## (II) Høgskolen i $\emptyset$ stfold

## MASTEROPPGAVE

"Writing what it sounds like": Exploring the accuracy with which lower secondary school students produce the apostrophe in formal written text.

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## Foreword

The study described in this thesis was motivated by two observations that led to an assumption followed by a wish to remedy a perceived problem. When teaching middle schoolers, the wonders of irregular verbs, I observed that two students would systematically add an apostrophe before the "s" used to denote $3^{\text {rd }}$ person present tense. Neither student could elucidate on the reasoning behind this, and one student would persist, explaining that "it looked more right" to her. My assumption became that words could be perceived to "look more correct" because the viewer was used to frequently see apostrophes in English texts. This assumption was based on the observation that English language fiction for children and young adult contains much more apostrophes than equivalent books in Norwegian. Both because of the structural differences where English language rules for the genitive form require the inclusion of apostrophes whereas the corresponding Norwegian rules require the exclusion of the apostrophe. Additionally, books for teens contain quite a quantity of dialogue which in English means many contractions hence, the students would become used to seeing numerous apostrophes in English texts and therefore might consider words as generally "looking more correct" with an apostrophe. So, I thought that perhaps I should recommend my students to read fiction with less dialogue.

I wish to extend my thanks to associate professor Eva Lambertsson Björk and professor Kåre Solfjeld for their kind and thorough guidance. I would also like to say thank you to associate professor Daniel Lees Fryer for introducing me to AntConc and to the library at Østfold University College for securing the books and articles I needed.

## Abstract

The inclusion of the apostrophe into the English language is relatively recent, it appeared in the early 1500 s, as a decorative element with no grammatical function and native speakers still show considerable variation in its use (Garret \& Austin, 1993, p.61).

280 written texts were collected from Norwegian lower secondary school students. The texts were compiled with AntConc and manually coded using Microsoft Excel. The framework of Error analysis was used to explore how accurately the students produced the apostrophe in formal written texts in order to establish what errors the students made and what the implications of these errors might have for teaching.

Findings indicate that students were not as accurate with the apostrophe together with the letter "s" as they were with the word pair "your"/ "you're". The students could produce the contracted form accurately. The students could also produce the genitive accurately. However, when the students produced the apostrophe inaccurately it was in such a manner as to indicate, that the students were repairing lack of grammatical knowledge by including the apostrophe. It would seem that they were struggling with determining the meaning a word carried in the context they wanted to use it.

This study suggests that students should not use contractions when writing text for school purposes, unless the purpose is to practice informal writing, as this would remove the option of the apostrophe as a repair. Students should practice with complexity because their texts are expressing complex thoughts and they seem to find it difficult to determine the meaning of some words in the complex linguistic contexts they create. Students should receive explicit instruction and practice in order to understand the computer's spellchecker and keyboard.

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## ABSTRACT

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## 1. Introduction

The apostrophe came into the English language during the Renaissance when all things classical, including previously unused punctuation symbols, among them the apostrophe, were in favor. Thus, when the apostrophe was introduced into the English language it served no clear linguistic function. However, besides its ability to emulate classical text, its ability to contract words was greatly favored by printers for typographical alignment and by writers for a colloquial or poetical effect. The apostrophe as a marker of the genitive came later, and finally by the early $19^{\text {th }}$ century the apostrophe could also be used to mark the plural genitive (Garret \& Austin, 1993, p. 62).

### 1.1 Background

1.1.1 The historical emergence of corpus linguistics

Corpus linguistics or corpus analysis can trace its roots back to thirteenth century academia. When, in order to improve their own understanding of biblical texts and to ease communication with each other, biblical scholars indexed and concordanced the Bible. Before the computer such undertakings could be extremely resource demanding, sometimes involving hundreds of people and therefore only work of great cultural importance would have been considered worthy of the effort (Tribble, 2010, p. 168). Today's corpus linguists maintain the original intent of understanding texts better, and they have expanded the construct of text to include spoken language, all the while modern technological advances have made the undertaking available to almost anyone.

Working with a corpus requires the existence of an appropriate corpus. Starting in the 1950s Bursa made an argument in favor of the use of electronic word searches and indexing. Bursa was a biblical and literary scholar who created the electronic index Index Thomisticus, which was completed by the end of the 1970s. The 1950s were also the time of American structuralists such as Harris, Fries, Hill and others who advocated in favor for collecting and using real language data in linguistics (McCarty and O'Keeffe, 2012, pp. 3-5). With real language data they meant not carefully composed texts but rather language in use. Collecting such data had been constrained by the need to transcribe spoken text with shorthand "as it was spoken". However, this constraint was made away with by the portable tape recorder in the late 1950s. During the following twenty years researchers worked on
compiling and maintaining electronic corpora. Among several others the Brown corpus was compiled in the 1960s. None of the materials used to compile corpora before the 1990s was available in electronic form and so everything up until then was transliterated on a keyboard. And while the introduction of the scanner in the 1980s significantly reduced the time it took to build a new corpus, it was not until the introduction of the personal computer in the 1990s that text became available without the need to input it into electronic form. Later, with the emergence of the internet, an unlimited quantity of both written and spoken text was readily available in electronic form (Bonelli, 2010, pp. 14-17). Today a plethora of ready-made corpora is available from all types of literature, both great and otherwise, newspapers, speeches, blogs, spoken and written spontaneous text and everything in between.

Some of the ready-made corpora available today contain in excess of 200 million words. The sheer size together with the advances in computing have led to a shift in how text can and is studied. For while both text linguistics and corpora linguistics is the study of collected text, and while they might appear to be similar, there are real and qualitative differences between reading a text and reading a corpus. Where text linguistics asks the analyst to read the entire text horizontally from the left to the right, to read for content and to consider the text as a unique event and an expression of an individual act of will that gives insight into competence, corpus linguistic will ask the analyst to read fragments of text organized vertically, it will allow the researcher to read looking for formal patterning and repeat events across different texts and to consider the texts as samples of social practice that gives insight into language (Bonelli, 2010, pp. 17-19).

This corpus linguistics study was made possible by the historical developments in the field. And corpus linguistics is relevant for teachers because "the more text we examine, the better" as examination of large quantities of texts moves us "away from unsupported intuitions and base descriptions on actual occurrences of use" (Thomsen, 2014, p.40). Thomsen maintained that while some intuitions will be confirmed, others will be proven wrong, but more importantly that working with a corpus will make it possible to discover important facts about language which are not easily available through intuition.

### 1.1.2 Learning language rules in the school context

A central point of argument in second language acquisition research and language teaching concerns the question of how language rules should be taught. Should students be taught language rules intentionally or are language rules better learned incidentally? By intentionally is meant the traditional practice of teaching rules by explaining the rules, often followed by examples of use and exercises. By incidentally is meant either a structured approach where the learner is introduced to the rule with planned exercises which show the rule in use whereby the learner, by practicing the rule, also might discover the rule either on their own or through teacher-lead instruction. Or the rule is learned by acquisition from the language environment, where the learner, by being exposed to the language in sufficient quantity and of appropriate quality, will acquire the language.

Acquisition from the language environment is largely associated with Krashen (Garret, 1993, p. 63). He introduced the Monitor Model in the 1970s as a reaction to earlier behaviorist theories. He claimed that learners are primarily interested in meaning and that acquisition follows as long as learners experience sufficient and appropriate input. Krashen differentiates between learned knowledge and acquired knowledge, where learned knowledge is considered problematic to harmonize with acquired knowledge. However, some have claimed that large parts of the Monitor Model theory have been found lacking in empirical evidence (Gass, Behney \& Plonsky, 2020, p. 123). Of particular interest to the present thesis, a study into how accurately native and non- native English students could correct sentences with the English genitive apostrophe, found that the 15 non-native English major students identified $90 \%$ of the errors while the 15 British native speakers attending a postgraduate certificate in education course identified 73\% of the errors (Garret \& Austin, 1993, pp. 66-69). The non-native English majors can be assumed to have been taught grammar, thus gaining explicit knowledge of the rules governing the production of the genitive. The native students while educated in their field do not necessarily have "any explicit knowledge of English grammar" (James, 1998, p. 51) Hence, for the purpose of learning to produce the genitive accurately the rules should be taught in such a way as to result in explicit knowledge.

Selinker presented the independent language assumption in 1972. It claimed that "learners are not willfully distorting the native system but are inventing a system on their own" (in Cook, 2016, p. 18). This idea fundamentally changed language teaching methods by reducing the importance of learners' mistakes, as mistakes were now seen as a natural part of learning, thus freeing the teacher from the duty of watchful error-corrector. From the mid1970s language teachers moved away from the then traditional audiolingual methods with their focus on drills and grammatical explanations and into communicative language teaching. Communicative teaching with its emphasis on the functions the language had for the learner, as well as meaning over form, led to teaching techniques where the learners communicated with each other, role-played and filled in information-gap exercises. This teaching method is by now so influential that it can be considered the method taken for granted (Cook, 2016, pp. 18-22).

In 1990 VanPatten studied "whether or not learners can consciously attend to both form and meaning when processing input" (p. 287). He found a significant drop in recall for grammatical morphemes which carried little meaning when the learners were asked to listen for content as well as for a grammatical morpheme (VanPatten, 1990, p. 294). This finding suggests that in order to learn how to accurately produce the apostrophe, explicit attention to apostrophe rules will be necessary.

This assumption is supported by Long who, writing in 1991, argued that the current focus on different methods in second language teaching was getting in the way of focus on learning. He claimed that while instructions built on a focus on teaching language rules is counterproductive, as studies of interlanguage development have shown that learners do not develop proficiency one item at a time, it is nonetheless important to include explicit attention to language rules. Since, "instruction which encourages a systematic, noninterfering focus on form produces a faster rate of learning" (Long, 1991, p. 47). Long argued that teachers should focus on form by "overtly draw students' attention to linguistic elements as they arise incidentally in lessons whose overriding focus is on meaning, or communication" (1991, p. 46). This incidental and structured approach to teaching a second language incorporates both the sense of meaning that is important in communicative teaching, and explicit attention to language rules.

Long furthered his argument in 1997 to include Task- based language teaching (p.6). He presented a 7-step model to implementing an analytical T-ask based syllabus where the focus would be functional in nature and students would be immersed in authentic acts of communication. The model starts with a "Task-based needs analysis to identify target tasks" (Long, 1997, p.6).With regards to teaching the apostrophe then this would mean to identify the need to learn accurate production of the apostrophe and then to write formal texts where the genitive and/or the ellipsis would be needed.

### 1.2 Aim and research question

The Norwegian national curriculum state that English language instructions "shall prepare the pupils for an education and societal and working life that requires English-language competence in reading, writing and oral communication" (Ministry of Education and Research, 2019, p. 2). Language competence includes morphological knowledge which makes the student able to differentiate between what is accurate and inaccurate on a word level where being a competent second language user equates with a degree of accuracy (Conrad in O’Keeffe and McCarthy, 2010, p. 227). This study will use the framework of error analysis to explore how accurately lower secondary school students produce the apostrophe in formal written texts, establish what errors they make and what the implications of these errors might have for teaching, by answering the following research questions:

1. To what degree do students produce the apostrophe accurately or inaccurately?
2. When students produce the apostrophe inaccurately, what types or categories of errors do they make?
3. What can the students' errors inform teachers with regard to teaching accurate production of the apostrophe?

### 1.3 Overview of thesis

This thesis is composed of a total of six chapters. In the following chapter two is presented the theoretical background relevant to the study. Chapter three is divided into two parts where the material used in the study is presented together with the method that was followed. In subsequent chapter four all the results are given together with comments. A discussion of the results together with proposed suggestions for what the results might mean for teaching is given in chapter five, before conclusions are drawn in chapter six.

## 2 Theoretical framework

This thesis assumes that learners of a second language develop their own interlanguage, that some things are transferred from the learner's native language and that a learner's errors, when producing her second language, can tell something about where the learner is in her understanding of said second language.

### 2.1 Universal grammar

Universal Grammar (UG), introduced by Chomsky in the 1960's, claims that languages are the way they are because the human brain is structured the way it is (See Thomson, 2014, pp. 3-6). The theory argues in favor of "innate universal language properties" based on the fact that children uniformly acquire a first language even with insufficient input (Gass et al., 2020, p. 158).

UG argues in favor of a language faculty built into the human mind consisting of principles and parameters. Principles are the features of language that all languages have in common and therefore humans must be born with these. Parameters on the other hand, are language specific and thus must be learnt (Thompson, 2014, pp. 3-6). This would mean that if the human mind always uses its built-in language principles, then interlanguages must also conform to them. Hence, Norwegian students studying English should have similar interlanguages. And if Norwegian students have similar interlanguages, then it should be possible to identify elements of the English apostrophe language rules that language learners with a Norwegian native language find particularly difficult to learn.

One implication of the UG theory in relation to teaching is that language can be seen as static knowledge, and all one would need to learn a new language is sufficient input to set the parameters that vary from the one's native language. Furthermore, Cook claimed that if a feature of language is salient and presented correctly, one exposure would be enough to set said parameter (Cook, 2016, pp. 43-45, pp. 232-233). This would mean that teachers should concentrate on those aspects of the English apostrophe language rules which deviate from the Norwegian apostrophe language rules, and should present these in a manner that makes them salient enough to remember.

### 2.2 Interlanguage

The independent language assumption, as stated by Selinker in 1972, says that learners are not willfully distorting the native system but are inventing a system of their own (in Cook, $2016,18)$. Meaning that the second language learner, in the process of learning a new language, invents a new intermediate language. This new intermediate language is known as learners' interlanguage (Cook, 2016, p.19). In figure 1 the relationship between the languages is shown.


Figure 1: Learner's independent language (Cook, 2016, p. 19)

The presence of learners' interlanguage has been confirmed by later studies into morphemes and sequences of acquisitions. In the early 1970s Dulay and Burt investigated the sequence of acquisition of English morphemes with Spanish-speaking children learning English. They found a specific order in which the children learned 8 specific grammatical morphemes. Where the easiest morpheme was the plural " $s$ " ending, the irregular past tense was number 6 on the list, followed by the third person present tense " $s$ " followed by the genitive " $s$ " as the most difficult and thus last morpheme to be acquired (Cook, 2016, p. 34). Later studies of English as a second language learners from different backgrounds have found a similar order; that learners make the same types of mistakes independently of first language, independently of whether the learners are children, or adult and independently of whether the learners are attending language classes (Cook, 2016, p. 32-35). So, it can be expected that the students will find it difficult to produce the genitive accurately. However, those who do produce the genitive accurately, can also be expected to produce both the suffix " $s$ " and contractions accurately. Furthermore, since learners with such differing backgrounds are so similar in their progression when learning English as a second language, then transfer from the learner's native language cannot be the main route to learning English as a second language.

### 2.3 The importance of learners' native language

While transfer from the learner's native language may not be the main route to learning a second language it has generally been assumed that second language learners "rely extensively on their native language" (Gass et al., 2020, p. 75). Language transfer is considered to happen in two different learning processes: one of positive transfer and one of negative transfer. It is the learner's output which is evaluated as to whether or not transfer has happened, by comparing and contrasting the student's output, the native language rules and the second language rules. (Gass et al., 2020, p. 76). The language rules for accurate use of the apostrophe in the Norwegian language, as explained by Språkrådet (2022), are both similar to and different from the rules for accurate use of the apostrophe in the English language. The apostrophe serves two main orthographical functions, it marks the genitive and it marks an ellipsis.

### 2.4.1 The genitive

In table 1 are found the rules for accurate use of the apostrophe when creating the genitive form for both Norwegian and English written texts.

| Norwegian language rule | English language rule |
| :--- | :--- |
| The principal rule when creating genitive in | The principal rule when creating genitive in |
| Norwegian is to not include an apostrophe <br> and only add the letter " s ". | English is to always include the apostrophe. |
| Example: Astrids bil | Example: Astrid's car |
| Exceptions to the rule are made for words <br> which start with a capital letter and end on <br> a lower letter and words that are read out <br> loud letter by letter. |  |
| Examples: Ap's politikk, en pc's prosessor |  |

Table 1: Rules for accurate use of the genitive apostrophe

There is a clear difference between the two sets of rules. In English the apostrophe is always used with the genitive form and students will probably have received instructions as well as encountered the genitive in both formal and informal texts. In Norwegian the apostrophe is as a main rule not used, and the exceptions to the main rule are sufficiently eccentric to probably not warrant Norwegian class lesson time. Therefore, the students will most likely not have received any instructions in Norwegian classes on the use of the apostrophe in
connection with the genitive form, while at the same time they will probably have encountered the form in edited formal written texts.

### 2.4.2 The ellipsis

In table 2 are found the rules for accurate use of the apostrophe when producing contracted forms for both Norwegian and English written texts.

| Norwegian language rule | English language rule |
| :--- | :--- |
| Generally, words are not contracted. | Allows for a large number of commonly <br> used words to be contracted, but <br> contracted words are considered <br> appropriate only in informal text. |
| Allows for the use of unconventional <br> contracting of words and contracting of <br> words that are casually used as nouns. | Examples: he'd, isn't, it's, He'll, they're <br> Examples: gla'nyhet, 'n Per, Kupper'n, <br> fatter'n |
| Note: Positive contractions can only be <br> used in the beginning or the middle of a <br> sentence, while negated contractions can <br> be used anywhere in a sentence. |  |

Table2: Rules for accurate use of the apostrophe when contracting words

There are similarities between the two sets of rules. Where the English language rules allows for the use of apostrophe as a stand-in for one or several letters, the Norwegian rules only allows for the apostrophe as a stand-in for a letter as an exception. The effect is that for English texts, the students will meet with many contractions in informal texts, such as books and novels written for teens, and might also have encountered some computer programs that recommend the use of contracted forms by placing a blue line under some words indicating that a contraction can or even should be used. while in comparable texts in Norwegian they will meet none or very few contractions. However, they will likely see examples contracted forms in formal texts, such as reports in media and commercials.

It might come across to the students that the apostrophe can be used to "make something look right". With this is meant that the apostrophe because of its ability to contract words and because sometimes it can add the letter " $s$ " it can appear to the students as if the apostrophe is used when a word is "difficult", meaning that the student can hear that an " s " sound is needed but she does not know why so then the construction apostrophe + " s " can appear as the correct choice.

### 2.4 Error analysis

Error analysis developed in the 1970s. It is a type of linguistic analysis where the focus is on the learner's interlanguage and thus takes the learner's output as its starting point. The method arose partly for pedagogical reasons and has pedagogical intervention as a stated purpose. The framework of error analysis calls for collection of data and identification off errors which are classified and quantified, then the sources of the errors are analyzed, before remediate work is instigated. The method was developed as a reaction to the limitations of contrastive analysis. Within error analysis any learner's errors are considered an attempt at finding out the rules of the second language system. The learner's interlanguage is considered to be rule-governed by the rules the learner has created in her attempt at imposing regularity to the input she is receiving. An early researcher in the field, Corder, made clear the need to distinguish between errors and mistakes, he explained that mistakes are a one-time occurrence akin to slips of the tongue, while errors are systematic, recurring and are likely not considered erroneous by the learner (in Gass et al., 2020, pp. 8687). As errors are systematic, it would mean that a study in this tradition will need to incorporate elements that explore students' errors looking for systematic errors.

A point of concern in relation to error analysis is its reliance on inaccurate production and its exclusion of information from accurate production. Critics argue that both inaccurate and accurate production must be considered because the complexity of learning a second language cannot be understood if one only sees a partial picture of it (Gass et al., 2020, p. 93). One of the problems when only looking at inaccurate production is that learners might topic-avoid, this means that they might for some reason avoid or underuse the structure under investigation, thus leading the investigator to believe that the learners know the structure as there are few errors (James, 1998, p. 176). Furthermore, the framework for error analysis calls for classifying each inaccurate production before analyzing its source. However, there is an inherent uncertainty in determining whether an error is of one type or another. Since the investigator does not know what is happening in the learners' mind, it is not always possible to establish the targeted form and accurately determine what the error is. In this study every example of inaccurate production will be identified, this means that both errors and mistakes will be listed as results.

## 3. Material and Method

Using the framework of error analysis this thesis explores to what degree students produce the apostrophe accurately or inaccurately, and establish what types or categories of mistakes they make when the apostrophe is inaccurately produced by:

1. Collecting data from students attending their second semester of lower secondary school.
2. Identifying every instance of use of the apostrophe in each search.
3. Dividing use of the apostrophe into accurate and inaccurate.
4. Classifying each inaccurate use by coding each search-result list.
5. Quantifying how many errors occur of each category by counting and reporting the results in both numbers and percentages.
6. Analyzing the results and when doing so considering the language rules for both Norwegian and English as well as other sources as possible causes for error.

The thesis takes its starting point in a corpus created from 280 student texts collected in the spring of 2021. A corpus may be defined as any collection of texts, either written or spoken (Corpus, 2010, p. 339). Several ready-made corpora are available for research, but for this particular study an up-to-date corpus from one particular group of students in one particular Norwegian municipality was created. The corpus created includes approximately 200.000 words. While most corpora available today are larger, there are also smaller corpora. One example would be Cutting, who investigated grammatical items and their contribution to ingroup identity in 1999. She used a corpus of only 26.000 words (Cutting, 1999, p. 180).

Furthermore, there are advantages to using a smaller corpus. Koeaster argues that with a small corpus it is possible to examine all occurrences rather than only a random sample (2010, p. 66). In this study it was important that each and every occurrence could be investigated, and therefore the 200.000 word corpus was created as the best point of departure.

Additionally, a specialized corpus gives "insight into patterns of language use in a particular setting" (Koeaster, 2010, pp. 66-67). School is a particular setting where it has been shown that second language learners with the same first language "taught under similar conditions
with the same text and syllabus do emerge speaking the same 'social dialect' of that" second language (James, 1998, p. 16). Since the schools in the municipality in question are quite similar to each other, it is reasonable to assume that a corpus created from texts from approximately $43 \%$ of the school population would be representative of said schools.

Koeaster further states that the most important consideration is that the corpus is representative (Koeaster, 2010, p. 68). In order to evaluate representativeness Biber claims that there must first exist a "well-defined conception of what the sample is intended to represent" (1993, p. 243). This is necessary because any collection of texts, however exhaustive, can only be a sample, and so to assure that the sample reflects the population and its proficiency it is necessary to first define both who and what said sample is to represent. In this study the sample represents the students' knowledge of the apostrophe as it is used in formal written texts at the end of their mandatory education.
"Representative" as defined by Biber is "the extent to which a sample includes the full range of variability in a population" (1993, p. 243). He divides variability into two elements: (1) situational and (2) linguistic, where situational variability refers to the range of registers and genres included in the corpus, and linguistic variability refers to the range of linguistic distribution. Linguistic distribution is the range of ability levels within the population. For this study the texts were collected following a formal test where the students wrote texts in the same formal genre, one essays, and two short written answers, thus the situational variability was held constant for the entire population. Linguistic variability refers to whether the entire population is represented. And in this study almost every single student from two schools participated and one of the schools, which sent a selection of answers, included answers from the class that participate in remedial English classes. Hence, all ability levels were represented.

### 3.1 Material

Following a year of Corona restrictions and, for many students, irregular on-site school attendance, the school authorities in the municipality requested a spring pre-examination for all $10^{\text {th }}$ grade students. The English pre-examination was scheduled for on or around May 20, 2021. Each school was responsible for acquiring, administering and grading the test used
at their respective school. Text material collected from this examination formed the corpus used in the present study.

There are six lower secondary schools in the municipality and approximately 650 students attended $10^{\text {th }}$ grade in 2021. The material presented here was collected from the five schools that agreed to participate in the study. Four schools sent their submissions as word documents on a USB drive in the mail. One school sent their submissions as word documents on e-mail. To ensure the students' anonymity the schools were randomly assigned a letter, A-E. The schools anonymized each submission before forwarding it to me. Each submission was converted into a .txt file, and the originals were physically stored together. When converting, each document was controlled for names and any student names found were deleted.

The submissions varied in size. When divided according to the size of each document it was found that the texts fall into four groups. About 6\% of the texts were between 2000 and 1750 words, $40 \%$ of the texts were between 1500 and 1250 words, $46 \%$ of the texts were between 1000 and 700 words and finally $23 \%$ of the texts were between 400 and 250 words.

### 3.1.1 Organization of test and test material

The administering of the test was organized in a similar manner at all five schools. All students were handed reading material to take home after school, they were invited to a day at school for preparation for the test, and they had a full day at school for the examination.

Each school was responsible for obtaining the test they used for the examination. Four of the schools used Perspectives Magazine, a commercially available test (Cappelen Damm, 2021a, 2021b). One school wrote their own test material (Lundblad, 2021a, 2021b). The structure of the two tests was almost identical. Both the locally composed test and the test from Cappelen Damm contained three tasks. The tasks were to read one new text and then to write two short answers, and one longer answer.

Table 3 shows the distribution of submissions from the five schools that participated and a description of which test each school used. It was found that the four schools that used the test from Cappelen Damm made up about $2 / 3$ of all respondents.

| School | A | B | C | D | E |
| :--- | :--- | :--- | :--- | :--- | :--- |
| Sum total <br> submissions to <br> this study | 38 | 11 | 20 | 117 | 94 |
| Description of <br> test | Perspectives <br> magazine | Perspectives <br> magazine | Perspectives <br> magazine | Perspectives <br> magazine | Composed <br> locally |

Table 3: Distribution of use of test material at the different schools

In the following is included a list of the main ideas, topics and questions covered in the two different tests. This is in order to illustrate that the texts invite the students to write about themselves and others, and hence induce them to use the genitive as they write about things they and others: own, feel and like or dislike. While the content is different, the reading material in both tests deals with the idea of oneself and human fellowship.

## Perspectives magazine

The Perspectives magazine was composed by Cappelen Damm. It consisted of a 25 pages long booklet for the students to use in their preparation for the examination (Cappelen Damm, 2021a). The examination test handed out on the day of the examination was 4 pages long (Cappelen Damm, 2021b). Below follows a summary of Perspectives magazine and the test set-up from the accompanying examination paper. The examination task for the short answer and the instructions to the students for the long answer is the text that was handed to the students.

| Main ideas: | What is human nature? <br> Who are you when compared to others? <br> Ways to stay as yourself. |
| :--- | :--- |
| Topics |  |
| covered: | A list of quotes about the main ideas. <br> The idea that perfection does not exist. <br> Two different texts dealing with the fear that can be created by change. <br> Fear of judgement by others. |

$\left.\left.\begin{array}{|l|l|}\hline & \begin{array}{l}\text { The strangeness of the human species when compared with aliens. } \\ \text { Interacting with others. }\end{array} \\ \hline \begin{array}{l}\text { Examination } \\ \text { task } \\ \text { Short answer: }\end{array} & \begin{array}{l}\text { Choose two texts or pictures from the magazine. Compare and contrast } \\ \text { how these texts or pictures shed light on the topic who we are. }\end{array} \\ \text { Read the article "Lessons we will learn from this pandemic" } \\ \text { Explain how this text is connected to the topic who we are, and share } \\ \text { your thoughts on whether this text is relevant to your life or not. }\end{array}\right\} \begin{array}{ll}\text { Examination } \\ \text { tasks } \\ \text { Long answer: } \\ \text { from Perspectives magazine. They were instructed to take inspiration } \\ \text { from the magazine and what they had been taught in school but to use } \\ \text { mostly their own ideas, opinions and experiences. }\end{array}\right\}$
(Cappelen Damm, 2021a, pp. 3-25; Cappelen Damm, 2021b, pp. 2-3)

## Composed locally

The test that was composed locally, was developed by a qualified English teacher working at the school in question. It consisted of a 23 pages long booklet for the students to use in their preparation for the examination (Lundblad, 2021a). The test handed out at the day of the examination was 4 pages long (Lundblad, 2021b). Below follows a summary of the booklet and the test set-up from the accompanying examination paper. The examination task for the short answer and the instructions to the students for the long answer is the text that was handed to the students.

| Main ideas | How do you/ we function together as a family. <br> Changes in how we live. <br> Ourselves and others. |
| :--- | :--- |
| Topics covered | A list of quotes about the main ideas. <br> How should parents treat their children. <br> The best family structure (touching on the idea of planned perfection). <br> Interacting with others. <br> Moments from the classroom. |


| Examination <br> task <br> Short answer: | In the booklet you've read about students describing their best <br> experience in the classroom. Write two paragraphs. In the first <br> paragraph, describe your best experience at school. In the second <br> paragraph, describe your worst experience at school. |
| :--- | :--- |
|  | Read the text "My Mom Wants to Be My Best Friend." Write two <br> paragraphs. In the first paragraph, summarize the text. In the second <br> paragraph, express your own thoughts on the relationship between the <br> author and her mother. |
| Examination <br> tasks <br> Long answer:Students were asked to answer one out of five different tasks that were <br> based on the hand out as well or a free writing task. Students were asked <br> to draw on their own experience as well as text from the booklet. |  |

(Lundblad, 2021a, pp.3-23; Lundblad, 2021b, pp. 2)

### 3.2 Method

The method chosen for the present study needed to allow for mapping of how the students used the apostrophe in context, in order to determine whether said use was accurate or inaccurate. Context was necessary in the search procedure because the context decide if the apostrophe is produced grammatically correct. Here is an example:
a) The cat's bowl is blue.
b) The cat's asleep.
c) The cat's is brown.

Examples a) and b) are both accurate, but for different reasons, in example a) the apostrophe creates the genitive and in example b) the apostrophe is standing in for the missing letter ' i '. Example c) is inaccurate, but the word "cat's" is identical to the word that occurs in the two accurate sentences, and we can only identify c) as inaccurate because of the context.

Furthermore, it was necessary that the method chosen could provide ways of systematizing the search results as needed. This was essential, as categories could not be fully identified in advance.

Also, the apostrophe is a part of the function words and somewhat infrequently used, therefore, it was necessary with a research design which made it possible to sift through a large amount of text in order to assure that a wide range of apostrophe use would be found.

### 3.2.1 Corpus analysis

Corpus based analysis was the method chosen because it provided the opportunity to search through a large amount of data and compile search results with as much context as needed in a format that could be ordered as required. The free software AntConc for MacOS, downloaded from the creator's homepage was used to concordance the corpus (https://www.laurenceanthony.net/software/antconc/). To classify the search results and order the results from the searches, Microsoft Excel from the standard Office package was used.

### 3.2.2 AntConc

AntConc is developed as a "corpus analysis toolkit for concordancing and text analysis" (Anthony, n.d.). To concordance means "to collect all the words used in a book or a writer's work into a book or list in alphabetical order, with information about where the words can be found and in which sentences" (Concordance, n.d., n.p.).

For searches the key word in context (KWIC) feature was used to create several lists of results. A KWIC search allows the user to search for a specific letter, word or word combination, called the node or the node word. This is a way to create result lists where the node is centered and surrounded by a certain amount of context. The results from a KWIC search can be seen in figure 2 List of results (Screenshot from AntConc):

Details for where to find the text in the original document (Origin)


Figure 2: List of results (Screenshot from AntConc)

Search procedures: Results were listed alphabetically after the first word to the left of the node and if the words to the left were the same, then AntConc would list alphabetically after the first word to the right of the node. Listing the results after the first word on the left of the node grouped the same and similar words together this made it easier to see patterns of use.

After testing with different lengths of sentences it was found that about 50 tokens on each side of the node were sufficient context for almost all sentences. For the few result lines that were too complicated to understand with only 100 tokens, the original document was opened in order to locate the complete sentence.

Because of how AntConc concordance and list results, it was necessary to carefully craft each search in order to find all the phrases, words and letter relevant to the research aims. Thus, for the words and phrases: "it is", "its" and "is not", the exact same search terms were used. When searching for the phrase "it is" the phrase "it is not" would also be included, all the "it is not" results were removed from of the "it is" search list. The contraction "it's" was identified when searching for the letter "s" and subsequently listed separately. The word "isn't" was identified when searching for the letter " t " and listed separately. In " 4.1 Finding which single letters the students used the apostrophe together with" is an explanation for why it was necessary to locate "it's" and "isn't" in such a circumlocutory way. From here on, the word node will be used independently of search parameters.

### 3.2.3 Microsoft Excel

To analyze the results from the KWIC search, the list of results from AntConc was imported into an Excel sheet. Figure 3 shows a picture of what the raw list looked like after coding.

| Node Line |  | Origin Main code |  |  | Auxiliary code |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| . It is not that hard to love your enemy' | s you just need to have the strength to face | 192.txt | 2 |  | e | enemy- enemies |
| de. He dragged me in the classroom and everybody' | $s$ eyes way trained on me. If there is a | 218.txt | 1 |  |  |  |
| about what's perfect or who's perfect. Everybody' | $s$ understanding of perfection it is different. And | 140.txt | 1 |  |  |  |
| shouldn't care at all because its not everyone' | s else's business. You should be confident in your | 103.txt | 5 |  |  |  |
| never be a person that is perfect in everyone' | $s$ eyes. As said previously I think perfection can b | 143.txt | 1 |  |  |  |
| ife in a multicultural society can be in everyone' | s favour, not shut down other options, because that | 204.txt | 1 |  |  |  |
| eir friends. They want to be popular and everyone' | $s$ favourite. An example is like when you are with | 186.txt | 1 |  |  |  |
| end of the day if we saw that everyone' | $s$ hearts had a little fold, but our teacher told | 120.txt | 1 |  |  |  |
| andemic has changed not only my life but everyone' | s life, under this pandemic I have luckily had a | 73.txt | 1 |  |  |  |
| mething has clearly gone wrong. I think everyone' | $s$ mental health would be much better if social medi | 126.txt | 1 |  |  |  |
| you would have to change all the time, everyone' | $s$ opinions about what perfect is, have to be a | 92.txt | 1 |  |  |  |
| think that we should not care about what everyone' | $s$ saying. If you are fat then they tell you | 103.txt | 6 | 64 |  |  |
| our head. I mean, you can never meet everyone' | $s$ version of perfect, if you try that it will | 108.txt | 1 |  |  |  |
| om that time, there are still some bad experience' | $s$ that is hard to forget. My worst experience from | 259.txt | 2 |  | a | experience can be both C and U |

Figure 3: Coded list of results (Screenshot from Microsoft Excel)

The code system was designed to first differentiate between accurate and inaccurate production of the apostrophe (main code), then if a line was found to be inaccurate, to give information about why the line was inaccurate (auxiliary code). The codes with examples can be found in table 4. In the following are explanations for each of the four columns used in table 4.

Column 1: Main code: The bold numbers are the numbers used as "Code" in the Excel sheet.

Column 2: Description: Here the following information is given: whether the production is accurate or inaccurate, word class, case marker and redundancy (not counted as results).

Column 3: Origin: is the text identification marker for the example given in the column to the right. Auxiliary code: in bold are the numbers and letters used in the excel sheet under the heading "Details".

Column 4: The examples identified in column 3 are given in italics. An explanation of why the line is accurate or inaccurate is written in bold. If no information about accurate/ inaccurate is given under the "main code" then the auxiliary code will also tell if the production is accurate or inaccurate.

| 1 | 2 | 3 | 4 |
| :---: | :---: | :---: | :---: |
| Main code | Description | Origin <br> Auxiliary <br> code | Examples from the text <br> The nodes in the examples are in bold <br> Description auxiliary-code |
| 1 | Accurate genitive |  |  |
|  | Example from text: | 10.txt | is also a disadvantage. Let's say the pilot's arm weights 10 kg , and they are pulling 6 Gs , |
|  |  | 12 | Accurate but should have been plural |
|  | Example from text: | 211.txt | Yesmena and Emeli went to one of the boy's room. We didn't allow to be there, so |
| 2 | Inaccurate plural noun |  |  |
|  |  | 22 | Accurate and inaccurate in the same line. |
|  | Example from text: | 73.txt | he walked down the street with all the café's and stores on both sides. He takes a left |
|  |  | A | Inaccurate: Overuse of apostrophe |
|  | Example from text: |  | om that time, there are still some bad experience's that is hard to forget. My worst experience from |
|  |  | c | Inaccurate: Uncountable word |
|  | Example from text: | 203.txt | My step-dad study's and work with furniture's. I have 6 siblings, but I just live with two |
|  |  | d | Inaccurate: Irregular declension, student has used either the singular or the plural word inaccurately. |
|  | Example from text: | 90.txt | hand or use disinfection to kill all the bacteria's in our hands. I get he message frim the |
|  |  | e | Inaccurate: Irregular declension Y- IES |
|  | Example from text: | 192.txt | if you do you will get even more enemy's and you do not want that kind of lifestyle. |
|  |  | f | Irregular declension F-VES |
|  | Example from text: | 76.txt | The virus has been a part of our life's and it is something we must think about every |
| 3 | Redundancy | 31 | The same line appears twice |
|  |  | 32 | Random -s |
|  | Example from text: | 244.txt | raise the child, something which is very wrong. S |
|  |  | 33 | Inaccurate: Plural of date, overuse |
|  | Example from text: | 129.txt | set your on has safety equipment from the 70 's or the script is written by some 14-yearold |
|  |  | 34 | Not counted: Quoted text |
|  |  | 35 | Incomprehensible |


|  | Example from text: | 141.txt | read aver singe one of ass is going he's we <br> and men of ass are going in one |
| :--- | ---: | ---: | :--- |
| $\mathbf{4}$ | Inaccurate 3'd person <br> singular |  | Overuse of the apostrophe |
|  | Example from text: | $190 . \mathrm{txt}$ | my dear, my partner. I know the daughter <br> love's her mom but I think she would like her |
| $\mathbf{5}$ | Inaccurate neither <br> apostrophe nor -s is <br> needed |  | The reasons in this category are very <br> diverse, most can be seen as overuse. |
|  | Example from text: | 4.txt | reach it. We all live one time and life's is short <br> sow let us enjoy it. People that |
| $\mathbf{6}$ | Contracted word form | $\mathbf{6 4}$ | Accurate: function word |


|  | Example from text: | 87.txt | in where she is, even thought it has it s flaws <br> and discomfort. She knows it's worth it. |
| :--- | ---: | ---: | :--- |
| $\mathbf{8}$ | Inaccurate: there |  | Should have used there is or there are |
|  | Example from text: | $28 . \mathrm{txt}$ | , but we believe they are there. So it feels like <br> it is this one light in a big desert of no |

Table 4: List of main and auxiliary codes used for sorting search results

After coding the result list was ordered according to code for interpretation of the results. Figure 4 shows a picture of what the finished coded and sorted list looked like:

| Line | Node Line | Origin Code |  | Details |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| to her. But I am all on the author' | $s$ side as it can be Viewed as child abuse | 189.txt | 1 |  |  |
| em. I think we should normalize talking about boy' | $s$ mental health and how they feel about pressure li | 74.txt | 1 | 12 | boys' |
| , Yesmena and Emeli went to one of the boy' | s room. We didn't allow to be there, so | 211.txt | 1 | 12 | boys' |
| . It is always and should always be a child' | $s$ choice if they want to walk that path, and | 197.txt | 1 |  |  |
| things easier. A parent should not be the child' | $s$ friend, because if it's well socialized, it will | 231.txt | 1 |  |  |
| certain way that might scar or damage the child' | $s$ mental health. so being perfect isn't always the | 12.txt | 1 |  |  |
| to ever touch the field. That his grands children' | s , children can get whatever they want. Ali is an | 138.txt | 1 |  |  |
| they can't share or inherit the other children' | s clothes. That was what I had to say about | 250.txt | 1 |  |  |
| poor girl. Parents who prioritise their children' | s friendship over parenting them are difficult to w | 220.txt | 1 |  |  |
| puts a lot more respect in thot their children' | $s$ life and others puts more important things like $k$ | 132.txt | 1 |  |  |
| do is to hope good will come your children' | $s$ way by being good to others. I think that | 242.txt | 1 |  |  |
| a whispering voice. The boy curled up under Clair' | $s$ arm. I hear the front door close with a | 271.txt | 1 |  |  |
| at there can be no creditability from the creator' | s opinion. If the artist thinks his drawing is perf | 52.txt | 1 |  |  |
| a little freer when I am at my dad' | $s$ house. My mom comes from a strict culture, she | 213.txt | 1 |  |  |

Figure4: Ordered list of coded results (Screenshot from Microsoft Excel)

## 4. Results

In this section the results from each search are presented. In total six searches were carried out. The searches were designed to explore how accurately lower secondary school students produce the apostrophe in formal written text by quantifying how many errors occur of each category and reporting the results in both numbers and percentages before analyzing the results to find what types or categories of mistakes the students make.

### 4.1 Finding which single letters the students used the apostrophe together with

On the one hand, AntConc recognizes only the exact node of the user inputs. However, the students used a variety of other symbols to represent the apostrophe, therefore searching directly for the apostrophe yielded few results. On the other hand, AntConc does recognize when a single letter has been set apart from a word by something. This something could be a space, a punctuation marker, an apostrophe or something that incorrectly represents an
apostrophe (an apostrophe "equivalent"). In order to establish an overall picture of what the students use the apostrophe for an initial round of searches was carried out. This initial search established which letters the students set apart by an apostrophe or an apostrophe "equivalent" and whether the apostrophe had been used accurately or inaccurately. The initial search brought the following results which can be seen in table 5.

| NODE | Number <br> of hits | Number of <br> apostrophes or <br> "equivalents" | Account of what the apostrophe was used for <br> and examples from the text. |
| :--- | :--- | :--- | :--- |
| a | 6195 | 0 |  |
| b | 212 | 0 |  |
| c | 25 | 1 | The contracted form: o'clock" |
| d | 50 | 24 | Many different contracted forms: He'd, I'd |
| e | 26 | 0 |  |
| f | 18 | 0 |  |
| g | 1 | 0 |  |
| h | 2 | 0 |  |
| i | 8059 | 0 |  |
| j | 1 | 0 |  |
| k | 1 | 0 |  |
| l | 3 | 0 |  |
| m | 298 | 294 | The contracted form "I'm" |
| n | 2 | 0 |  |
| o | 9 | 1 |  |
| p | 2 | 0 |  |
| q | 0 | 0 |  |
| r | 3 | 0 |  |
| s | 1599 |  |  |
| t | 2654 | 2645 | Many different negated form "C'on" contracted forms: <br> "won't", "can't", "isn't", and others. |
| u | 67 | 0 |  |
| v | 5 | 0 |  |
| w | 2 | 0 |  |
| x | 1 | 0 |  |
| y | 2 | 0 |  |
| z | 3 | 0 |  |
|  |  |  |  |

Table 5: List of results for searches where a single letter had been set apart from a word

Only the node itself was examined as to whether the apostrophe had been used accurately or inaccurately. It was found that the students used the apostrophe to produce many different contracted forms. Every one of these contracted forms were constructed in a grammatically correct way. Hence, it may be concluded, that the students knew how to use the apostrophe to create the contracted form.

### 4.3 The apostrophe together with the letter " $s$ "

The main focus for the study is the letter " $s$ " together with an apostrophe. However, because of how search results are created in AntConc it was not possible to look at words ending on the letter " $s$ " without the apostrophe. Therefore, it would not be possible to compare results with an apostrophe with results without an apostrophe. Instead, it was decided to create two other separate categories with selected words that could be compared with each other in order to be able to compare words ending on the letter "s" and not containing an apostrophe. These are listed as categories $A$ and $B$, respectively. Category C contain all other words where the letter "s" appear together with an apostrophe.

## Category A:

Variations of the phrase "it is". The nodes are: fist the contraction "it's" was selected because it is frequently used, contains the apostrophe and can be compared with the next node, the phrase "it is", the two nodes carry the same meaning and are variations with and without an apostrophe. Lastly the possessive determiner "its" was selected because it contains the same letters.

## Category B:

Negated variations of the phrase "it is". The negated form of "it is", which was decided to be the node "is not", thus leaving out the pronoun "it", this was determined to be the best solution, because it is exactly the same as the second node the contraction "isn't".

## Category C:

All other use of the apostrophe together with the letter node "s".

### 4.4 Details from each search

These definitions have been used in the following lists of results:
Net number of hits is the net number of concordance hits for the search word or search phrase the search was designed to find. The gross number of hits contained a few double entries caused by the converting process, plagiarism of the examination booklet or a very few instances where a line was not possible to decipher even when reading the entire text, these was coded as redundancy and deducted.

Accurate production was defined as when the search word or phrase was used in accordance with a grammatical rule in an accurate manner. Many of the sentences were ungrammatical in the sense that they did not follow established rules for sentence structure and vocabulary. However, the gist of the sentences and the students' intended meaning were still discernable and grammatical accuracy was evaluated only for the node.

Inaccurate production, was defined as when the search word or phrase was used incorrectly meaning not in accordance with grammatical rules.

In the following are provided quantified lists with details for each of the different searches. Examples are provided for each search. This study focuses on the inaccurate use of the apostrophe. Samples of accurate use is therefore only included if they can be compared with corresponding inaccurate use. For inaccurate use of the apostrophe all examples are provided.

### 4.3.1 Category A: The phrase "It is"

The first search included the phrase "it is" and was used to establish if the students understood the meaning the phrase conveys in a sentence. This is relevant because the results can be compared with the contraction "it's" and the possessive determiner "its". The search brought the following results (see tables $6 a, b, c$ ), in which the hits were systematized as accurate and inaccurate use of the phrase "it is".

| Findings: | Number <br> of hits | Number of hits in percentages: |
| :--- | :---: | :--- |
| Net number of hits on the phrase. | 573 | $100 \%$ |
| Accurate production of the phrase. | 512 | $89 \%$ of the total production of <br> the phrase is accurate. |

Table 6a: Summary of accurate search results for the phrase "it is"

| Inaccurate production of the phrase | 61 | $100 \%$ |
| :--- | :---: | :--- |
| 1. Should have used "there is" or "there <br> are". | 52 | $85 \%$ of total inaccurate use. |
| 2. Should have used only "is" or only "it". | 7 | $11 \%$ of total inaccurate use. |


| 3. Neither word is needed. | 2 | $4 \%$ of total inaccurate use. |
| :--- | :--- | :--- |

Table 6b: Summary of inaccurate search results for the phrase "it is"

| Accurate production, but the phrase was <br> used to repair lack of vocabulary or <br> knowledge of sentence structure. | 44 | $8 \%$ of total accurate use. |
| :--- | :---: | :--- |
| Accurate production, and accurate <br> production of the word "it's" in the same <br> line. | 9 | $2 \%$ of the lines contain both the |
| phrase "it is" and "it's". |  |  |$|$| Accurate production, and the word "isn't" <br> is used in the same line. | 11 | $2 \%$ of the lines contain both the <br> phrase "it is" and "isn't". |
| :--- | :--- | :--- |

Table 6c: Summary of other search results for the phrase "it is"

The phrase "it is" was used correctly in $89 \%$ of the lines where it was found. However, in $8 \%$ of the instances where the phrase was used accurately, it was used in such a way as to show that the student did not fully master the needed sentence structure or vocabulary and was repairing with the phrase "it is". With repair is meant that the students are using the phrase "it is" in this case instead of other words, perhaps because they lack the vocabulary or knowledge of sentence structure needed to construct fully formed sentences. In the following are examples of repair from the texts:
262.txt, the phrase "it is" is standing in for "will be" will help her daughter to learn it now and then it is easier when she gets a child. And the girl
140.txt, the phrase is used to give more information about mental health thus creating a run on sentence
"perfect" people and when we do that our mental health it is getting worse and worse. That can lead us to
131.txt, the meaning would have been clearer if the word "it" was exchanged with "that" hide what they have gone thru in the pandemic and it is sad, and it shows what we humans need we
2.txt, the sentence structure "it is" and "that"
the old woman. While we may not have the answers, it is asking the question that pushes us one step closer

The use of "it is" as repair could also be seen in the instances where the students used the phrase inaccurately. In $11 \%$ of the instances the phrase was used inaccurately and out of the total instances of inaccurate use, $85 \%$ of the instances it was used to repair a lack of knowledge of the existential there. In the remaining $15 \%$ of the instances, either the entire phrase was not needed or one of the elements was not needed. In $2 \%$ of accurate production the node "it is" and the contraction "it's" was used accurately in the same line. The line is 100 tokens long so the two different structures appeared very close to each other implying that some of the students might not understand that the phrase "it is" and the word "it's" are the same. In sum the students used the phrase "it is" accurately in $89 \%$ of the instances, from this it is possible to say that the students understand the meaning and appropriate use of the phrase "it is".

### 4.3.2 Category A: The contraction "It's"

The second search included the contraction "it's" and was used to establish if the students understood that the meaning of the contraction "it's" is the same as the phrase "it is" and different from the determiner "its" and to establish whether they used the contraction in a different manner than the phrase "it is". The search brought the following results (see tables $7 a, b, c)$, in which the hits were systematized as accurate or inaccurate use of the apostrophe.

| Findings: | Number <br> of hits: | Number of hits in percentages: |
| :--- | :---: | :--- |
| Net number of hits on the contraction. | 587 | $100 \%$ |
| Accurate production of the contraction. | 527 | $89 \%$ of total use of the <br> contraction is accurate. |

Table 7a: Summary of accurate search results for the word "it's"

| Inaccurate production of the contraction. | 60 | $100 \%$ |
| :--- | :---: | :--- |
| 1. Should have used "there is" or "there <br> are". | 32 | $53 \%$ of total inaccurate use. |
| 2. Should have used only "is" | 14 | $23 \%$ of total inaccurate use. |
| 3. Should have used only "it" | 2 | $3 \%$ |
| 4. Should have used only "are". | 4 | $6 \%$ |
| 5.Neither the apostrophe or the letter <br> " $s$ " is needed. | 1 | $2 \%$ of total inaccurate use. |
| 6. No apostrophe needed, should have |  |  |
| been the possessive determiner "its". | 7 | $11 \%$ of total inaccurate use. |
| 7. Extra verb | 1 | $2 \%$ of total inaccurate use. |

Table 7b: Summary of inaccurate search results for the word "it's"

| Accurate node, but the contraction was <br> used to repair lack of vocabulary or <br> knowledge of sentence structure. | 42 | $8 \%$ of total accurate use. |
| :--- | :---: | :--- |
| Accurate node, and accurate use of the <br> phrase "it is" in the same line. | 9 | $1.7 \%$ of total accurate use. |
| Accurate node, and inaccurate use of the <br> determiner "its" in the same line. | 9 | $1.7 \%$ of total accurate use. |

Table 7c: Summary of other search results for the word "it's"

The students used the contraction accurately in $89 \%$ of the instances and this corresponds exactly to the instances they used the phrase "it is" accurately. The use of repair was also exactly the same, in $8 \%$ of the instances that the contraction was used accurately, it was used in such a way as to show that the student did not fully master the needed sentence structure or vocabulary and was repairing with the contraction "it's". Out of the $11 \%$ of inaccurate use of the contraction, $53 \%$ of the instances was used to repair lack of knowledge of "there is" or "there are".

In 8\% of instances of inaccurate use the contraction "it's" had been mistaken for the possessive determiner "its". In the following table 8 those seven instances are listed.

| Text in front of the node | Text after the node | Student <br> nr. |
| :--- | :--- | :--- |
| our wishes and dreams are. It both has it' | s own advantages and disadvantages, by following th | 45.txt |
| made up of many parts; and though all it' | s parts are many, they form one body. So it | $34 . t x t$ |
| School This is me talking about school at it | s best. Could you believe that? Well so be it | $244 . t x t$ |
| at failure is the condiment that gives success it | s flavour. Likewise does Kim say in his quote that | 159.txt |
| in where she is, even thought it has it | s flaws and discomfort. She knows it's worth it. | 87.txt |
| both physically, and mentally. The tree needs it' | s friend branches to create the leaves, and take in | 100.txt |
| The way Stop trying to be perfect sheds it' | s light on the theme is like High school senior | 10.txt |

Table 8: List of inaccurate use of the contraction "it's"

The sound of the possessive determiner "its" and the contraction "it's" is the same, the words are homophones. Hence, it seems reasonable to assume that some students are writing what the word sounds like indicating that they might not know the meaning of the apostrophe and therefore do not know how the spelling of the possessive determiner "its" differ from the spelling of the contraction "it's".

Further, in $23 \%$ of the instances of inaccurate use of the contraction the word "it" was not needed. In table 9 are listed the lines which contained an extra "it".

| Text in front of the node. | Text after the node | Student <br> nr. |
| :--- | :--- | :--- |
| else. But how do we know if perfect it' | s a good or a bad word? Like, someone could | $58 . t x t$ |
| chool senior comes out in valedictorian speech it' | s a text a teenager comes out in a speech. | $140 . t x t$ |
| "Why look when you can see". The text it' | s about us human who use to give looks when | $102 . \mathrm{txt}$ |
| to identity appear quite well. The text Quote it' | s about who you are and who you are going | $122 . \mathrm{txt}$ |
| "My mom wants to be my best friend" it' | s about a girl that not being treated well. Her | $198 . \mathrm{txt}$ |
| this whole time you have known the person, it' | s filled with joy, fun and happiness. Let's say | $23 . t x t$ |
| all for granted. Because you never know what it' | s happening tomorrow or in a year. Its been a | $140 . t x t$ |
| a person. The person has right then, nothing it' | s perfect, but everything is beautiful. I get a fee | $58 . t x t$ |
| one does look the same. And no one it' | s perfect, not even the most beautiful person on th | $140 . t x t$ |
| even the most beautiful person on the earth it' | s perfect. Maybe some persons see you in a store | $140 . t x t$ |
| xt means all people stick together. This text it' | s relevant to my life. I have learned we never | $68 . t x t$ |
| that you should just be yourself, because that it' | s the person we like the most and if someone | $95 . t x t$ |
| different thoughts about identity. One of them it' | s: "I am more worried about being a good person | $68 . t x t$ |
| you can see who they are. And culture it' | s a thing in who we are. Part A task 2 | $68 . t x t$ |

Table 9: List of inaccurate inclusion of "it"
Some of the examples of overinclusion of the word "it" was probably caused by the pattern of spoken language, where the student writes sentences in exactly the same way as she would speak. In sentences such as: 102.txt
"Why look when you can see". The text it's about us human who use to give looks when The student probably intends the phrase "it is" as she is using "it is" to refer back to the topic of the sentence in the same way as she might have done if speaking.

But in sentences such as 58.txt
a person. The person has right then, nothing it's perfect, but everything is beautiful. I get a fe The student is probably intending only the verb "is" and might not know that the contraction "it's" is the same as the phrase "it is".

Furthermore, in $3 \%$ of instances of inaccurate use of the contraction the word "is" was not needed. In table 10 are listed the lines which contained an extra "is".

| Text in front of the node. | Text after the node | Student <br> nr. |
| :--- | :--- | :--- |
| sed the word "perfect", even I have sed it' | s mote pole times. But we all know that nothing | 11.txt |
| no, of course not. And this is where it' | s shed lights on the topic who we are. "Who | 153.txt |

Table 10: List of inaccurate inclusion of "is"

The overuse of both "it" and "is" might be because the contraction can be sounded-out ${ }^{1}$ in an abbreviated manner and thus made to fit into the sentence where it is placed.

Finally, in $1.7 \%$ of the instances when the node was accurate the student had also used the phrase "it is" within the same line of 100 token. This result corresponded to the result for the phrase "it is". In sum the students used the contraction "it's" accurately in $89 \%$ of the instances, from this it is possible to say that the students understand the meaning and appropriate use of the contraction "it's".

### 4.3.3 Category A: The possessive determiner "Its"

The third search included the possessive determiner "its". The determiner was selected to determine whether the students understood that the possessive determiner "its" is different from the contraction "it's". This is relevant because the two structures are homophones and in writing are only differentiated by the apostrophe this search could show how attentive

[^0]the students are to the morphological difference. The search brought the following results (see tables 11a, b, c), in which the hits were systematized as accurate or inaccurate use of the determiner "its".

| Findings: | Number <br> of hits: | Number of hits in <br> percentages: |
| :--- | :---: | :--- |
| Net number of hits on the possessive determiner. | 276 | $100 \%$ |
| Accurate production of the possessive determiner. | 31 | $11 \%$ of total use is <br> accurate. |

Table 11a: summary of accurate search results for the possessive determiner "its"

| Inaccurate production of the possessive determiner | 245 | $100 \%$ |
| :--- | :---: | :--- |
| 1. Should have used "there is" or "there are". | 19 | $8 \%$ of total <br> inaccurate use. |
| 2. Should have used the contraction "it's". | 202 | $82 \%$ of total <br> inaccurate use. |
| 3. Should have used either the word "it", "is" or <br> "are". | 23 | $9 \%$ of total <br> inaccurate use. |
| 4. No words are needed. | 1 | $0.4 \%$ of total <br> inaccurate use. |

Table 11b: summary of inaccurate search results for the possessive determiner "its"

| Assuming the students had used the contraction "it's" <br> and not the determiner "its". Then the contraction <br> was used to repair lack of vocabulary or knowledge of <br> sentence structure. | 28 | $11 \%$ of total <br> inaccurate use. |
| :--- | :---: | :--- |
| Accurate node, and accurate use of the contraction <br> "it's" or phrase "it is" in the same line. | 4 | $12 \%$ of total <br> accurate use. |
| Inaccurate node, and accurate use of the contraction <br> "it's" or phrase "it is" in the same line. | 15 | $6.1 \%$ of total <br> inaccurate use. |

Table 11c: summary of other search results for the possessive determiner "its"

In $11 \%$ of the instances the students used the possessive determiner accurately. In the remaining $89 \%$ of the instances the students used the determiner inaccurately. Out of the $89 \%$ of the instances of inaccurate use, the contraction "it's" should have been used in $82 \%$
of them. Furthermore, in $6.1 \%$ of the instances where the students use an inaccurate node, they are also accurately using the contraction "it's" or the phrase "it is" in the same lines. So, students have a strong tendency to drop the apostrophe where it should have been used. Whether the inaccurate use are instances of error, meaning that the students do not know that there is a difference between "its" and "it's" or if it is instances of mistakes meaning that the students are inattentive to the morphological importance of the apostrophe or simply do not know where on the keyboard the apostrophe is located, is difficult to decide. As mentioned under 4.1, the students used a variety of other symbols to represent the apostrophe, so at least some students did not know which key on the keyboard that should be used to mark the apostrophe.

### 4.3.4 Comparing results in category A

Table 12 presents a summary of the results from the previous three searches.

| Category | It is | It's | Its |
| :--- | :--- | :--- | :--- |
| Total number of hits on the node, excluding the <br> number listed under "rest". | 573 | 587 | 276 |
| Total inaccurate node | $11 \%$ | $11 \%$ | $89 \%$ |
| Should have used there is or there are | $85 \%$ | $53 \%$ | $8 \%$ |
| Should have used "it's" | $0 \%$ | $0 \%$ | $82 \%$ |
| Should have used "its" | $0 \%$ | $11 \%$ | $0 \%$ |
| Either neither word, or only "it", "is" or "are" | $15 \%$ | $35 \%$ | $10 \%$ |
| Accurate node, repair of either sentence structure or <br> vocabulary. | $8 \%$ | $8 \%$ | $11 \%$ * |

Table 12: List comparing the results for the phrase "it is", the contraction "it's" and the word "its"

* For the node "its" in this calculation the node is inaccurate. The student clearly meant to use the contraction "it's", therefore if assuming that the node used was "it's", it could be that the student used the node as repair.

The students are $89 \%$ accurate with the phrase "it is" and the contraction "it's". Thus, we can say that they know both structures equally well. The students make more mistakes with the existential there when they produce the phrase "it is" when compared to the contraction "it's". Maybe the students can "hear" from sounding out a sentence that something more than the contraction "it's" is required in the sentence and therefore produce the phrase "it is".

Example: 229.txt
a big family with stepmothers, stepsister or stepbrothers. It is many pros and cons with all this families. A

When producing "it's" the students make more mistakes with including words that are not needed. This might be because the contraction can be sounded-out in an abbreviated manner so one does not hear both words. Perhaps the apostrophe makes it easier to soundout the word in a manner that makes the word fit into the sentence as needed.

When comparing the result for "its" with the result for the contraction "it's" it is found that the students are much less accurate with the word "its". With the contraction "it's" the students mistake "it's" for "its" in $11 \%$ of the total number of instances when they produce the word. While for the determiner "its" they mistake "its" for "it's" in $82 \%$ of the total instances they produce the word. However, the phrase "it is" is never mistaken for the word "its". Hence, it seems reasonable to assume that the students are writing down what the word sounds like.

Also, the students who did not include the apostrophe when intending the contraction "it's" were more likely to repair either sentence structure or vocabulary (11\%) when compared to the students who used either the phrase (8\%) or the contraction (8\%). Hence, students who struggle with including the apostrophe when they should produce "it's" might also need more help with vocabulary and sentence structure.

It might therefore be helpful for the students if they were instructed to not use contractions in general as it would both remove the possibility of mistaking "it's" for "its", and remove the option of using "it is" as a longer and "something more sounding" than the contraction "it's".

Furthermore, in table 13 is listed every instance where the node "its" was accurate and the phrase "it is" or the contraction "it's" appeared in the same line. Here can be seen that the students who produce the node "its" accurately also produce the phrase "it is" and the contraction "it's" accurately. This indicates that teaching the students how to produce the determiner correctly could be an aid in teaching the students accurate use of the phrase "it is" and the contraction "it's".

| Text in front of the node. | Text after the node | Student <br> nr. |
| :--- | :--- | :--- |
| test, strongest or the smartest. It is because of | its mentality. When an elephant sees a lion, it think | 166.txt |
| when I play I just forget about reality and | its fun. It's like drugs but without the feeling | 221.txt |
| is grey and boring, still it's beautiful in | its own way. Water helps all of us in our | 164.txt |

Table 13: List of result where the node "its" is accurate and the phrase "it is" or the contraction "it's" appeared in the same line

### 4.3.5 Category B: The negated phrase "is not"

The fourth search included the negated phrase "is not". This phrase was selected in order to be compared with the non-negated version. The search brought the following results (see tables 14a, b, c), in which the hits were systematized as accurate or inaccurate use of the negated phrase "is not".

| Findings: | Number <br> of hits: | Number of hits in <br> percentages. |
| :--- | :---: | :--- |
| Net number of hits on the phrase | 256 | $100 \%$ |
| Accurate production of the phrase. | 236 | $93 \%$ of total use is <br> accurate. |

Table 14a: summary of accurate search results for the phrase "is not"

| Inaccurate production of the phrase "is not" | 20 | $100 \%$ |
| :--- | :---: | :--- |
| 1. Should have used "there is not" or "there are <br> not". | 4 | $23 \%$ of total inaccurate |
| use. |  |  |$|$| 2. The phrase is missing the word "it" or an |
| :--- |
| equivalent. |

Table 14b: summary of inaccurate search results for the phrase "is not"

| Accurate node, but the phrase was used to repair <br> lack of vocabulary or knowledge of sentence <br> structure. | 28 | $11 \%$ of total accurate <br> use. |
| :--- | :---: | :--- |
| Accurate node, and accurate use of the <br> contraction "isn't" in the same line. | 1 | $0.3 \%$ of total accurate <br> use. |

Table 14c: summary of other search results for the phrase "is not"

The phrase "is not" was used accurately in $93 \%$ of the lines where it was found. However, in $11 \%$ of the accurate lines, the phrase was used in such a way as to show that the students did not fully master the needed sentence structure or vocabulary, and were repairing with the phrase "is not". Hence, the entirely accurate use of the phrase was $93 \%$ of total use. In $7 \%$ of the instances the phrase was used inaccurately, and in $70 \%$ out of the total instances when the phrase was used inaccurately, it was inaccurate because the sentence needed either the pronoun "it" or something equivalent, indicating that some students did not fully understand how to negate in writing. In $0.3 \%$ of the lines the contraction "isn't" was found, this is little, when compared to the phrase "it is" and contraction "it's" were the result for both was about $2 \%$.

### 4.3.6 Category B: The contraction "Isn't"

The fifth search included the negated contraction "isn't". This was selected as the contracted variation of the phrase "is not" to explore how accurately the students used the negated contraction in writing. As well as to compare with the results from category A. The search brought the following results (see tables 15a, b, c), in which the hits were systematized as accurate or inaccurate use of the negated contraction "isn't".

| Findings: | Number of <br> hits: | Number of hits in <br> percentages. |
| :--- | :---: | :--- |
| Net number of hits on the contraction | 179 | $100 \%$ |
| Accurate production of the contraction | 172 | $96 \%$ of total use is <br> accurate. |

Table 15a: summary of accurate search results for the contraction "isn't"

| Inaccurate production of the contraction | 7 | $100 \%$ |
| :--- | :---: | :--- |
| 1. Should have used "there isn't" or "there <br> aren't". | 2 | $28.5 \%$ of total inaccurate <br> use. |
| 2. The phrase is missing the word "it" or an <br> equivalent. | 3 | $43 \%$ of total inaccurate <br> use. |
| 3. Extra verb. | 2 | $28.5 \%$ of total inaccurate <br> use. |

Table 15b: summary of inaccurate search results for the contraction "isn't"

| Accurate node, but contraction was used to <br> repair lack of vocabulary or knowledge of <br> sentence structure. | 16 | $9 \%$ of total accurate use. |
| :--- | :---: | :--- |
| The phrase "is not" in any line. | 0 |  |

Table 15c: summary of other search results for the contraction "isn't"
The students used the contraction "isn't" correctly in $96 \%$ of the lines where it was found. However, in $9 \%$ of the instances when the students used the contraction accurately it was used to repair lack of either vocabulary or sentence structure. In $4 \%$ of total number of hits the node is inaccurate. And in $43 \%$ of the instances when the node was inaccurate it was because the phrase was missing a pronoun such as "it" or an equivalent. In $28.5 \%$ of the instances an extra "is" had been used, indicating that some students did not fully understand the meaning of the contraction. Finally, in $28.5 \%$ of inaccurate use there is or there are

### 4.3.7 Comparing results in category B to each other and to category A

In table 16 (a, b) results from the previous four searches are compared.

|  | Category A |  | Category B |  |
| :--- | :---: | :---: | :---: | :---: |
| Node | It is | It's | Is not | Isn't |
| Net number of hits on node | 573 | 587 | 256 | 179 |
| Net accurate production | 512 | 527 | 236 | 172 |
| Accurate production in \% | $89 \%$ | $89 \%$ | $93 \%$ | $96 \%$ |
| Accurate node, repair of either <br> sentence structure or vocabulary | $8 \%$ | $8 \%$ | $11 \%$ | $9 \%$ |

Table 16a: List comparing accurate results from category A and category B

| Net inaccurate production of node | 61 | 60 | 20 | 7 |
| :--- | :---: | :---: | :---: | :---: |
| Inaccurate node, should have used <br> "there is" or "there are" | $85 \%$ | $53 \%$ | $23 \%$ | $28.5 \%$ |
| Inaccurate node, missing the word "it" <br> or an equivalent. | $0 \%$ | $0 \%$ | $70 \%$ | $43 \%$ |
| Inaccurate node, either neither word, <br> or only "it"," "is" or "are" | $15 \%$ | $35 \%$ | $7 \%$ | $0 \%$ |
| Inaccurate node, extra verb | $0 \%$ | $2 \%$ | $0 \%$ | $28.5 \%$ |

Table 16b: List comparing inaccurate results from category A and category B

The students were twice as likely to use the non-negated forms "it is" or "it's" than they were the negated forms "is not" or "isn't". But they were more accurate when they used the negated forms. Both the phrase "is not" and the contraction "isn't" are more accurate when compared to "it is" and "it's". This might be because of how a sentence sounds when it is negated. Maybe because the negated form contains more information it is easier to "sound out" an accurate sentence when the sentence is negated. Since the students are more accurate at producing "there is" or "there are" in the negated form when compared to the non-negated forms, it could be helpful if, when they are learning about the existential "there", the students practice with negated examples.

However, for sentences where the students have used the node to repair either lack of vocabulary or knowledge of sentence structure, they are slightly less accurate with the negated forms when compared to the non-negated forms. Furthermore, when they produce negated forms, they leave out words that are needed:

| Node | It is | It's | Is not | Isn't |
| :--- | :---: | :---: | :---: | :---: |
| Inaccurate node, missing the word <br> "it" or an equivalent. | $0 \%$ | $0 \%$ | $70 \%$ | $43 \%$ |

From table 16b

Example 276.txt: the word "it" is missing before the node (marked in bold). your childer and that is calld a memoris but is not esy to take care of a cild. Because

Example 203.txt: the word "it" is missing before the node (marked in bold) don't talk so much because of corona. Isn't header to se him because we never know what

And when they produce non-negated forms, they include words that are not needed:

| Node | It is | It's | Is not | Isn't |
| :--- | :---: | :---: | :---: | :---: |
| Inaccurate node, either neither <br> word, or only "it", "is" or "are" | $15 \%$ | $35 \%$ | $7 \%$ | $0 \%$ |

From table 16b

Example 140.txt: only the verb "is" is needed (node is marked in bold)
starting to get to an end. Task 3B: What exact it is perfection? Perfection it is different in so many eyes.

Example 58.txt: only the verb "is" is needed (node is marked in bold)
a person. The person has right then, nothing it's perfect, but everything is beautiful. I get a fee

So, in total there is a greater consistency in the findings within each category, both for category $A$ and category $B$, than there are between the categories. Hence, the students are more or less knowledgeable about how to produce the meaning "it is" either as a phrase or as a contraction or about how to produce the meaning "is not" either as a phrase or as a contraction, rather than being more or less knowledgeable about the apostrophe.

### 4.3.7 Category C: The apostrophe with the letter "s"

The sixth search included all other words found where the apostrophe was used with the letter " $s$ ". Because the contraction "it's" includes an apostrophe and ends on the letter " $s$ " the results that are relevant because they fall into the same groups as the other words in category C are also listed here. The apostrophe together with the letter " $s$ " can either construct the genitive or create a contracted form. The search brought the following results (see tables 17a, b, c), in which the hits were systematized as accurate or inaccurate use of the apostrophe

| Findings: | Number <br> of hits: | Percentages of hits: |
| :--- | :---: | :--- |
| Net number of hits | 922 | $100 \%$ |
| Accurate production | 811 | $87 \%$ |
| Inaccurate production | 111 | $13 \%$ |

Table 17a: Total number of search results for the apostrophe with the letter " s "

| Accurate production | 811 | $87 \%$ of the total use is correct. |
| :--- | :---: | :--- |
| 1. Accurate use to create a contraction. | 541 | $66.3 \%$ of the total accurate. |
| 2. Accurate use to create the genitive. | 270 | $33.3 \%$ of the total accurate use. |
| 3. Accurate node, but the but " 's" has <br> been used to repair lack of vocabulary <br> or knowledge of sentence structure. | 26 | $2.8 \%$ of total accurate use. |

Table 17b: Summary of accurate search results for the apostrophe with the letter " s "

| Inaccurate production | 111 | $100 \%$ |
| :--- | :---: | :--- |
| 1. Plural of noun, no apostrophe needed. | 85 | $74 \%$ of total inaccurate use. |
| 2. The 3rd person present tense, only the <br> letter "s" should be added, no <br> apostrophe needed. | 9 | $8 \%$ of total inaccurate use. |
| Inaccurate: neither the apostrophe or the <br> letter "s" should have been added. | 17 | $15 \%$ of total inaccurate use. |

Table 17c: Summary of inaccurate search results for the apostrophe with the letter "s"

In $87 \%$ of the instances when the student produced the " 's" structure, they did so correctly, creating either the genitive or the contracted form. However, in only $2.8 \%$ of the instances when it was used accurately, it was used in such a way as to show that the student did not fully master the needed sentence structure or vocabulary and was repairing with " 's". As can be seen in table 18 (line B), this result is lower than for all the other nodes. So, when looking at all the accurate results and subtracting the accurate node where the node had been used as a repair (line C), it was found (line D) that the results from all five nodes are quite similar.

|  |  | Node | It is | It's | Is not | Isn't |
| :---: | :--- | :---: | :---: | :---: | :---: | :---: |
| 's |  |  |  |  |  |  |
| B | Total inaccurate node | $11 \%$ | $11 \%$ | $7 \%$ | $4 \%$ | $13 \%$ |
| A | Total accurate node. | $89 \%$ | $89 \%$ | $93 \%$ | $96 \%$ | $87 \%$ |


| C | Accurate node but node was used as <br> repair. | $8 \%$ | $8 \%$ | $11 \%$ | $9 \%$ | $2.8 \%$ |
| :---: | :--- | :---: | :---: | :---: | :---: | :---: |
| D | Total accurate node with repair <br> subtracted. | $81 \%$ | $81 \%$ | $82 \%$ | $87 \%$ | 84.2 |

Table 18. List of results of nodes where instances of repair had been subtracted from the total accurate

It can be argued that when the students use the variations over "it is" as repairs, this might be because they can all be used to create run-on sentences, and they can be used to refer to other words without knowledge of the word referred to. The apostrophe with the letter "s" is not suitable for either of these uses.

### 4.3.7.1 Plural noun mistakes

For the apostrophe + " $s$ " the inaccurate results are divided into three different categories. The by far largest category with $74 \%$ of total inaccurate use is plurals of noun, where the students had produced a plural by adding both the apostrophe and the letter " s ". There are a total of 85 results in this category and the results are divided into six different groups.

## Group1: Inaccurate plural noun

Table 19 lists all the examples of nouns where the student has mistaken the ending or does
not know that only the letter "s" and not the apostrophe should be added to indicate plural.

| Text in front of the node. | Text after the node | Student nr. |  |
| :---: | :---: | :---: | :---: |
| perfect then people don't want to be friend' | $s$ whit u. But u don`t need to be * & 50.txt \\ \hline e become just like their enemies, namely the Nazi' & s. I Considered myself as a Muslim, but when I & 112.txt \\ \hline teacher to keep up with thirty ten-year old' & s nagging about how they are supposed to do s & 253.txt \\ \hline he walked down the street with all the café' & \(s\) and stores on both sides. He takes a left & 73.txt \\ \hline ome out at graduation. The teachers and classmate' & s applause him after his brave speech. He said t & 83.txt \\ \hline om that time, there are still some bad experience' & s that is hard to forget. My worst experience fro & 259.txt \\ \hline his earth does not experience the same experience' & s the same. We all have different point of views. & 192.txt \\ \hline The pandemic has showed us some of the flaw' & \(s\) we humans have and some of the best part' & 180.txt \\ \hline Not because he is one of the biggest footballer' & s in the world, because football is so big commu & 44.txt \\ \hline I got sick because I went on a girl' & s trip right after and I was sick for like & 170.txt \\ \hline andemic, some say is it planned by the government' & \(s\) and some say it's not and believe what & 36.txt \\ \hline might seem like a realistic goal, for us human' & s perfection is something completely else, there & 129.txt \\ \hline ould have been. They mostly talk about what human' & s think is normal, and that is also what makes & 127.txt \\ \hline wife and children. This is my perfect life. Other' & s think perfection is landing a trick you have trie & 52.txt \\ \hline in teams and roast each other. When our parent' & s joins are the best thing. It might be chill & 236.txt \\ \hline we humans have and some of the best part' & \(s\) we humans have. I've noticed many of the & 180.txt \\ \hline person? A normal person can be so many person' & s. You decide self what is a normal person to & 156.txt \\ \hline come up with for the game and move set' & s I make. Without him I would never have even & 12.txt \\ \hline And that's true they should. Sometime something' & \(s\) are a little offence. There is clearly a fine & 188.txt \\ \hline ow word's affect someone and learn that something' & s you shouldn't do or say. Task 3B Perfect & 149.txt \\ \hline also makes it easier to work with school task' & s later. The reason behind that is because your & 247.txt \\ \hline senior comes out valedictorian speech is the text' & sl chose. By just reading the name of the & 161.txt \\ \hline short stories that talks about the abnormal thing' & s we humans consider normal. It talks about ho & 180.txt \\ \hline the bad microphone. There is a lot of thing' & s you thought where perfect, but if you just look & 178.txt \\ \hline d board and outdoor games together, went for walk` | $s$ together and bought a new gigger boat beca | 190.txt |
| but as you get older you learn how word' | s affect someone and learn that something's yo | 149.txt |  |
| mother couldn't believe it. Now Fabio is 21 year' | s old and the world champion at downhill cyclin | 73.txt |  |
| so we don't need to write on paper' | $s$, but on the pc. The last thing I like | 206.txt |  |

Table 19: Inaccurate plural noun

In this group are found many words that can carry different meaning and the students must determine what does the word mean in this context thus, the students are working with the complexity of words and meaning and not just with knowledge of the rules for plural nouns.

Examples of phrases or words that could be difficult to determine the meaning of: "to be friend's whit u." Might sound like ownership because the sentence is asking to gain or own friendship.
"thirty ten-year old's" Two plural words after each other can be confusing to decide how to place the plural suffix.
"went for walk's" "To walk" is a verb and can be confused with the noun "a walk" making it difficult to decide what to do with the suffix, is it a $3^{\text {rd }}$ person " $s$ " or a plural " $s$ ", perhaps undecided the student added the apostrophe to make it look more correct.

Some words have both countable and uncountable meaning and can sound correct both with and without the letter " $s$ " at the end making it difficult to determine if there is supposed to be a plural letter " $s$ " at the end of the word. Examples of words with both countable and uncountable meaning:
"bad experience's"
"by the government's"
"speech is the text's"

Occasionally a different word beside the node is misspelled in such a way as to make the sentence sound like something else, where each word is correct in itself but becomes wrong in the context.

Example:
"The teachers and classmate's applause him after his brave speech."
Here the sentence "The teachers and classmate's applause" could have been correct if the rest of the sentence had indicated that the "applause" in the sentence was "owned" by the teachers and the classmate. However, the intended sentence was probably "The teachers and classmates applaud him after his brave speech" thus, making the suffix "'s" incorrect.

Group 2: Uncountable noun

| Text in front of the node. | Text after the node | Student <br> nr. |
| :--- | :--- | :--- |
| My step-dad study's and work with furniture' | s. I have 6 siblings, but I just live with two | 203.txt |

Table 20: Uncountable noun

The word "furniture" can only be uncountable. So, if the student spelled the word "furnitures" a red line would have appeared to indicate that the word is spelled incorrectly. Hence, the student might have repaired her lack of knowledge by adding the apostrophe which would have removed the red line but not corrected the mistake.

Group 3: Irregular declension: nouns ending on the letter " y "
Table 21 presents all the nouns with an irregular declension where the letter " y " is at the end of the word and becomes the letters "ies" in plural.

| Text in front of the node. | Text after the node | Student nr. |
| :---: | :---: | :---: |
| types of human in this world. We have baby' | s, girls, boys, women, men and old people. These | 35.txt |
| fake pictures on social media, of the fake body' | s or faces. Therefor I want everyone to love thems | 79.txt |
| the humanity but being a part of other community' | s also is good to. Friendship has to be the | 256.txt |
| ere unbeaten) Another good thing about community' | $s$ and teams are that we nearly always are there | 233.txt |
| e football community is one of the best community' | s to be in. The football community is spread over | 256.txt |
| fact that we can all live in large community' | s together because a human alone is pretty weak | 187.txt |
| because of the pandemic some businesses (company` | s) had to shut down but the businesses my dad | 190.txt |
| a chance to talk to people form other country' | s before the internet came, so it really have helpe | 161.txt |
| need help but don't help. In some country' | s people don't help. 2. The text explains how hu | 66.txt |
| if you do you will get even more enemy' | s and you do not want that kind of lifestyle. | 192.txt |
| had some enemy's; you have had some enemy' | s even Erna Solberg has had some enemy's up | 192.txt |
| 3 Love Your Enemy Y ou may have some enemy' | s in your lifetime and these people can often mak | 192.txt |
| need to try your best to accept your enemy' | s, like really think about what u do not like | 192.txt |
| enemy's even Erna Solberg has had some enemy' | s up through the years. And even though u may | 192.txt |
| set your mood easily. I have had some enemy' | s; you have had some enemy's even Erna Solberg | 192.txt |
| similar than you would think. If you have enemy' | s you need to accept or at least try your | 192.txt |
| It is not that hard to love your enemy' | s you just need to have the strength to face | 192.txt |
| they to, some people grow up with big family' | $s$ and others with smaller. Some cultures has rit | 132.txt |
| to not lose the hope. A lot of family' | s has maybe felt something under the pandemic | 251.txt |
| talked about this exact thing, that's why firefly' | s and grasshoppers and small bugs that make noi | 129.txt |
| you could every imagine. A huge nest of firefly' | s flashing in their own rate might from the outsi | 129.txt |
| can just do one of your other friends' hobby' | s and then later to other things later. I think | 206.txt |
| vid-19 chaos hit me when they closed sports/hobby' | s down. I always liked to go to the local | 80.txt |

| You can tell by the picture that the lady' | s is part of a religion, and that they are | 8.txt |
| :--- | :--- | :--- |
| oing to remember. Little things that makes memory' | s is important when I raise kids because we will | 246.txt |
| their decisions and give them as many opportunity' | s as possible. | 215.txt |
| that they didn't like each other's personality' | s. Every now and then they gave each other hat | 120.txt |

Table 21: Irregular declension: noun ending on the letter " y "

Group 4: Irregular declension with words ending on the letter " f "
Table 22 presents all the nouns with an irregular declension where the letter " f " is at the end of the word and becomes the letters "ves" in plural.

| Text in front of the node. | Text after the node | Student nr. |
| :---: | :---: | :---: |
| icture has three girls that are wearing headscarf' | $s$ (hijab), and their skin tone is tanned. Compared | 104.txt |
| texts explain how we think about our own life' | $s$ and how society and environment has formed our $p$ | 71.txt |
| The virus has been a part of our life' | $s$ and it is something we must think about every | 76.txt |
| term perfection is a big part of our life' | s and we believe it's the only truth? Or | 182.txt |
| it is highly relevant in most of our life' | s. Both topics in the texts is topics that we | 114.txt |
| This pandemic has ruined so much in our life' | s, but while this was going on, I learned how | 113.txt |
| in this strange and unknown state in our life' | s, fighting a virus from a bat, we all get | 164.txt |
| been careful. And this virus has changed our life' | s. For someone it did their life better, but for | 76.txt |
| my parents had made other options in their life' | s. If I had other friends I might be somewhere | 116.txt |
| portunities they will never succeed in their life' | s. If they don't learn to make mistakes or | 246.txt |
| texts are relevant in how we live our life' | s. It is just how we take our choices and | 114.txt |
| changed many people, we had to put our life' | s on hold. We went through many lockdowns, couldn | 53.txt |
| of all this? This virus has changed our life' | s so much, but also teaches us lesson. It has | 79.txt |
| The pandemic is just a beginning in our life' | s. Task 3B What is perfection? What is perfection? | 113.txt |
| if it looks like those people have perfects life' | s, they don't. Every person has something bad going | 119.txt |
| can relate to. At one point in our life' | $s$ we all want to do things perfectly. For example, | 114.txt |
| about what people do or say, then their self' | s. beauty standards today are toxics. We criticise | 184.txt |
| about how people get told to be their self' | s, but also perfect. Life is not the easiest thing, | 113.txt |
| day, we will find something new about our self' | s. I will say that I can relate to the | 113.txt |
| forget how you made them fell about them self' | s. mabby I made a mistake yesterday, but yesterdays | 109.txt |
| is going on, but someone really found their self' | s that them haven't if the pandemic wasn't | 113.txt |
| into us. I think that people lost their self' | $s$ while the pandemic is going on, but someone reall | 113.txt |

Table 22: Irregular declension with nouns ending on the letter " f "

Group 5: nouns with irregular plural form
Some nouns have an irregular plural form where students need to know words individually in order to spell them correctly. Table 23 presents nouns with an irregular plural form.

| Text in front of the node. | Text after the node | Student <br> nr. |
| :--- | :--- | :--- |
| hand or use disinfection to kill all the bacteria' | s in our hands. I get he message frim the | 90.txt |
| then later it felt wrong. I want that children' | s and youth can train and be social together. Foot | 31.txt |
| social activity where you meet friends. Children' | s and youth need that social meeting. But in the | 31.txt |
| My sons will be taught how to be gentlemen' | s and my daughters will be taught to not let | 242.txt |
| ther, having so much fun and having good laughter' | s. à One day you two change schools and go your | 23.txt |

Table 23: Irregular plural form

Group 6: Proper nouns which end on the letter "s"
Table 24 presents proper nouns which end with the letter " $s$ ".

| Text in front of the node. | Text after the node | Student <br> nr. |
| :--- | :--- | :--- |
| often choose a lollipop, wasp's nest and smurf' | s. I still have this rule, now that I am | $246 . \mathrm{txt}$ |
| while doing some homework or sitting in a team' | s chats. You could se that your friend was playing | 190.txt |

Table 24: Proper nouns that end on the letter " s "
These can be difficult to sound out because it will be necessary to know why they end on the letter "s". Both the proper nouns "The Smurfs" and "Teams" are English words and both are already in plural. In this case the students could probably sound out that an "s" sound was needed on the end to make the sentences flow, but they did not quite know why it was needed and repaired that lack of knowledge with an apostrophe.

### 4.3.7.2 Inaccurate, neither the apostrophe or the letter " $s$ " is needed

In $15 \%$ of the total inaccurate use neither the apostrophe or the letter " $s$ " should have been used. There was a total of 17 results in this group. The results were divided into five different groups.

Group 7: Nouns, should have been in the singular
Table 25 shows nouns and pronouns that should have been in the singular.

| Text in front of the node. | Text after the node | Student <br> nr. |
| :--- | :--- | :--- |
| learn from this pandemic talk about how us human' | s strength lies on being a part of a community. | $63 . \mathrm{txt}$ |
| no one is better than other just in personality' | s because it is not what we but rather who | $109 . \mathrm{txt}$ |
| reach it. We all live one time and life' | s is short sow let us enjoy it. People that | $4 . \mathrm{txt}$ |
| and much more. And we all know the Kardashian' | s and the Jenner family. Just look at a before | $185 . t x t$ |
| shouldn't care at all because its not everyone' | s else's business. You should be confident in your | $103 . t x t$ |

Table 25: nouns that should have been in singular

In this group the "'s" has possibly been added because the students intended to create either the genitive or the plural, possibly because they did not know that the noun should be in the singular. This is a variation of group 1 under the heading plural noun.

Group 8: Concord: $3^{\text {rd }}$ person present tense
Table 26 lists the words where the $3^{\text {rd }}$ person present tense " $s$ " seems to have been added to the word in front of the verb instead of adding it to the verb itself. Alternatively, the students might have tried to create the present perfect or the genitive.

| Text in front of the node. | Text after the node | Student <br> nr. |
| :--- | :--- | :--- |
| my friends, I skip so many classes and what' | s make me most upset is to se my parents | $118 . t x t$ |
| ngs like watching grandma making me waffles what' | s matter in the end. We should hold on to | $159 . t x t$ |
| In the text Inside out and back again Ha` | s talk about how she would have to leave their | $63 . t x t$ |
| real thing, it is not only the looking that' | s describe a person. The prettiest woman in the | $186 . t x t$ |
| , no, of course not. And this is where it' | s shed lights on the topic who we are. "Who | $153 . t x t$ |

Table 26: The $3^{\text {rd }}$ person present tense " $s$ " has been added to the wrong word
The student can probably sound out that an " $s$ " is needed but not knowing exactly where it should be placed has opted for an apostrophe "s" solution to the word in front of the verb.

Group 9: Extra letter "s"
Table 27 shows the nodes where neither the apostrophe, nor the letter " $s$ ", is needed.

| Text in front of the node. | Text after the node | Student <br> nr. |
| :--- | :--- | :--- |
| t a race against your friends, but yourself. That' | s has so much to do whit who you are. | 119.txt |
| probably Muslims, but it's not a law that' | s says that they need to wear the hijab, and | 9.txt |
| the world. India is one of the countries that' | s produces most vaccines. But do you think they g | 175.txt |
| sts, but also joys and happiness. That means that' | s we are also formed by those things because tha | 124.txt |
| is why everyone should try to focus on what' | s is important to us. PART B TASK 3A My | 159.txt |
| er stuff. Other people can change your life, that' | s is a least that my grandparents told me. He | 206.txt |
| gree with. In some religions some people think it' | s the end Is soon, the day of judgment. We | 36.txt |

Table 27: Vocabulary, could have used the word "which"

For some of these examples the word "which" would make the content in the sentence clearer. The word "which" also ends on an /J/ sound which might have been what the students wanted when adding the apostrophe with the letter " s ".

Group 10: Incorrect concord, $3^{\text {rd }}$ person present tense
In table 28 is can be found the nodes where present tense plural should have been used.

| Text in front of the node. | Text after the node | Student <br> nr. |
| :--- | :--- | :--- |
| $e$ the good things about ourselves. The flaws take' | S a bigger part of our lives. But water is | $164 . \mathrm{txt}$ |
| t also very interesting. Our culture and roots it' | s an important thing, and we should never forget | $40 . \mathrm{txt}$ |
| have won twenty-six times. So, the odds it' | s not in our favour. But if we play like | $144 . t x t$ |
| $n$ have different freedom. And in Norway people it' | s very shy In Norway we have many different trad | $68 . t x t$ |

Table 28: Inaccurate concord

Group 11: Missing the word "it"
In table 29 the line where the node should have been replaced with the word " it " is shown.

| Text in front of the node. | Text after the node | Student <br> nr. |
| :--- | :--- | :--- |
| that their friends don't even know about that' | s is there are afraid if their friends don't | $206 . t x t$ |

Table 29: The node should have been replaced with the word "it"

### 4.3.7.3 Inaccurate: concord $3^{\text {rd }}$ person present tense

In 8\% of the total inaccurate use of the apostrophe the students have included an apostrophe together with the letter " $s$ " to mark the $3^{\text {rd }}$ person present tense. In this group the inaccurate use of the apostrophe can be divided into two groups because there might be two different explanations as to why the students find the words difficult to conjugate accurately.

Group 12: Verbs ending on the letter " y " in the present tense
In table 30 verbs ending on the letter " $y$ " in the present tense are listed.

| Text in front of the node. | Text after the node | Student <br> nr. |
| :--- | :--- | :--- |
| try to be the prefect student she literally cry' | s when she gets a 5+ I don't understand how | 175.txt |
| which is something we shouldn't do. And say' | s something about who we are, humans should be | 149.txt |
| she comes home she sleeps. My step-dad study' | s and work with furniture's. I have 6 siblings, but | 203.txt |
| rather choose not to do and what that say' | s about us. I picked these two because I liked | 149.txt |

Table 30: Verbs ending on " y " in present tense

Verbs ending on the letter " y " can be confusing as they can be conjugated following different sets of rules when being marked for $3^{\text {rd }}$ person present tense. As the words "to cry" and "to study" becomes "cries" and "studies", while the word "say" becomes "says". This
means that the students must learn both the rule and learn to conjugate some words by heart.

Group 13 Verbs where the apostrophe should have been left out
Table 31 lists words that are correctly marked for the $3^{\text {rd }}$ person present tense, but the apostrophe should have been left out.

| Text in front of the node. | Text after the node | Student <br> nr. |
| :--- | :--- | :--- |
| work hard and chase their dreams. Every child get' | s into trouble you know, and I don't even | 244.txt |
| them and help them out. And the mother let' | s her daughter take care of the baby at home | 224.txt |
| my dear, my partner. I know the daughter love` & s her mom but I think she would like her & 190.txt \\ \hline The letter she wrote to her younger self show & s she`s grown more confident in who she is. | 87.txt |  |
| that we all want happiness and no one want' | s pain, but there is no rainbow without rain. Thi | 149.txt |

Table 31: Verbs where the apostrophe should have been left out
The need for the letter " $s$ " can be sounded out when listening to a sentence, however if the students do not know why they need to conjugate for the $3^{\text {rd }}$ person, then they might produce the apostrophe as a repair.

## 5 Discussion

In this section the results from the previous section will be analyzed and discussed to explore with what degree of accuracy the students produce the apostrophe, what errors they make and what the implications of these errors might have for teaching.

### 5.1 With what degree of accuracy did the students produce the apostrophe?

According to the interlanguage theory the second language learner, in the process of learning a new language, is inventing a new intermediate language known as the learner's interlanguage (Cook, 2016, p.19). The students' interlanguages can be expected to be somewhat similar, because they have been taught under similar conditions with similar texts and syllabi (James, 1998, p. 16). Since the students cannot be expected to master the apostrophe perfectly results cannot be evaluated with $0 \%$ error as expected amounts of error. Thus, it would be helpful with a language proficiency level expressed as a number with which to compare the students' results. Since no such expected amounts of error standard could be found ready-made, one was created for this study.

A standard was created from a separate set of search results using the word "your" and the contraction "re". The word and the contraction were chosen because the word "your" and the contraction "you're" are commonly accepted as frequently confused by learners of English as a second language, where at least one American university lists them as one of the top ten most commonly confused word pair (University of Illinois, n.d.). Therefore, it could be argued that how accurately the students produce the word pair "your" and "you're" is a possible language proficiency standard expressing how accurate the students should be at producing other words or pairs of words. In table 32 can be seen results from a search for the node "re" systematized as number of hits total and inaccurate use of the apostrophe.

|  | Number <br> of hits | Number of incorrect hits <br> in percentages |
| :--- | :---: | :--- |
| Net production of the contraction "you're". | 237 |  |
| Total inaccurate: should have been one of <br> the following words: | 18 | $7.5 \%$ of total |
| Their | 11 | $4.6 \%$ of total |
| Themselves | 1 | 0.4 of total |
| There are | 1 | 0.4 of total |
| Your | 5 | 2.1 of total |

Table 32: List of inaccurate use of the apostrophe with the node "re"
In table 33 can be seen the results for the word "your" systematized as number of hits total and inaccurate use of the apostrophe.

|  | Number of <br> hits | Number of incorrect <br> hits in percentages |
| :--- | :---: | :--- |
| Total hits on the word "your". | 1009 |  |
| Inaccurate: should have been the contraction <br> "you're" or the phrase "you are" | 28 | $2.8 \%$ of total |

Table 33: List of inaccurate use of the adjective your
Analyzing the two sets of results it is possible to define three different suggestions for a proficiency level that each expresses a different level of acceptable amounts of error. The proficiency level accepting comparatively the most errors would be the inaccurate results for the contraction "you're" (2.8\%) combined with the inaccurate result for the word "your" (7.5\%) resulting in $10.3 \%$ as an acceptable number of incorrect hits when measured in
percentages. A slightly more restrictive norm would be to consider the inaccurate results from the search for the contraction "you're" resulting in $7.5 \%$ as an acceptable number of incorrect hits when measured in percentages. The most restrictive would be to use the inaccurate results for only the word "your" when looking at the contraction "you're" (2.1\%) combined with the inaccurate result for the word "your" (2.8\%) resulting in $4.9 \%$ as an acceptable number of incorrect hits.

In table 34 is listed the inaccurate results from each of the five searches.

| Node | It is | It's | Is not | Isn't | 's |
| :--- | :--- | :--- | :--- | :--- | :--- |
| Total numbers of hits | 576 | 587 | 256 | 179 | 922 |
| Total inaccurate | $11 \%$ | $11 \%$ | $7 \%$ | $4 \%$ | $13 \%$ |

Table 34. List of results for inaccurate nodes.
As can be seen from the table only the negated forms are within even the widest definition of the suggested acceptable number of incorrect hits. Analyzing the non-negated nodes with an apostrophe we find that the students are slightly more accurate with the contraction "it's" when compared to the "'s" structure, but both results are above the suggested 10.3\% as a maximum. This indicates that there is room for improvement.

Of the negated nodes with an apostrophe only the contraction "isn' t " is below the lowest suggested acceptable number of incorrect hits expressed in percentages as $4.9 \%$, which means they produced relatively few errors. The contraction "isn't" is also the node with the decidedly fewest hits, which might mean that the students use this word only hesitantly and with great care and therefore there are less mistakes, alternatively the students favor nonnegated forms when they write. And/ or there may be something about the negated structure of a sentence that makes it easier to write accurately.

### 5.2 What types or categories of errors did the students make?

### 5.2.1 Errors attributable to difficulty with recognizing the stem of a noun

To accurately create the regular plural form of a noun, the letter " s " is added to the stem. To do this the students must know the rule, be able to recognize what the stem of the word is, and know when to use regular and irregular declension. For some words recognizing the stem is difficult because the word already ends with the letter "s" or a sound which mimics the " $s$ " sound, for other words or concepts recognizing the stem is difficult because it is
difficult to determine if the word already is in the plural. Difficulty with plural forms can be either because a word takes a different form entirely - one man, becomes two men- or because the word carries a meaning that can be difficult to determine - can I use the word "friends" in plural if we are strangers to each other and I am asking to become your friend?subtlety in the meaning of words can be difficult for the student to determine. Groups 1 and 6 fall into this category.

Group 1:
Example: 50.txt: Difficult to decide the meaning of the word.
perfect then people don't want to be friend's whit u. But u don't need to be *

Group 1:
Example: 180.txt: Difficult to decide regular or irregular declension.
The pandemic has showed us some of the flaw's we humans have and some of the best part'

Group 6:
Example: 246.txt: Difficult to recognize the stem because the word ends with the letter "s". often choose a lollipop, wasp's nest and smurf's. I still have this rule, now that I am

### 5.2.2 Errors attributable to difficulty with countable/uncountable nouns

Some nouns are only uncountable while others can carry both countable and uncountable meaning and the meaning can be either singular and/or plural. These are difficult words because the students must identify first the word as uncountable or countable, and then find out whether or not it should be in the plural and whether the spelling of the plural is regular or irregular. Groups 2,5 and 7 fall into this category.

Group 2: Example: 203.txt
My step-dad study's and work with furniture's. I have 6 siblings, but I just live with two

Group 5: Example: 90.txt
hand or use disinfection to kill all the bacteria's in our hands. I get he message frim the

Group 7: Example 63.txt
learn from this pandemic talk about how us human's strength lies on being a part of a community.

### 5.2.3. Errors attributable to change in spelling for words ending with " $Y$ " or " $F$ "

Words - both nouns and verbs - that end on the letter " y " or the letter " f " change how they are spelled when the letter " $s$ " is added at the end of the word. If the students do not know how to change the spelling correctly, they will probably know that the letter "s" is needed but if they add an " $s$ " after the letter " $y$ " then the computer will mark the word as incorrect. In order to remove the red squiggly line marking something as incorrect, then the student might opt for the apostrophe if she does not know the rules for change in spelling. Groups 3, 4 and 12 fall into this category.

Group 3: Example: 35.txt types of human in this world. We have baby's, girls, boys, women, men and old people. These pe

Group 4: Example: 104.txt
icture has three girls that are wearing headscarf's (hijab), and their skin tone is tanned. Compared

Group 12: Example: 175.txt:
try to be the prefect student she literally cry's when she gets a 5+ I don't understand how

### 5.2.4 Errors attributable to declension for the $3^{\text {rd }}$ person present tense

When conjugating for concord in the $3^{\text {rd }}$ person present tense the student must add the letter "s" without the apostrophe. For many words when the student sounds out the lines, she can "hear" that the " $s$ " sound is needed in order to create a flow in the sentence. So, when sounding out the sentence she might hear and/or know that the " $s$ " is needed but not be entirely sure where to place it because she might not be explicitly aware of the rules for concord. Therefore, in order to add the "s" sound she also included the apostrophe. Groups 8 and 12 fall into this category.

## Group 8:

Example: 118.txt: Creating flow by adding the letter " $s$ " to the word in front of the verb my friends, I skip so many classes and what's make me most upset is to se my parents

Group 13:
Example: 244.txt: Adding an incorrect apostrophe with the correct letter "s" work hard and chase their dreams. Every child get's into trouble you know, and I don't even

### 5.2.5 Errors attributable to lack of vocabulary

Some errors appear to be a lack of vocabulary. In cases where the student does not know the meaning of a word, she might substitute with a word she knows and add apostrophe "s" to make to make the word fit into the flow of the sentence. With flow is meant how easy it is to read the sentence out aloud. Group 9 and group11 fall into this category.

Group 9: Example: 119.txt: The word "that" would have been better with "this" t a race against your friends, but yourself. That's has so much to do whit who you are.

Group 9: Example: 175.txt: The word "that" would have been better with "which" the world. India is one of the countries that's produces most vaccines. But do you think they

Group 9: Example: 36.txt: The word "it's" would have been better with "that" gree with. In some religions some people think it's the end Is soon, the day of judgment. We

Group 11: 206.txt: "that's" should have been "it" that their friends don't even know about that's is there are afraid if their friends don't

### 5.3 Implications for teaching

The students' inaccuracies might appear as mistakes rather than errors. This is because both the reason for most of the inaccuracies is easy to explain, for example that the plural noun does not require an apostrophe and the solution, that the student must proofread more carefully, is so simple. However, the second language learner tends mostly to attend to what "he means, rather than what he writes" and instructing the student to proofread would
therefore probably not be constructive (Shaugnhessy, 1977, p.48). Instead, it is possible to suggest three other items that could help students acquire knowledge of accurate production of the apostrophe:

1. The results indicate that most of the errors students make are phonological in cause, as they seem to be writing what words sound like, but grammatical in effect when the written text becomes ungrammatical. The reason is probably not that the rules governing accurate production of the genitive or the contracted form may not in themselves be too difficult, even if they might be confusing when compared with the same set of rules governing the Norwegian apostrophe. The explanation may rather be that it is difficult to decide which rule applies for the word which the student wants to add the sound of an " $s$ " to.

Thus, when writing it is prudent to ask the students to write all words out in full, avoiding the use of contracted forms. While this might seem a radical suggestion, it is worth considering, because even if contracted forms are very much part of English usage, it is also considered informal in style. And Norwegian students, for the most part, write English in a formal context first at school and then maybe at university. If the students are instructed to write words out in full, then every time a student wants to add an apostrophe, she would only need to ask herself: "is someone owning something here?" If the answer is "no", then she can move on with finding out why she wants to include the " $s$ " sound at the end of the word in question.

However, this does not mean that students should not learn about contractions and practice the form by writing informal e-mails and fiction with dialogue. The students demonstrat that they know how to create the contracted form, hence, they will not find it difficult to read text where the contracted form is used. However, they do have problems with producing the apostrophe correctly, and by avoiding the apostrophe for any other uses besides the genitive form, some errors will disappear on their own and other errors will be made prominent, and thus, easier for the student to be explicitly aware of and attend to.
2. Complexity is an inherent part of writing and the students convey complex ideas and therefore create sentences that require sensitivity to the meaning a word carry in a specific
context. Because it can be difficult to decide which rule apply when working with words in context, it seems that the students produce the apostrophe as a repair when they want to include the letter "s" at the end of a word but do not know why. The students should therefore practice complexity perhaps with "fill in the blanks" or similar exercises as well as in their own writing.
3. There appears to be a lack of knowledge of the computer's keyboard and spell checker. Students use a number of different keys on the keyboard to denote the apostrophe, and this in itself indicates that they are not very familiar with the keyboard. Furthermore, it can seem as if occasionally the students' overuse of the apostrophe is in part induced by the spellchecker. Because for some words the spellchecker would have added a squiggly line that would have disappeared with the addition of an apostrophe.

## 6 Conclusion

This thesis set out to explore how accurately lower secondary school students produced the apostrophe in formal written texts, establish what errors they make and what the implications of these errors might have for teaching. Samples of formal writing from students attending their second semester of lower secondary school were collected and concordanced with the freeware AntConc. A total of six searches was carried out which resulted in 2796 hits. Out of the total number of results there were 1688 hits on an apostrophe, and each hit was classified as either accurate or inaccurate production. Each inaccurate production was classified according to category of error.

It was found that students were not as accurate with the apostrophe together with the letter " $s$ " as they were with the word pair "your"/ "you're". This is not as accurate as they might have been expected to be. The "you"/ "you're" word pair is commonly accepted as frequently confused and it was expected that the students would be equally or more accurate when producing the apostrophe in other contexts.

When searching for which single letters the students used the apostrophe together with, it was found that the students could produce the contracted form accurately with all other
letters excepting the letter "s". The students could also produce the apostrophe accurately together with the letter " s " constructing both contracted forms and the genitive, but they also made mistakes thus, the apostrophe together with the letter " s " formed the basis for this study.

This study has only investigated the use of the apostrophe and therefor only inaccurate inclusion of the apostrophe was found, the lack of an apostrophe when required has not been investigated. However, it is possible to claim that the students overused the apostrophe by including it when it was not needed.

And, when the students produced the apostrophe inaccurately it was in such a manner as to indicate, that the students were repairing lack of grammatical knowledge of something else. It would seem that they were struggling with determining the meaning a word carried in the context where they wanted to use it.

This study suggests that students should not use contractions when writing, thereby reducing the opportunities for inaccurately including the apostrophe and direct students' attention toward why they would like to add the letter "s". Furthermore, students should practice with complexity, because they can think complex thoughts, they write complex sentences thus creating the need to practice how to understand the meaning of words in different contexts. Also, the students demonstrated with their eclectic choices of symbols to stand in for the apostrophe, that they are not familiar with the keyboard. This could mean that they might not be familiar with the computers' spellchecker either, and should receive explicit instruction on how to navigate the keyboard and the spellchecker.

Finally, it could be interesting to examine to what degree students' performance with the apostrophe might function as an indicator of competence. Because the students who produced the possessive determiner accurately also produced both the phrase "it is" and the contraction "it's" accurately, while the students who confused "it's" with "its" were more likely to repair either sentence structure or vocabulary. So, students who struggle with including the apostrophe when they should produce "it's" might also need more help with
vocabulary and sentence structure. A list of -if a student struggle with this, then she might also need help with that- could be a practical tool when teaching English.

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[^0]:    ${ }^{1}$ With "sounding out" is meant the practice of, saying a word in one's mind and listening to how it sounds in a sentence in order to decide how to spell it. Some words can be difficult to sound out and then it is necessary to know the grammatical rules in order to decide on correct spelling.

