

# Effects of direct and indirect corrective feedback on grammar in writing

An error-analysis on 65 Swedish EFL students' grammatical accuracy



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# Abstract

Students' language progress and their ability to acquire new knowledge is in direct connection to the feedback given to them by their educators. Written corrective feedback has been broadly studied during the last decades, yet, leaving the research results inconclusive. There has been a long-term debate about what type of feedback is most effective on EFL/ESL learners' grammatical accuracy, and the present study aims to investigate the effectiveness of direct and indirect corrective feedback on grammar in written production. The study is a pretest post-test error-analysis on 65 16 year-old Swedish EFL learners in upper secondary school. The results show that both the students receiving direct, and the students receiving indirect corrective feedback, made fewer grammatical errors on the post-test compared to the pre-test. The students that received direct corrective feedback made fewer grammatical errors on the post-test than the students that received indirect corrective feedback, but no statistical significance was found. Level of grammatical proficiency and its relation to the feedback given was also investigated, however, no significant differences were found between the groups. Finally, some pedagogical implications are made, teachers are advised to not be frightened of error correction, since its effectiveness is well established by this and previous research. Teachers are also encouraged to involve the students in the feedback process, by e.g. revision, and to learn more about their students' needs, in order to give them the feedback they need. Lastly, some suggestions for further research are presented.

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# 1. Introduction

In school, and in every day life, we assess ourselves, our peers, our educators and our students constantly, it is a silent ongoing process, both knowingly and unknowingly. Students are accustomed to being judged on all their actions, and teachers constantly give feedback to their students. According to Black and William (1998) everything in the classroom involves feedback from teacher to student, to some degree (p. 16). They go on to say that qualitative feedback actually is the heart of pedagogy. In the Swedish national curriculum, it is stated that teachers should regularly provide their students with the information they need to develop in their studies (Skolverket, 2013, p. 13), which means that it is our duty as teachers to know what that information entails. For our students to develop, teachers need to know what type of feedback is best suited for what type of errors. Giving our students praise and acknowledging the positive aspects of their work is important, but providing them with informative constructive and corrective feedback is crucial for the students to acquire more knowledge.

# 1.1 Background

Since the late 1990s there have been a plethora of research concerning grammar correction and the effectiveness of different types of feedback. This wave of research derived mainly from the heated debate between Truscott (1996) and Ferris (1997). It was initiated by the bold statement from Truscott, who said that grammar correction is harmful, ineffective and should be eliminated. He stated that providing students with grammar correction is an unnatural way of language learning and said that it was tradition that kept teachers giving students corrective feedback on grammar (Truscott, 1996). In Ferris' response she stated that there are different types of feedback, effective on different types of errors and students, she also opposed Truscott and stated that teachers should put even more effort into corrective feedback and grammar correction (Ferris, 1999).

This debate spawned a wave of research in the area, most agreed with Ferris in that corrective feedback is helpful for students (e.g. Bitchener, Young & Cameron, 2005; Kao, 2013), others found support for Truscott's statements about corrective feedback being ineffective (Polio, Fleck & Leder, 1998), however the results from the many studies were inconclusive, with no common outcome. In 2004, Ferris scanned the research field and concluded that though there were many studies in error correction, the studies were often not

replicable and more research allowing for comparison needed to be done.

There are also several researchers that have compared the effects of direct and indirect corrective feedback specifically, and the outcome is not conclusive in the more specific field either. Some researchers found indirect corrective feedback to be most effective (Ferris, 2006), others argue in favor for direct corrective feedback (e.g. Chandler, 2003; Bitchener & Knoch, 2010). The most recent research on direct and indirect corrective feedback on grammar will be more thoroughly presented in section 2.

# 1.2 Terminology

To fully understand the present study and its aims, it is important to understand the expressions and phrases used, thus some terminology will be explained. Initially, the term feedback can mean several things, e.g. feedback from peers or from teacher to student. In this study only feedback from teacher to student is investigated. Moreover, there is a division between summative and formative feedback, summative refers to information in sum about the student's performance, this type of feedback is often not intended to improve the student's learning but to mediate previous performance by providing e.g. a summative grade. Formative feedback is defined as information given from teacher to student with the intention to improve the students' learning (Shute, 2008), formative feedback should not be evaluative, but encouraging. Henceforth, formative feedback will be referred to as feedback (*only*). Feedback can be given on form or on content, or both simultaneously.

Feedback can be either corrective or non-corrective, i.e. a teacher can either correct a student's errors, or not correct them, but instead give praise or a positive comment. In this study, corrective feedback will be investigated. Corrective feedback is commonly divided into two ways of approaching errors. Firstly, there is focused and unfocused corrective feedback. Focused corrective feedback is when attention is given only to certain error areas, e.g. articles or nouns, other errors are ignored on that specific occasion; unfocused corrective feedback is when all different error categories are pointed out. Secondly, which is also the topic of the present study, there is direct and indirect corrective feedback. Direct corrective feedback is when the errors are highlighted and corrected, i.e. the teacher provides the student with the correct form of the error made; indirect corrective feedback is when the errors are highlighted, but not corrected. Sometimes the teacher provides the students with an indication what type of error that has been made by a coding system, known as coded indirect corrective feedback (Seiffedin & El-Sakka, 2017). *Nota bene* that these approaches can be combined,

that is, you can give feedback that is for example focused on a specific grammatical area and given to the students in an indirect manner. When giving feedback, regardless of the chosen approach, the errors can be highlighted by e.g. underlining, circling or in other ways marking them.

### 1.3 Aim and purpose

In this study, the aim is to investigate and compare the effects of direct and indirect corrective feedback on grammar in Swedish EFL students in upper secondary school. In my first degree project, which was a literature review about the effects of corrective feedback on grammar in writing in EFL, direct corrective feedback was concluded to be "the only long term effective tool in increasing a learners grammar proficiency" (Smedberg, 2014, p. 15), whereas indirect corrective feedback shows effectiveness in other areas than grammar. A gap found in the reviewed research was if metalinguistic awareness and language proficiency has any effect on the effectiveness of the different types of feedback. Another gap found is a geographical one, to my best knowledge, no research comparing direct and indirect corrective feedback, had been done in Scandinavia. It is therefore interesting to investigate if existing research is applicable to Scandinavian, in this case Swedish, English as a foreign language (EFL) learners. As feedback is used most every day in the classroom, knowing what type of feedback is most effective on grammatical proficiency is highly interesting for EFL teachers.

In the present study, the effects of direct and indirect corrective feedback on grammar in writing in Swedish EFL students, will be investigated. Based on findings from previous research, the hypothesis is that direct corrective feedback is at a slight advantage to indirect corrective feedback. The aim of this study is to examine what type of feedback is most beneficial for students' grammatical accuracy, and thus, what type of feedback teacher ought to give to their students, to help them in their language acquisition. The aim is also to investigate possible learner difference, and differences in types of errors made. More specifically my research questions for this study are:

- 1. What are the possible differences, if any, between direct and indirect corrective feedback on grammar proficiency in writing with Swedish EFL learners?
- 2. What relationships may be seen between a student's level of proficiency and the effectiveness of the different types of feedback?

# 2. Previous research

Concluding that previous research about written corrective feedback is inconclusive, van Beuningen, De Jong and Kuiken (2008) made a contribution to the error correction debate. They investigated if corrective feedback was helpful in students' accuracy in writing, and also aimed to find what type of feedback served to be most effective on written output: direct or indirect corrective feedback. The participants in their study were students from two Dutch secondary schools which were divided into groups, two groups received unfocused (comprehensive) direct or indirect corrective feedback respectively, one group received no feedback but was urged to self-correct, and the fourth group received no feedback, they were not urged to revise and were presented with new tasks. All groups except the no feedback group were asked to revise their work between the sessions. The study consisted of a pre-test, a treatment session and a post-test. They analyzed the progress between the pre-test and the treatment session for all groups except the no feedback group, showing accuracy gains for all three groups, however the results were insignificant for the self-correction group. Moreover, they found direct corrective feedback to be most effective in EFL learners' written proficiency and indirect corrective feedback second most effective from the pre-test to the treatment session. The students receiving direct corrective feedback also made fewer errors on the post-test than the students receiving indirect corrective feedback, however the difference was insignificant. Thus, all students that were urged to revise their texts produced fewer errors on their revised text, but only the groups provided with feedback showed a significant difference, i.e. any corrective feedback proved better than no corrective feedback. Moreover, the students receiving direct corrective feedback performed significantly better in short-term than the ones that received indirect corrective feedback, but in long-term the difference was insignificant (van Beuningen et al., 2008).

In order to investigate further, van Beuningen et al. (2012) performed a new study with the same procedure, setup and tasks as previously mentioned. They aimed to investigate written corrective feedback as an editing tool, i.e. its effect on revision, and if it yielded a learning effect. Among other things, they also continued to investigate the effects of direct and indirect unfocused (comprehensive) corrective feedback in relations to each other and in relation to no corrective feedback (van Beuningen et al., 2012, p. 10). It was found that both direct and indirect corrective feedback helped the students solve their non-grammatical as well as grammatical errors during revision, but the effects of direct corrective feedback were superior to those of indirect corrective feedback (van Beuningen et al., 2012, p. 29). For

short-term effects on the students' grammatical accuracy, only direct corrective feedback significantly helped to reduce the students' errors. For non-grammatical accuracy, both types were effective. As for the long-term effects, direct corrective feedback proved to be more effective on grammatical errors and indirect corrective feedback more helpful on non-grammatical errors.

Jokar and Soyoof (2013) performed a case study on two adult Iranian learners of English aiming to find what type of feedback was most effective, direct (the term "explicit" used by authors) or indirect (the term "implicit" used by authors) corrective feedback, on their writing accuracy. The study consisted of four sessions; a pre-test, two treatment sessions and a post-test. The feedback given was focused on two grammatical areas, articles and prepositions, all other errors were ignored until the end of the experiment. The results from their study indicated that direct corrective feedback was more helpful than indirect corrective feedback. However, the size of this study is very limited, and it is hard to generalize the findings due to this. During an interview about the experiment, the student receiving indirect corrective feedback expressed that most times he did not understand what type of error he had made. Jokar and Soyoof (2013) stated that an explanation of their results might be that the students in their study were at a pre-intermediate level of proficiency. They suggest direct corrective feedback to be more helpful at this level of proficiency, and believe indirect corrective feedback to be more helpful for advanced learners since they have more knowledge about different language elements (p. 802). Jokar and Soyoof (2013) state that many researchers that favor indirect corrective feedback do so because of the belief that because students are forced to problem-solve they process the feedback and become more proficient. They also say, in favor for direct corrective feedback, that direct error correction is less time consuming (Chandler, 2003) because the students better notice their errors (Jokar and Soyoof, 2013).

In 2015, Stefanou and Révész investigated whether focused direct written corrective feedback would improve Greek EFL learners' article use, and if so, they also aimed to find if providing metalinguistic information affected the learners' acquisition. Their participants were 89 16-year-old students in their first year of high school in Cyprus. They were divided into groups, all students took part of a pre-test, two treatment sessions, a post-test and a delayed post-test. Their results indicated that written corrective feedback can have a positive effect on learners' performance in article use. They also examined to what extent learners' development differed due to the presence or absence of metalinguistic information and found

no significant difference. Thus, providing the students with metalinguistic information had little or no additional benefits. Previous research in this field is inconclusive, i.e. showing that providing metalinguistic information is both effective and not effective in students' L2 acquisition (Bitchener, 2008; Bitchener & Knoch, 2008; Sheen, 2007).

Sajjadi and Rahimi (2016) performed a study on 31 students in an English class at Shahid Beheshti University in Iran, ages 18-21. They aimed to investigate the effects of unfocused direct and indirect corrective feedback on EFL learners' language output, and their attitude towards it. Their study consisted of two groups with similar proficiency level based on the scores from an exam, one of the groups received direct corrective feedback treatment during the term, and the other group received indirect corrective feedback. The two groups took a final exam at the end of the term and their results were compared. Sajjadi and Rahimi (2016) found no significant difference in score gains between the students receiving indirect corrective feedback and the students receiving direct corrective feedback. They state that the students that received direct corrective feedback could better note the gap in their own performance, but only marginally and the results were not statistically significant (Sajjad & Rahimi, 2016, p. 442). The students preferred direct error correction rather than indirect error correction, and most of the participants believed it to be more effective in their learning and in improving their output. They conclude that, since there is no significant difference between the two methods, students' preference and attitudes should be taken into account. Giving the students, the type of feedback they believe to be most helpful, could possibly enhance their motivation, which in turn could lead to higher proficiency.

Seiffedin and El-Sakka (2017) investigated the effect of a combined method of giving unfocused direct and indirect corrective feedback via e-mail. The participants were 48 EFL students at Suez University in Egypt, ages 19-21. The students were divided into two groups, where one of the groups was a control group and the other group received direct and indirect electronic feedback (the term "direct-indirect electronic feedback" used by authors), after the experiment a post-test was performed and the results were compared. The combination of direct and indirect corrective feedback consisted of three phases, first, the students received indirect corrective feedback, they revised the text and re-sent it to the teacher. On the same text, they now received coded indirect feedback, i.e. indirect feedback with an indication of what type of error they made. The students revised and re-sent the text one last time, this time receiving direct corrective feedback on possible errors, or a positive comment if there were no errors. Seiffedin and El-Sakka (2017, p. 168) said that there were benefits to bring from

both indirect and direct corrective feedback, they stated that direct corrective feedback may be more applicable to students with lower level of writing proficiency. This might be due to them not having the same ability to correct themselves as students of higher proficiency (see also Bitchener & Knoch, 2010; Ellis, 2009; Ferris & Roberts, 2001). They also state that with indirect corrective feedback, the students are more cognitively challenged and it may lead to improving their ability to solve problems. Seiffedin and El-Sakka (2017) concluded from their study that there was a significant difference in scores from the pre-test to the post-test in the experimental group, hence, the three-phase direct-indirect e-feedback was more helpful than no corrective feedback. However, since they compare the reception of two types of feedback to no feedback, the results are not surprising, since previous research is conclusive in that any feedback is better than no feedback (e.g. Ferris, 2012; van Beuningen et al., 2008; 2012). To conclude that the use of a combined method is more beneficial than the non-use of feedback could be considered a bit outdated. Nonetheless, using different types of feedback could be effective in language acquisition, since different types of feedback may be helpful in different error areas, thus, a variation of feedback may be desirable for the learners to improve in different areas (Shute, 2008). Seiffedin and El-Sakka (2017) also conclude that EFL/ESL teachers should use a combined method of direct-indirect corrective feedback to obtain benefits from the different methods. The importance of revision and its reoccurrence in the classroom is also stressed, making it habitual for the students to revise their texts, and thus making feedback a natural part of the learning process.

In conclusion, the reviewed research shows that both direct and indirect corrective feedback is effective in increasing students' grammatical accuracy (Sajjadi & Rahimi, 2016; Seiffedin & El-Sakka, 2017; Stefanou & Révész, 2015; van Beuningen et al., 2012), and that revision can be an important factor in the learning process (van Beuningen et al., 2008; 2012). Some of the reviewed research indicated that direct corrective feedback is more effective in students' language output than indirect corrective feedback (Jokar & Soyoof, 2013; van Beuningen et al., 2012). Many also suggest that direct corrective feedback is more helpful for students with a lower level of language proficiency than students with a higher level of language proficiency (Jokar & Soyoof, 2013; Seiffedin & El-Sakka, 2017). Thus, the research in this area is still mainly inconclusive.

When investigating what type of feedback is most effective on different error areas, incorporating revision in such a study can be difficult since revision itself can be helpful for students' accuracy (e.g. Seiffedin & El-Sakka, 2017; van Beuningen et al., 2008). For the

feedback to yield a positive effect on the students' accuracy, perhaps the students need to be involved in the feedback process. Many students might only take a brief look, or not look at all, at the feedback given – if not explicitly instructed to do so. In the every day-classroom however, revision may not be used as a tool. Stefanou and Révész (2015), agreeing with e.g. Bitchener & Knoch, 2009; R. Ellis, Y. Sheen, M. Murakami & H. Takashima, 2008; and Sheen, 2010, explain their choice to not include revision in their study by concluding that "[s]tudents are usually not asked to revise their work based on teacher feedback" (p. 268). Polio (2012) states that it is uninteresting to investigate whether revision is effective on the same piece of writing when a student has been given direct corrective feedback by saying that "it is obvious that a writer can look at direct corrective feedback and copy them onto a new piece of writing" (p. 377). Stefanou and Révész (2015) however, stress the importance of learners paying attention to the errors. They say that the key to successful written corrective feedback is drawing the learner's attention to the errors, via the feedback provided (p. 268).

# 3. Method

With the aim to find out what kind of feedback is most effective for enhancing Swedish EFL learners' grammatical accuracy, a study was carried out in a Swedish upper secondary school in Western Sweden. The research was conducted in September and October 2016 in two different groups of English 5, the first English course in upper secondary school (gymnasiet) in Sweden. The entirety of the research consists of all of the students writing two short essays; one pre-test and one post-test. One of the groups received direct corrective feedback and the other group received indirect corrective feedback. Between the two tests all of the students were given the same amount of hours in the classroom, with the same lesson plan. This study is quantitative in nature, the errors were counted and categorized and later analyzed from different perspectives. The method is thus a quantitative pre-test post-test error-analysis (Creswell, 2014). The method was chosen as it enables a comparison between the two group's performance. A more detailed description of the procedure is found in the next section.

Prior to instructing the students, the principal of the school was asked for permission to conduct this research, the principal was informed about previous research, my research aim, and what I expected to find during this research. The principal was also informed that the students' education would not suffer due to this research, regardless of possible findings all of the students will undergo grammar teaching and receive extensive individual feedback after this research.

#### 3.1 Participants

Both of the groups consist of 16-year-old, male and female students with both high- and low proficiency. The students come from different backgrounds, most of them have Swedish as their first language, but some have other first languages.

The students in the study were divided into two different classes, both oriented towards natural sciences, the two groups had been given the same lesson plan and the same amount of classroom work prior to this research. There was a total of 65 students in the two groups.

Whilst conducting this research I was teaching both of the classes as a part of my last teacher trainee period within the teacher education program. My role is thus both their teacher and a researcher, hence, the choice of participants is a sample of convenience.

#### 3.2 Procedure

Before any instructions were handed out, the students were informed that the following assignment was part of my research about feedback, as per the four ethical guidelines provided by Vetenskapsrådet (2002). The guidelines are; 1: the information requirement, all researchers are required to inform the participants about the purpose of the study; 2: the consent requirement, the participants of a study have the right to decide if they want to participate in the study or not; 3: the confidentiality requirement, information about the participants of a study should be kept from anyone unauthorized; 4: the use requirement, information about participants is only to be used for research purposes (Vetenskapsrådet, 2002) [my translation]. In order to avoid the students' writing being affected, they were not told about the exact hypothesis. The information was given to them in Swedish both orally and in writing so that everyone understood. To protect the students integrity and identity, they were guaranteed confidentiality (Vetenskapsrådet, 2002; 2011).

The instructions for the first essay were handed out and read aloud in the classroom by the students and myself. They were asked to write a short essay, ½-1 A4 page handwritten, not more not less, they had a choice between three topics. The topics were 1: summarize the latest movie or television show you watched, 2: summarize chapter 5 of your course book, "A Prawn in the Game", and 3: summarize the article about Samantha, "Just two miles from Tammy, another girl dies trying out drugs" (see full instructions in appendix 1). The topics were chosen carefully based on current events and texts recently used in class that should be well known to the students. Three different topics were used to interest all students, with three possible topics it is more likely that everyone finds a topic that suits them. To not affect the students grammar, the choice to not include any instructions about the writing was made, only giving the students possible topics, i.e. controlled writing.

They were allowed to use a dictionary, look up information needed and discuss briefly with a classmate, but they were strictly instructed that the text should be in their own words. They were also encouraged to write notes and/or draw a mind map before they started, as a writing technique. Using writing strategies and techniques such as making a mind map is something the students normally do when writing a text, I chose to keep the same structure in order to imitate a normal writing situation. As they were writing I made sure that everyone understood the instructions. The choice to have them write the essays by hand was made since I did not want computer software to interfere with the students' grammatical accuracy. The students had a time limit of 30 minutes to complete the essay. The second class of students went through the same procedure and received the same information, instructions and time limit.

Before correcting the essays, I decided what kind of feedback to give to what class, the decision was made randomly not to influence possible findings (Creswell, 2014). One of the classes received direct corrective feedback (hereafter Direct group) and the other indirect corrective feedback (hereafter Indirect group). To the students receiving direct corrective feedback I highlighted the grammatical errors by underlining them, and I wrote the correction in direct connection to the error made. Depending on the students' handwriting I wrote above, underneath or in the margins. The students did not receive a comment or other written feedback. To the students receiving indirect corrective feedback I highlighted the grammatical errors was made. The errors were highlighted by underlining them, and the students did not receive a comment or other written feedback. All of the students in this study received unfocused (comprehensive) feedback, i.e. the focus was not on any specific grammatical area, but all grammatical errors. I did not give the students feedback on content. See example of the texts and the feedback given to both the Direct group and the Indirect group in appendix 2. When given their corrected essays, and they were instructed to look at the feedback they received, but not instructed to revise the essay.

After the pre-test, both of the classes had the same amount of lessons before the posttest. The two classes had the same lesson plan and we worked on grammar, listening exercises and speaking exercises during this time. Some of the classroom activities had been roughly planned prior to my arrival and studying grammar was already decided. However, since both of the classes had the same amount of classroom hours between the pre-test and the post-test, the only dependent variable is the type of feedback they received, and the classroom work should not affect the outcome of this study. The pre-tests were performed on September 27th and September 30th respectively, the post-tests on October 24th and October 26th respectively. The time between the tests were 3 full weeks, the groups had two English lessons per week, a total of 150 minutes per week, which means that they had 7,5 hours total between the pre- and post-tests.

The post-test was performed in the same way as the pre-test, the students were given the instructions and we read them aloud in the classroom. They were allowed to use dictionaries, look up information and discuss briefly with a mate. They were encouraged to use techniques such as making a mind map and making notes before this session as well. There was a 30 minute time limit. Instructions given were the same as for the pre-test, <sup>1</sup>/<sub>2</sub>-1 A4 page handwritten, but the topics were different from the first session. The topics were, 1: "My life as a superhero", describe how your life would be if you were a superhero with superpowers, 2: describe your life in 2030, 3: summarize your favorite horror story/film (see full instructions in appendix 1). This procedure was performed in both classes.

Their essays were collected and the errors were counted and written down in the same manner as was done previously. The feedback the students received was the same as on the pre-test, i.e. one of the classes received indirect corrective feedback and the other received direct corrective feedback. They also received a short comment on content on the second essay, not touching on possible errors, but only on what they wrote (see appendix 2 for example). Since no delayed post-test was performed, the comment on content has no impact on the possible findings in this research. The next lesson the students received their corrected essays, they were urged to look at the feedback, but not urged to revise their essays.

## 3.3 Analysis and data processing

The students' errors in the pre- and post-test were categorized and all data was put into the statistical analytics software SPSS. In order to determine significance, paired t-tests were

performed. The errors were categorized in to the following seven categories based on the errors made by the students:

- prepositional errors e.g. \*If I were an superhero
- omitting (a) word/s e.g. \**She didn't me that question*
- verb form errors (including subject verb agreement errors and misuse of infinitive, gerund and base form of the verb) e.g. \**People is coming to my house*
- article errors e.g. \**I* was in a trouble
- tense errors e.g. \*I have been to Stockholm last summer
- word order errors e.g. \*Maybe would I walk
- apostrophe errors e.g. \**He did 'nt do it*

All the grammatical errors made in both the pre-test and post-test were sorted in these categories.

The number of students participating in this study were a total of 65 students, 32 students in the Direct group and 33 students in the Indirect group. To gain the most accurate results when analyzing the data, students that only participated in one of the the tests were excluded, leaving a total of 55 students, 26 valid participants in the Direct group, and 29 valid participants in the Indirect group.

Later in this study, results will be analyzed from the students' level of grammatical proficiency. I am well aware that a student's level of language proficiency is based on more than grammatical errors on a specific writing assignment. Factors such as complexity of sentences, length of text and structure are important components to ones language proficiency, nevertheless, for the purpose of this study, the students are grouped accordingly. The students that made two or more errors on the pre-test are referred to as "low proficiency students", only based on the amount of grammatical errors on this specific occasion, not including other possible linguistic competences.

#### 3.4 Ethical considerations

Many researchers in this area choose to not include a control group, i.e. a group of students that do not receive any corrective feedback, however some researchers argue that not using a control group may lead to partly inconclusive findings (e.g. Truscott, 1996; 1999; Kao and Wible, 2014). Researchers that do not include a control group, present study included, often

refer to this as an ethical dilemma (Bitchener & Ferris, 2012; Sanavi & Nemati, 2014). Studies show that any corrective feedback is better than no corrective feedback (e.g. van Beuningen et al., 2008; 2012) and one can argue that the knowledge of this, yet still withholding the students from feedback, would be unethical. Ferris (2004) concludes that:

[I]t is [...] extremely rare for researchers to compare 'correction' versus 'no correction' in L2 student writing. The reason for that is likely fairly obvious: Most teachers feel that they have an ethical dilemma. Unless they are already sure that error feedback does not help students and may in fact harm them, it feels unethical to withhold it from their students simply for research purposes (Ferris, 2004, p. 51).

In the present study, the choice to not include a control group was made with the belief that any error correction is more helpful than no error correction, and the aim is to compare direct corrective feedback to indirect corrective feedback, not to no feedback.

### 3.5 Methodological considerations

Being both the teacher and the researcher brings some methodological issues, especially when performing research about feedback (McKay, 2006.). One of these issues is how you tackle and answer questions from the pupils. Collecting data for the present study, some students asked questions about the feedback they received. As much as possible, these questions were answered in the same manner as the feedback they received (direct/indirect corrective feedback), it was explained and clarified, but no additional information was given. That is, the students in the Indirect group were not given the correct answer if they asked, but it was explained that the underlining/marking indicated that an error had been made. Also, the choice to not count the number of words in the students essays was made due to the limited writing instructions they were given, however, an even more exact interpretation of the error analysis would have been possible if all words were counted.

There are some limitations that need mention concerning time and scope. Given that this study was performed during my last teacher trainee period, the time frame was limited: as much time as possible was spent on this study, but it was not possible to focus only on research.

The choice to give the students three possible topics may affect the findings of this research, it is not possible to completely rule out that the choice of topic may affect the

students' writing accuracy. A student can be more or less secure in his or her language use, depending on the topic he or she chooses to write about. Notwithstanding, the choice to include three topics was made in order to interest as many students as possible, and to avoid some students not writing anything.

Moreover, the number of participants in the present study could be considered a methodological issue. It is possible that a larger group of participants would show different and/or clearer results, and thus be more generalizable, however there are studies with fewer participants with clear indications from the results (e.g. Jokar and Soyoof, 2013). Thus, the small number of participants will not necessarily affect the outcome of the study, and clear indications will hopefully be made. However, the number of participants in the study can make it difficult to make any firm conclusions. Similarly, the number of students that made two or more errors in the pre-test differs slightly between the two groups, which can make a comparison difficult.

The study was carried out in the best way possible based on the given time frame. Any research carried out in a classroom environment can be affected by many different factors, e.g. what time the classes are (before or after lunch can influence the students' performance), if the students have an important test the same day, or many other possible disturbances. The present study is conducted in an authentic environment, and although the aforementioned occurrences may affect the findings, it is reliable since it is conducted where feedback will be used. In the current context, it also has validity and credibility, in spite of its limited size.

# 4. Results

This study aims to investigate what possible differences there are between direct and indirect corrective feedback on grammar, and, initially, the results from the two groups' pre-test and post-test will be presented. This study also aims to investigate the possible relation between a student's level of proficiency and the effectiveness of the two feedback approaches, thus, the students that made two or more errors in the pre-test (hereafter low proficiency students) will be examined in more detail. The data consists of the amount of errors made in the pre-test and post-test respectively. In some cases, percentages are shown within parentheses, this is included in order to enable a more precise comparison between the groups, since the number of participants differs slightly. However, using percentages with groups of this size is somewhat problematic and can be possibly deceptive, thus, the percentages are only included as additional information. The types of errors made will also be presented.

	Direct g	roup	Indirect	group	Total	
	М	SD	М	SD	М	SD
Pre-test	2.19	2.35	2.48	2.23	2.35	2.27
Post-test	1.15	1.64	1.66	1.65	1.42	1.65

Table 1. Mean number of errors and std. deviation for Direct (N=26) and Indirect (N=29) group, pre- and post-test

Table 1 shows the mean number of errors for the Direct and Indirect group, respectively, in both the pre-test and the post-test. As it shows, the mean number of errors made in the pre-test is 2.19 errors in the Direct group and 2.48 errors in the Indirect group, hence, the two groups were at a similar level of proficiency initially. In the post-test the mean number of errors is 1.15 in the Direct group and 1.66 errors in the Indirect group. This means that the Direct group made 1.04 fewer errors in the post-test compared to the pre-test, the Indirect group made 0.82 fewer errors in the post-test compared to the pre-test. Both groups made fewer errors in the post-test compared to the pre-test. Both groups made fewer errors in the post-test compared to the pre-test. Both groups made fewer errors in the post-test group, possibly indicating that direct corrective feedback may be more effective than indirect group, possibly indicating that direct corrective feedback may be more effective than indirect corrective feedback. The groups' mean number of errors in the post-test differs by 0.22 errors. In order to find out if this difference is significant, a paired t-test was performed, showing that t(1) = 8.45, p = .08, thus, the difference is not significant.

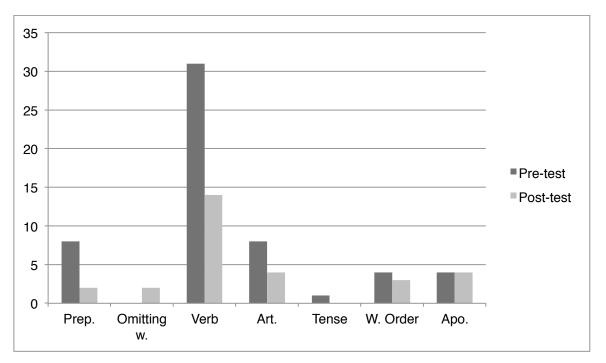


Chart 1. Direct group (N=26) types of errors pre-test and post-test

Chart 1 shows the types of errors made by the Direct group in the pre- and post-test. The errors in the chart are displayed in amount of errors. In the Direct group, 31 of the errors made were verb related errors, that number decreased to 14 errors in the post-test. For other errors made, the Direct group decreased the number of errors made in all categories but apostrophe errors, where the same amount of errors were made, and omitting a word, where more errors were made in the post-test than in the pre-test.

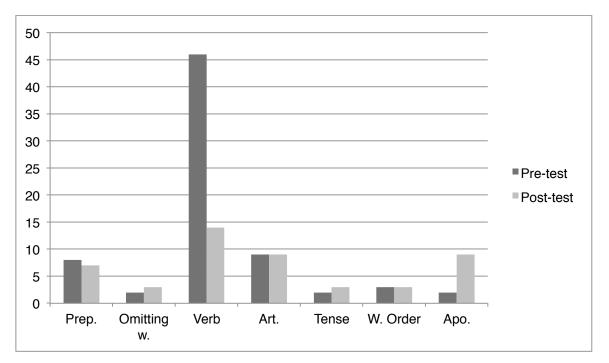


Chart 2. Indirect group (N=29) types of errors pre-test and post-test

Chart 2 shows the types of errors made by the Indirect group in the pre- and post-test. In the Indirect group, the most errors made were verb related, 46 errors in the pre-test, which decreased to 14 errors in the post-test. That is, for verb errors, the difference is larger in the Indirect group than in the Direct group from the pre-test to the post-test. For other errors, the Indirect group remained the same, or increased the number of errors, in every error category, and (apart from verb errors) only decreased the amount of prepositional errors.

Thus, the Indirect group made fewer verb related errors, and the Direct group made fewer errors in almost all other categories.

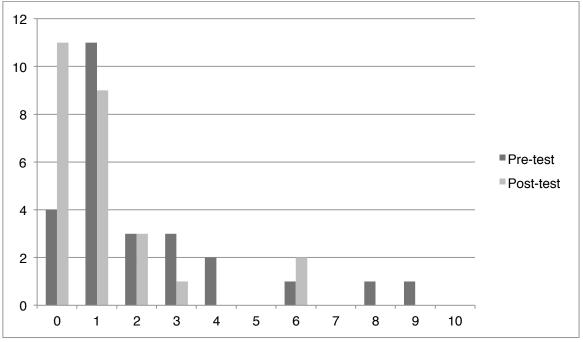


Chart 3. Direct group (N=26) spread of errors pre-test and post-test

Chart 3 shows the spread of errors in the Direct group on the pre-test and the post-test. Most of the students in the Direct group, 11 students (42 percent), made one error in the pre-test, and, four students (15 percent) did not make any errors, i.e. a total of 15 students (58 percent) made zero or one errors in the pre-test. The remaining students, 11 students (42 percent), made two or more errors. The most errors made in the pre-test was nine errors.

In the post-test, most students in the Direct group, 11 students (42 percent), did not make any errors in the post-test, and, nine students (35 percent) made one error, i.e. 20 students (77 percent) made zero or one errors in the post-test. That is an increase of five students (19 percentage points) from pre-test to post-test. The rest of the students, six students (23 percent), made two or more errors in the post-test. The most errors made in the Direct group in the post-test was six errors.

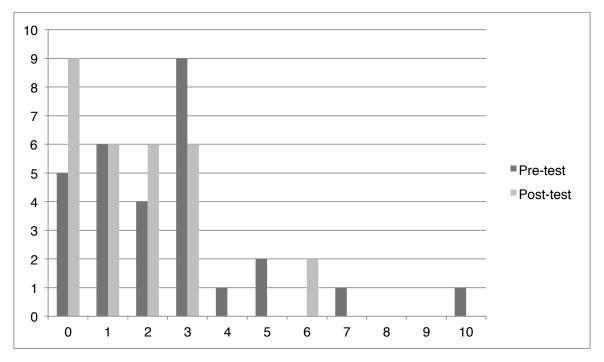


Chart 4. Indirect group (N=29) spread of errors pre-test and post-test

Chart 4 shows the spread of errors in the Indirect group on the pre-test and the post-test. In the Indirect group, most students, nine students (31 percent), made three errors, five students (17 percent) did not make any errors, and six students (21 percent) made one error. Accordingly, 11 students (38 percent) made zero or one errors in the pre-test. In this group, 18 students (62 percent) made two errors or more. The most errors made in the Indirect group in the pre-test was ten errors. Compared to the Direct group, the spread of errors is wider, notwithstanding, the aforementioned mean number of errors is quite similar between the groups, 2.19 errors in the Direct group and 2.48 errors in the Indirect group. Consequently, even though the mean number of errors is at a similar level, the spread of errors is slightly wider in the Indirect group in the pre-test.

The spread of errors in the post-test for the Indirect group is, unlike the Direct group, quite widely spread, such as in the pre-test. In the Indirect group, nine students (31 percent) did not make any errors in the post-test, six students (21 percent) made one error, that is, 15 students (52 percent) made one or zero errors. That is an increase of four students (14 percentage points) from pre-test to post-test. Remaining students, 14 students (48 percent), made two errors or more on the post-test. The most errors made in the Indirect group in the post-test was six errors.

In sum, based on the groups' mean number of errors, the two groups were initially at a similar level of proficiency. In the post-test, the Direct group made fewer errors than the Indirect group, but the difference was not significant. The spread of errors is interesting to compare, since the spread is different between the groups. More students in the Direct group made fewer errors compared to the Indirect group, nonetheless, there was as many as nine errors made in the Direct group, and ten in the Indirect group. Comparing the groups' spread of errors, 15 students (58 percent) of the students in the Direct group only made one or zero errors in the pre-test, in the post-test, that number increased to 20 students (77 percent). As for the Indirect group, 11 students (38 percent) made zero or one errors in the pre-test, and 15 students (52 percent) on the post-test. This difference is large in relation to the number of participants in each group, a paired t-test was performed showing that t(1) = 9, p = .07, which means that the difference is not significant.

The types of errors made is also an important factor to consider, both groups made mostly verb related errors in the pre-test, and made fewer verb related errors in the post-test. For other error areas, the Indirect group remained the same, or made more errors in the posttest than in the pre-test in most categories. The Direct group made fewer errors in almost all categories.

As mentioned earlier, a student's language proficiency is based on more than the amount of grammatical errors on a writing assignment. Nevertheless, for the purpose of this error-analysis study, and in order to determine if there is a any relation between amount of grammatical errors made and the effectiveness of the two types of feedback, the term proficiency level is used. The number of low proficiency students in the Direct group are 11, and 18 in the Indirect group. The number of students indicates that there is somewhat of a difference between the groups, nonetheless, the groups' means will be compared below.

	Direct gro	oup	Indirect	group	Total	
	М	SD	М	SD	М	SD
Pre-test	4.18	2.44	3.67	2.03	3.86	2.17
Post-test	2.00	2.15	2.33	1.71	2.21	1.86

Table 2. Mean number of errors and std. deviation for low proficiency Direct (N=11) and low proficiency Indirect (N=18) group, pre- and post-test

Table 2 shows the mean number of errors made by the low proficiency students in the Direct and Indirect group, in both the pre-test and the post-test. The total mean number of errors on the pre-test is 3.86 errors, it is 4.18 errors in the Direct group and 3.67 errors in the Indirect group. The mean is slightly higher in the Direct group, but the groups can be considered to be

at a similar level of proficiency. In the post-test, the mean number of errors in the Direct group is 2.00, and 2.33 in the Indirect group. Thus, the low proficiency students in the Direct group made 2.18 fewer errors in the post-test compared to the pre-test. The low proficiency students in the indirect group made 1.53 fewer errors in the post-test compared to the pre-test, the difference between the groups is 0.84 errors. Both groups made fewer errors in the post-test than in the pre-test, and accordingly, both direct and indirect corrective feedback is effective on low proficiency student's grammatical proficiency in writing. The difference between the pre- and post-test is slightly larger in the Direct group, and a paired t-test was performed to determine significance, showing that t(1) = .21, p = .87, the difference is thus not significant.

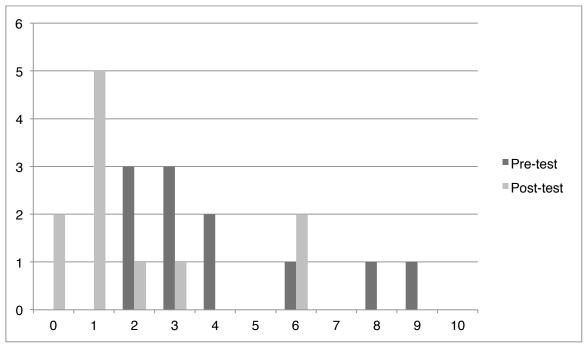


Chart 5. Low proficiency Direct group (N=11) spread of errors pre-test and post-test

Chart 5 shows the spread of errors in the low proficiency Direct group in the pre-test and the post-test. Most students (six students, 55 percent) made two or three errors. The errors made are quite widely spread from two to nine errors, two students (18 percent) made four errors, one student (9 percent) made six, eight and nine errors respectively.

Many of the low proficiency students in the Direct group, five students (46 percent), only made one error in the post-test, and two students (18 percent) did not make any errors, i.e. seven students (64 percent) made only one or zero errors. One student (9 percent) made two and three errors respectively, and two students (18 percent) made six errors. As previously mentioned, it is somewhat ambiguous to divide this few number of participants in

percentages, however, it is possible to see that the low proficiency Direct group made fewer errors in the post-test than in the pre-test.

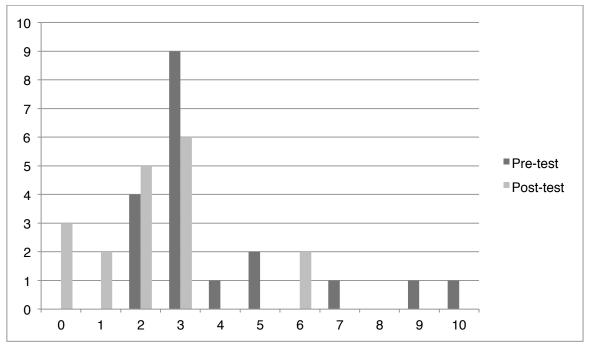


Chart 6. Low proficiency Indirect group (N=18) spread of errors pre-test and post-test

Chart 6 shows the spread of errors in the low proficiency Indirect group in the pre-test and post-test. Half of the students (9 students, 50 percent) made three errors and four students (22 percent) made two errors, the other errors made in this group are widely spread from four up to ten errors.

In the post-test, three students (17 percent) did not make any errors on the post-test, two students (11 percent) made one error, i.e. five students (28 percent) made only one or zero errors. Most of the low proficiency students in the Indirect group, 11 students (61 percent) made two or three errors. The most errors made in the post-test were six. The low proficiency Indirect group made fewer errors in the post-test than in the pre-test. That is, both the Direct and Indirect group made fewer errors in the post-test than in the pre-test, the difference from pre- to post-test was larger in the low proficiency Direct group than in the low proficiency Indirect group.

To summarize, the number of participants in the two groups differed, 11 students in the low proficiency Direct group and 18 students in the low proficiency Indirect group. This difference makes it somewhat problematic to compare the groups, but the results can nonetheless give us an indication. According to the groups' mean number of errors they are at a similar level of proficiency on the pre-test. The difference in number of errors from the pre-

test to the post-test is larger in the low proficiency Direct group than in the low proficiency Indirect group, but the difference is not significant. The number of students that only made zero or only one errors is seven students (64 percent) in the low proficiency Direct group and five students (28 percent) in the low proficiency Indirect group, a paired t-test revealed no significance, t(1) = 1, p = .5. The spread is quite wide in both groups, however it is more spread out in the low proficiency Indirect group.

# 5. Discussion

In this section, the results from the Direct and Indirect group will be discussed, followed by a discussion about the results from the low proficiency groups. Some pedagogical implications will be also made.

# 5.1 Direct and Indirect groups

Results show that both the Direct and Indirect group performed with less errors in the posttest than in the pre-test. Both groups decreased the amount of errors, the Indirect group made 0.82 fewer errors and the Direct group made 1.04 fewer errors, thus, both types of corrective feedback show effectiveness in students' grammatical accuracy. The Direct group outperformed the Indirect group, however, the difference was proved not significant. Nevertheless, although the difference is not significant (p = .08), there is a possible indication in favor for direct corrective feedback, which is also indicated in previous research (e.g. Jokar & Soyoof, 2013; van Beuningen et al., 2008; 2012).

Several of the studies reviewed above include revised texts as a part of their research (e.g. Seiffedin & El-Sakka, 2017; van Beuningen et al., 2008), however, the previously mentioned critique is applicable to those studies (e.g. Bitchener & Knoch, 2009; Ellis et al., 2008; Polio, 2012; Sheen, 2010). That is, it is not fair to compare the results from a revised text when one of the groups has been provided with the correct form of all their errors, and one group has not. The present study aims to investigate the possible effectiveness of the two types of feedback on grammar, on new text production, and revision is not included in the present study. It is important that the feedback is effective on new text production, since producing new material is what the students will be doing, and, what is measureable in reference to the students' language learning. It can be concluded that both types of feedback investigated in this study show effectiveness in students' grammatical accuracy, however,

since no control group was included in this study, it can not be said with absolute certainty that the students' improvement is due to the feedback. The differences between the groups, however, is, limited to the difference in feedback given.

The spread of errors displayed above also show differences between the Direct and Indirect groups. The spread of errors made in the pre-test range from zero up to nine in the Direct group and ten in the Indirect group, which is not a noteworthy difference. The spread of errors in the pre-test is quite similar between the groups, but it is how they differ in the post-test that is interesting. Looking at how many of the students that only made zero or one errors in the post-test is interesting to examine, since, zero errors can prove sufficient enough grammatical knowledge to not make any errors. However, some students may only use the language they know, avoiding structure and/or grammatical difficulties they are unsure of, whilst others may challenge themselves, and make errors in this process. Further, one error can be considered a mistake or a slip of the pen to a higher degree than making two or more errors. However, the same applies here, some students learn how to avoid errors, but do not challenge themselves. Furthermore, the students had a choice between three topics on each writing occasion, the students' choice of topic may be a factor in how many errors were made. Since they were able to choose, some students might choose the topic they are most familiar with, possibly affecting the number of grammatical errors in the essay. In the present study, structure, length or complexity of sentences was not observed, however, it would be interesting to examine these aspects and what possible relation they may have to the different feedback approaches.

Moreover, the type of error made is also an important aspect to consider, a student can make the same error repeatedly, whilst another student makes different types of errors each time. Seemingly, the student with the same repeated error does not acquire the knowledge needed in order to learn from his or her mistake. If a student makes different errors each time it is more likely to not be systematic, but a simple slip of the pen. Due to the limited time and number of participants in this study, this was not investigated, and more research needs to be done.

While the differences between the two groups' performance is not significant, there is a possible indication that direct corrective feedback may be more effective on grammatical proficiency than indirect corrective feedback. The types of errors made, however, can indicate that indirect corrective feedback is more effective on verb related errors. Nevertheless, the results showed that the students in the Indirect group remained the same, or made more errors in most other categories than verb errors. The Direct group improved in

almost all areas, including verb errors. This may show that indirect corrective feedback may be more effective on verb related errors, than direct corrective feedback. Nonetheless, the students receiving direct corrective feedback also made fewer verb related errors, and the difference may be by chance.

#### 5.2 Proficiency level

Results from the low proficiency students in both the Direct and Indirect group performed with less errors in the post-test than in the pre-test. The low proficiency Direct group outperformed the low proficiency Indirect group, but there was no significant difference between the groups. The results coincide with previous research (Jokar & Soyoof, 2013; Seiffedin & El-Sakka, 2017), while they are not significant, an indication can still be seen in the results. The difference between the low proficiency students and all students is not that prominent, as mentioned above, the low proficiency students decreased their errors more than all students, but that is not surprising since there was more room for improvement. However, if we look at the differences between the Direct and Indirect groups in comparison to the low proficiency groups, there are some differences. As mentioned above, the mean number of errors in the Direct group in the pre-test was 2.19, and 1.15 in the post-test, an improvement of 1.04 errors. The Indirect group made 2.48 errors in the pre-test, and 1.66 errors in the posttest, an improvement of 0.82 errors, the difference between the groups is thus 0.22 errors. As for the low proficiency students, the Direct group made 4.18 errors in the pre-test, and 2.00 errors in the post-test, an improvement of 2.18 errors. The low proficiency Indirect group made 3.67 errors in the pre-test, and 2.33 errors in the post-test, an improvement of 1.34 errors, the difference between those groups is 0.84 errors. What we already know is that the direct group outperformed the Indirect group, in both the low proficiency groups and the regular groups. The difference is larger between the Direct and Indirect group with the low proficiency students. However, since there is no significant difference, no conclusions can be made.

Differences in the spread of errors between the low proficiency Direct group and the low proficiency Indirect group unveiled that more students in the Direct group made zero or one errors in the post-test in comparison to the Indirect group. As mentioned above, the difference is not significant (p = 0.5). Not unlike previous research, the results can be considered inconclusive, nonetheless, both direct and indirect corrective feedback has proven

to be effective in students' grammatical proficiency (e.g. Sajjadi & Rahimi, 2016; Seiffedin & El-Sakka, 2017; Stefanou & Révész, 2015; van Beuningen et al., 2012).

There is also a difference between the the groups at large (including both Direct and Indirect) and the groups with lower proficiency (including both low proficiency Direct and low proficiency Indirect). The mean number of errors made by all students in the pre-test was 2.35, and 1.42 in the post-test, which is an improvement of 0.93 errors. The low proficiency students' overall mean was 3.86 in the pre-test and 2.21 in the post-test, an improvement of 1.65 errors. This difference is not surprising, since many of the students did not make any errors on the pre-test nor the post-test, nonetheless, it might be interesting to consider that feedback (both direct and indirect corrective feedback) might be more effective, the more errors made, i.e. the lower the proficiency level.

To sum up, all students that received direct corrective feedback made fewer errors on the post-test, than the students that received indirect corrective feedback, however, the Direct group nor the low proficiency Direct group significantly outperformed the Indirect or low proficiency Indirect group. The two groups made similar types of errors, and the two types of feedback may be effective on different error categories, indirect corrective feedback was more effective on verb related errors than direct corrective feedback, and direct corrective feedback was effective in almost all other categories. However, since no significance was found, no conclusions can be made. It may be possible that the results would show significance with a larger group of participants, or, with more treatment sessions, but in order to examine further, more research needs to be done.

## 5.3 Pedagogical implications

The results presented above, although not significance, may be valuable to teachers, and, with this study, the hope is that teachers will get a greater understanding of the importance of qualitative corrective feedback in the classroom. How to provide feedback to your students in the most effective way is important for all teachers, and the results presented in this study are especially valuable for language teachers. As previous research indicates, direct corrective feedback seems to be most effective in increasing students' grammatical accuracy (e.g. Sajjadi & Rahimi, 2016; Seiffedin & El-Sakka, 2017; Stefanou & Révész, 2015; van Beuningen et al., 2012), and the results from the present study also indicate that the different types of corrective feedback are effective on different types of errors. A combination of different approaches can target different student's needs, and the present study can help

teachers to know what what they are. Teachers should perhaps consider putting even more time on feedback in order to tailor the feedback to each student's needs, however, teachers' workload is plentiful as it is, but knowing what is most effective for the students' proficiency will in the long-term streamline the workload. Also, being aware of the students' level of proficiency, and knowing what kind of errors the students' usually make, is immensely valuable, since different errors may need different types of feedback. As mentioned above, one student can make the same type of error repeatedly, while another can make different errors in each occasion. The first student may have more problems than the second one, even though they may seem to be at a similar proficiency level, thus, knowing what your students know will help you to know what they need. Although the present study did not include revision, it is proven helpful for the students (van Beuningen et al., 2008; 2012), and it is stated in the Swedish national curriculum that the students should process their work (Skolverket, 2013), thus, including revision in the classroom and as a part of the feedback process may help the students even more.

As discussed above, different types of errors may require different feedback approaches. Error correction has been considered wrong for an extended amount of time, and teachers are often told to avoid a "red pen mentality". However, teachers should not feel bad when correcting student's errors, since correcting, both directly and indirectly, shows effectiveness. One can not say that there is one single best way to give your students feedback, teachers should nonetheless be aware of the current research when contemplating what feedback to give to his or her students. What the students need in the classroom is continuous teaching and suitable feedback, and we, as teachers, need to know what that is.

# 6. Conclusion

The aim of this study has been to examine what type of feedback teachers should give to their students in order to help them improve their grammatical accuracy the most. The aim was also to investigate possible learner difference, and differences in types of errors made. The hypothesis was that direct corrective feedback would be more effective on students' grammatical accuracy than indirect corrective feedback. Both direct and indirect corrective feedback showed effectiveness in reducing the students' grammatical errors, but it can not be concluded that this is due to only the feedback. The research has demonstrated that there is no significant difference in the effectiveness between direct corrective feedback and indirect corrective feedback. Thus, to answer the first research question, "What are the possible

differences, if any, between direct and indirect corrective feedback on grammar proficiency in writing with Swedish EFL learners?", there is no significant difference in effectiveness. Possible differences between the two approaches could possibly be that they are effective in different error categories, however, no conclusions can be made.

As for the second research question, "What relationships may be seen between a student's level of proficiency and the effectiveness of the different types of feedback?" there is no significant difference in effectiveness between direct and indirect corrective feedback with low proficiency students. The difference between the low proficiency Direct group and the low proficiency Indirect group are greater than between the regular groups, this may imply that direct corrective feedback could be more effective with low proficiency students. However, no significance was found, and thus, no conclusions can be made.

To understand more about the effectiveness of the different types of feedback more research needs to be done, and, based on the present study, some suggestions will be presented: Initially, in order to learn more about the level of proficiency and its relation to the effectiveness of the different feedback approaches, more research needs to be done. It would be interesting to include more aspects of a student's language proficiency, e.g. length of sentences, structure and language complexity, to find out if proficiency level has any significant relation to the different feedback approaches. Also, more research is needed in order to find more evidence of the effectiveness of the different feedback approaches and different errors areas. The present study can give an indication of what areas the types of feedback are most effective on, however, to make any firm conclusions, more research is needed.

From the present study, it is clear that feedback is of great importance in the classroom. Giving and receiving feedback is an ongoing daily process for teachers and students, and mastering the talent of giving good informative feedback is something all teachers should strive towards, it is indeed, the heart of pedagogy.

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# Appendix 1

Writing instructions pre-test:

#### Instructions writing exercise

#### Write <sup>1</sup>/<sub>2</sub> - 1 A4 page, choose one of the following topics:

- Summarize the latest movie or television show you watched, you can include for example:
  - What is the title?
  - o Where and when does it take place?
  - Who are the characters?
  - o Etc.
- Summarize chapter 5 of your course book, "A Prawn in the Game", you can include for example:
  - Who are the characters?
  - o Where does it take place?
  - o What did Elizabeth and Mark put in the curtain rail?
  - o Etc.
- Summarize the article about Samantha, "Just two miles from Tammy, another girl dies trying out drugs", you can include for example:
  - Who are Tammy and Samantha?
  - What happened to them?
  - o What does the writer want to mediate (förmedla) with the article?
  - o Etc.

Don't forget to write your name!

Writing instructions post-test:

#### Instructions writing exercise

### Write $\frac{1}{2}$ - 1 A4 page, choose one of the following topics:

- "My life as a superhero", describe how your life would be if you were a superhero with superpowers, you can include for example:
  - What powers do you have?
  - How did you get your powers?
  - Do you use your powers for good or for evil?
  - o What does your everyday life look like?
  - o Etc.
- Describe your life in 2030, you can include for example:
  - How old are you?
  - Where do you live?
  - Do you have a family?
  - What to you do for a living?
  - o Etc.
- Summarize your favorite horror story/film, you can include for example:
  - Where and when does the story take place?
  - o Who is the crook/bad person/monster?
  - Who are the main characters?
  - o Etc.

Don't forget to write your name!

# Appendix 2

Example student text Direct group:

	My life as a superhero	
	If I were a superhero, I would like	
	to be invisible. Then I would see people	
	who don't see me. It would be pretty	
	fun in my opinion. Just on daily basics suddenly my body into Marine would I walk into a haunted invision	1 char
		le shap
-	house and prentend being a ghost and	
	scare people, like moving around things	R
	with no natural explaning. That would be	2.2
	evil though I want to be a good super-	2 20 20
	hero too.	s c
	What can I do as invisible then?	1 PC
6	I can change one or another person's	the man
L	destiny by maybe call someone they	200
	don't dare to call or help people to	mus )
		R
	find stuff they're looking for, by publing it somewhere obvious. I don't really know,	200
	maybe I would give my power to someone gave it to me	-
	else like someone to me	

Example student text Indirect group:

"My life as a Hero" I would have the same power as the Flash, super speed. And the reason why is because its ome of the most powerful superpowers there is. For example I would be 5 2 able to punch with the mice, fore of a white dwarf stor traveling 49,9% of would be the speed of light, which is a lot of force. I would propebly be an antihero, neither good nor peed evil, doing whatever 1 want. But I would probely lean a bit move to the good side then the evil. I