86 (18.46)	67.43 (21.90)	65.86 (13.73)
<b>Year 3 – constant (n=10)</b>	45.10 (14.72)	66.00 (20.22)	66.50 (20.63)
<b>Year 4 – decreasing (n=11)</b>	118.73 (39.23)	121.09 (34.25)	99.09 (24.67)
<b>Year 4 – constant (n=9)</b>	86.78 (18.07)	106.22 (24.03)	104.22 (27.71)

As can be seen from the Table (above), the pupils seem to improve their TW throughout the years, although year 3 is an exception since the pupils in that year score lower overall than year 2 and in some cases even lower than year 1.

Furthermore, as is shown in Table 3, the third writing product appears to result in a lower score on TW, apart from the year 3 pupils in the constant time group who score slightly better. It is interesting to note the increase in TW or, for year 2, the same number of TW between writing product 1 and writing product 2. Although the time decreased 2 minutes the students are still able to write more words or the same number of words.

Moreover, it can be seen from the data in Table 3 that it might be that having more time to write has a positive effect on the TW. This can be seen in the differences between the decreasing time group and the TW score of its first product (8 minutes) and the TW score of the first product of the constant time group (6 minutes) and in the differences between the constant time pupils and the TW score of their third product (6 minutes) and the TW score of the third product of the decreasing time group (only 4 minutes).

### *Comparison between years*

Table 4 presents the significance scores of the differences between the 4 years concerning the total number of words pupils produced.

Table 4: Significance of difference in TW scores between the 4 years, per writing product

		TW		
		Writing product 1	Writing product 2	Writing product 3
<b>ANOVA</b>		$f(3, 82) = 11.678,$ $p < .001$	$f(3,82) = 14.770,$ $p < .000$	$f(3,82) = 12.953,$ $p < .000$
<b>Year 1</b> Compared to:	<b>Year 2</b>	$p = .357$	$p = .665$	$p = .678$
	<b>Year 3</b>	$p = .991$	$p = .965$	$p = .990$
	<b>Year 4</b>	$p < .000$	$p < .000$	$p < .000$
<b>Year 2</b> Compared to:	<b>Year 1</b>	$p = .357$	$p = .665$	$p = .678$
	<b>Year 3</b>	$p = .162$	$p = .308$	$p = .816$
	<b>Year 4</b>	$p < .005$	$p < .000$	$p < .000$
<b>Year 3</b> Compared to:	<b>Year 1</b>	$p = .991$	$p = .965$	$p = .990$
	<b>Year 2</b>	$p = .162$	$p = .308$	$p = .816$
	<b>Year 4</b>	$p < .000$	$p < .000$	$p < .000$
<b>Year 4</b> Compared to:	<b>Year 1</b>	$p < .000$	$p < .000$	$p < .000$
	<b>Year 2</b>	$p < .005$	$p < .000$	$p < .000$
	<b>Year 3</b>	$p < .000$	$p < .000$	$p < .000$

It is apparent from this table that year 4 clearly outperforms all other years in all writing products concerning their total number of words. All other years do not significantly differ from each other.

***Comparison between the three writing products***

Table 5 provides the significance scores of the correlations and differences between the first and second writing product, and between the second and third writing product concerning the total number of words.

Table 5: Significance of correlation and difference between the TW scores of writing product 1 and 2 and between TW scores of writing product 2 and 3.

	TW			
	Product 1 & Product 2		Product 2 & Product 3	
	Correlation	Difference	Correlation	Difference
<b>Year 1 (n=9) Decreasing</b>	r=.791*	t(8) = -.842 NS	r=.0673*	t(8) = 1.956 NS
<b>Year 1 (n=9) Constant</b>	r=.804*****	t(8) = -3.196*	r=.674*	t(8) = .780 NS
<b>Year 2 (n=12) Decreasing</b>	r=.934*****	t(11) = .032 NS	r=.904*****	t(11) = .2.525*
<b>Year 2 (n=12) Constant</b>	r=.627*	t(11) = -1.897 NS	r=.845*****	t(11) = 1.528 NS
<b>Year 3 (n=14) Decreasing</b>	r=.850*****	t(13) = -.509 NS	r=.827*****	t(13) = .450 NS
<b>Year 3 (n=10) Constant</b>	r=.762**	t(9) = -.535*****	r=.810***	t(9) = -.126 NS
<b>Year 4 (n=11) Decreasing</b>	r=.846*****	t(10) = -.375 NS	r=.899*****	t(10) = 4.504*****
<b>Year 4 (n=9) Constant</b>	r=.434 NS	t(8) = -.2.542*	r=.965*****	t(8) = .770 NS

\*  $p < .05$ , \*\*  $p < .01$ , \*\*\*  $p < .005$ , \*\*\*\*  $p < .001$ , \*\*\*\*\*  $p < .000$ , NS not significant

As can be seen from Table 5, only a few groups show a significant difference between their writing products. The data in Table 5 do indicate that, apart from once, the writing products in themselves reveal a strong correlation.

Additionally, the data also shows that the constant time pupils in year 1, 3 and 4 have a significant improvement in TW between their first and second writing product. For the decreasing time group the significant difference can be found between writing product 2 and 3, but this is only the case for years 2 and 4. Note that these significant differences mark a decline of the TW. Other differences are not statistically significant.

### *Comparison between the two conditions*

Table 6 compares the significance scores of the differences between the two conditions concerning the total number of words.

Table 6: Significance of difference between the TW scores of the decreasing time group pupils and the constant time group pupils per year

	TW		
	Writing product 1	Writing product 2	Writing product 3
<b>Year 1 (n=18)</b>	t(16) = .476 NS	t(16) = -.471 NS	t(16) = -.874 NS
<b>Year 2 (n=24)</b>	t(13.646) = 2.453*	t(22) = 1.869 NS	t(22) = 1.735 NS
<b>Year 3 (n=24)</b>	t(22) = 2.959**	t(22) = .163 NS	t(22) = -.092 NS
<b>Year 4 (n=20)</b>	t(18) = 2.248*	t(18) = 1.098 NS	t(18) = -.438 NS

\*  $p < .05$ , \*\*  $p < .01$ , \*\*\*  $p < .005$ , \*\*\*\*  $p < .001$ , \*\*\*\*\*  $p < .000$ , NS not significant

The results, as shown in Table 6, indicate that for the first writing product the decreasing time group pupils score significantly better on total number of words.

However, since this significant difference between the two conditions cannot be found in the other writing products it is difficult to draw a clear conclusion.

## 4.2 Mean Length of T-unit

### *Mean scores*

Table 7 shows the mean scores and standard deviations of the pupils' writing products concerning their mean length of T-unit.

Table 7: mean scores and standard deviations for MLT per year, per writing product and split out per condition

	<b>MLT1</b>	<b>MLT2</b>	<b>MLT3</b>
<b>Year 1 – decreasing (n=9)</b>	6.9078 (2.05454)	7.1711 (1.90385)	6.7144 (1.48524)
<b>Year 1 – constant (n=9)</b>	6.5667 (2.45597)	6.6000 (1.28433)	6.6256 (1.85800)
<b>Year 2 – decreasing (n=12)</b>	7.4592 (1.89262)	7.4742 (2.35094)	7.4900 (2.12613)
<b>Year 2 – constant (n=12)</b>	6.7208 (.75390)	6.4183 (1.20559)	6.5842 (1.77768)
<b>Year 3 – decreasing (n=14)</b>	9.9450 (2.22308)	9.3600 (2.46816)	9.3371 (2.68544)
<b>Year 3 – constant (n=10)</b>	9.1050 (2.04106)	9.5330 (2.43287)	8.5470 (2.63453)
<b>Year 4 – decreasing (n=11)</b>	7.9682 (1.84092)	8.3618 (1.80462)	8.9118 (2.60554)
<b>Year 4 – constant (n=9)</b>	7.8044 (1.61846)	8.7078 (2.45009)	8.2244 (2.11070)

As can be seen in Table 7, it is difficult to draw conclusions regarding the improvement over years. While it is clear that year 3 and 4 pupils produce longer MLTs than the year 1 and year 2 pupils, it is harder to find other clear differences especially between years 1 and 2. Interestingly, year 3 has the best scores regarding MLT for all their products and for the two conditions, while they score quite low in comparison to the other years with regards to their TW, as was seen before.

Moreover, as is shown in the Table above, the decreasing time group tend to score a higher MLT in all three writing products (apart from the times where the constant time group of year 3 and year 4 produce a higher MLT count in the second product)

*Comparison between years*

Table 8 presents the significance scores of the differences between the 4 years concerning their mean length of T-unit.

Table 8: Significance of difference in MLT scores between the 4 years, per writing product

		MLT		
		Writing product 1	Writing product 2	Writing product 3
<b>ANOVA</b>		<b>F(3, 82) = 10.196, p &lt; .000</b>	<b>f(3,82) = 8.304, p &lt; .000</b>	<b>f(3,82) = 5.759, p &lt; .001</b>
<b>Year 1</b> Compared to:	<b>Year 2</b>	p = .932	p = 1.000	p = .951
	<b>Year 3</b>	<b>p &lt; .000</b>	<b>p &lt; .001</b>	<b>p &lt; .01</b>
	<b>Year 4</b>	p = .242	p = .073	<b>p &lt; .05</b>
<b>Year 2</b> Compared to:	<b>Year 1</b>	p = .932	p = 1.000	p = .951
	<b>Year 3</b>	<b>p &lt; .000</b>	<b>p &lt; .000</b>	<b>p &lt; .05</b>
	<b>Year 4</b>	p = .498	p = .060	p = .097
<b>Year 3</b> Compared to:	<b>Year 1</b>	<b>p &lt; .000</b>	<b>p &lt; .001</b>	<b>p &lt; .01</b>
	<b>Year 2</b>	<b>p &lt; .000</b>	<b>p &lt; .000</b>	<b>p &lt; .05</b>
	<b>Year 4</b>	<b>p &lt; .005</b>	p = .453	p = .930
<b>Year 4</b> Compared to:	<b>Year 1</b>	p = .242	p = .073	<b>p &lt; .05</b>
	<b>Year 2</b>	p = .498	p = .060	p = .097
	<b>Year 3</b>	<b>p &lt; .005</b>	p = .453	p = .930

The most striking result to emerge from this Table is the performance of year 3 compared to the other years. For the first writing product year 3 clearly outperforms all the other years. Even though there is no significant difference between year 3 and 4 for the second and third product, year 3 pupils still score significantly better than year 1 and 2, while year 4 only scores significantly better than year 1 in the third writing product.

***Comparison between the three writing products***

Table 9 provides the significance scores of the correlations and differences between the first and second writing product, and between the second and third writing product concerning the mean length of T-unit.

Table 9: Significance of correlation and difference between the MLT scores of writing product 1 and 2 and between MLT scores of writing product 2 and 3.

	<b>MLT</b>			
	<b>Product 1 &amp; Product 2</b>		<b>Product 2 &amp; Product 3</b>	
	<b>Correlation</b>	<b>Difference</b>	<b>Correlation</b>	<b>Difference</b>
<b>Year 1 (n=9) Decreasing</b>	r = .830**	t(8) = -.679 NS	r = .797**	t(8) = 1.192 NS
<b>Year 1 (n=9) Constant</b>	r = .700***	t(8) = -.005 NS	r = .923*****	t(8) = -.092 NS
<b>Year 2 (n=12) Decreasing</b>	r = .965*****	t(11) = -.072 NS	r = .876*****	t(11) = -.048 NS
<b>Year 2 (n=12) Constant</b>	r = .304 NS	t(11) = .864 NS	r = .520 NS	t(11) = -.372 NS
<b>Year 3 (n=14) Decreasing</b>	r = .843*****	t(13) = 1.638 NS	r = .937*****	t(13) = .091 NS
<b>Year 3 (n=10) Constant</b>	r = .350 NS	t(9) = -.526 NS	r = .737***	t(9) = 1.689 NS
<b>Year 4 (n=11) Decreasing</b>	r = .865*****	t(10) = -1.377 NS	r = .859*****	t(10) = -1.300 NS
<b>Year 4 (n=9) Constant</b>	r = .832***	t(8) = -1.906, NS	r = .961*****	t(8) = 2.020 NS

\*  $p < .05$ , \*\*  $p < .01$ , \*\*\*  $p < .005$ , \*\*\*\*  $p < .001$ , \*\*\*\*\*  $p < .000$ , NS not significant

Table 9 shows that, while the writing products correlate most of the times, there are no significant differences between the writing products.

***Comparison between the two conditions***

Table 10 compares the significance scores of the differences between the two conditions concerning the mean length of T-unit.

Table 10: Significance of difference between the MLT scores of the decreasing time group pupils and the constant time group pupils per year

	<b>MLT</b>		
	<b>Writing product 1</b>	<b>Writing product 2</b>	<b>Writing product 3</b>
<b>Year 1 (n=18)</b>	t(16) = .320 NS	t(16) = .746 NS	t(16) = .112 NS
<b>Year 2 (n=24)</b>	t(14.405) = 1.255 NS	t(22) = 1.384 NS	t(22) = 1.132 NS
<b>Year 3 (n=24)</b>	t(22) = .943 NS	t(22) = -.170 NS	t(22) = .716 NS
<b>Year 4 (n=20)</b>	t(18) = .209 NS	t(18) = -.364 NS	t(18) = -.638 NS

\*  $p < .05$ , \*\*  $p < .01$ , \*\*\*  $p < .005$ , \*\*\*\*  $p < .001$ , \*\*\*\*\*  $p < .000$ , NS not significant

As can be seen from Table 10, there are no significant differences between the two conditions here.

### 4.3 Mean Length of Clause

#### *Main scores*

Table 11 presents the mean scores and standard deviations of the pupils' writing products concerning their mean length of clause.

Table 11: mean scores and standard deviations for MLC per year, per writing product and split out per condition

	<b>MLC1</b>	<b>MLC2</b>	<b>MLC3</b>
<b>Year 1 – decreasing (n=9)</b>	6.0578 (1.36255)	6.2233 (1.22500)	6.2522 (1.10942)
<b>Year 1 – constant (n=9)</b>	5.4444 (1.34870)	5.4711 (.85715)	5.1289 (.80007)
<b>Year 2 – decreasing (n=12)</b>	6.3175 (1.16666)	6.4150 (1.57988)	6.4000 (1.34403)
<b>Year 2 – constant (n=12)</b>	5.7417 (.65533)	5.6900 (.80217)	5.6175 (.69210)
<b>Year 3 – decreasing (n=14)</b>	5.8550 (.74111)	6.1014 (1.04243)	6.2793 (.85736)
<b>Year 3 – constant (n=10)</b>	6.3860 (1.18035)	6.5450 (.97460)	6.5350 (1.85736)
<b>Year 4 – decreasing (n=11)</b>	6.0109 (.73428)	6.1273 (.84715)	6.2491 (.87748)
<b>Year 4 – constant (n=9)</b>	6.5767 (1.06357)	6.8378 (.90614)	6.9389 (.97368)

From the Table above no clear patterns can be discerned regarding pupils' improvement over the years. While it seems that year 3 and year 4 have higher MLC scores, which means that their clauses are longer, in some other cases year 1 and year 2 have mean scores which come close to those of year 3 and 4 pupils.

Furthermore, it seems just as difficult to find a pattern for the differences between the writing products. Each year and each condition seem to display their own pattern, which involves either an increase or decrease in length of clause. However, interesting in these data is that the pupils do seem to maintain their complexity since the scores between the writing products do not diverge greatly. In other words, they were relatively constant in their performance.

Moreover, it seems like there is a difference between the first two years and the last two years when comparing the conditions. The pupils' mean scores in year 1 and year 2 show that the decreasing time group pupils write longer clauses. However, for year 3 and 4 the complete opposite seems to be the case since, as Table 11 shows, the constant time group pupils write longer clauses there.

### *Comparison between years*

Table 12 presents the significance scores of the differences between the 4 years concerning their mean length of clause.

Table 12: Significance of difference in MLC scores between the 4 years, per writing product

		MLC		
		Writing product 1	Writing product 2	Writing product 3
<b>ANOVA</b>		$f(3,82) = .774,$ $p = .512$	$f(3,82) = 1.132,$ $p = .341$	$f(3,82) = 2.254,$ $p = .088$
<b>Year 1</b> Compared to:	<b>Year 2</b>	$p = .829$	$p = .931$	$p = .811$
	<b>Year 3</b>	$p = .753$	$p = .574$	$p = .219$
	<b>Year 4</b>	$p = .436$	$p = .337$	$p = .100$
<b>Year 2</b> Compared to:	<b>Year 1</b>	$p = .829$	$p = .931$	$p = .811$
	<b>Year 3</b>	$p = .999$	$p = .881$	$p = .667$
	<b>Year 4</b>	$p = .879$	$p = .634$	$p = .393$
<b>Year 3</b> Compared to:	<b>Year 1</b>	$p = .753$	$p = .574$	$p = .219$
	<b>Year 2</b>	$p = .999$	$p = .881$	$p = .667$
	<b>Year 4</b>	$p = .933$	$p = .962$	$p = .959$
<b>Year 4</b> Compared to:	<b>Year 1</b>	$p = .436$	$p = .337$	$p = .100$
	<b>Year 2</b>	$p = .879$	$p = .634$	$p = .393$
	<b>Year 3</b>	$p = .933$	$p = .962$	$p = .959$

As opposed to the previous two measures, the Table above shows that there are no significant differences between the years for the MLC measure.

***Comparison between the three writing products***

Table 13 provides the significance scores of the correlations and differences between the first and second writing product, and between the second and third writing product concerning the mean length of clause.

Table 13: Significance of correlation and difference between the MLC scores of writing product 1 and 2 and between MLC scores of writing product 2 and 3.

	<b>MLC</b>			
	<b>Product 1 &amp; Product 2</b>		<b>Product 2 &amp; Product 3</b>	
	<b>Correlation</b>	<b>Difference</b>	<b>Correlation</b>	<b>Difference</b>
<b>Year 1 (n=9) Decreasing</b>	r = .858***	t(8) = -.708 NS	r = .815**	t(8) = -.121 NS
<b>Year 1 (n=9) Constant</b>	r = .460 NS	t(8) = -.066 NS	r = .707*	t(8) = 1.614 NS
<b>Year 2 (n=12) Decreasing</b>	r = .856*****	t(11) = -.403 NS	r = .761***	t(11) = .050 NS
<b>Year 2 (n=12) Constant</b>	r = -.211 NS	t(11) = .157 NS	r = .275 NS	t(11) = .287 NS
<b>Year 3 (n=14) Decreasing</b>	r = .371 NS	t(13) = -.895 NS	r = .816*****	t(13) = -1.106 NS
<b>Year 3 (n=10) Constant</b>	r = .810***	t(9) = -.727 NS	r = .824***	t(9) = .027 NS
<b>Year 4 (n=11) Decreasing</b>	r = .787***	t(10) = -.733 NS	r = .888*****	t(10) = -.987 NS
<b>Year 4 (n=9) Constant</b>	r = .825**	t(8) = -1.302 NS	r = .879***	t(8) = -.648 NS

\*  $p < .05$ , \*\*  $p < .01$ , \*\*\*  $p < .005$ , \*\*\*\*  $p < .001$ , \*\*\*\*\*  $p < .000$ , NS not significant

As seen before, this Table shows that the writing products mostly correlate strongly.

However, again in line with what was found before, none of the differences between the writing products are statistically significant.

***Comparison between the two conditions***

Table 14 compares the significance scores of the differences between the two conditions concerning the mean length of clause.

Table 14: Significance of difference between the MLC scores of the decreasing time group pupils and the constant time group pupils per year

	<b>MLC</b>		
	<b>Writing product 1</b>	<b>Writing product 2</b>	<b>Writing product 3</b>
<b>Year 1 (n=18)</b>	t(16) = .960 NS	t(16) = 1.509 NS	t(16) = 2.464*
<b>Year 2 (n=24)</b>	t(22) = 1.491 NS	t(16.318) = 1.417 NS	t(22) = 1.793 NS
<b>Year 3 (n=24)</b>	t(22) = -1.356 NS	t(22) = -1.005 NS	t(11.76) = -.406 NS
<b>Year 4 (n=20)</b>	t(18) = -1.405 NS	t(18) = -1.809 NS	t(18) = -1.665 NS

\*  $p < .05$ , \*\*  $p < .01$ , \*\*\*  $p < .005$ , \*\*\*\*  $p < .001$ , \*\*\*\*\*  $p < .000$ , NS not significant

It is apparent from this Table that only one case presents itself where there is a significant difference in favor of the decreasing time group between the two conditions. However, because this significance is an isolated result, no clear benefit from the decreasing time group can be detected.

#### 4.4 T-unit Complexity Ratio

##### *Main scores*

Table 15 shows the mean scores and standard deviations of the pupils' writing products concerning their t-unit complexity ratio (subordination strategy).

Table 15: mean scores and standard deviations for C/T per year, per writing product and split out per condition

	<b>C/T1</b>	<b>C/T2</b>	<b>C/T3</b>
<b>Year 1 – decreasing (n=9)</b>	1.1589 (.38764)	1.1756 (.26005)	1.0800 (.20347)
<b>Year 1 – constant (n=9)</b>	1.1489 (.36703)	1.1789 (.28366)	1.2911 (.53969)
<b>Year 2 – decreasing (n=12)</b>	1.1750 (.14657)	1.1575 (.12308)	1.1633 (.15186)
<b>Year 2 – constant (n=12)</b>	1.1767 (.12324)	1.1258 (.13467)	1.1658 (.23146)
<b>Year 3 – decreasing (n=14)</b>	1.7014 (.33418)	1.5557 (.41062)	1.4964 (.41622)
<b>Year 3 – constant (n=10)</b>	1.4430 (.33377)	1.4630 (.35337)	1.3130 (.25600)
<b>Year 4 – decreasing (n=11)</b>	1.3209 (.22224)	1.3600 (.21157)	1.4145 (.28939)
<b>Year 4 – constant (n=9)</b>	1.1889 (.17324)	1.2622 (.27874)	1.1844 (.26058)

As can be seen from Table 15, year 3 pupils have the highest T-unit complexity ratio scores which means that they use more subordination than the other years. This pattern is also found for the mean scores of MLT. Apart from the high scores of year 3 and the decreasing time group of year 4, the scores of the other years seem to be close together.

Furthermore, a pattern for the differences between the writing products is not as easily found. Just like for MLC, each year and each condition seem to have their own pattern in their use of subordination.

Moreover, while for the MLC measure the scores of the constant time group are better than the scores of the decreasing time group in years 3 and 4, now the

opposite appears to be the case since the decreasing time group clearly produces higher scores. Differences between the conditions for year 1 and 2 are harder to discern.

### *Comparison between years*

Table 16 presents the significance scores of the differences between the 4 years concerning their t-unit complexity ratio.

Table 16: Significance of difference in C/T scores between the 4 years, per writing product

		C/T		
		Writing product 1	Writing product 2	Writing product 3
<b>ANOVA</b>		$f(3,82) = 12.270$ , <b>p &lt; .000</b>	$f(3,82) = 9.081$ , <b>p &lt; .000</b>	$f(3,82) = 3.152$ , <b>p &lt; .05</b>
<b>Year 1</b> Compared to:	<b>Year 2</b>	p = .994	p = .975	p = .997
	<b>Year 3</b>	<b>p &lt; .000</b>	<b>p &lt; .001</b>	p = .095
	<b>Year 4</b>	p = .635	p = .399	p = .624
<b>Year 2</b> Compared to:	<b>Year 1</b>	p = .994	p = .975	p = .997
	<b>Year 3</b>	<b>p &lt; .000</b>	<b>p &lt; .000</b>	<b>p &lt; .05</b>
	<b>Year 4</b>	p = .740	p = .155	p = .435
<b>Year 3</b> Compared to:	<b>Year 1</b>	<b>p &lt; .000</b>	<b>p &lt; .001</b>	p = .095
	<b>Year 2</b>	<b>p &lt; .000</b>	<b>p &lt; .000</b>	<b>p &lt; .05</b>
	<b>Year 4</b>	<b>p &lt; .001</b>	p = .076	p = .675
<b>Year 4</b> Compared to:	<b>Year 1</b>	p = .635	p = .399	p = .624
	<b>Year 2</b>	p = .740	p = .155	p = .435
	<b>Year 3</b>	<b>p &lt; .001</b>	p = .076	p = .675

Data from this table can be compared with the data in Table 8 (presenting the differences in MLT between years), since year 3 again outperforms all other years in their use of subordination. Again, year 3 does not significantly differ from year 4 anymore in writing products 2 and 3, but year 4 does not show any significant difference with year 1 and 2 while year 3 does. For C/T scores, however, year 3 only

significantly differs from year 2 in writing product 3; year 1 shows no significant difference with year 3 in the third writing product.

### *Comparison between the three writing products*

Table 17 provides the significance scores of the correlations and differences between the first and second writing product, and between the second and third writing product concerning the T-unit complexity ratio.

Table 17: Significance of correlation and difference between the C/T scores of writing product 1 and 2 and between C/T scores of writing product 2 and 3.

	C/T			
	Product 1 & Product 2		Product 2 & Product 3	
	Correlation	Difference	Correlation	Difference
<b>Year 1 (n=9) Decreasing</b>	r = .820**	t(8) = -.218 NS	r = .934*****	t(8) = 2.842*
<b>Year 1 (n=9) Constant</b>	r = .910****	t(8) = -.561 NS	r = .888*****	t(8) = -1.065 NS
<b>Year 2 (n=12) Decreasing</b>	r = .808****	t(11) = .701 NS	r = .861*****	t(11) = -.260 NS
<b>Year 2 (n=12) Constant</b>	r = .596*	t(11) = 1.514 NS	r = .189 NS	t(11) = -.566 NS
<b>Year 3 (n=14) Decreasing</b>	r = .732***	t(13) = 1.935 NS	r = .874*****	t(13) = 1.071 NS
<b>Year 3 (n=10) Constant</b>	r = .373 NS	t(9) = -.164 NS	r = .785*****	t(9) = 2.156 NS
<b>Year 4 (n=11) Decreasing</b>	r = .758**	t(10) = -.858 NS	r = .825****	t(10) = -1.092 NS
<b>Year 4 (n=9) Constant</b>	r = .776*	t(8) = -1.215 NS	r = .978*****	t(8) = 3.919***

\*  $p < .05$ , \*\*  $p < .01$ , \*\*\*  $p < .005$ , \*\*\*\*  $p < .001$ , \*\*\*\*\*  $p < .000$ , NS not significant

Just like the previous measures, this Table shows strong correlation between the writing products. However, while there are no significant differences found in the two previous measures, there are two cases of significant decreases, namely for the year 1 decreasing time pupils and the year 4 constant time pupils, between the writing products for this measure. Still, these do seem to stand alone.

***Comparison between the two conditions***

Table 18 compares the significance scores of the differences between the two conditions concerning the T-unit complexity ratio.

Table 18: Significance of difference between the C/T scores of the decreasing time group pupils and the constant time group pupils per year

	<b>C/T</b>		
	<b>Writing product 1</b>	<b>Writing product 2</b>	<b>Writing product 3</b>
<b>Year 1 (n=18)</b>	t(16) = .056 NS	t(16) = -.026 NS	t(16) = -1.098 NS
<b>Year 2 (n=24)</b>	t(22) = -.030 NS	t(22) = .601 NS	t(22) = -.031 NS
<b>Year 3 (n=24)</b>	t(22) = 1.869 NS	t(22) = .577 NS	t(22) = 1.233 NS
<b>Year 4 (n=20)</b>	t(18) = 1.455 NS	t(18) = .893 NS	t(18) = 1.848 NS

*NS not significant*

As can be seen from the table, no significant differences are found between the two conditions.

#### 4.5 Coordinate Phrases per T-unit

##### *Main scores*

Table 19 shows the mean scores and standard deviations of the pupils' writing products concerning their coordinate phrases per T-unit (coordination strategy).

Table 19: mean scores and standard deviations for CP/T per year, per writing product and split out per condition

	<b>CP/T1</b>	<b>CP/T2</b>	<b>CP/T3</b>
<b>Year 1 – decreasing (n=9)</b>	.1522 (.15833)	.1644 (.13731)	.1711 (.18162)
<b>Year 1 – constant (n=9)</b>	.1689 (.22369)	.1978 (.26971)	.0844 (.08777)
<b>Year 2 – decreasing (n=12)</b>	.1925 (.17394)	.1625 (.15304)	.2125 (.16355)
<b>Year 2 – constant (n=12)</b>	.1475 (.13579)	.1450 (.10158)	.1933 (.15761)
<b>Year 3 – decreasing (n=14)</b>	.1371 (.13964)	.1564 (.22121)	.1564 (.12989)
<b>Year 3 – constant (n=10)</b>	.0850 (.14539)	.1030 (.09274)	.1130 (.09810)
<b>Year 4 – decreasing (n=11)</b>	.1764 (.17043)	.1564 (.15908)	.1900 (.15317)
<b>Year 4 – constant (n=9)</b>	.1711 (.13290)	.2378 (.13113)	.2400 (.16688)

It can be seen from the data in Table 19 that the differences between the years are unclear because of the variable scores throughout. However, it does seem like year 4 has slightly higher scores (which points to more coordination in their sentences) than the rest, but because of the varying scores of all years this trend is far from clear-cut.

Furthermore, apart from a dip in the score of the constant time group within year 1 pupils in their third writing product and a decrease in score of the decreasing time year 2 pupils, it seems like the pupils obtain slightly better CP/T scores with each product they write.

Moreover, while for the last two measures it seems like a pattern can be found for the differences between the conditions this does not seem the case for the CP/T measure. As Table 19 shows the scores are too variable to draw a conclusion.

### *Comparison between years*

Table 20 presents the significance scores of the differences between the 4 years concerning their coordinate phrases per T-unit.

Table 20: Significance of difference in CP/T scores between the 4 years, per writing product

		CP/T		
		Writing product 1	Writing product 2	Writing product 3
<b>ANOVA</b>		$f(3,82) = .678,$ $p = .568$	$f(3,82) = .554,$ $p = .647$	$f(3,82) = 1.882,$ $p = .139$
<b>Year 1</b> Compared to:	<b>Year 2</b>	$p = .997$	$p = .952$	$p = .348$
	<b>Year 3</b>	$p = .796$	$p = .802$	$p = .995$
	<b>Year 4</b>	$p = .994$	$p = .996$	$p = .279$
<b>Year 2</b> Compared to:	<b>Year 1</b>	$p = .997$	$p = .952$	$p = .348$
	<b>Year 3</b>	$p = .630$	$p = .977$	$p = .415$
	<b>Year 4</b>	$p = 1.000$	$p = .863$	$p = .996$
<b>Year 3</b> Compared to:	<b>Year 1</b>	$p = .796$	$p = .802$	$p = .995$
	<b>Year 2</b>	$p = .630$	$p = .977$	$p = .415$
	<b>Year 4</b>	$p = .612$	$p = .648$	$p = .334$
<b>Year 4</b> Compared to:	<b>Year 1</b>	$p = .994$	$p = .996$	$p = .279$
	<b>Year 2</b>	$p = 1.000$	$p = .863$	$p = .996$
	<b>Year 3</b>	$p = .642$	$p = .648$	$p = .334$

No significant differences between the years can be detected on the basis of these data.

***Comparison between the three writing products***

Table 21 provides the significance scores of the correlations and differences between the first and second writing product, and between the second and third writing product concerning the coordinate phrases per T-unit.

Table 21: Significance of correlation and difference between the CP/T scores of writing product 1 and 2 and between CP/T scores of writing product 2 and 3.

	<b>CP/T</b>			
	<b>Product 1 &amp; Product 2</b>		<b>Product 2 &amp; Product 3</b>	
	<b>Correlation</b>	<b>Difference</b>	<b>Correlation</b>	<b>Difference</b>
<b>Year 1 (n=9) Decreasing</b>	r = .501 NS	t(8) = -.247 NS	r = .323 NS	t(8) = -.106 NS
<b>Year 1 (n=9) Constant</b>	r = -.228 NS	t(8) = -.224 NS	r = .000 NS	t(8) = 1.199 NS
<b>Year 2 (n=12) Decreasing</b>	r = .784***	t(11) = .951 NS	r = .538 NS	t(11) = -1.148 NS
<b>Year 2 (n=12) Constant</b>	r = -.021 NS	t(11) = .051 NS	r = -.056 NS	t(11) = -.871 NS
<b>Year 3 (n=14) Decreasing</b>	r = .611*	t(13) = -.412 NS	r = .086 NS	t(13) = .000 NS
<b>Year 3 (n=10) Constant</b>	r = .597 NS	t(9) = -.487 NS	r = .424 NS	t(9) = -.308 NS
<b>Year 4 (n=11) Decreasing</b>	r = .801***	t(10) = .634 NS	r = .545 NS	t(10) = -.748 NS
<b>Year 4 (n=9) Constant</b>	r = .737*	t(8) = -2.088 NS	r = .883***	t(8) = -.083 NS

\*  $p < .05$ , \*\*  $p < .01$ , \*\*\*  $p < .005$ , \*\*\*\*  $p < .001$ , \*\*\*\*\*  $p < .000$ , NS not significant

Surprisingly, Table 21 reveals that the writing products show no correlation.

Additionally, unsurprisingly, it also shows that there are no significant differences between the writing products.

***Comparison between the two conditions***

Table 22 compares the significance scores of the differences between the two conditions concerning the coordinate phrases per T-unit.

Table 22: Significance of difference between the CP/T scores of the decreasing time group pupils and the constant time group pupils per year

	<b>CP/T</b>		
	<b>Writing product 1</b>	<b>Writing product 2</b>	<b>Writing product 3</b>
<b>Year 1 (n=18)</b>	t(16) = -.182 NS	t(16) = -.330 NS	t(16) = 1.289 NS
<b>Year 2 (n=24)</b>	t(22) = .706 NS	t(19.117) = .330 NS	t(22) = .292 NS
<b>Year 3 (n=24)</b>	t(22) = .887 NS	t(22) = .717 NS	t(22) = .889 NS
<b>Year 4 (n=20)</b>	t(18) = .075 NS	t(18) = -1.230 NS	t(18) = -.698 NS

\*  $p < .05$ , \*\*  $p < .01$ , \*\*\*  $p < .005$ , \*\*\*\*  $p < .001$ , \*\*\*\*\*  $p < .000$ , NS not significant

As was the case for the other measures, on the basis of their use of coordination there are no significant differences between the two conditions.

## 4.6 Type-token Ratio

### Main scores

Table 23 shows the mean scores and standard deviations of the pupils' writing products concerning their type-token ratio.

Table 23: mean scores and standard deviations for TTR per year, per writing product and split out per condition

	<b>TTR1</b>	<b>TTR2</b>	<b>TTR3</b>
<b>Year 1 – decreasing (n=9)</b>	.6122 (.05740)	.6044 (.04693)	.6378 (.07379)
<b>Year 1 – constant (n=9)</b>	.6722 (.09602)	.6611 (.10374)	.6822 (.07530)
<b>Year 2 – decreasing (n=12)</b>	.6692 (.07012)	.6517 (.04108)	.6783 (.03243)
<b>Year 2 – constant (n=12)</b>	.7042 (.06571)	.6725 (.07124)	.6675 (.08884)
<b>Year 3 – decreasing (n=14)</b>	.6736 (.06184)	.6557 (.06186)	.6629 (.05225)
<b>Year 3 – constant (n=10)</b>	.6860 (.07214)	.6390 (.06045)	.6600 (.09615)
<b>Year 4 – decreasing (n=11)</b>	.6127 (.07471)	.6073 (.08001)	.6264 (.07145)
<b>Year 4 – constant (n=9)</b>	.6678 (.05563)	.6167 (.07433)	.6267 (.08109)

As can be seen in Table 23, the scores are again too variable overall to find a clear pattern. Interestingly, it seems like year 4 has slightly lower TTR scores (which indicates a lower lexical complexity) than the other years.

Furthermore, apart from the constant time group year 2 pupils, it seems that the pupils first produce slightly lower TTR scores between writing product 1 and 2, but then seem to improve again slightly from writing product 2 to 3.

Moreover, aside from a few exceptions, it seems like the constant time group pupils score better than the decreasing time group pupils.

*Comparison between years*

Table 24 presents the significance scores of the differences between the 4 years concerning their type-token ratio.

Table 24: Significance of difference in TTR scores between the 4 years, per writing product

		<b>TTR</b>		
		<b>Writing product 1</b>	<b>Writing product 2</b>	<b>Writing product 3</b>
<b>ANOVA</b>		$f(3,82) = 2.622,$ $p = .056$	$f(3,82) = 2.163,$ $p = .099$	$f(3,82) = 1.651,$ $p = .184$
<b>Year 1</b> Compared to:	<b>Year 2</b>	$p = .198$	$p = .524$	$p = .938$
	<b>Year 3</b>	$p = .362$	$p = .879$	$p = 1.000$
	<b>Year 4</b>	$p = .997$	$p = .777$	$p = .477$
<b>Year 2</b> Compared to:	<b>Year 1</b>	$p = .198$	$p = .524$	$p = .938$
	<b>Year 3</b>	$p = .981$	$p = .908$	$p = .948$
	<b>Year 4</b>	$p = .113$	$p = .080$	$p = .148$
<b>Year 3</b> Compared to:	<b>Year 1</b>	$p = .362$	$p = .879$	$p = 1.00$
	<b>Year 2</b>	$p = .981$	$p = .908$	$p = .948$
	<b>Year 4</b>	$p = .233$	$p = .286$	$p = .371$
<b>Year 4</b> Compared to:	<b>Year 1</b>	$p = .997$	$p = .777$	$p = .477$
	<b>Year 2</b>	$p = .113$	$p = .080$	$p = .148$
	<b>Year 3</b>	$p = .233$	$p = .286$	$p = .371$

It can be seen from the data in Table 24 that there are no significant differences between the years.

***Comparison between the three writing products***

Table 25 provides the significance scores of the correlations and differences between the first and second writing product, and between the second and third writing product concerning the type-token ratio.

Table 25: Significance of correlation and difference between the TTR scores of writing product 1 and 2 and between TTR scores of writing product 2 and 3.

	<b>TTR</b>			
	<b>Product 1 &amp; Product 2</b>		<b>Product 2 &amp; Product 3</b>	
	<b>Correlation</b>	<b>Difference</b>	<b>Correlation</b>	<b>Difference</b>
<b>Year 1 (n=9) Decreasing</b>	r = .251 NS	t(8) = .362 NS	r = .249 NS	t(8) = -1.299 NS
<b>Year 1 (n=9) Constant</b>	r = .613 NS	t(8) = .378 NS	r = .688*	t(8) = -.840 NS
<b>Year 2 (n=12) Decreasing</b>	r = .367 NS	t(11) = .904 NS	r = .139 NS	t(11) = -1.898 NS
<b>Year 2 (n=12) Constant</b>	r = -.153 NS	t(11) = 1.229 NS	r = .749***	t(11) = .294 NS
<b>Year 3 (n=14) Decreasing</b>	r = .352 NS	t(13) = .949 NS	r = .675**	t(13) = -.571 NS
<b>Year 3 (n=10) Constant</b>	r = .717*	t(9) = 2.914*	r = .547 NS	t(9) = -.821 NS
<b>Year 4 (n=11) Decreasing</b>	r = .801***	t(10) = .369 NS	r = .874*****	t(10) = -1.630 NS
<b>Year 4 (n=9) Constant</b>	r = .693*	t(8) = 2.854*	r = .772,	t(8) = -.567 NS

\*  $p < .05$ , \*\*  $p < .01$ , \*\*\*  $p < .005$ , \*\*\*\*  $p < .001$ , \*\*\*\*\*  $p < .000$ , NS not significant

Table 5 shows that there is only a correlation between the writing products half of the time. Additionally, significant differences (decreases) can only be found between writing product 1 and 2 for the constant group pupils of years 3 and 4.

### *Comparison between the two conditions*

Table 26 compares the significance scores of the differences between the two conditions concerning the type-token ratio.

Table 26: Significance of difference between the TTR scores of the decreasing time group pupils and the constant time group pupils per year

	<b>TTR</b>		
	<b>Writing product 1</b>	<b>Writing product 2</b>	<b>Writing product 3</b>
<b>Year 1 (n=18)</b>	t(16) = -1.609 NS	t(16) = -1.493 NS	t(16) = -1.265 NS
<b>Year 2 (n=24)</b>	t(22) = -1.262 NS	t(22) = -.878 NS	t(13.880) = .397 NS
<b>Year 3 (n=24)</b>	t(22) = -.453 NS	t(22) = .659 NS	t(22) = .094 NS
<b>Year 4 (n=20)</b>	t(18) = -1.831 NS	t(18) = -.270 NS	t(18) = -.009 NS

\*  $p < .05$ , \*\*  $p < .01$ , \*\*\*  $p < .005$ , \*\*\*\*  $p < .001$ , \*\*\*\*\*  $p < .000$ , NS not significant

As shown in Table 26, none of the differences between the conditions are statistically significant for the TTR measure.

#### **4.7 Summary**

Although the tables containing the mean scores seem to reveal certain tendencies and patterns, further statistical tests show no clear patterns. The only clear significant differences are found in the comparisons between years, but these differences are not found for all measures. Year 4 clearly outperforms the other years on TW, while year 3 outperforms the other years on the measures of MLT and C/T.

Nonetheless, there are too few significant differences and there is too much variation in scores to be found between the years, between the writing products and between the conditions to speak of clear patterns of improvement of the pupils.

## 5. Discussion

### 5.1 Improvement through the years

Very little was found in the literature on the progression of VMBO-t pupils' L2 writing throughout their school careers. Therefore, this study set out with the aim of assessing if VMBO-t pupils improved grammatically and lexically throughout their school careers. On the question of improvement in complexity through the years, this study found that the patterns were too unclear and the scores on each measure were too variable to detect a clear improvement. Although the mean scores of each measure seemed to show the tendency that the pupils improved each year, in each of the measures the improvement did not reach any significant increase. Additionally, the few significant differences that were found were too isolated to mean something on the whole.

The main findings of the current study do not support previous research, which overall showed that as L2 learners progressed, their general complexity too improved; for example, as they advanced learners were found to write longer T-units (Casanave, 1994; Present-Thomas, Welten & de Jong, 2012). This improvement in grammatical complexity was not found in the current study.

However, although the main effects differ from previous studies, some sub findings are consistent with previous research. Purely on basis of the TTR analysis, for instance, it was found that there was no progress on lexical complexity. This finding is in agreement with Li & Schmidt's (2009) findings which showed that there was great variation concerning lexical complexity throughout a pupil's work and a clear pattern was hard to find. Li's findings are consistent with the current study's findings. Similarly, there are similarities with the conclusions drawn by Casanave (1994), who states that the most interesting part of her findings was the individual

diversity of the pupils she encountered. This accords with the results, particularly with the unclear patterns and variable scores per year. Moreover, these findings of diversity in scores support the idea of individual differences caused by EFs (Sanderson, 2012). The individual diversity in a class full of pupils with different levels of proficiency, because of the differences in EFs, can result in data that varies greatly. This variability as a whole then leads to unclear patterns.

The results of the current study may be explained by a number of different factors. First, it seems possible that the diversity of the scores are due to the design which was chosen to study the improvement. The use of a cross-sectional design while researching the improvement over years may not be an ideal set-up because of possible cohort effects. The cohort effect has to do with the possibility that one year only has pupils with high proficiency or the other way round. Extremes like year 3 with regards to MLT and C/T may be ascribed to a possible cohort effect. The results therefore need to be interpreted with caution.

Another possible explanation for not improving grammatically might be that in current language learning classrooms the focus is not on learning to write in the L2. When the pupils do write in their L2 they are asked for minimal input or they write alongside strict models, both do not linguistically challenge them enough (Saville-Troike, 2006). Consequently, when they are not linguistically challenged they may not develop and improve their L2 writing skills.

However, the focus on writing is not so very limited that it could be the only explanation. The observed non improvement can also be for the reason that when pupils develop their L2 writing skills, teachers do no focus on improving the grammatical complexity of their pupils. The main focus of L2 writing in Dutch schools is on writing letters to native-speakers of English. Additionally, it is stipulated

by the ERK/CEF(R) that pupils on the level of VMBO-t pupils are able to write short pieces about topics familiar and well-known to the pupil. Simultaneously, communicative language teaching starts from the theory that being able to communicate the best you can is the most important aspect of new L2 skills. All these views taken together might be an incentive for teachers not to focus on or correct or teach certain aspects of grammatical complexity. Aspect such as accuracy of syntax and vocabulary seem more important then. Maybe, if those aspects of L2 writing were looked at in the current study, improvements would have been found. So, while it seems as if the pupils did not improve in terms of grammatical complexity through the years, it does not mean that the pupils did not improve at all in their 4 years of secondary schooling.

Additionally, the results may be explained by the level of the tested pupils. It may be that the scores for the two higher Dutch secondary school levels would differ. It could be that the basics of L2 writing of the pupils with a higher level are much more covered, which would give them a possibility to spend more time and effort on higher order aspects of writing like complexity.

Some of the issues emerging from this finding relate specifically to language teaching. The question, however, is how important the fact that no great improvement was found across the four years of VMBO education is to language teachers. It may be shocking to find that pupils do not improve grammatically throughout a school career of four years, since it seems rather pointless to teach that aspect of writing if pupils do not improve. However, the findings do not mean that the pupils did not improve at all, so language teachers mainly have to be conscious of the decisions they make regarding the focus of what they want their pupils to learn. If complexity is important to them, teachers should try a different approach if the results of this study

are correct. However, if they find other aspects of L2 writing more important the results of this study will have no great implications for their teaching methods.

## **5.2 Effect of repetition and time pressure**

Prior studies have noted the effects of repetition and time pressure on fluency and other L2 aspects. However, these studies only focused on speaking in the L2 and not on writing in the L2. Therefore, the present study was also designed to determine the effect of repetition and time pressure on the pupils' grammaticality and lexical diversity of their writing products. The current study found that repetition and time pressure did not lead to significant effects in the writing products. There were some statistically significant differences, but these were too isolated to draw any binding conclusions.

The findings of the current study are consistent with those of De Jong (2012) who found that for L2 speech neither repetition or time pressure had any effect on the improvement of grammatical complexity. In the current study, this result was also found for L2 writing. Additionally, the results show that the pupils maintained their grammatical complexity, which was also found in the study of De Jong (2012). The maintenance of the pupils' level of complexity may be attributed to the repetition of the task. Because in the first writing product the pupils' may have activated the information for the cognitively demanding task Beuningen (2011) describes and this information was from then on readily available for the second and third writing product which made it possible for the learners, even those in the decreasing time group, to maintain their grammatical complexity.

However, the findings of the current study do not support other previous research. While improvement on fluency because of repetition and time pressure was

found in previous studies (De Jong, 2012; De Jong & Perfetti, 2011), this result was not found in the current study. The measure which comes closest to fluency, the total number of words, showed only a few significant differences between the writing products for both conditions. Moreover, the findings differ from Nation's findings (1989) who did find an increase in complexity. This may be because of the difference in number of participants and the effect this number has on the results, as explained below.

There are several possible explanations for this result. As was the case for the diversity of data in improvement through the years, a possible explanation for the variable scores could be because of the chosen cross-sectional design. As was already discussed above, the effects of individual levels of EFs and the possible cohort effects lead to great differences between pupils which leads to great differences in their scores and this may result in the unclear patterns found in this study.

Another explanation for not finding any effect of repetition and time pressure unlike previous research is the choice of measures which were used to look at the writing products. While the previous studies mainly focused on the effects the 4/3/2 task had on fluency, the current study analysed grammatical complexity, which is a different L2 aspect. The lack of effect of repetition and time pressure on grammatical complexity does therefore not mean that tasks based on repetition and time pressure does not work for L2 writing. It can have effects on the fluency or other aspects, like accuracy, of L2 writing. These data must, therefore, be interpreted with caution.

Additionally, the results may be explained by the level of the tested pupils. It can be that the writing products of the VMBO-t pupils were not affected by time pressure and repetition because they could not do better. Higher level pupils may be more equipped to improve under such measures.

## 6. Conclusion

This study set out to determine whether the writing products of Dutch VMBO-t level pupils improved grammatically and lexically throughout their school careers.

Furthermore, the present study was designed to determine the effect of repetition and time pressure on the grammaticality and the lexical diversity of Dutch VMBO-t level pupils.

This study found that VMBO-t pupils do not improve grammatically and lexically throughout their school careers repetition. Moreover, this study has shown that repetition and time pressure do not affect the syntactical complexity and lexical diversity of the VMBO-t pupils.

However, the current investigation was limited by the use of a cross sectional design. A longitudinal design would be better to determine the progress of the pupils. When using a longitudinal design, all the earlier mentioned effects of individual diversity of numerous pupils leading to a diversity of scores will likely be eliminated. A longitudinal design does not interfere with the level of writing of other pupils, because with such a design the individual differences are what determines the progress of the pupils.

Further research might explore if VMBO-t pupils do improve on other aspects of L2 writing, such as accuracy of syntax and vocabulary, especially since it did seem (at least on individual levels) that there were differences regarding these aspects.

Also, a longitudinal case study is needed to establish whether the variable scores are the effect of the longitudinal case study or if individual pupils also score with such variety throughout the years.

Moreover, to determine whether repetition and time pressure can have the same effects on L2 writing as they do in L2 speaking further research should analyse

writing products gained from 4/3/2 tasks on different measures such as fluency and accuracy.

Additionally, it would be interesting to compare the different levels of the Dutch secondary school system on their progress throughout the years to study what the difference of level means for their L2 writing skills.

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## Appendix

### Examples of a pupil's three writing products per year

#### YEAR 1

I admire my sister a lot. Her name is yaren. She is sixteen years old. We live at the same house in Krabbendijke. My sister is my best friend. We go shopping a lot and I can tell her everything and she tells me everything. We help eachother with homework and stuff. I see her everyday. She works at blocker in Boz. I admire her because she does a lot for me.

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I admire my sister a lot. Her name is Yaren. She is sixteen years old and she works at blocker in BoZ. She lives in the same house as me. We go shopping. I can tell her everything. And she does tell me everything. She is like my best friend. I see her every day. She loves singing and dancing. She has a beautiful voice. I admire her cause she does a lot for me. And she is always ther for me.

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I admire my sister a lot. She is sixteen years old. Her name is Yaren. She works at blokker in Boz. We live in the same house. We go shopping a lot. I tell her everything and she tells me everything. She loves singing and dancing. She has a beautiful voice. She helps me with a lot, like homework and stuff. I see her everyday. I admire her because she does a lot for me. And she is always there for me.

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#### YEAR 2

I admire my mom. Her name is MvW. She is 42 years old. She has no work but she is a part-time cleaner and she gets money every Tuesday and Saturday. She lives in Huijbergen in our own house. I have lots of memories of my mom, we always go shopping with each other and she's always there for me when I have problems. She helps me learn for a big test and she is never angry when I have a bad note. Her hobbies are making art on the computer, surfing on the web for Marilyn Monroe and she likes sharing her pictures on Facebook. I see her everyday, because she is always home when I am. I admire my mom because she.

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I admire my mom. Her name is MvW. She is 42 years old. She has no job but she is a part-time cleaner and she gets money every Tuesday and Saturday. She lives in Huijbergen in our own house. I have lots of memories of my mom. We always go shopping and she helps me learn for a test. She never gets angry when I have a bad note. She always says: "it doesn't matter, you did your best". Her hobbies are making art with programs on the computer. She surfs on the internet for Marilyn Monroe every day. She likes sharing her art pictures on her fanpage on Facebook.

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I admire my mom. Her name is MvW. She is 42 years old. She has no job, but she is a part-time cleaner and gets money every Tuesday and Saturday. She lives in Huijbergen, in our own house. I have lots of memories of my mom. We always go shopping in the weekend and she helps me learn for a test. She never gets mad when I have bad notes. She always says: 'It doesn't matter, you did your best'. Her hobbies are making art with programs on our computer and she surfs the web everyday.

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**YEAR 3**

I really admire Rita, because she is so lovely to me. I've got a pretty good relationship with her, obviously. It is because she is my mother. The first memories to this person is the holiday we went to France. I really liked that. I see her like everyday, because I live with her. I admire her because she have a nice with a husband and 3 children and a pretty good job.

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I really admire my mother, because she is really lovely and always helps me out. My relation to this person is my mother, so she is pretty important to me. My first memorie with this person is our first holiday to France. It was a lot of fun. I see this person like very day, obviously because she is my mother. I really admire her because she got a job and a husband and 3 kids.

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I really admire my mother, because she is really lovely to me. My relation with this person is that she is my mother and I really love her. My first memory I can remember with her that we go for holiday to France. It was a lot of fun. I really admire her because she got a good job and a husband and 3 kids. She really like to read a good book.

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**YEAR 4**

I really admire my brother. He is 19 years old and he doesn't live at home anymore. Because he is handicapt he lives in a house with more people and people that take care of him. Normally, I see him in the weekends because most of the time he is at our house then. When he isn't I try to visit him once a week. I admire him, because he always cheers me up. Because he is always really happy. He likes to play computer games and loves reading. We always talk about his games, even when I don't really like them. I don't really have favourite memories with him, because there are to much. I just know that I like to have him around.

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I really admire my oldest brother Bas. He is 19 years old and doesn't live at home anymore. He lives in a house with a few other people and people that take care of him. This is because he is mentally handicapt and can't live on his own. I don't have a favourite memorie with him, because there are to much. His likes to play computer games and he loves to read. We talk a lot about the games he plays, even when I don't really like them. I like being around him because he always makes me happy. That's why I admire him. I normally see him every weekend and if not I try to visit him at least once a week.

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I really admire my bigger brother Bas. He is 19 years old and he doesn't live at home anymore. He lives in a house with a lot of other people and people that take care of him because he is mentally handicapt. He likes to play computer games and loves to read. We always talk about the games he is playing, even when I don't really like them. I don't really have a favourite memorie with him because there are to much. He is always really happy and he always knows how to cheer me up. I really like having him around me.

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