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Eduardo Povedano

The feedback on student academic writing based on automated digital framework descriptors.

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Dissertação submetida ao Programa de Pós-graduação em Inglês da Universidade Federal de Santa Catarina para a obtenção do título de Mestre em Inglês: Estudos Linguísticos e Literários.
Orientador: Prof.ª Dr.ª Maria Ester W. Moritz.

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O presente trabalho em nível de mestrado foi avaliado e aprovado por banca examinadora composta pelos seguintes membros:

Prof. Sandro Braga, Dr.
Universidade Federal de Santa Catarina

Prof. ª Donesca Cristina Puntel Xhafaj, Dr.ª
Universidade Federal de Santa Catarina

Prof.ª Adriana Kuerten Dellagnelo, Dr.ª
Universidade Federal de Santa Catarina

Certificamos que esta é a **versão original e final** do trabalho de conclusão que foi julgado adequado para obtenção do título de mestre em Inglês: Estudos Linguísticos e Literários.

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Coordenação do Programa de Pós-Graduação

_____
Prof.(a) Maria Ester W. Moritz, Dr.(a)
Orientadora

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RESUMO

O feedback digital automatizado sobre a escrita acadêmica dos alunos é investigado em vários estudos. No entanto, poucas pesquisas têm focado neste tipo de feedback em relação à escrita acadêmica dos alunos não apenas em relação à forma, mas também ao conteúdo. O presente estudo consistiu na submissão de dezesseis ensaios autênticos de alunos de graduação à análise de três programas de feedback automatizados. Para este estudo, os três programas selecionados foram: Grammarly, Paper Rater e Microsoft Word. Desta forma, tais programas foram usados para analisar até que ponto esses programas cobrem recursos de feedback em relação à forma e ao conteúdo. Desses programas, apenas três características, todas relacionadas à forma, foram identificadas mutuamente, quais sejam: Ortografia Inglesa, Gramática Inglesa e Convenções de Pontuação. Em relação a tais traços de forma, houve uma discrepância no número de erros apresentados e na forma como foram apresentados, indicando uma falta de uniformidade em sua cobertura. Em relação ao conteúdo, também houve falta de uniformidade na abrangência das sugestões dadas e na forma como foram apresentadas.

Palavras-chave: Feedback Automatizado. Escrita Acadêmica. Forma e Conteúdo.

ABSTRACT

The automated digital feedback on student academic writing has been investigated in a number of studies. However, little research has focused on this type of feedback in relation to academic writing of students regarding not only form but also content. The current study consisted of the submission of sixteen authentic essays of undergrad students to the analysis of three automated digital programs. For this study, the three automated feedback programs were: Grammarly, Paper Rater, and Microsoft Word. In this sense, such programs were used to analyze to what extent such programs cover feedback features in relation to form and content as well. From those programs, only three traits, which were all related to form, were mutually spotted, which were: English Spelling, English Grammar and Punctuation Conventions. In relation to such form traits, there was a discrepancy on the numbers of errors displayed and the way they were presented, indicating a lack of uniformity in their coverage. In relation to content, there was also a lack of uniformity in the coverage of the suggestions given and the way they were presented.

Keywords: Automated feedback. Academic Writing. Form and Content.

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1 INTRODUCTION

The studies regarding teaching of writing can be based on different approaches (CHANDLER, 2003; FERRIS, 1995; FERRIS; HEDGCOCK, 1998; HYLAND, 2003ROBB; ROSS; SHORTREED, 1986). From those approaches, there have been studies focusing on the differences between the approaches of process writing and product writing. The latter is clarified by Gabrielatos (1993, apud HASAN; AKHAND, 2010, p.78) when the author stated that "Writing development is seen as the main result of imitation of model text. This traditional approach encourages the students to mimic a model text which is usually presented and analysed at an early stage". In this matter, Ghufon (2016) highlighted that the product writing approach is not so beneficial to students once the product content provides patterns of words and phrases that prevent students from being innovative in their writing. On the other hand, Tribble (1996, p.160) explains what it is meant by process writing when the author declared that it is "an approach to the teaching of writing which stresses the creativity of the individual writer, and which pays attention to the development of good writing practices rather than the imitation of models." Sun and Feng (2009) summarized the importance of the process when they mentioned that in order to have a good product, it is first necessary to have a good process

The studies related to process writing research have also investigated the types of feedback that teachers may use to respond to students' writing. (FERRIS, 1999; ASHWELL, 2000; BITCHENER; YOUNG; CAMERON, 2005). According to Hyland (2003, apud TEE, 2014, p. 390) "Feedback could be defined as writing comments on students' texts to provide a reader response to students' efforts, helping them improve and learn as writers". Among different possibilities of feedback delivery, the written feedback plays an important role in the writing process. (COHEN; CAVALCANTI, 1990; FATHMAN; WHALLEY, 1990; FERRIS, 1995; FERRIS, 2002) The importance of written feedback is explained by Hyland and Hyland (2001) when they declared that such type of feedback provides individualized attention that is not always possible to be given during regular classes. Similarly, Ferris et al (1997, p.155) pinpointed the two main reasons why written feedback is crucial when they stated that such type of feedback "allows for a level of individualized attention and one-on-one communication that is rarely possible in the day-to-day operations of a class, and it plays an important role in motivating and encouraging students." Based on such importance, many different studies have been carried out to investigate written feedback.

From studies in this field, some are investigating the distinction between direct and indirect feedback strategies. (FERRIS, 1995; FERRIS; HEDGCOCK, 1998). Explaining

the difference between both strategies, Bitchener, Young, Cameron (2005) explained that direct or explicit feedback diverges from indirect strategies in the sense that while the earlier provides students with the identification of the problem and the answers, the latter does not offer any type of correction, limiting itself to identify the mistake. The authors also explained that it is a role of the student to correct the error.

In addition, there have also been studies that are concerned with the importance of providing feedback connected with the content and form of student's writing. (ARNOLD; DUCATE; KOST, 2009; CARDELLE; CORNO, 1981; DE JONG; KUIKEN, 2012; FERRIS, 2004; HENDRICKSON, 1978; KEPNER, 1991; SEMKE, 1984; SOMMERS, 1982; VYATKINA, 2011; ZAMEL, 1985). When it comes to form, Ferris (1999) considers error correction as an important feature of the process writing approach. In this sense, she introduced the concepts of "treatable" and "untreatable" errors. According to the author, as mentioned by Bitchener, Young, Cameron (2005), "treatable" errors happen in relation to rule-governed knowledge so that students can resort to a grammar book or any set of rules to solve the error and they are related to subject-verb agreement , verb tense and form, article, plural and possessive noun endings as well as sentence fragments. On the other hand, "untreatable" errors are idiosyncratic to which there is a necessity of acquired knowledge that does not normally fit in a grammar book or when there are many exceptions to a specific set of rules and such knowledge is necessary to correct the errors and they are related to word choice, missing and/or unnecessary words as well. When it comes to content, Ashwell (2000) states that its focus lies on multiple-sentence level issues in relation to organization, paragraphing, cohesion, and relevance. Fathman and Whalley (1990) carried out a study to discover whether the content feedback should be given simultaneously with the form feedback or whether they should be given separately. According to their conclusion, both approaches are similarly effective, not making any difference which approach was taken.

Hyland and Hyland (2006), reality, reasoned that the delivery and mediation of feedback have become more accessible due to the development of the technology and computer facilities, making it more visible in practice and research as well. In this matter, Goldsmith (2014, p.1) stated that: "The technology available in both learner assessment and delivery of feedback has expanded greatly in recent years and continues to grow." In a similar way and highlighting the improvements brought by technology to language assessment field, Chapelle and Douglas (2006, p.9) asseverated that "Perhaps the most striking change that computer and information technology has brought to language assessment, however, is the potential for

delivering a wide variety of test tasks online anywhere in the world, and providing immediate feedback, 24 hours a day, seven days a week."

AbuSeileek, and Abualsha'r (2014, p.76) dealt with the current importance of mediated corrective feedback when they set forth that "Although corrective feedback has been used for a long time in traditional classrooms, computer-mediated corrective feedback has been introduced only recently." Hyland and Hyland (2006) listed some advantages brought by automated feedback and they stated that such programmes can provide assistance for teachers who have a great number of students and with the assistance of this type of feedback they can focus on other traits of their teaching. Also, students are able to be provided with more extensive feedback in a shorter amount of time. Liu and Sandler (2003) investigated whether it would be more effective to use automated programs (Microsoft word and MOO - Multi-user domains Object-oriented) instead of traditional instruction in writing and they came to the conclusion that the overall number of revisions made by those who resorted to technology was higher than those from the traditional group. Similarly, Yeha and Lob (2009) found a better performance of writing errors recognition among the students who used an online corrective feedback named Online Annotator for EFL writing when compared to those students who did not use any online corrective feedback.

In this classroom context, some studies have laid their focus on academic writing. The reason for this choice is better explained by Callies et al (2013, p.3) when the author, dealing mostly with academic writing usage, points out that: "academic writing is among the most difficult registers for language users to master due to the high cognitive demand placed on participants as well as the fact that its exposure and use are generally limited to higher levels of education". From that, due to the difficulty of the aforementioned writing register, students may benefit from feedback to overcome the hurdles of the academic writing learning process.

For those reasons, it is clear the importance of providing feedback for academic writing in higher education. In order to facilitate the delivery of feedback, many professionals from the education sector are resorting to the use of technology to interact with and provide feedback to students. (ATTALI, 2004; BURSTEIN; CHODOROW; LEACOCK, 2004; ELLIOT, 2001; ELLIOT; MIKULAS, 2004; HAN, CHODOROW; LEACOCK, 2006; HIGGINS; BURSTEIN; ATTALI, 2006). As a result, many apps and some software have been produced with the objective of enhancing the experience of students in their writing process. (YEHA; LOB, 2009). In the world, being aware of such gap, many different organizations, institutions, and universities are working on this matter. By using automated digital feedback, some of that

software provide fast and individualized feedback covering different features of writing. (ABUSEILEEK, 2012; SOTILLO, 2000; WARE; WARSCHAUER, 2006). In this aspect, programs such as: Grammarly, Paper Rater and Microsoft Word claim to provide instant feedback, analyzing many traits such as: academic vocabulary, voice, style, transitions, and phrasing. Also, those programs may help students to recognize and improve their own shortcomings as well. This way, a study concerning feedback given through the use of digital tools demonstrates its relevance.

In relation to the programs aforementioned: Microsoft Word, Grammarly and Paper Rater, the current study aims at analyzing whether the use of apps that provide automated feedback are able to deliver some feedback which should be based on form and content. In relation to form, Ferris (1999) will be used, separating the form criteria as "treatable" and "untreatable". When it comes to content, it will be based on Ashwell (2000) with a focus on organization, paragraphing, cohesion, and relevance.

1.1 SIGNIFICANCE OF THE RESEARCH

Due to the technology and computer facilities, the delivery and mediation of feedback have become more accessible to be used and researched (HYLAND; HYLAND, 2006). Each day, digital automated feedback tools are being incorporated in the academic life of students and universities. As an example, the Walden University's Writing Center is providing, free of charge, premium Grammarly accounts to all their university students. Consequently, it is vital to research about such tools as they can cause an impact in the academic life of students and institutions. Bearing this is mind, three automated digital feedback software will be used to provide feedback to academic writing of students. It is essential to mention that the main concern is not to compare the programs in order to establish what the best program is but to analyze to what extent they cover form and content feedback, fostering the discussion and motivating further studies of automated feedback as an assistance provider to academic students.

1.2 OBJECTIVES

The objective of this project is to analyze what kind of feedback three automated digital software are able to provide in order to help students analyze their essays. With that, it aims to investigate if such specific digital software are able to provide both: form and content

feedback to equip students with some tools that might be beneficial to their academic writing production.

Bearing those aspects in mind, three research questions will guide this study:

1- What kind of feedback is presented in each program in relation to form?
2- What kind of feedback is presented in each program in relation to content?
3- When two or more programs covered the same trait, were the suggested solutions similar?

1.3 ORGANIZATION OF THE PROJECT

This research is organized into five sections. The first one covers the introduction, significance of the research and objectives as well. The review of the literature represents the second section, and it is divided into four subsections: academic writing, written feedback, the use of language for learning purposes and digital automated feedback tools. The third section is related to the method, which will describe, in detail, the procedures for data collection. The fourth section will analyze the results and discussion. Finally, the last section will bring the final remarks.

Having established the introduction, objectives, and significance of research, the second section covers the review of literature taking into consideration the four subsections: academic writing, written corrective feedback, technology and feedback and digital automated feedback tools.

2 REVIEW OF LITERATURE

To understand better the scope of the study, it is noteworthy to mention the four main topics which will be interconnected and are essential to carry out this research. To start with, the first topic will be "academic writing", showing different perspectives about it. Secondly, the topic will be "Written Feedback" and the approaches that are currently being researched. Thirdly, the topic to be analyzed is the use of technology and digital feedback for language learning purposes, where it will be demonstrated how formative feedback can be delivered digitally. Finally, the research is about the topic "digital automated feedback tools and their benefits when it comes to help students improve their learning skills will be analyzed.

2.1 ACADEMIC WRITING

Although there has been some progress in the educational internationalization in the tertiary level, there is still the necessity to foster academic writing in order for the tertiary level to participate in global research (JIBEEN; KHAN, 2015; ROBLES; BHANDARI, 2017). For this reason, based on this necessity to improve the academic writing skills of students as well as produce international relevant content, Bazerman   and Moritz (2016, p. 9) have declared that, among other things, "new institutions such as writing centers had to be created, or new courses added into degree requirements, or courses in other subjects needed to add more explicit and intentional writing components, perhaps in collaboration with writing experts". As it can be seen, academic writing is still in its infancy when it comes to structuralizing and course development, having a vast area in need of expansion.

Apart from being an area to be expanded, it deals with a challenging skill to master, once academic writing is unknown to most students before starting their university courses and requires specific abilities and procedures (ARANHA, 2009). Being aware of such traits, Callies et al (2013) explain how difficult academic writing may be as it demands high cognition from higher education learners who may not have had enough exposure to it before starting higher levels of education. They also mention that even native speakers may find it challenging to achieve mastery in academic writing and that academic writing represents the most advanced levels of writing proficiency, which is essential to communicate effectively using this register in the tertiary level of education.

Indeed, as clearly stated, academic writing is a challenge for native and non-native speakers. As most students do not have much contact with academic writing until they reach

the tertiary education, this subject poses a challenge for the students who seek to establish an academic career.

2.2 WRITTEN CORRECTIVE FEEDBACK

In the literature, much research has been carried out aiming at finding different ways through which feedback should be delivered. From those ways, this current study is focusing on written corrective feedback (FERRIS; LIU; SENA, 2013). As Irwin (2017, p.37) explained "written corrective feedback is broadly defined as direct or indirect error correction, words of encouragement or praise, comments, advice, and suggestions that instruct students to make changes to their written compositions." The written feedback was also chosen because many surveys regarding this matter show that students prefer this kind of feedback over other forms, such as the one which is only delivered orally by a teacher or peers (Hyland & Hyland, 2006).

According to Bitchener and Knoch (2008, p.411), most studies related to written corrective feedback are within two categories: direct (explicit) or indirect (implicit) feedback. In this sense, such authors define direct corrective feedback as "the provision of the correct linguistic form or structure by the teacher to the student above the linguistic error". When it comes to indirect corrective feedback, Bitchener and Knoch (2008, p.414) define it as "the one which indicates that in some way an error has been made without explicit attention drawn." Ferris (2003).

In relation to the directive corrective feedback based on the form, Chandler (2003) carried out a study to investigate whether the feedback of teachers in relation to errors in lexis and grammar would bring any kind of writing improvement. As a conclusion, the author found relevant improvements in fluency and accuracy in the written production of the students involved in the research. The same way, Hyland (2003), in one of her studies, concluded that the form-based feedback provided was effectively used by the students when they were making a revision of their drafts.

Following the same train of thought, in the article called "The case for Grammar Correction in L2 Writing Classes: A response to Truscott (1996), Ferris (1999) carried out an analysis of errors of diagnostic essays written by her university students of English as a second language. In her analysis, she concluded that nearly 50% of the errors were "treatable" and followed in a patterned way, involving elements such as: run-ons and comma splices, subject-verb agreement, verb forms and articles; on the other hand, the other nearly 5 % were called by her "untreatable" and heavily relied on lexical and sentence structure problems, such as: word

order, missing or unnecessary words. They are called "untreatable" because there is not any kind of handbook or set of rules that students can try to resort to avoid or fix such kinds of errors. In order to exemplify those differences, the author mentioned that most writing textbooks do not differentiate the marking for "vt (verb tense)", which can be learned by consulting the rules, from the marking for "wc (word choice)", which does not have a set of rules to be followed. It is noteworthy to mention that this framework provided by Ferris (1999) will be used to analyze the form feedback provided on the essays for this research.

Apart from the aforementioned written corrective feedback, which is form-focused, Park (2006) also mentioned the content-focused one, which deals with the quality and organization of the content as well as the one which combines both and is known as integrative feedback. Similarly, Fathman and Whalley (1990) set forth that while the feedback based on form is related to the mechanical correction of grammar, the content one is focused on the organization and ideas of the text. In this study, these authors advocated in favor of the use of integrative feedback and they also concluded that it is similarly effective to give form and content feedback separately or at the same time. Still regarding the content traits of feedback, Ashwell (2000) mentions four aspects of the text that should be taken into account: relevance, cohesion, organization and paragraphing. Based on it, the current study will use this framework to analyze the content feedback provided on the essays for this research.

Hand in hand with Fathman and Whalley (1990), Ferris (1997) also agreed that when the content-focused feedback is given simultaneously with the form-focused one, there are more solid results when compared with other patterns of feedback delivery.

2.3 TECHNOLOGY AND FEEDBACK

The use of technology is impacting students and the learning process once many mobile apps and other software have been created with the objective of giving digital feedback to students. In this sense, it is important to investigate how technology has been used for language learning purposes and how such digital tools have provided feedback to students. In this specific field, Goldsmith (2014, p.1) demonstrates how feedback plays an important role in online environments and how feedback can be delivered electronically when she explains:

> Feedback is very important in online environments, in field experiences, and in the classroom. There are several types of feedback; they can be classified by the type of interaction through which they are administered. Feedback can occur from the teacher to the student, from the student to the student, or from the media (material) to the student. Feedback can also occur from the media

(material) to the teacher. The purpose of all this feedback is to adjust learning. Feedback delivered electronically includes synchronous feedback, such as prompts in electronically delivered quizzes. It also includes asynchronous feedback, such as comments on assignments and tests, discussion responses, and the notes given on drafts of papers submitted.

As it can be seen, apart from the traditional ways feedback is delivered (teacher – student/ student – student), with the use of technology, it is also possible to have new ways of feedback, such as media – student and media – teacher. This kind of electronic feedback can be asynchronous, mainly given through comments, discussions and notes, as well as synchronous, which is normally delivered by quizzes, tests and tasks that also provide immediate feedback.

Demouy et al (2011) carried out a study of an interactive response system for the assessment of listening and speaking skills called "Talkback", which is accessible via phone, Skype or an iPhone app where recorded prompts are provided for students to answer orally. The recording of the students can be accessed through a website so that teachers and students have access on marking and giving online feedback. In this sense, students asnwered on a weekly basis a questionnaire describing their experience. As a result, students rated their experience as very positive and appreciated the friendly user format, a degree of realism and immediate feedback.

Similar to the previous study, Xu (2010) carried out a study which aimed at examining the effects of digital feedback on student engagement and achievement. The focus of the research was to observe how the student engagement would be associated with digital instructor feedback. Her main finding from the surveys on feedback kinds that she used was that most students prefer digital feedback using Tablet PC and face – to face conversation when compared with other types of feedback. Also, when students were asked to choose one of these aforementioned types of feedback, most of them showed their preference for Tablet PC feedback due to its flexibility and timeliness. In addition, student engagement level had a significant increase of 80% when their postings were related to the feedback given on their assignments. As a results, both studies showed the approval of students due to the immediate feedback and flexibility.

Exploring a different trait of technology, Hsu, Wang, and Comac (2008) investigated, in a pilot study, how the use of audio blogs can help to meet the instructor's need to improve instruction in English as a second language. In order to accomplish this, the instructor would

manage assignments, interact with students and evaluate their performance through audio blogs. Simultaneously, students should record oral assignments on their mobile phones, keeping an individual audio blog to which the instructor could have access. According to the authors, the results show that the use of audio blogs is effective in evaluating student's oral performance and allows individualized oral feedback. Also, students appreciated the facility of using them and they reported to believe that audio blogs improved their learning experience.

The studies above mention how apps and other technological devices can be used to improve the interaction between teacher and students through digital feedback. The next section will specify how some of these tools can be used to provide feedback digitally and automatedly. Having the other aforementioned tools had a positive impact on feedback delivery, it is believed that such digital automated feedback tools will also bring some benefits.

2.4 DIGITAL AUTOMATED FEEDBACK TOOLS

When it comes to digital automated feedback, such issue has been academically investigated for many years focusing on two different strands: the teacher role in the use of this type of feedback tools and the tools functionalities as well. In relation to the first strand, the importance of the teacher regarding the use of technology was better explained by Grimes and Warschauer (2020, p.34) when they stated about the the use of automated writing evaluation (AWE):

> We found that mindful use of AWE can help motivate students to write and revise, increase writing practice, and allow teachers to focus on higher level concerns instead of writing mechanics. However, those benefits require sensible teachers who integrate AWE into a broader writing program emphasizing authentic communication, and who can help students recognize and compensate for the limitations of software that appears more intelligent at first than on deeper inspection. Thus, like many educational technologies, it is unlikely to improve ineffective teaching, but it can help good teachers be more effective.

With regard to the functionalities of such tools, which is the scope of this study, Hyland and Hyland (2006), in the beginning of this century, recognized the importance of those technological tools due to the computer facilities in delivering and mediating feedback. In a first moment, as explained by Link, Mehrzad and Rahimi (2020) the main argument was that, among many different technological facilities, the use of automated writing evaluation (AWE) would focus its corrections on grammar (also labelled as lower-level writing skills), leaving more space and time for teachers to work on content and organization, which are labelled as

higher-level writing skills. According to some authors, those automated writing evaluation based on grammar have been divided into three generations as it will be further explained.

According to Dale (2016, p.492), which carried out a study focused solely on grammar aspects, grammar checking software is divided into three generations. The first generation "was based on simple pattern matching and string replacement, using tables of suspect strings and their corresponding corrections". The second generation was based on "large rule-based descriptions of permissible syntax, in combination with a variety of techniques for detecting ungrammatical elements and posing potential corrections for those errors". Finally, the third generation is "presented to by solutions that make use of statistical language models in one way or another".

After the development of the grammar checking software, as stated by Godwin-Jones (2018, p.1), automated writing evaluation tools started to incorporate natural language processing and corpus linguistics that were able to analyze large data sets that were uploaded in their programs and expanded the scope of correction for both form and content matters, increasing their automated options into writing processes.

Based on the use of such new automated writing evaluation, the current study decided to analyze three of those programs, which are: Grammarly, Paper Rater and Microsoft Word, which claim to provide instant feedback that goes beyond grammar corrector programs, analyzing many traits such as: academic vocabulary, voice, style, transitions, and phrasing. According to the site of Grammarly, there are over one thousand Educational Institutions, such as University of Phoenix, Arizona State University, California State University – Fullerton and many others that trust in this software to provide support to their students. Similarly, the site of Paper Rater states that "Paper Rater.com is used by schools and universities in over 100 countries to help students improve their writing and check for plagiarism." Also, the Microsoft Word is installed in the vast majority of the students' computers, and it is part of the routine use of such students. This way, those programs may also be used to help students to recognize and improve their own writing handicaps as well.

The choice of the software tools was based on information given by the official websites of the three programs where you can find the programs themselves and that informed

that the software tools are suitable to provide feedback on academic writing and they were chosen because they provide access to free service.

2.4.1 Grammarly

According to Grammarly website, such tool is a digital writing tool that uses natural language processing and artificial intelligence through machine learning and deep learning algorithms to be used for grammar checking, spell checking, plagiarism detection service and suggestions regarding writing clarity, concision, vocabulary, delivery style and tone.

The website Grammarly also states how the feedback is given:

> Red underlines correspond to suggestions about spelling, punctuation, and grammar. Blue underlines signify potential clarity and conciseness improvements. Green underlines mark suggestions to make your writing more engaging. And purple underlines indicate suggestions that help you strike the right balance of politeness, formality, and friendliness.

O'Neill and Russell (2019) analyzed the perception of students who used Grammarly along with the advice provided by an academic advisor and they concluded that those students who had received feedback from Grammarly responded more positively to 9 from a total of 15 survey items and were also more satisfied with the grammar advice that was given to them when compared to those who did not receive feedback from the software Grammarly.

Ghufron and Rosyida (2018) carried out a study to investigate whether the use of Grammarly software would be more effective in reducing the errors of students in EFL writing when compared to teacher corrective feedback. For that, with a quantitative approach with a quasi-experimental design, 40 university students from English Education Study Program were tested at the beginning and at the end of the study and divided into two groups: experimental and control groups. The results showed that the students who were evaluated after using Grammarly had a significant error reduction when compared to those who were evaluated by the teacher. As a consequence, the authors stated that the software was more effective to reduce the errors related to vocabulary usages (diction), language use (grammar) and mechanics of writing (spelling and punctuation). Nevertheless, the software was shown to be less effective when it comes to improving the organization and content of students' writing.

Fadhilah, Lizawati and Saribu (2019) conducted a study to determine the effectiveness of Grammarly for abstracts in English. The analysis of the correction found that Grammarly showed the following errors in the abstracts: 10.5 % was related to punctuation, 35.5% to

spelling, 13.4 % to choice of words and 33 % to sentence structure. This way, they concluded that Grammarly can be used as an effective tool to improve students' writing of abstracts in English.

Karyuatry et al (2018) carried out a study to investigate if the use of Grammarly could improve the quality of students' writing. For that, 40 students were selected, and the three instruments used to collect data were: questionnaires, interview, and students' essays. The research concluded that Grammarly could be used as a tool to minimize errors and improve students' writing quality.

Nova (2018) analyzed the use of Grammarly in EFL context and concluded that this software is accessible to students and can be used to provide feedback. On the other hand, Grammarly seemed to be unable to check the content of writing.

2.4.2 Paper Rater

The website ‑Paper Rater explains the scope and how their tool works:

> Paper Rater.com is a free resource that utilizes Artificial Intelligence to help students write better. Our *Paper Checker* technology combines Natural Language Processing, Machine Learning, Information Retrieval, Computational Linguistics, and Data Mining to produce the most powerful automated proofreading tool available on the Internet today. Paper Rater.com is used by schools and universities in over 100 countries to help students improve their writing and check for plagiarism. As part of the development process, we put together a team of computational linguists and subject matter experts to develop a core Natural Language Processing (NLP) engine using statistical and rules-based NLP to extract language features from essays and robustly translate that into statistical models. The end product is a state-of-the-art system combining Automated Grammatical Error Detection, Automated Essay Scoring, Automated Proofreading, and plagiarism detection.

Apart from the grammar and spelling errors, the framework of this tool also provides feedback on vocabulary usage, sentence length and variability, phrases to avoid, passive voice detection and readability statistics. This way, it can be used to grammar check, writing suggestions and plagiarism checking. For that, once you have uploaded the text on their website, you have to filter the correction in three levels. In the first level, it is necessary to select the education of the paper's author that can range from, in the university level, Undergraduate, Masters and Doctorate. In the second level, there is a need to select the type of paper to be submitted, ranging from essay, business correspondence, personal narrative, thesis/ dissertation, resume, research paper, article, letter, book report, speech/presentation, lab report,

short story, biography, movie review and the last option is others. In the last level, there is the choice of including plagiarism detection.

Although their website states that such tool is used by schools and universities in over 100 countries to help students improve their writing, there are only 4 references to this program in Portal Capes and none of them analyzed how it can impact student's writing or how students view this program. For this reason, although it is not possible to provide reference of studies in this section, it shows the importance of including this program in this current research to foster the debate about its performance.

2.4.3 Microsoft Word

According to the support webpage of Microsoft, the Microsoft Editor that runs in Word is able to offer suggestions for spelling, grammar and stylistic issues as well, showing that its range of use goes beyond a simple grammar checker. In relation to that, Kostadinova (2015, p.2) explained how the software works:

> The grammar and style settings of Microsoft Word contain a list of twenty-six areas which are checked for potential errors; these settings allow users to select the particular areas they want to have checked. It is obvious from that list – which includes anything from capitalization and punctuation to passives, clichés and wordiness – that these areas are indeed not entirely about grammatically possible sentences in English, but quite often about style.

According to Wang and Wang (2015), the facilities brought by word processing in the edition and revision of spelling and grammar are able to increase the awareness of students in relation to their writings. In this sense, Shim (2013) mentions the double function of such error correction programs, which are beneficial to students' immediate inspection of their errors and the opportunity that professors have to interact with their students in relation to such errors.

John and Woll (2018) investigated the performance of the software tools: Grammarly, Virtual Writing Tutor and Microsoft Word on a range of grammatical errors in authentic English as a second language compositions and also some simple sentences created by the authors. The performance was analyzed in relation to the rates of error correction, accuracy of proposed replacement forms and forms mistakenly flagged as incorrect. The results are as follows and were taken from their article called "Using grammar checkers in the ESl classroom: the adequacy of automatic corrective feedback".

Figure 1 – Rates of error detection by John and Woll (2018)

Table 1.   Rates of error detection: compositions vs. simple sentences

Grammatical categories		Compositions			Sentences		
		Word	Gram	VWT	Word	Gram	VWT
Verbs	Tense-aspect	2/4	1/4	2/4	1/9	4/9	0/9
	Verb form	1/3	3/3	2/3	2/13	8/13	8/13
	Subj-V agreement	0/3	3/3	0/3	0/6	6/6	6/6
	Tense shift	0/6	0/6	0/6	0/2	0/2	0/2
	Total	**3/16**	**7/16**	**4/16**	**3/30**	**18/30**	**14/30**
Nouns	Plural	1/3	3/3	3/3	4/20	11/20	11/20
	Possessive	0/5	3/5	2/5	0/4	0/4	0/4
	Pronoun	0/2	0/2	0/2	0/5	2/5	0/5
	Total	**1/10**	**6/10**	**5/10**	**4/29**	**13/29**	**11/29**
Preps	Wrong prep	0/3	1/3	1/3	0/10	8/10	8/10
	Missing prep	0/2	0/2	0/2	0/4	2/4	2/4
	Unnecessary prep	0/2	0/2	0/2	0/7	3/7	2/7
	Total	**0/7**	**1/7**	**1/7**	**0/21**	**13/21**	**12/21**
Words	Word order	0/3	0/3	0/3	3/18	7/18	3/18
	Word form	0/3	0/3	0/3	6/10	7/10	7/10
	Total	**0/6**	**0/6**	**0/6**	**9/28**	**14/28**	**10/28**
Misc.	Determiner	0/4	0/4	0/4	1/13	4/13	4/13
	Relative clause	0/3	0/3	0/3	2/8	1/8	0/8
	Total	**0/7**	**0/7**	**0/7**	**3/21**	**5/21**	**4/21**
Grand totals		**4/46 (8.7%)**	**14/46 (30.4%)**	**10/46 (21.7%)**	**19 (14.7%)**	**63 (48.8%)**	**51 (39.5%)**

What can be seen from the table is that Microsoft Word had a weaker performance in the compositions and sentences when compared to the other two grammar checker programs. In the composition, Microsoft Word had a performance of 8,7%in relation to corrections, which was much lower than Grammarly, that reached 30,4% and Virtual Writing Tutor, that had a percentage of 21,7%. The same poor performance occurred in the sentences analyzed, once Microsoft Word reached 14,7%, while Grammarly reached 48,8% and Virtual Writing Tutor had a percentage of 39,5%.   Although those numbers indicate a poorer performance of Microsoft Word in relation to those programs, they were analyzed in 2018 and they may not necessarily display the same results in 2021, once the technology is in constant evolution and many improvements take place. Also, the study mentioned here has not analyzed the program Paper Rater and, as a consequence, it is not possible to establish any current parameter among

Microsoft Word, Paper Rater and Grammarly at the moment. For this reason, the aim of this current study is to analyze the performance of such programs in the current date.

After presenting the review of literature, the method used in this study will be presented in the next section providing details on how the present study was conducted in order to address the specific research questions.

3 METHOD

This section describes the method used to implement this study and it is organized into four sections. Section 3.1 introduces the objective of the study. Section 3.2 presents the context of the study.

3.1 THE STUDY

The current qualitative study aims at analyzing three software tools that were designed to provide immediate and automated feedback to students. The corpus of the current article is based on three software: Grammarly, Paper Rater, and Microsoft Word. To delimitate the methodological procedures used to collect data, there is an explanation about the procedures that are going to be used to investigate the objectives of this study, which is to analyze to what extent three automated feedback programs cover the features in relation to form and content. As previously mentioned in the first section, the research questions that are the base of this study are:

1- What kind of feedback is presented in each program in relation to form?
2- What kind of feedback is presented in each program in relation to content?
3- When two or more programs covered the same trait, were the suggested solutions similar?

3.2 THE CONTEXT OF THIS STUDY

In order to conduct the research, sixteen authentic essays of undergrad students at B1 and B2 levels (Common European Framework) were collected from a site of a university which provides samples of essays written by their students.

In relation to the choice of the essays, two factors were considered. Firstly, the University had to provide some authentic essays from their students. Secondly, all the essays should be rated as B level (B1+B2) according to the Common European Framework. Based on

those criteria, sixteen essays were selected from students of Roma3 University, in Italy. From these essays, nine were from the B1 level and seven from B2 level. For that, I searched on the internet, and I found the samples from the university Roma Tre, which mentioned that the essays were from their students, and it had been uploaded on 2, April 2010. The samples were taken from their English course called "English Lettori LCS", which is inserted in the linguistic section of their courses. According to the University website the university was founded in 1992 and it has an excellent rating among the most prominent academic rankings, and it is organized in 13 departments courses ranging from Bachelor's, Master's, Postgraduate and Advanced courses, Phds and Specialisation Schools. The essays can be consulted on the following link: https://host.uniroma3.it/linguisti/lcs-ingles/Roma3/Writing_Samples.html. Once the link is clicked, the following image will be shown:

Figure 2 – Writing samples
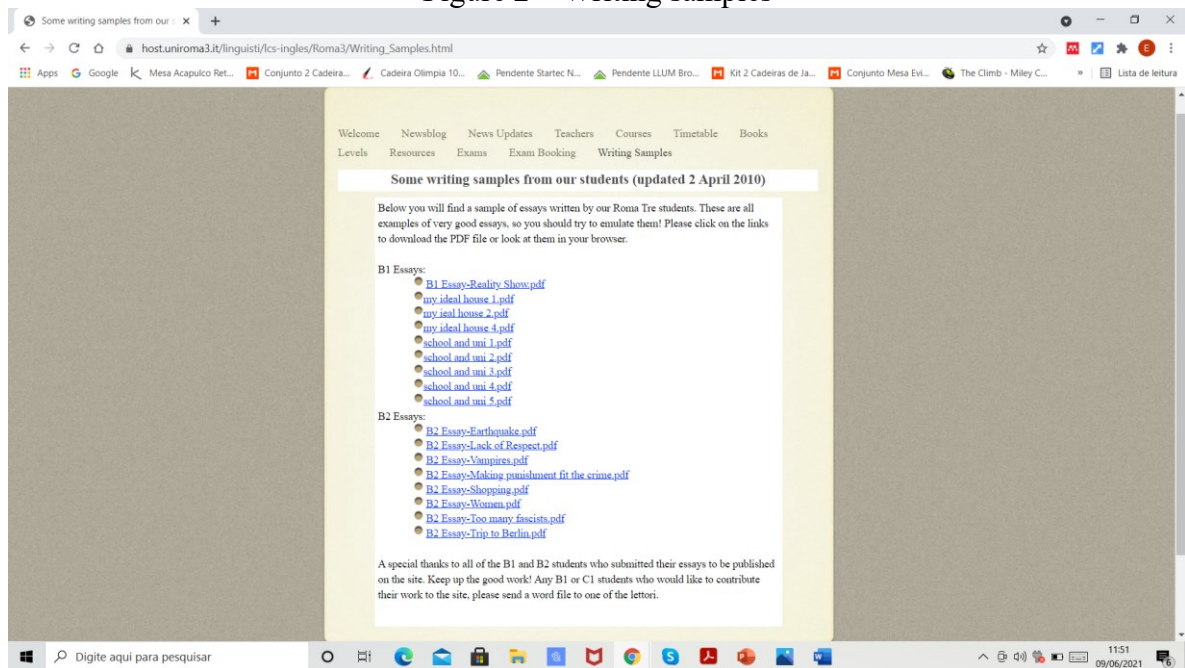
This way, such essays were examined three apps: Grammarly, Paper Rater and Microsoft Word. Bearing such essays in mind, all the feedback provided was collected and divided into two segments: the first focus is on form and is based on Ferris (1999), who separated the types of errors in two segments: "treatable and untreatable errors" and the second focus is on content, which will be based on Ashwell (2000). In this sense, Ashwell (2000) states that its focus lies on multiple-sentence level issues in relation to organization, paragraphing,

cohesion, and relevance. With that, the feedback in relation to form and content of the three apps were compared and contrasted.

The following table explains how the division of features was designed.

Table 1 – Form and Content Framework

Form – "Treatable errors"	Form –"Untreatable errors"	Content
Subject-verb agreement	Word choice	Organization
Verb tense	Missing words	Paragraphing
Article	Unnecessary words	Cohesion
Possessive noun endings		Relevance
Sentence fragments		
Spelling		
Others		

Source: designed by the author.

4 RESULTS AND DISCUSSION

4.1 MICROSOFT WORD

Microsoft word divides its revision into two main strands: Corrections and Improvements.

In the correction section: It provides feedback related to spelling and grammar. If the software installed is different from English, it covers the spelling and grammar of the official language installed in the computer and, once I am from Brazil, the Portuguese language version was also provided.

Figure 3 – Microsoft Word form feedback section
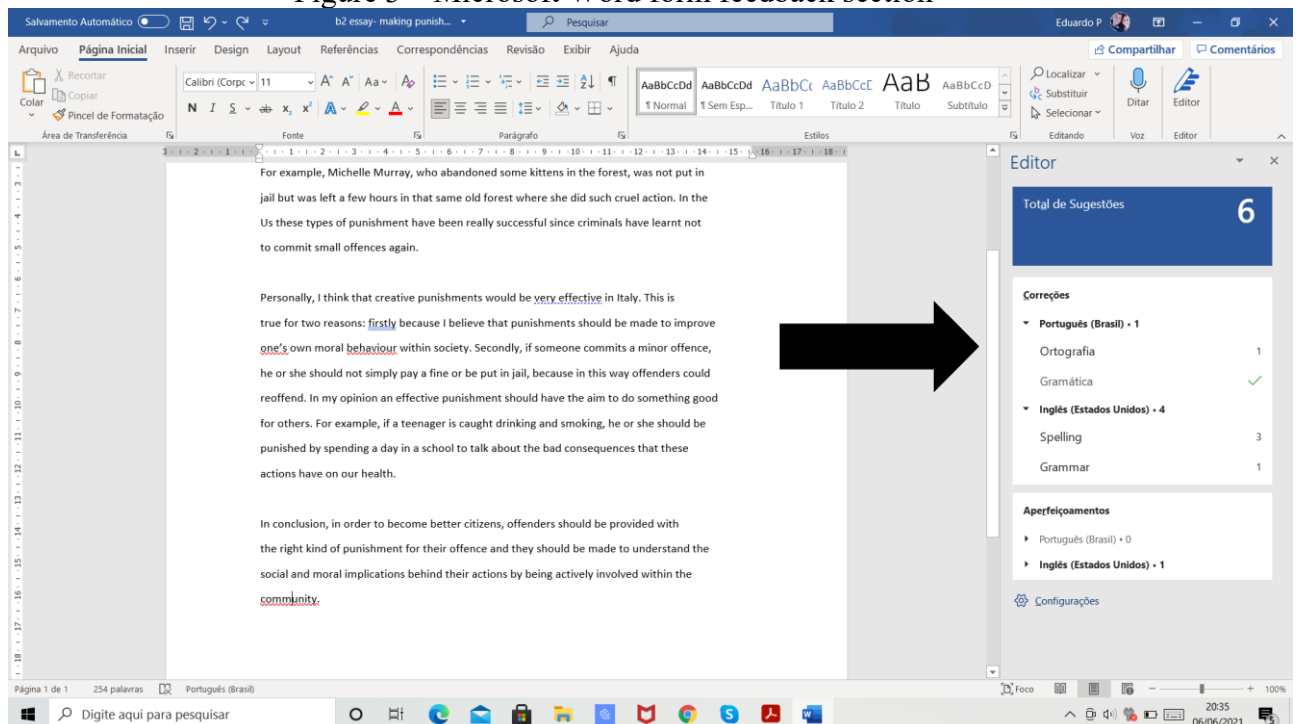
In the improvement section, it provides feedback related to: clarity, conciseness, formality, punctuation conventions and vocabulary as well. As there is not any kind of explanation stating what it is meant by those words, some of the suggestions given under each heading were transcribed here.

Clarity: Saying who or what did the action would be clearer. Active voice is more concise and helps avoid possible confusion.

Conciseness: Words expressing uncertainty lessen your impact. More concise language would be clearer to your reader. Eliminating redundant or unnecessary words often improves readability.

Formality: In formal writing, try spelling out the words. Contracted expressions (e.g., "let's", "we've", "can't") should generally be avoided in formal writing.

Punctuation Conventions: A comma before "and" or "or" could make this clearer. When listing items, you can avoid confusion by using a comma before the second-to-last item. Whether you choose to use the Oxford comma or not, always be consistent.

Vocabulary: A more precise verb would be clearer and more impactful. Avoid verbs that are overused or imprecise. Replace with verbs that are precise and enhance clarity and expressiveness.

Figure 4 - Microsoft Word content feedback section
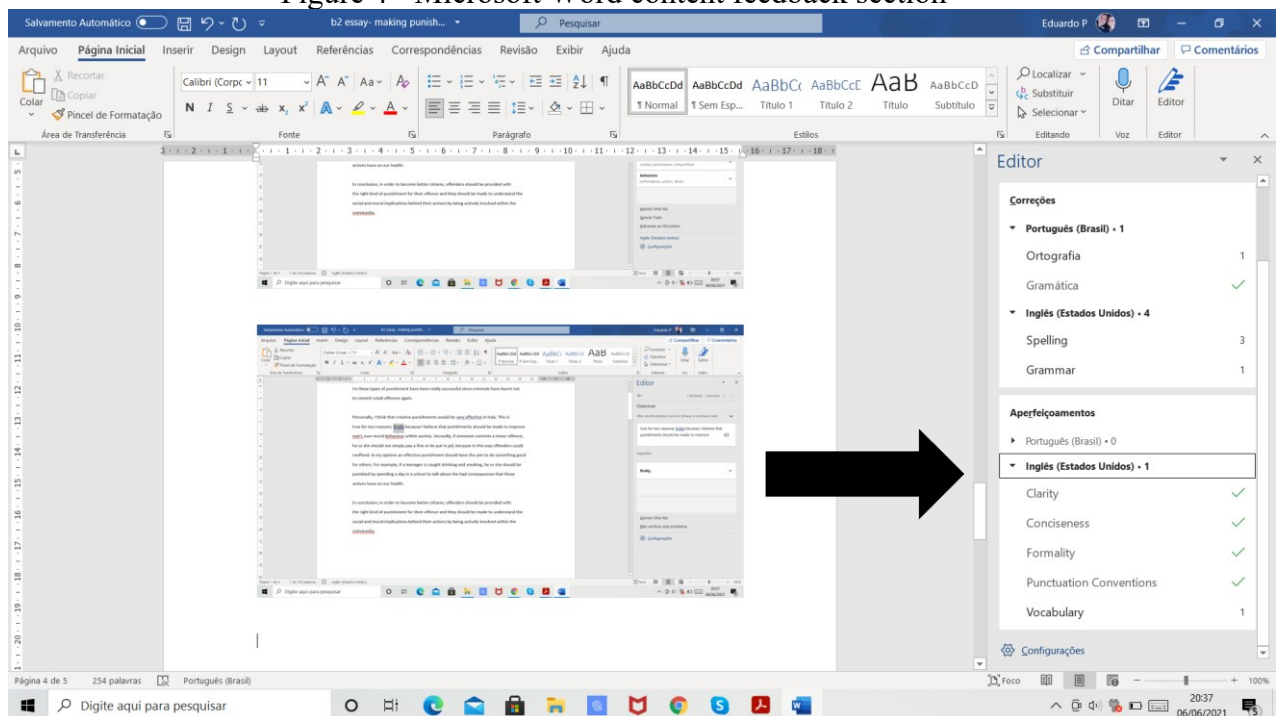
4.2 PAPER RATER

Paper Rater website provides us with an invitation to use the software and says that it is free of charge. Second, it displays the three main functions of it, which are: Grammar Check, Writing Suggestions and Plagiarism Checking. For this specific research, only the grammar check and writing suggestions will be analyzed in the essays, once plagiarism is not part of the scope of the study.

Figure 5 – Paper Rater main page

Different from Microsoft Word, which does not provide any type of previous filter to analyze the written production, Paper Rater requires the writer to inform three features, which are: Education level of the author and type of paper.

In relation to the level of education of the author, the options range from first grade to twelfth grade, College (Undergraduate), Graduate School/ Masters, Doctorate/Post-Graduate and there is also the option others.

When it comes to type of paper, there is a wide range of options, which are: Essay, Business Correspondence, Personal Narrative, Thesis/Dissertation, Resume/CV, Research Paper, Article/Blog, Letter/Email, Book Report, Speech Presentation, Lab Report, Short Story, Biography, Movie Review and other.

Regarding plagiarism detection, which is optional, there two options: A- Skip (Fastest) and B- Include (Slower). As stated earlier, this feature is not going to be part of the analysis once it is out of the scope of this study.

Once the three aforementioned features have been selected, a space to upload the text which will be analyzed will appear, on the left side of the screen, and, on the right side of the screen, there will be a range of options, indicating the features that will be analyzed: Spelling,

Grammar, Word Choice, Style, Vocabulary Words, Grade, E-submission, Advanced and another feature called: where next?

In relation to those features, they work specifically with:

Spelling: Spelling errors detection.

Grammar: Grammar errors detection.

Word Choice: This section deals with what they call "usage of Bad Phrases" and they explain that it is based on the quality and quantity of trite or inappropriate words, phrases, misspellings and cliches found in the paper and compare the text level with others from the same education level.

Style: This section handles the usage of transitional phrases, sentence length information, readability indices (only available in the premium version), the usage of passive voice and also the range of sentence beginnings.

Vocabulary words: This section works with the usage of academic vocabulary and is based on the quantity and quality of scholarly vocabulary words found in the text and it also compares the level of the text with others which are at the same education level.

Grade: Although they provide a grade to the text, they also explain that it should only be used as an overall grade. They provide the following message: "The grade is NOT complete. We do not actually use a crystal ball to generate your grade. Instead, this grade takes into account spelling, grammar, word choice, style, vocabulary, and more; but it does NOT examine the meaning of your words, how your ideas are structured, or how well your arguments are supported. We should also mention that our automated grader doesn't always get things right. So, please consider this grade to be one facet of your paper's overall grade."

E-submission: This section allows to send the analysis to your teacher.

Advanced: This section offers additional analyses regarding vocabulary suggestions, writing style checks and other features.

Where next: In this section, there are five bullet points indicating further analysis and they are:

- Vocabulary Builder - expand your lexicon and improve your writing.
- Writer's Block - say goodbye to this frustrating condition with these cures.
- Effective Outlines - the key to organized writing.
- Writing a Strong Essay.
- General Grammar Tips.

4.3 GRAMMARLY

When accessing the Grammarly webpage, it is possible to read a short message written: "Great Writing, simplified – Compose bold, clear, mistake-free writing with Grammarly's Ai-powered writing assistant". From this, it can be seen that there is a claim to provide a mistake-free writing. Also, there is a suggestion to add the software to Chrome and an example of how the program works within an extract of a text is also displayed.

After uploading the text to be analyzed, "set goals". will appear on the screen There, it is possible to establish the audience, formality, domain, tone, and intent.

Target Audience, which is divided as follows:

- General: Easy for anyone to read with minimal effort.

- Knowledgeable (default): Requires focus to read and understand.

- Expert: May require rereading to understand.

Formality, which is divided as follows:

- Informal: Allows slang and other more casual usages

- Neutral (default): Restricts slang but allows standard casual expressions

- Formal: Restricts slang and colloquialisms

Domain, which is divided as follows: Academic, Business, General, Email, Casual, creative. In this section there is also the following message: "Get customized suggestions for business writing, academic assignments, and more."

Tone, which is divided as follows: Neutral, Confident, Joyful, Optimistic, Friendly, Urgent, Analytical and Respectful. In this section there is also the following message: How do you want to sound? This helps us build new suggestions and won't affect your feedback today.

Intent, which is divided as follows: Inform, Describe, Convince, tell a Story. In this section there is also the following message: "What are you trying to do? This helps us build new suggestions and won't affect your feedback today."

This way, each trait covers:

Correctness: Improves spelling, grammar and punctuation
Clarity: Helps make your writing easier to understand.

Engagement: Helps make your writing more interesting and effective. In this section there is also the following message: "Grammarly Premium suggests ways to make your writing more specific, vivid, and interesting to keep your readers engaged."

Delivery: Helps you make the right impression on your reader. In this section there is also the following message: "Grammarly's AI adjusts the level of formality, confidence, friendliness, and more in your writing so you can make the best impression."

Figure 6 – Grammarly feedback layout
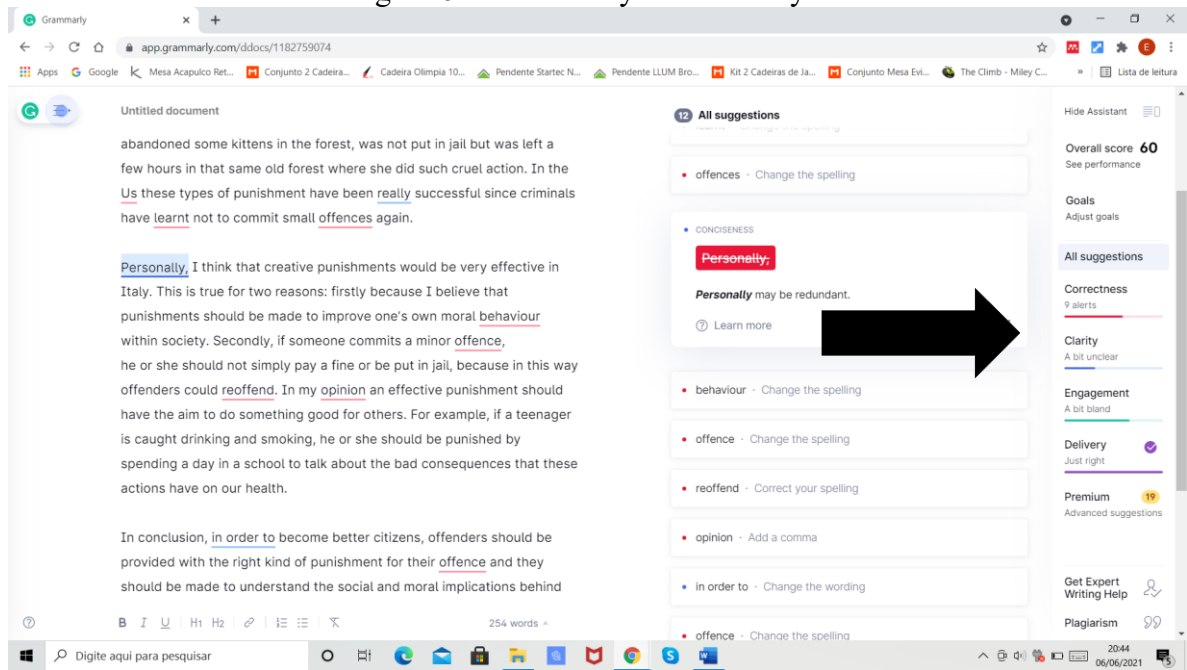
Before starting to present how the feedback was provided by each program. It is of utmost importance to explain the feedback layout of each program.

In relation to Microsoft word, there will be a two-line explanation where the first line shows the message of suggestion given by the software while the second line will show the sentence where the word or sentence was given and, right in sequence, the correction provided, as follows:

Table 2 – B1 Essay – Reality show (Microsoft Word)

Original sentence	Suggestion of improvement
"shows with their characters, games, words, votes, confessions, sexual trips **is** the mirror"	**-are**
"shocked, the dogs started barking, it **seem** to me to be"	**– seems**

"days and the news **was** getting worse"	**– were**

When it comes to Paper Rater, there is a clear division between the error and suggestion, as can be seen below. .

Table 3 – B2 Essay - Earthquake (-Paper Rater)

Error	Suggestion
Seem	Seems

Regarding Grammarly, there is a general explanation about the kind of error and the words that should be analyzed.

Table 4 - B2 Essay – Earthquake (Grammarly)

Change the verb form: seem, was, be predict, collect
Fix the agreement mistake: Italian

Having presented the layout of the feedback provided by each of the three apps, the time has come to analyze how the feedback was effectively given. The results of the analyses will be shown:

4.4 ANSWERING THE FIRST QUESTION

In order to answer the first research question, "How is the form feedback given in each program?", it is important to set the boundaries involving form. As for this research, following the division made by Ferris (1999), the component form was split into two different segments: "treatable errors" and "untreatable errors". While the "treatable errors" deal with the general grammar mistakes, the "untreatable errors" deal with the choice and appropriacy of words in a sentence:

Table 5 – Form feedback

Form – "Treatable errors"	Form –"Untreatable errors"
Subject-verb ~~agrément~~agreement	Word choice
Verb tense	Missing words
Article	Unnecessary words
Possessive noun endings	
Sentence fragments	
Spelling	
Others	

Source: designed by the author.

4.4.1 Form

The division of form feedback made by Ferris (1999) took into consideration the two types of errors, where the "treatable errors" are the ones who usually are found in handbook or in a set of rules while the "untreatable errors" are not easily found in any kind of grammar book or any set of rules. As mentioned earlier in this report, Ferris (1999) found that her students made as much "untreatable mistakes" as "treatable mistakes". In this sense, the question that is posed is whether those automated feedback apps are able to provide suggestions for both "treatable and untreatable" mistakes and if they cover all the seven segments that are part of the "treatable errors" and three features that are related to "untreatable errors".

4.4.2 Treatable Errors

4.4.2.1 Subject-verb agreement

In relation to subject-verb agreement, Grammarly provided the highest number of suggestions, which reached a total of nineteen. At the same time, Microsoft word and Paper Rater provided five suggestions each. However, the way that the feedback was delivered changed substantially. While Microsoft word started off by stating a sentence with the problem, which was followed by showing the error of the sentence in the context and offering the correct option, Paper Rater simply showed the wrong word and gave the solution straight away.

Different from the other two programs, Grammarly mentioned what the problem was and by clicking on the word, there was an explanation about the error. In this sense, following the categories mentioned by Bitchener and Knoch (2008), all the three programs provided direct or explicit written corrective feedback Ferris (2003). In the next subsections, samples are provided.

4.4.2.1.1 Microsoft Word

Microsoft Word dealt with the use of singular and plural. This is a trait that has been widely covered by Microsoft Word since the Word 97's Grammar Checker, as stated by Haist (2000, p.26). When the author analyzed the software's feedback for subject-verb agreement in the 97 version of the program, he found that "Word 97's Grammar Checker [was] surprisingly good at spotting and correcting subject-verb agreement errors".

Message given: Double check that you are sticking to singular or plural.

Table 6 – Sample of Essays (Microsoft Word)

Essay	Original sentence	Suggestion of improvement
B1- Essay- Reality show	"shows with their characters, games, words, votes, confessions, sexual trips **is** the mirror"	**-are**
B2- Essay – Earthquake	"shocked, the dogs started barking, it **seem** to me to be"	**– seems**

Essay	Original sentence	Suggestion of improvement
B2- Essay – Earthquake	"days and the news **was** getting worse"	**– were**
B2- Essay – Lack of respect	"people **isn't** important"	**- aren't**

Source: designed by the author.

Message given: "Double-check whether the noun is singular or plural."

Table 7 – B2 Essay- Lack of respect (Microsoft Word)

Essay	Original sentence	Suggestion of improvement
B2- Essay – Lack respect	"psychologically is fine, they don't understand that of that boys and girls will suffer for"	– that boys or girl, those boys or girls

Source: designed by the author.

4.4.2.1.2 Paper Rater

Paper Rater worked with third person singular, the infinitive form of the verb and the past participle of the verb.

Table 8 – Samples of Essays (Paper Rater)

Essay	Error	Suggestion
B2 Essay – Earthquake	Seem	Seems
B2 Essay – Lack of respect	Is	Be
School and university 2	Long	Longs
School and university 5	Bit	Bitten

Source: designed by the author.

4.4.2.1.3 Grammarly

Grammarly dealt with agreement, verb form, pronoun usage, plural noun and infinitive as well.

- Change the verb form: is (B1 Essay – Reality Show), seem , was , be predict , collect (B2 Essay – Earthquake), is (B2 Essay – Vampires), is (School and university 1), are (School and university 3).

- Correct pronoun usage: us   (B2 Essay – Making punishment fit the crime), that will   (B2 Essay – Vampires),   career   (School and university 5).

- Fix the agreement mistake: numbers   (My ideal house 1),   mind   (School and university 2),   location   (School and university 3),   grade   (School and university 4).

- Change the noun form: bird (My ideal house 4),   arts   (School and university 4).

- Correctness: It sweets: It seems that there is a pronoun problem here   (School and university 4).

- Change to a plural noun: subject   (School and university 4).

- Fix the infinitive: to   (School and university 5).

4.4.2.2 Verb Tense

Regarding verb tense, none of the apps presented any type of suggestions. It is noteworthy to mention that this study was carried out in 2021 and such results partially corroborate the ones found by John and Woll (2018) when they researched the software Microsoft Word, Grammarly and Virtual Writing Tutor. According to their data, the programs identified 0 out of 6 possible "Verb tense shift". Microsoft Word spotted 2 out four errors and Grammarly 1 out of 4 regarding what the authors called "Verb Tense aspect". In the study carried out by Haist (2000) in relation to Word 97's Grammar Checker there were some partial corrections to mistakes related to verb tenses, but the explanation given by it was often "too general".

4.4.2.3 Article

When it comes to article, Grammarly brings 17 suggestions, while Paper Rater presented 3 cases and Microsoft Word that only found one error. While Microsoft word only pinpointed an error focusing on the difference between 'a' and 'an' before a vowel, Paper Rater showed an error and, in the suggestion, repeated the same word. In the other two cases, there was a suggestion to remove one article in a sentence and add an article in the other one. Distinctly, Grammarly varied the suggestions, ranging from adding an article, correcting article usage, to changing the article. In this sense, there has been an improvement when compared to the numbers provided by John and Woll (2018), once both programs, Microsoft Word and

Grammarly had identified 0 out of 4 errors. While Microsoft Word found only one error, Grammarly displayed a solid evolution with its total of 17 suggestions. As a sequence, the samples are provided.

4.4.2.3.1 Microsoft Word

As previously stated, Microsoft Word worked only with the usage of "a" and "an'.

Message given: "A" before consonant sounds, "an" before vowel sounds.

B2- Essay – Earthquake: "had happened, somebody has lost a son, a niece, a uncle and somebody else has lost everything" – an.

4.4.2.3.2 Paper Rater

Paper Rater suggested to remove an article, to add another one and one sentence remained the same.

Table 9 – Sample of Essays (Grammarly)

Essay	Error	Correction
School and university 4	A	A
School and university 5	Wrong	A wrong
	a progress	Progress

Source: designed by the author.

4.4.2.3.3 Grammarly

Grammarly worked with adding, changing and correcting the article.

Add an article: "Idiocy" (B1 Essay – Reality Show-), "skin", "century" (B2 Essay – Vampires), "baby" (B2 Essay – Women), "town" (My ideal house 2), "town" (School and university 2), "secondary", "university" (School and university 3), "good" (School and university 4), "wrong" (School and university 5).

Change the article: "a uncle" (B2 Essay – Earthquake).

Correct article usage: "an and", "store" (My ideal house 1), "night" (My ideal house 4), "the Classical" (-School and university 1), "the high", "USA" (School and university 4), "bit" (School and university 5), "The Bosnian: It appears that the article usage in the phrase

Bosnian language is incorrect. Consider changing your article usage in this phrase" (School and university 5).

4.4.2.4 Possessive noun endings

In relation to possessive noun endings, while Microsoft word identified 7 errors, Grammarly and Paper Rater found 0 errors. In relation to the errors found by Microsoft word, two of them were connected to the use of apostrophe and the other five questioned whether a possessive would ‑be suitable in the sentences. This data is opposing the results brought by John and Woll (2018). While Microsoft Word spotted seven mistakes in the current study, it had identified zero errors out of the five possibilities in their studies. In her study, Haist (2000), labelled Word 97's Grammar Checker as disappointing as it only caught around fifty percent of the errors. Similarly, there was a discrepancy with Grammarly as the program had found three out of five errors in their studies and identified zero in the present study. As a sequence, the samples are provided:

4.4.2.4.1 Microsoft Word

Message given: Double-check whether a possessive is needed here.

B1- Essay- Reality show: "In my" – me

B2- Essay – Vampires: "Maybe we continue to read about vampires century after century because it is actually exciting to observe them hunting their victims" – vampires'

My ideal house 2: "in abstract art style with big murals on the walls, and one very colorful and full of toys for my" – me

School and university 4: "But once in my" – me

School and university 4: "And after our trip, we went back to school even if we weren't ready to start again our" – us

School and university 4: "Sweets memories and bad memories, but, of course, a" – Sweet's

School and university 5: "I could have a bright future If I went back to my" – me

4.4.2.4.2 Paper Rater

Message given: No grammar error of this type was detected in any of the essays.

4.4.2.4.3 Grammarly

Message given: No grammar error of this type was detected in any of the essays.

4.4.3 Sentence fragments

From all the features analyzed in this study, sentence fragments is the one which had the highest discrepancy. While Grammarly displayed 39 and Paper Rater 18, Microsoft Word identified 98 errors. Whilst Paper Rater focused mainly on putting a space after commas, Grammarly ranged from adding a comma and space to adding a space. At the same time, Microsoft Word covered three main issues: Punctuation: providing six different category suggestions; comma: displaying six different category suggestions and, finally, the usage of colon with three different categories of suggestions as well. The features sentence fragment was not analyzed by John and Woll (2018), so it is not possible to draw any type of parallel between this and their study. This trait was also covered by Haist (2000), and she concluded that Microsoft Word identified around sixty per cent of the fragment errors.

4.4.3.1 Microsoft Word

In relation to the usage of comma, Microsoft Word worked on three different dimensions: clause level, the need of using a comma and the clarity in the sentence. For each of the dimensions, two different suggestions were given. Regarding the clause level it was mentioned that after an introductory word or phrase, a comma is best and the second message stated that a comma between clauses is better. When it comes to the need of using a comma, it was mentioned that a comma is not usually needed after a conjunction and there was a warning to double-check whether a comma would be needed in that part of the sentence. Finally, as regards adding comments to improve the clarity of the sentence, it was mentioned that a comma before "and" or "or" could make the sentence clearer and in another sentence a comma was recommended to add clarity to the sentence.

Message given: After an introductory word or phrase, a comma is best.
B1- Essay- Reality show: "Firstly I couldn't renounce to my private life" – Firstly,
B1- Essay- Reality show: "Finally I think that this unbearable process of " – Finally,

Message given: A comma between clauses is better here.

B2- Essay – Earthquake: "going to be I felt a little bit strange but I couldn't imagine that something like that would have" – strange

B2- Essay – Earthquake: "many people were still scared but they couldn't realize

Message given: A comma isn't usually needed after a conjunction.

School and university 4: "I really miss my classmates and someone of my old teacher, but of course that's a" – but

Regarding Punctuations Convention, the main issue is related to the use of comma.

Message given: Double-check whether a comma is needed here.

B2- Essay – Lack of respect: "that they can't have everything, so if a girl rejects them they hit and rape her" – them,

B2- Essay – Shopping: "Going shopping is something very important, and almost necessary for some people but what is the best place to go and do it?" – go,

Message given: a comma before "and" or "or" could make this clearer.

B2- Essay – lack of respect: "arrogant, violent and evil" – violent,

B2- Essay – lack of respect: "insulting, hurting and hitting other people" – hurting,

Message given: Adding a comma here would add clarity.

School and university 3: "At school my class size might range..." – school,

School and university 3: "At University my might often seat …" – University,

With regard to punctuation, there were six suggestions as well. From those suggestions, two were concerned with punctuation mark and the messages were: one punctuation mark is all that's needed and try adding a question mark to make this a question. There was also a message focusing on the placement of the punctuation. Finally, three messages were concerned with space and the messages stated that: It is better to have no space before the punctuation and only one space between words is better and a space should follow most punctuation.

Message given: One punctuation mark is all that's needed.

School and university 3: "But, first of all, I have to continue my studies" – studies. Studies…

School and university 4: "was a very difficult subject, it was my bad grade at school" – school. School…

Message given: Try adding a question mark to make this a question.

B2- Essay – Lack of respect: "who have behaved violently towards other guys or other people in general" – general?

Message given: Double-check placement of the punctuation here.

B2- Essay – Earthquake: "in front of that I felt useless I would like to help these people but I don't know what to do" – useless, I

School and university 4: "Now I can say :"What a wonderful day" " – say: "What

Message given: It is better to have no space before this punctuation.

B1- Essay- Reality show: "hypothetical success isn't my goal , really to be" – goal,

B2- Essay – Shopping: "what's better for shopping : an afternoon downtown or a few hours in a shopping" – shopping:

Message given: Only one space between words is better.

School and university 3: "Infact I am sociable and I can imagine myself, standing in front of a class of children or people" – front of

Message given: A space should follow most punctuation.

School and university 3: "are more flexible infact what is learned in different subjects can offer different, even conflicting views.Students are from different socio-economic" – view. Students

Also, in the section fragment, Microsoft Word dealt with the use of colon, with the following message: Double-check whether a colon is needed here. Alongside with the colon, the semicolon was also highlighted in two messages: Both clauses can stand alone, so a

semicolon works best and the other message was: A semicolon isn't usually used in this situation.

Message given: Double-check whether a colon is needed here.

B2- Essay – Lack of respect: "These guys don't have values to follow: they" – follow

School and University 1: "Well, I think that this choice of mine was the worst I ever made: I was tired all the time, I wasn't happy or enthusiastic about everything. I " – made

Message given: Both clauses can stand alone, so a semicolon works best.

School and university 3: "I hope I will find jobs across the globe, I'm feeling adventurous" – globe;

Message given: A semicolon isn't usually used in this situation.

B2- Essay – Women: "Women that take off their clothes to sell watches or lipstick; women that dance almost naked" – lipstick,

My ideal house 2: "future children; the bathrooms in Indian or exotic style, with sauna and Jacuzzi surrounded by" – children:

As ~~it~~ could be seen, Microsoft Word worked with fifteen different features of sentence fragments.

4.4.3.2 Paper Rater

Paper Rater had a total of eighteen suggestions. From those suggestions, most of them were related to the use of comma as seven suggestions were concerned with a space after the comma, three were focusing on adding a comma.

Table 10 – Table of Suggestions (Paper Rater)

Essay	Error	Suggestion
B2 Essay – Reality Show	Never would go	Would never go
	,	Put a space after the comma, but not before the comma
	Finally	Finally,
B2 Essay – Earthquake	,	Put a space after the comma, but not before the comma
My ideal house 1	,	

Essay	Error	Suggestion
	If	Put a space after the comma, but not before the comma
		"If" at the beginning of a sentence requires a 2nd clause. Maybe a comma, question or exclamation mark is missing, or the sentence is incomplete and should be joined with the following sentence.
	Moreover	
	,	Moreover,
School and university 2	now I	Put a space after the comma, but not before the comma
School and university 4	..	now, I
	,	.
		Put a space after the comma, but not before the comma
	"What	" What

Essay	Error	Suggestion
School and university 4	"	Unpaired symbol: "" seems to be missing
	(	Don't put a space after the opening parenthesis
	,	Put a space after the comma, but not before the comma
	,	Put a space after the comma, but not before the comma
	fact I	fact, I
	Worried for	Worried about

Source: designed by the author.

4.4.3.3 Grammarly

Grammarly focused heavily on two different features: comma and space. There were thirty-one suggestions related to the addition of comma and eight suggestions regarding space, which were suggesteding from adding to removing space.

Add a comma: course, and, and, opinion, finally (B1 Essay – Reality Show), that (B2 Essay – Earthquake), example , Personally , unfortunately , and (B2 Essay – Lack of respect), opinion (B2 Essay – Making punishment fit the crime), and (B2 Essay – Shopping), all , example (B2 Essay – Trip to Berlin), and , or (B2 Essay – Vampires), course , hand (B2 Essay – Women), Unfortunately , Moreover (My ideal house 1), and (My ideal house 4), reason (School and university 1), course , and (School and university 2), university , school , and , etc (School and university 3), and (School and university 5).

Remove a space: goal (B1 Essay – Reality Show), relax (B2 Essay – Shopping), house (My ideal house 1), “,) , hand , problem : (School and university 4)

Add a space: I (B2 Essay – Earthquake), but (School and university 2), Students (School and university 3), say : (School and university 4)

Punctuation: course,: – It appears that you are missing a comma after the introductory phrase. Consider adding a comma. (B2 Essay – Women)

Conventions: theatre,.   –   It appears that you have improperly spaced some punctuation. Consider removing a space. (My ideal house 1)

4.4.4 Spelling

Although the numbers of mistakes identified by Microsoft Word (45) and Paper Rater (52) were close and were expressively higher in comparison with Grammarly (24), Microsoft Word worked on a wide range of issues and the messages given made it very clear what the problem was. Paper Rater followed the pattern of just showing the error and providinge a suggestion. Grammarly, on the other hand, only showed where the error was and mentioned that it should be changed without providing any suggestions of what the right word could be. In relation to this feature, neither John and Woll (2018) nor Harst (2000) designed any study related to spelling and, as a consequence, it was not possible to establish any type of comparison.

4.4.4.1 Microsoft Word

Although the essays were written in English and the students who wrote the essays were all from Italy, the software identified 9 mistakes in Portuguese in their written production. The words it spotted as mistakes were:

Reality show: the software identified four mistakes in this part of a sentence: ethical or aesthetic research and suggested, consequently:

Ethical: "ética", "étnica" and "metical".

Or: "o", "oro" and "ore".

Aesthetic: no suggestion was given.

Research: "ressarce", "ressarci" and "ressecar".

School and university 4: the software identified one mistake:

Family: no suggestion was given.

Shopping: the software identified two mistakes in this part of a sentence: what chaos.

What: "Watt", "Chat" and "Nhat".

Chaos: "Chãos".

Trip to Berlin: the software identified one mistake:

Fashionable: no suggestion was given.

Making Punishment fit the crime; the software identified one mistake:

Community: Community.

Out of 9 "identified mistakes" none of them was related to any word in Portuguese. All the words were written in English and there were not any spelling mistakes in any of them. Apart from that, in 3 words, they spotted the words as misspelt ones but did not provide any kind of suggestions. Also, there was a situation where the suggestion given was the same as the original word of the text, having as the only difference the use of the capital letter. Moreover, one of the suggestions given does not exist neither in Portuguese nor in English, which was the word "Nhat".

When it comes to spelling in English, the software identified misspelled words in 14 out of 16 essays.

Some of the suggestions given showed exactly the necessary change in the spelling of the word.

B2- Essay – Trip to Berlin: "peole" – people.

B2 – Essay – Vampires:"21th" – 21st.

There were some cases where the suggestions given were similar to the word of the text, and some other suggestions were offered:

School and University 3- "lessing" – lessing , leasing, blessing.

School and University 3- "cause" – cause, causse.

From those words, oftentimes, more than one suggestion was provided, and no further explanation was given, leaving the responsibility of the choice to the writer. In this sense, here are some examples:

B2- Essay – Earthquake: "demage" – damage, damaged, damages.

B2- Essay – Trip to Berlin: "elettrical" – electrical, electricals.

There were some cases where two words were inadvertently written together.

School and University 3- "infact" – In fact, infant, infect.

School and University 3- "infact" – In fact, infect., infarct.

There were some cases where there were compound words and the suggestion given was to modify the first word.

B2- Essay – Trip to Berlin: "i-pod" – I, a, if.

There were some cases where the correction given was similar to the new word suggested and –it only occurred because there was not a space between a word and the punctuation.

B2- Essay – lack of respect: "follow:" – follow.

School and University 3- "views.Students" – views. Students.

Among the identified mistakes, suggestions were offered for the name of people as the software did not recognize them as such.

B2- Essay – making punishment fit the crime: "Cicconetti's" – Niccoletti's, Cyclonites, Cincinnatti's.

B2 – Essay – Vampires: "Stephenie" – Stephanie, Stephania, Stephany.

Moreover, there were some cases where the suggestion given was similar to the word deemed as the wrong one.

B2- Essay – making punishment fit the crime: "one's" – ones, one's, onus.

Also, sometimes the correction provided was only the American spelling of a word that was written using British spelling, such as:

B2 – Essay- Shopping: "centre" – center, Centre, central.

My ideal house 1: "centre" – center, Centre, central.

Similarly, sometimes the suggestion given was only the American spelling of a word that was written using British spelling, but it was also suggested the plural form as a second option.

B2- Essay – making punishment fit the crime: "behaviour" -behavior, behaviors.

My ideal house 1: "neighbourhood" – neighborhood, neighborhoods.

My ideal house 1: "neighbours" – neighbors, neighbor's, neighbors'.

There were cases where the spelling suggestion was using the same word as well, but it suggested starting the word with a capital letter.

B2- Essay – making punishment fit the crime: "community" – Community.

In some cases, some words were identified with a misspelling, but no suggestion was given to replace them.

B2- Essay – Trip to Berlin: "fashionable" – no suggestion was given.

B2- Essay – Trip to Berlin: "Italian" - no suggestion was given.

Also, there were words which were used correctly, and misleading suggestions were provided:

My ideal house 2 – "I'd" – Tad, it'd, Tod.

Message given: These words work better combined into one word.

My ideal house 1: "living in the country side and enjoying city life" – countryside

My ideal house 2: "oh… also a store room: it's very useful!" storeroom

Message given: Double-check the ending on the number

B2- Essay – Vampires: "And still today, in the 21th century" – 21st

In relation to formality, the main concern was related to contractions:

Reality show – "wouldn't" – would not

Reality show – "I've" – I have

4.4.4.2 Paper Rater

In some cases, Paper Rater identified some errors, but the suggestion given was only a message stating that there was a possible spelling mistake found:

Table 11 – School and University 3 (Paper Rater)

Error	Suggestion
Post-secondary	Possible spelling mistake found
Frome	From, Rome, frame, froze,Fromm,fro,me,from e
Everyone-even	Possible spelling mistake found
School---find	Possible spelling mistake found

Computer---based	Possible spelling mistake found
Socio---economic	Possible spelling mistake found
No---one	Possible spelling mistake found
Lessing	Blessing, leasing, messing, fessing, yessing

Also, there were situations that for a single error the program suggested a wide number of possibilities. In one of them, fifty-three suggestions were given to a single word.

Table 12 – Multiple Suggestions (Paper Rater)

Essay	Error	Suggestion
School and university 2	Un	UN, in,on,an,up,us,uK,run,gun,fun,sun,UV,nun,pun,Jun,nu,urn, bun,um, jun,uh,Zn,Hun,IN,in,Ln,MN,Mn,N,ON,RN,Rn,Sn,Sun,TN,U,Ul,US,USN,UT,Ur,Ut,dun,en,Kn,mun,n,tn,tun,u,uni,u,n
B2 Essay –	Certains	Certain, curtains, pertains, certain s
Trip to Berlin	Electrical	Electrical
	Cds	Cd,Ads,Cdc, Cns, Eds, CvS, IDs, CDT,DDs, Cods, ODs, Cads, CBS, Cuds, Dds, Cd, Cs, Cos, Cps, Ids, Cd s
	Dvds	Dvd, Dds, DVRs, Dads, Duds, Dds
	italian	Italian
	Materialistic	Materialist, materialistic, materialists, materialist
	People	People, pole, Pole, Poole, Peale, pele, prole
	Italian	Italian
	Unuseful	Useful, houseful

Source: designed by the author.

There were cases where the suggestion was connected to the use of hyphen.

Table 13 – Hyphen Suggestions (Paper Rater)

Essay	Error	Suggestion
My ideal house 2	Well connected	Well-connected
School and university 5	well paid	well-paid
	well paid	well-paid

Source: designed by the author.

There were also general spelling cases.

Table 14 – Spelling Suggestions (Paper Rater)

Essay	Error	Suggestion
B2 Essay – Earthquake	Demage	Damage
	A	An
	Onna	Anna, Donna, Gonna
	Abruzzo	Arezzo, Abuzz
B2 Essay - Vampires	Revenants	Remnants, covenants, reenacts
	Mesopotamians	Mesopotamian, Mesopotamian
	Vampirism	s
	Vampirism	Vampires
	Laurell	Vampires
	Vampirism	Laurel, Laurels, Laurel I
		Vampires

Source: designed by the author.

4.4.4.3 Grammarly

Grammarly mostly worked with spelling under two suggestions: correct your spelling and change your spelling, which ended up dealing with the same features. There were also suggestions related to the use of hyphen and there was a case in which the message given showed that the spelling of the word was inappropriate to the context.

Correct your spelling: anti-seismic (B2 Essay – Earthquake), the can (B2 Essay – Lack of respect), certains, electrical, Dvds, materialistc, people (B2 Essay – Trip to Berlin), Key word (B2 Essay – Vampires), store room, country side (My ideal house 1), tine, I'd, store room (My ideal house 2), frome, field work, infact, counselling, no---one, one , lessing (School and university 3).

Change the spelling: behaviour (B2 Essay – Lack of respect), behaviour, offences, offence, reoffend, learnt (B2 Essay – Making punishment fit the crime), centre (B2 Essay – Shopping), neighbourhood, neighbours, centre. (My ideal house 1), colourful, neighbours, placed, neighbourhood (My ideal house 2), recognize (My ideal house 4).

Spelling: demage – damage. The word demage is not in our dictionary. If you're sure this spelling is correct, you can add it to your personal dictionary to prevent future alerts. (B2 Essay – Earthquake).

Add a hyphen: real world (B1 Essay – Reality Show), half past (B2 Essay – Earthquake), computer---based, socio---economic(School and university 3), well paid (School and university 5). Post secondary – Post-secondary : It appears that post secondary is missing a hyphen. Consider adding the hyphen(s). (School and university 3).

Conventions: the spelling of offences is a non-American variant. For consistency, consider replacing it with the American English spelling. (B2 Essay – Making punishment fit the crime).

Than you – that you: The word than doesn't seem to fit this context. Consider replacing it with a different one. (B2 Essay – Trip to Berlin).

Andand: Oops! It appears that you typed and twice in a row. Consider deleting one of them. (School and university 1).

4.4.5 Others

In relation to the remaining suggestions, Grammarly was the one with more features analyzed and reached a total of eight suggestions. Microsoft Word provided three suggestions and Paper Rater none. While Microsoft Word dealt with Capitalization and the way the

adjective makes a comparison, Grammarly worked on quantifier, capitalization, and preposition. In the Harst (2000) study of Microsoft Word 97, capitalization, the way adjectives makes comparison and modifiers were analyzed.

4.4.5.1 Microsoft Word

Message given: Double-check capitalization here.

My ideal house 1: "The Prince and his parents could choose where they liked eating because the house had five living rooms and could host a lot of friends" - prince

School and university 4: "Maybe that's why I chose to study languages at University" – university

Message given: Double-check the way the adjective makes a comparison.

B2- Essay – Vampires: "Or maybe the answer is far more easy" – easier

4.4.5.2 Paper Rater

Message given: No grammar error of this type was detected in any of the essays.

4.4.5.3 Grammarly

Change preposition: to (B1 Essay – Reality Show), some (B2 Essay – Lack of respect), from (School and university 3), for, of (School and university 4)

Change the capitalization: Italian (B2 Essay – Trip to Berlin), i (School and university 4)

Replace the quantifier: many (School and university 3)

When analyzing the types of feedback provided by those apps in relation to the framework proposed by Ferris (1999) regarding "treatable errors" it is possible to state that while Microsoft Word and Grammarly covered features that were not listed in the chart, Paper Rater did not mention any other category of errors.

4.4.6 Untreatable Errors

4.4.6.1 Word choice

Regarding word choice, while ‒Paper Rater and Grammarly provided thirteen suggestions each, Microsoft Word offered four hints. In this sense, Microsoft Word found one error displaying the message that some words are similar but used differently and three errors that are possible word choice error. Indeed,, Harst (2000) analyzed the use of commonly confused words and concluded that Microsoft Word had a poor performance in this matter. Grammarly, on the other hand, worked with pronoun usage, ordinal number and also the wording choice. Finally, Paper Rater dealt with the usage of academic vocabulary, which is based on the quantity and quality of scholarly vocabulary and gave some suggestions of words that could be changed.

4.4.6.1.1 Microsoft Word

As mentioned before, Microsoft word found only four errors and they were:

Message given: Some words are similar but used differently.

B2- Essay – Lack of respect: "how much the can hurt other people" – they

Message given: Possible word choice error

B2- Essay – Trip to Berlin: "because prices always grow and even simple, every day life things are more" – everyday

My ideal house 2: "lot of trees and flowers and a hammock in a corner; but, at the same tine, the garden is also a terrace overlooking a small beach" – time

4.4.6.1.2 Paper Rater

From the three programs, ‒Paper Rater was the one which provided wider feedback analyzing the quantity and quality of the academic vocabulary, providing a grade and comparing the essay's score with others from the same level of academic background. Also, they suggested the use of their vocabulary builder to obtain suggestions for improvements. The vocabulary score ranged from 285.98 (the highest score) to 26.8 (the lowest score).

B1 Essay – Reality Show

Usage of Academic Vocabulary - This score is based on the quantity and quality of scholarly vocab words found in the text.

What could be analyzed as a common core in all the cases was the suggestion to visit their vocabulary builder to improve the usage of academic vocabulary. From all the thirteen essays, only the essay named Reality Show received the message: good work! This feedback was given because the score was above average for its respective category:

B1 Essay – Reality show. Vocabulary Score: 285.98. Good work! You scored above average in the vocabulary category. Check out our Vocab Builder to boost your writing even further.

After that, two essays scored 215.53 and the message given was that they did equal or better that 50% of the people in their education level. With 196,28 the other essay got the message that it would benefit from using their vocabulary words.

B2 Essay – Making punishment fit the crime. Vocabulary Score: 215,53. Your usage of vocabulary words in this paper is average. Take a look at our Vocab Builder to go above and beyond what is "normal'. Try to reach the 60th percentile after revising your text with a thesaurus.

B2 Essay – Vampires. Vocabulary Score: 212,53. This score is based on the quantity and quality of scholarly vocab words found in the text. You did equal or better than 50% of the people in your education level.

School and university 3. Vocabulary Score: 196,28. This paper could benefit from greater usage of vocabulary words.

When comparing the score of the next two higher scores the messages given are clearly different. While the essays that scored 123,23 received the message that the essay usage of sophisticated vocabulary was less than average, the essay that scored 143,33, which was substantially higher, received the message that its use of practical vocabulary in the paper was unsatisfactory. This way, the subtle message of improvement was only given in a lower score.

School and university 2. Vocabulary Score: 143,33. Your usage of practical vocabulary in this paper is unsatisfactory. Please visit our Vocab Builder to work on improving your score.

School and university 5. Vocabulary Score: 123,23. Your usage of sophisticated vocabulary words used is LESS than average. Aim for a higher vocabulary score and it will

show in your writing. Please use the Vocab Builder tool and set a goal. Try to reach the 60th percentile after revising your text with a thesaurus.

Ranging from 99,49 to 73, 62 three essays received the same type of feedback, which was the use subtle words to motivate the writer to improve. The adjective unsatisfactory was only used in the essays previously mentioned.

My ideal house 2. Vocabulary Score: 99,49. It looks like your use of vocabulary words needs some help. Make sure to use our Vocab Builder in order to get some extra practice.

B2 Essay – Earthquake. Vocabulary Score: 87,56. Uh-oh. Your paper could definitely use some help in this area. Visit our Vocab Builder regularly to improve your vocabulary.

B2 Essay – Lack of respect .Vocabulary Score: 73,62. Your usage of sophisticated vocabulary words used is LESS than average. Aim for a higher vocabulary score and it will show in your writing. Please use the Vocab Builder tool and set a goal. Try to reach the 60th percentile after revising your text with a thesaurus.

The last four essays that obtained the lowest score, ranging from 59,75 to 26,8 and all of them received similar type of feedback from the ones ranging from 123,23 to 73,62.

My ideal house 4. Vocabulary Score: 59,75. Your usage of sophisticated vocabulary words used is LESS than average. Aim for a higher vocabulary score and it will show in your writing. Please use the Vocab Builder tool and set a goal. Try to reach the 60th percentile after revising your text with a thesaurus.

My ideal house 1. Vocabulary Score: 43,72. It looks like your use of vocabulary words needs some help. Make sure to use our Vocab Builder in order to get some extra practice.

School and university 4. Vocabulary Score: 37,04. It looks like your use of vocabulary words needs some help. Make sure to use our Vocab Builder in order to get some extra practice.

B2 Essay – Women. Vocabulary Score: 26,8. Your usage of sophisticated vocabulary words used is LESS than average. Aim for a higher vocabulary score and it will show in your writing. Please use the Vocab Builder tool and set a goal. Try to reach the 60th percentile after revising your text with a thesaurus.

4.4.6.1.3 Grammarly

Grammarly suggested change the wording or replacing the words. Also, they mentioned the correction of pronoun usage and ordinal numbers.

Change the wording: in a safe way (B2 Essay – Earthquake), there are people who find, there are also young people who, there are also guys who don't (B2 Essay – Lack of

respect), in order to (B2 Essay – Making punishment fit the crime), there are no cars honking (B2 Essay – Shopping), the appearance (B2 Essay – Trip to Berlin), more easy (B2 Essay – Vampires), progress in career (School and university 4).

Replace the word: every day (B2 Essay – Trip to Berlin), like (School and university 5).

Change the ending: 21th (B2 Essay – Vampires).

Correct pronoun usage: mostly (School and university 3), career (School and university 4).

Correctness: It sweets: It seems that there is a pronoun problem here. (School and university 4).

4.4.6.2 Missing words

In relation to missing words, none of the programs provided any kinds of suggestions.

Microsoft Word: No suggestions were given.

Paper Rater: No suggestions were given.

Grammarly: No suggestions were given.

4.4.6.3 Unnecessary words

While Grammarly found a total of thirty errors, -Paper Rater identified sixteen errors and Microsoft Word four. The main difference, however, was not in the difference of the number of errors identified in each tool. While Microsoft Word and Grammarly focused heavily on the usage of adverbs, -Paper Rater designed a feature called bad phrase score, in which they analyzed the essays based on the quantity and quality of what they called "inappropriate" words. In relation to this specific trait, neither John and Woll (2018) nor Harst (2000) developed any study and, therefore, it was not possible to establish any type of comparison.

4.4.6.3.1 Microsoft Word:

Microsoft Word dealt with two types of errors, the first one concerned whether the words are necessary in a sentence and the second one focused on replacing or removing the adverb to provide a clearer message.

Message given; Double-check whether all words are needed here.

My ideal house 1: "It is a spacious house with three bedrooms, a living room, a study room for my husband, a kitchen, two bathrooms, an and store room" – and

When it comes to Vocabulary, the suggestions, at least in these samples, were all concerned with the use of the adverb "very".

Message given: Replacing or removing the adverb here would be clearer.

B2 – Essay- Shopping: "Nowadays, shopping malls are very big" – excessively big, noticeably big, big.

B2- Essay – making punishment fit the crime: "Personally, I think that creative punishments would be very effective in Italy" – amazingly effective, highly effective, remarkably effective.

4.4.6.3.2 Paper Rater:

In the usage of Academic Vocabulary, some essays got high grades and there was one which even got the message good work. However, when it comes to the section called bad phrase score none of the essays were approved in terms of the quality and quantity of "inappropriate" words, misspellings and cliches. The definition of what they consider bad phrase score has already strong adjectives such as: inappropriate and egregious. Their official definition for this section is: "The Bad Phrase Score is based on the quality and quantity of trite or inappropriate words, phrases, egregious misspellings, and cliches found in your paper."

From the suggestions given, five essays received feedback stating that their phrases definitely needed some work or strengthening.

B2 Essay – Reality show. Bad Phrase Score 3.21 (lower is better). Your phrases definitely need some work.

B2 Essay – Lack of respect. Bad Phrase Score 7.92. Your phrases definitely need some work.

B2 Essay – Making punishment fit the crime. Bad Phrase Score 4.15. Your phrases definitely need some work.

My ideal house 2. Bad Phrase Score 4.02. You scored below average. It looks like you need to work on strengthening your phrases.

School and university 2. Bad Phrase Score 7.8. You scored below average. It looks like you need to work on strengthening your phrases.

Other five essays, as they scored less than average, were given the message that their writing contained too many poor quality phrases.

B2 Essay – Trip to Berlin. Bad Phrase Score 10.95. You scored less than average, which means that your writing contains too many poor quality phrases.

My ideal house 1. Bad Phrase Score 3.69. You scored less than average, which means that your writing contains too many poor quality phrases.

My ideal house 4. Bad Phrase Score 4.28. You scored less than average, which means that your writing contains too many poor quality phrases.

School and university 3. Bad Phrase Score. You scored less than average, which means that your writing contains too many poor quality phrases.

B2 Essay – Shopping. Bad Phrase Score 6.66. Sorry to deliver bad news, but your writing shows signs of poor quality phrases.

Other four essays received feedback stating that some of their phrases are not up to par.

B2 Essay – Vampires. Bad Phrase Score 3.53.Uh-Oh! It appears that some of your phrases are not up to par.

B2 Essay – Women. Uh-Oh! It appears that some of your phrases are not up to par.

School and university 1. Bad Phrase Score 6.5 (lower is better). You did equal or better than 5% of the people in your education level. Uh-Oh! It appears that some of your phrases are not up to par.

School and university 4. Bad Phrase Score. Uh-Oh! It appears that some of your phrases are not up to par.

One of the essays received as feedback the interjection "Ouch!!" And the following message: Looks like you may be employing some over-used or distasteful phrases. Your Bad Phrase score is worse than average.

School and university 5. Bad Phrase Score 6.3. Ouch! Looks like you may be employing some over-used or distasteful phrases. Your Bad Phrase score is worse than average.

Although this is not the scope of this study, there is surely space to analyze in further studies how this kind of sentences may affect the motivation and confidence of the students who decide to use this tool to improve their writing skills.

4.4.6.3.3 Grammarly

Grammarly worked heavily on the usage of adverbs, indicating that the adverb should be removed from the phrase due to redundancy or conciseness. Also, there was a suggestion to remove a preposition and, in another sentence, remove a redundant noun.

Remove Redundancy: completely (B2 Essay – Earthquake), Personally (B2 Essay – Lack of respect), Personally (B2 Essay – Making punishment fit the crime), and and (School and university 1), absolutely (School and university 1),

Remove the phrase: Really: It appears that really may be unnecessary in this sentence. Consider removing it (B2 Essay – Shopping), (B2 Essay – Trip to Berlin), (B2 Essay – Women), In fact, really (School and university 1), (School and university 2), actually, really (School and university 3), (School and university 4),

Remove the preposition: for (School and university 1), on (School and university 2)

Remove redundant noun: a good university (School and university 4)

Conciseness: It appears that really may be unnecessary in this sentence. Consider removing it. (B2 Essay – Making punishment fit the crime), (B2 Essay – Trip to Berlin), (B2 Essay – Women), (My ideal house 4), (School and university 1), (School and university 2)

Conciseness: It appears that definitely may be unnecessary in this sentence. Consider removing it. (My ideal house 4)

Conciseness: Actually: It appears that actually may be unnecessary in this sentence. Consider removing it. (School and university 3),

Andand: Oops! It appears that you typed and twice in a row. Consider deleting one of them. (School and university 1)

When analyzing the "untreatable errors" proposed by Ferris (1999), in relation to unnecessary words, Microsoft Word and Grammarly focused mainly on the use of adverbs and Paper Rater labelled the unnecessary words as bad phrases that contained trite or inappropriate words, phrases, egregious misspellings, and cliches. With that, at the end of the message they would just mention the ten worst words that were used in the essays.

4.5 ANSWERING THE SECOND QUESTION

In order to answer the second research question "How is the content feedback given in each program?", it is important to design the boundaries involving the content. As for this research, the component content was divided into four different elements: organization, paragraphing, cohesion, and relevance.

4.5.1 Organization

In relation to Organization, Microsoft Word and Paper Rater did not provide any kind of suggestions. On the other hand, Although Grammarly gave a total of sixteen suggestions,

they only labelled the delivery of the essays as "slightly off" or "just right". Apart from that, nothing else was mentioned in this section.

Microsoft Word: No suggestions were given.

Paper Rater: No suggestions were given.

Grammarly:

Delivery: Slightly off (B1 Essay – Reality Show), (B2 Essay – Trip to Berlin), (My ideal house 1), (My ideal house 2), (My ideal house 4), (School and university 1), (School and university 4).

Delivery: just right (B2 Essay – Earthquake), (B2 Essay – Lack of respect), (B2 Essay – Making punishment fit the crime), (B2 Essay – Shopping), (B2 Essay – Vampires), (B2 Essay – Women), (School and university 2), (School and university 3), (School and university 5).

4.5.2 Paragraphing

In relation to paragraphing, Microsoft Word and Grammarly did not provide any kind of suggestions. Paper Rater, on the other hand, provided plenty of feedback regarding this feature. For each essay, the program gave suggestions concerning sentence length, the use of passive voice in the sentences and sentence beginnings as well.

Microsoft Word: No suggestions were given.

Paper Rater:

When it comes to sentence length, the only essay that was spotted as using short sentences was School and University 3. All the others were considered good or within the acceptable range.

School and university 3. Sentence Length Info: You seem to be utilizing a lot of short sentences. Try varying your sentence length between simple and complex. Passive voice: No passive sentences detected. Sentence Beginnings. Simple Sentence Starts: Variety is the hallmark of a good writer, and this is especially true in regard to sentence starts. Creatively arranging sentence beginnings breaks up the monotony and choppy style associated with a simple noun phrase followed by a verb. This does NOT mean that all sentences should begin with prepositional phrases, transitions, or adverbial phrases, but it does mean that you should be certain to pay attention to sentence starts and deliberately edit for variety if necessary.

Once all the other essays were well evaluated in relation to sentence length, the focus should be now on sentence beginnings, once it had a wide spectrum of variation. For a start, four essays were considered above the average by the app.

B2 Essay – Making punishment fit the crime. Sentence Length Info: There is no "perfect' sentence length, but your average sentence length is within an acceptable range. Passive voice: 50%. Many writers feel that passive voice represents poor writing form, as it allows the object of an action to be the subject of a sentence. Sentence Beginnings. Simple Sentence Starts: 0%. Nice work! The variety and complexity of your sentence starts is above average.

School and university 4. Sentence Length Info: It is important to vary between simple and complex sentences, which you seem to have done quite well. Passive voice: No passive sentences detected. Sentence Beginnings. Simple Sentence Starts: 15%. Your sentences showcase complex beginnings, which puts you above average in this category.

B2 Essay – Shopping. Sentence Length Info: You seem to have a good mixture of short and long sentences throughout your paper. Passive voice: No passive sentences detected. Sentence Beginnings. Simple Sentence Starts: 8%. Impressive! You seem to be using complex sentence beginnings.

After that, five essays were considered average and received messages such as: your sentences starts are decent, not bad but could be better, need some work, are only so-so and are lacking in complexity.

B2 Essay – Vampires. Sentence Length Info: You seem to have a good mixture of short and long sentences throughout your paper. Passive voice: 15,2%. Many writers feel that passive voice represents poor writing form, as it allows the object of an action to be the subject of a sentence. Sentence Beginnings. Simple Sentence Starts: 24%. Your sentence starts are decent.

B2 Essay – Women. Sentence Length Info: Your writing showcases a good balance between simple and complex sentences, although the effective use of a sentence length cannot be easily measured. Passive voice: 25 %. Many writers feel that passive voice represents poor writing form, as it allows the object of an action to be the subject of a sentence. Sentence Beginnings. Simple Sentence Starts: 25%. Your sentence starts are not bad but could be better

My ideal house 1. Sentence Length Info: It is important to vary between simple and complex sentences, which you seem to have done quite well. Passive voice: 6,7 %. Many writers feel that passive voice represents poor writing form, as it allows the object of an action to be the subject of a sentence. Sentence Beginnings. Simple Sentence Starts: 27%. Ouch! It looks like your sentence beginnings need some work.

My ideal house 2. Sentence Length Info: Great work! Your average sentence length is within an acceptable range. Passive voice: No passive sentences detected. Sentence Beginnings. Simple Sentence Starts: 25%. Meh. The starts of your sentences are only so-so.

B2 Essay – Earthquake. Sentence Length Info: There is no "best" sentence length. However, your average sentence length is within an acceptable range. Passive voice: 31,6%. Many writers feel that passive voice represents poor writing form, as it allows the object of an action to be the subject of a sentence. Sentence Beginnings. Simple Sentence Starts: 26%. The beginnings of your sentences are lacking in complexity.

Finally, seven essays were considered below average and one of them received a message of code RED and all the others were labelled as unsatisfactory.

B2 Essay – Lack of respect. Sentence Length Info: Your writing showcases a good balance between simple and complex sentences, although the effective use of a sentence length cannot be easily measured. Passive voice: 26,7%. Many writers feel that passive voice represents poor writing form, as it allows the object of an action to be the subject of a sentence. Sentence Beginnings. Simple Sentence Starts: 27%. Code RED! Your sentence starts scored below average.

B1 Essay – Reality Show. Sentence Length Info: You seem to have a good mixture of short and long sentences throughout your paper. Passive voice: No passive sentences detected. Sentence Beginnings. Simple Sentence Starts: 30%.   Your sentence starts are unsatisfactory.

B2 Essay - Trip to Berlin. Sentence Length Info: Your writing showcases a good balance between simple and complex sentences, although the effective use of a sentence length cannot be easily measured. Passive voice: 5,3%. Many writers feel that passive voice represents poor writing form, as it allows the object of an action to be the subject of a sentence. Sentence Beginnings. Simple Sentence Starts: 47%. Your sentence starts are unsatisfactory.

My ideal house 4. Sentence Length Info: Great work! Your average sentence length is within an acceptable range. Passive voice: 6,3 %. Many writers feel that passive voice represents poor writing form, as it allows the object of an action to be the subject of a sentence. Sentence Beginnings. Simple Sentence Starts: 44%. %. Your sentence starts are unsatisfactory.

School and university 1. Sentence Length Info: There is no "perfect' sentence length, but your average sentence length is within an acceptable range. Passive voice: 10 %. Many writers feel that passive voice represents poor writing form, as it allows the object of an action

to be the subject of a sentence. Sentence Beginnings. Simple Sentence Starts: 30%. Your sentence starts are unsatisfactory.

School and university 2. Sentence Length Info: Your average sentence length is within an acceptable range, but consider that effective use of sentence length cannot be easily measured. Passive voice: No passive sentences detected. Sentence Beginnings. Simple Sentence Starts: 11%. Your sentence starts are unsatisfactory.

School and university 5. Sentence Length Info: Great work! Your average sentence length is within an acceptable range. Passive voice: 16,7 %. Many writers feel that passive voice represents poor writing form, as it allows the object of an action to be the subject of a sentence. Sentence Beginnings. Simple Sentence Starts: 42%. Your sentence starts are unsatisfactory.

Grammarly: No suggestions were given.

4.5.3 Cohesion

In relation to cohesion, wWhile Microsoft Word did not give any suggestion, Paper Rater and Grammarly offered sixteen suggestions each. Paper Rater dealt with the transitional words score analyzing the quality of the transitional phrases used in the essays. Meanwhile, Grammarly just labelled how clear the texts were, ranking them into three categories: very clear, mostly clear and a bit unclear.

Microsoft Word: No suggestions were given.

4.5.3.1 Paper Rater

 Paper Rater also displayed the transitional Words Score, which is the score based on quality of transitional phrases used within a paper. From the sixteen essays analyzed in this study, thirteen were rated as well above average and the score ranged from 172 to 66.

B2 Essay – Shopping. Transitional Words Score: 172.Your usage of transitional phrases is well above average! You may not need to read the info below, but you're meticulous write that you probably will anyways.

School and university 1. Transitional Words Score: 153. Your usage of transitional phrases is well above average! You may not need to read the info below, but you're meticulous write that you probably will anyways.

School and university 4. Transitional Words Score: 149. Your usage of transitional phrases is well above average! You may not need to read the info below, but you're meticulous write that you probably will anyways.

B2 Essay – Women. Transitional Words Score: 118. Your usage of transitional phrases is well above average! You may not need to read the info below, but you're meticulous write that you probably will anyways.

B1 Essay – Reality Show. Transitional Words Score: 110. Your usage of transitional phrases is well above average! You may not need to read the info below, but you're meticulous write that you probably will anyways.

B2 Essay - Trip to Berlin. Transitional Words Score: 97. Your usage of transitional phrases is well above average! You may not need to read the info below, but you're meticulous write that you probably will anyways.

My ideal house 1. Transitional Words Score: 93. Your usage of transitional phrases is well above average! You may not need to read the info below, but you're meticulous write that you probably will anyways.

School and university 5. Transitional Words Score: 90. Your usage of transitional phrases is well above average! You may not need to read the info below, but you're meticulous write that you probably will anyways.

School and university 2. Transitional Words Score: 88. Your usage of transitional phrases is well above average! You may not need to read the info below, but you're meticulous write that you probably will anyways.

B2 Essay – Vampires. Transitional Words Score: 88. Your usage of transitional phrases is well above average! You may not need to read the info below, but you're meticulous write that you probably will anyways.

My ideal house 4. Transitional Words Score: 81.: Your usage of transitional phrases is well above average! You may not need to read the info below, but you're meticulous write that you probably will anyways.

My ideal house 2. Transitional Words Score: 66. Your usage of transitional phrases is well above average!

There was also one essays that was evaluated as above average.

B2 Essay – Making punishment fit the crime. Transitional Words Score: 70. Your usage of transitional phrases is above average!

Finally, three essays were ranked as below average.

B2 Essay – Earthquake. Transitional Words Score: 38. Your usage of transitional phrases is below average.

B2 Essay – Lack of respect. Transitional Words Score: 25. Your usage of transitional phrases is below average.

School and university 3. Transitional Words Score: not given. Your usage of transitional phrases is below average.

4.5.3.2 Grammarly

Grammarly defined the clarity of the essays as very clear, mostly clear and a bit unclear. From these categories, 3 were ranked as very clear, 4 were listed as mostly clear and nine were considered a bit unclear. Apart from this short, rank nothing else was given as a suggestion.

Clarity: very clear (B1 Essay – Reality Show), (My ideal house 1), (My ideal house 2).

Clarity: Mostly clear (B2 Essay – Women), (My ideal house 4), School and university 4), School and university 5).

Clarity: a bit unclear (B2 Essay – Earthquake), (B2 Essay – Lack of respect), (B2 Essay – Making punishment fit the crime), (B2 Essay – Shopping), (B2 Essay – Trip to Berlin), (B2 Essay – Vampires), (School and university 1), (School and university 2), (School and university 3).

4.5.4 Relevance

Regarding Relevance, Microsoft Word and Paper Rater did not provide any suggestions. Although Grammarly labelled the sixteen essays into levels of engagement, they did not provide any kind of practical suggestions.

Microsoft Word: No suggestions were given.

Paper Rater: No suggestions were given.

4.5.4.1 Grammarly

Grammarly labelled the essays according to their engagement as: very engaging, engaging and a bit bland. This way, three essays were labelled as very engaging, three of them were ranked as engaging and seven of them were listed as a bit bland.

Engagement: very engaging (B1 Essay – Reality Show), (B2 Essay – Earthquake), (B2 Essay – Women), (My ideal house 4).

Engagement: Engaging (B2 Essay – Shopping), (My ideal house 1), (My ideal house 2), (School and university 3).

Engagement: a bit bland (B2 Essay – Lack of respect), (B2 Essay – Making punishment fit the crime), (B2 Essay – Trip to Berlin), (B2 Essay – Vampires), (School and university 1), (School and university 2), (School and university 4), (School and university 5)

When analyzing the framework proposed by Ashwell (2000) in relation to content feedback, the organization feature was only covered by Grammarly and such software only labelled the essays into two categories, not providing any kind of practical suggestions. Regarding Paragraphing and cohesion, Paper Rater was the software that gave the most detailed feedback. When it comes to relevance, only Grammarly provided feedback labelling the essays as very engaging, engaging and a bit bland, not providing any type of practical suggestions as well.

4.6 ANSWERING THE THIRD QUESTION

In order to answer the third research question "When the programs covered the same trait, were the suggested solutions similar?"

Once the main question was whether the trait was covered by all the programs, some headings were left out for not covering the same features and they were: Portuguese Spelling, Portuguese Grammar, Clarity, Conciseness, Formality, Vocabulary, Engagement and Delivery. Therefore, the traits that were covered by all the programs were: English Spelling, English Grammar and Punctuation Conventions.

4.6.1 Spelling

At first, it is possible to realize that all the three programs covered the spelling features although none of the essays was equally evaluated by the apps. Microsoft Word identified more mistakes in 9 out of the 16 essays. In this matter, Paper Rater found more mistakes than the other apps in 3 essays. Finally, Grammarly found more mistakes in 3 of the essays. Consequently, it is possible to state that Microsoft Word itself found three times more mistakes in comparison with Paper Rater and Grammarly. By looking at the chart below, it is possible to visualize the differences among the programs.

Table 15 – Spelling Overview

Essay	Microsoft Word	Paper Rater	Grammarly
Reality Show	5	4	0
My ideal house 1	6	4	5
My ideal house 2	5	1	7
My ideal house 4	1	0	1
School and university 1	2	0	1
School and university 2	2	1	0
School and university 3	10	8	7
School and university 4	6	3	0
School and university 5	0	2	0
Earthquake	2	4	2
Lack of respect	3	0	2
Vampires	2	6	1
Shopping	1	0	1
Women	0	1	1
Trip to Berlin	11	9	6
Making punishment fit the crime	3	3	5

Source: designed by the author.

Secondly, it is possible to analyze how the feedback was given. For that, due to the higher number of identified mistakes, the essay÷ School and University 3 was chosen as a

sample to be compared in this section. All the examples provided here have been previously shown in this report and can be consulted for a thorough comparison.

Microsoft Word:

School and University 3- "lessing" – lessing , leasing, blessing.

School and University 3- "cause" – cause, causse.

School and University 3- "frome" – from, frame, formed.

School and University 3- "infact" – In fact, infant, infect.

School and University 3- "infact" – In fact, infect., infarct.

School and University 3- "views.Students" – views. Students.

As it can be seen, Microsoft Word usually provided more than one option of correction of the text.

As for Paper Rater:

Table 16 – School and University 3 (Paper Rater)

Error	Suggestion
Post-secondary	Possible spelling mistake found
Frome	From, Rome, frame, froze,Fromm,fro,me,from e
Everyone-even	Possible spelling mistake found
School---find	Possible spelling mistake found
Computer---based	Possible spelling mistake found
Socio---economic	Possible spelling mistake found
No---one	Possible spelling mistake found
Lessing	Blessing, leasing, messing, fessing, yessing

Source: designed by the author.

From all the spelling mistakes found, 6 out of 8 mistakes were only showing what the error was and there was only one message as a suggestion: "Possible spelling mistake found". The other two suggestions given showed many different possible solutions, leaving it to the writer to decide which suggestion to choose.

Grammarly:

Correct your spelling: frome, field work, infact, counselling, no---one, one, lessing

As it can be seen, although the spelling was covered in all the three programs, there was a variation of number of correction and even among the words that should change their spelling.

4.6.2 Grammar and punctuation conventions

Firstly, it is noteworthy to mention that the traits grammar and punctuation conventions were displayed together. Although Microsoft Word separated both traits, Paper Rater and Grammarly covered those traits together in the grammar section. For this reason, the numbers shown are a result of those two aspects.

Secondly, While Grammarly displayed a total of 190 mistakes, Microsoft Word identified a total of only 123 suggestions and Paper Rater found a total of 31 improvements. By looking at the chart below, it is possible to visualize the differences among the programs.

Table 17 – Grammar and punctuation conventions

Essay	Microsoft Word	Paper Rater	Grammarly
Reality Show	6	3	10
My ideal house 1	9	4	8
My ideal house 2	7	0	22
My ideal house 4	4	0	3
School and university 1	2	0	3
School and university 2	14	2	20
School and university 3			
School and university 4	14	0	20
School and university 5	20	15	25
	5	3	11
Essay	Microsoft Word	Paper Rater	Grammarly

Earthquake	8	2	11
Lack of respect	10	2	9
Vampires	9	0	13
Shopping	4	0	3
Women	5	0	2
Trip to Berlin	5	0	26
Making punishment fit the crime	1	0	4

Source: designed by the author.

Thirdly, similar to spelling, two samples were chosen to show how the grammar aspects and punctuation conventions were analyzed by the apps. In this matter, school and university 2 was chosen for having the highest number of suggestions.

Microsoft Word:

Message given: A comma between clauses is better here.

School and University 2: "want to, but can choose something that you like and you think will be useful for your" – like,

School and University 2: "interested in what I'm doing and hope carrying on doing it as long as possible" – doing,

Message given: a comma before "and" or "or" could make this clearer.

School and university 2: "good memories from my classmates, my teachers and my school" – teachers,

School and university 2: "history, philosophy, literature and psychology" – literature,

Different from the other two apps, Microsoft Word provided a message explaining the reason why a suggestion was given. This applied to the grammar and punctuation convention as well.

As for Paper Rater:

Table 18 - School and university 2 (Paper Rater)

Error	Suggestion

now I	now, I
Long	Longs

Source: designed by the author.

As previously mentioned, Paper Rater did not work thoroughly in relation to grammar/punctuation conventions and, in this specific case, the few points raised were provided without any kind of message or guidance.

Grammarly:

The society: It seems that article use may be incorrect here.

Add a comma: course, and

Remove the phrase: really

Add an article: town

Add a space: but

Change preposition: from

Fix the agreement mistake: mind

Conciseness: really: It appears that really may be unnecessary in this sentence. Consider removing it.

Remove the phrase: really

Remove the preposition: on

It can be seen that Grammarly used the imperative to suggest the changes, and, in some situations, they used hedging to explain why they think something may be modified.

After having presented the method of the study, the next section presents the results a discussion of the data collected.

4.7 DISCUSSION

The current section brings the discussion of the data collected for achieving the purpose of the present study. The data analysis and its respective discussion comprised two sections. In the first section, the findings of the types of traits covered by the apps are presented. In the second section, the extent to which such apps provided the feedback features designed for this study are pinpointed.

4.7.1 Types of traits adressed by the apps

4.7.1.1 General features of the apps

       The first section deals with the general traits of the apps. For this, all the traits given by all the three apps were listed here. Based on this content, the traits provided were inter-crossed to discover whether the apps are working on similar traits or if there are traits that were covered only by one or two of them. With that, a total of eleven features were displayed and they were: Portuguese Spelling, Portuguese Grammar, English Spelling, English Grammar, Clarity, Conciseness, Formality, Punctuations Conventions, Vocabulary, Engagement, and Delivery. From those features, only three traits were mutual among all software available, which were: English Spelling, English Grammar and Punctuation Conventions.

Table 19 – General traits

Traits covered by the Apps	Microsoft Word	Paper Rater	Grammarly
Portuguese Spelling	YES	NO	NO
Portuguese Grammar	YES	NO	NO
English Spelling	YES	YES	YES
English Grammar	YES	YES	YES
Clarity	YES	NO	YES
Conciseness	YES	NO	NO
Formality	YES	YES	NO
Punctuation	YES	YES	YES
Conventions	YES	YES	NO
Vocabulary	NO	NO	YES
Engagement	NO	NO	YES
Delivery			

Source: designed by the author.

Portuguese Spelling: As previously mentioned, the essays which were analyzed in this research were all written in English by Italian students. As a consequence, there should not be any kind of Portuguese spelling in the feedback of the apps. However, from the 3 apps, only Microsoft word provided suggestions in relation to Portuguese spelling. As I am Brazilian and the software is installed in the Portuguese version, somehow the software may have used it as a standard.

Portuguese Grammar: The same explanation given in the Portuguese spelling section aforementioned can be applied here.

English Spelling: Common to all the apps, the English spelling was widely covered in the apps. In this matter, Microsoft words recognized a total of 59 spelling mistakes. At the same

time, Paper Rater spotted 46 mistakes. Different from the other two apps, Grammarly did not separate spelling from grammar and other traits. This way, the number given here is related to what they called "Correctness" and it was identified a total of 38 spelling mistakes.

English Grammar: Similar to English Spelling, English Grammar was covered by the three apps. In this sense, Microsoft Word found a total of 105 mistakes. Paper Rater listed a total of 31 mistakes. In relation to that, Grammarly provided 151 suggestions for improvement.

Clarity: Although Microsoft Word listed the trait Clarity, it did not provide any type of suggestions in the essays analyzed in this research. Regarding this trait, Paper Rater did not offer any type of specific assistance related to this topic. Nonetheless, it provided a score based on the quality of transitional phrases and analyzed the level flow of the text and how good the writer is when compared to others with the same level of education. Moving on to the last of the three apps analyzed, on the one hand, Grammarly offers a specific section of feedback, but on the other hand, the feedback given was simply to provide a global view labelled as: "very clear", "most clear", and "a bit unclear".

Conciseness: The topic conciseness was only mentioned in the Microsoft Word. However, despite being listed a trait which is part of the feedback given, there was not any comment regarding this subject in any of the essays.

Formality: Microsoft Word is the only software which has a trait called formality and the software identified a total of 60 suggestions of improvement. Despite this, Paper Rater deals, somehow, with formality in the word choice section. Regarding this matter, Grammarly mentions that the level of formality is worked on the delivery section for those who pay to use the paid version of the software. This way, Grammarly, in the free version, just deals with this issue in the delivery section and labels the essays as: "slightly off" or "Just right".

Punctuation Conventions: Microsoft Word is also the only software which has trait called punctuation conventions and it identified a total of 18 mistakes. Paper Rater included the punctuation conventions in the grammar section. Similarly, Grammarly deals with this trait in the correctness section.

Vocabulary: Microsoft Word separated a trait called vocabular from the spelling and grammar ones and there was a total of 12 suggestions. In this aspect, Paper Rater has a section called word choice, which provided a standardized number of ten suggestions per essay. Once there were sixteen essays, there were a hundred sixty suggestions. When it comes to Grammarly, there was not a specific section with this terminology and all the suggestions given were in the correctness section.

Engagement: This trait was only found in the Grammarly software and it just provided a vague feedback, labeling the essays as: "very engaging", "engaging" and "a bit bland".

Delivery: Similar to engagement, this trait was only found in the Grammarly software and it also just provided a vague feedback, labeling the essays as: "slightly off" or "Just right". Total number of suggestions: All in all, Microsoft word provided a total of 257 suggestions. In this matter, Paper Rater offered a total of 237 suggestions. Finally, Grammarly displayed a total of 237 suggestions as well.

4.7.1.2 Framework Analysis

The second section handles the data based on the framework used by this study. As stated in the introduction, the framework used in this study was the form feedback suggested by Ferris (1999), which works with the notion of "treatable and untreatable errors" as well as the content feedback suggested by Ashwell (2000). Based on the features listed by such authors, it was examined to what extent the three apps covered the traits mentioned by Ferris (1999) and Ashwell (2000). In this sense, there will be an analysis of the treatable errors first, which will be followed by the untreatable errors and, finally, the content features.

Table 20 – Form: "treatable errors"

Software	Subject-verb agreement	Verb tense	Article	Possessive noun endings	Sentence fragments	Spelling	Others
Microsoft Word	YES	NO	YES	YES	YES	YES	YES
Paper	YES	NO	YES	NO	YES	YES	NO
Rater	YES	NO	YES	NO	YES	YES	YES
Grammarly							

Source: designed by the author.

As it can be seen, from the three programs, none of them covered all the seven features indicated by Ferris (1999) as treatable errors. In this line of thought, Microsoft Word was the one that covered most features, as the only trait not covered by the software was "verb tenses". As a sequence, Grammarly did not cover "verb tense" and "possessive noun endings". Lastly,

Paper Rater did not cover "verb tense", "possessive noun endings" and any other extra trait that could be placed in the "others" section.

Table 21 - Form: "untreatable errors"

Software	Word choice	Missing words	Unnecessary words
Microsoft Word	YES	NO	YES
Paper Rater	YES	NO	YES
Grammarly	YES	NO	YES

Source: designed by the author.

Regarding the "untreatable errors" suggested by Ferris (1999), none of the programs fully covered such items. Although all of them worked on word choice and unnecessary words, there was not anything mentioning missing words. This way, it is not possible to provide form feedback of the "untreatable errors" using the studied apps.

Table 22 - Content

Software	Organization	Paragraphing	Cohesion	Relevance
Microsoft Word	No suggestions	No suggestions	No suggestions	No suggestions
Paper Rater	No suggestions	Sentence length, Passive voice, Sentence beginnings	Transitional Words	No suggestions
Grammarly	Delivery	No suggestions	Clarity	Engagement

Source: designed by the author.

As it can be seen from the table, similar to what happened to the "untreatable errors", none of the programs covered all the content feedback features. From those programs, Microsoft Word did not work in any of the content traits mentioned by Ashwell (2000). Paper Rater did not mention any aspect related to neither organization nor relevance. Lastly,

Grammarly did not cover any paragraphing issue and when it covered a trait, it was only labelled by expressions, such as "very engaging", "engaging", "a bit bland", "very clear", "most clear", and "a bit unclear", "slightly off" or "Just right", which, by no means, would guide students to any type of practical suggestions. Following this line of thought Winans (2021), in his study regarding Grammarly's tone detector, stated that "… this tool does not provide indications of which words or phrases contribute to an indicated tone, nor does it offer suggestions for improvement". This perception was also felt by the students in a study carried out by Nova (2018) when the students provided their opinion in relation to the content feedback given by Grammarly.

In this sense, Parra and Calero (2019) conducted a study which involved twenty-eight students that used the programs Grammarly and Grammark as a complement of teacher's feedback during a semester of studies and they concluded that although such programs brought positive effects in relation to students writing in general, such tools demonstrated their limitations regarding content development. Still, when it comes to the feedback given by Grammarly, Dikly and Bleyle (2014) stated that "Grammarly was more appropriate for local surface-level errors (e.g. articles, preposition, and verb-noun agreement) while instructors are needed for issues related to awkward wording and cohesion."

As a result, it is not fully viable to provide the proposed "content feedback" taking into consideration the three programs that were analyzed in this study.

Finally, it is possible to conclude that, based on the data provided in this study, that although such programs worked on many aspects of the proposed framework, none of those apps could provide a full coverage feedback taking into consideration the form or content features provided in the designed framework.

In addition, in favor of the use of digital automated feedback programs in comparison with human error corrections, Parra and Calero (2019, p.6) clearly stated that: "Teacher and peer feedback is not always consistent due to human error and for that reason identifying the same written problems is not possible, leading students to be confused on the messages they received from their teachers (LAVOLETTE, 2015; ZHANG, 2016)" However, it was also possible to conclude that this argument, which is present in some articles about the topic, can be questioned once the two arguments given, which are human error and incapability of different teachers finding the same written problems also occurred with the programs. In relation to errors, many of the suggestions given were inappropriate or misleading. Regarding

the second argument, which is stating that different teachers would identify different errors also occurred with the programs. When answering the third research question, a model was given in its integrity to show how each program displayed different errors and suggestions.

All in all, it can be concluded that although there were many features to be improved, the programs worked on a wide range of aspects and it is at the reader's discretion to choose whether such programs would bring benefits to their students and if they would be suitable as assistants to teacher's feedback.

5 FINAL REMARKS

The present study main objective was to investigate the extent to which three automated feedback programs cover the feedback features that are considered essential by Ferris (1999), in relation to form and also the content traits designed by Ashwell (2000). The two specific objectives were (1) to investigate how the content and form feedback is effectively used in authentic essays (2) to find the similarities and differences in the feedback methods applied.

Sixteen authentic essays from students of Roma3 University, in Italy, were selected for this research. From these essays, nine were from the B1 level and seven from B2 level. All the essays were analyzed in the three programs: Microsoft Word, Paper Rater and Grammarly. All the feedback provided was collected and divided into three segments: the first focus, which was divided into two segments, is on form and is based on Ferris (1999), who separated the types of errors as: "treatable, which covered subject-verb agreement, verb tense, article, possessive noun endings, sentence fragments, spelling and others and also in untreatable errors", which covered word choice, missing words and unnecessary words. In addition, there was also a focus on content based on Ashwell (2000), which deals with multiple-sentence level issues in relation to organization, paragraphing, cohesion, and relevance. With that, the feedback in relation to form and content of the three apps were compared and contrasted.

After restating the objective of the current research and how the analysis was carried out, the Final Remarks are presented. The final remarks are presented in three sub-sections. The first section introduces the summary of the main findings regarding the research questions. The second section presents the limitations of the current study as well as suggestions for further research and, finally, the third section displays the pedagogical implications in relation to the present study.

5.1 RESEARCH QUESTIONS AND RESULTS

In order to reach the main objective of this research, three specific research questions were designed:

1. What kind of feedback is presented in each program in relation to form?
2. What kind of feedback is presented in each program in relation to content?
3. When two or more programs covered the same trait, were the suggested solutions similar?

In order to answer the first research questions, which is related to the framework provided by Ferris (1999), the elements were analyzed and presented as follows: In relation to subject-verb agreement, Grammarly provided the highest number of suggestions, which reached a total of nineteen. With that, Grammarly found 74% more subject-verb agreement in comparison with Microsoft Word and Paper Rater. When it comes to verb tense, none of the programs suggested any kind of verb shifts, so it is possible to state that this trait was not worked on the programs in this present study. During the result section the studies of John and Woll (2018), which showed that Microsoft Word and Grammarly did not identify any of the six possible errors in relation to verb tense shift and Haist (2000) investigated how Word 97's Grammar Checker provided some partial and too general feedback regarding this matter.

With regards to article, Grammarly provided 17 suggestions, Paper Rater presented 3 cases and Microsoft Words found one error. Based on such data, it is possible to conclude that Microsoft word only identified 6% and Paper Rater 18% of the total amount of errors found by Grammarly. When it comes to possessive noun endings, while Microsoft word identified 7 errors, Grammarly and Paper Rater found 0 errors. However, although it had been already discussed in the result section, it is important to pinpoint the discrepancies in relation to John and Woll (2018) once While Microsoft Word spotted seven mistakes in this current study, it had identified zero errors out of the five possibilities in their studies and Grammarly had identified three out of five errors in their studies and identified zero in this present study.

In relation to sentence fragments, Microsoft Word identified 98 errors, Grammarly d 39 and Paper Rater 18. With that, Paper Rater found only 18% and Grammarly 40% of errors when compared to Microsoft Word. Still talking about Microsoft word, it is possible to conclude that there has been some evolution of the program when compared with the 97 version of the program as Haist (2000), had concluded that Microsoft Word had identified around sixty per cent of the fragment errors at that time. Regarding spelling, Microsoft word found 45 errors, Paper Rater 52 and Grammarly 24. This way, Grammarly identified 46% and Microsoft Word 87% of the total number of errors found by Paper Rater. The last section of the so-called "treatable errors" there was a topic labelled as others and would encompass the traits not covered in the other sections. In this sense, Grammarly provided eight suggestions, Microsoft Word three and Paper Rater none. As a consequence, Microsoft Word covered 38% of different errors in comparison with Grammarly.

After covering the "treatable errors", the three traits of the "untreatable errors" were also analyzed. Regarding word choice, While Paper Rater and Grammarly provided thirteen

suggestions each, Microsoft Word offered only four and keeps the standard provided by Harst (2000) who analyzed the use of commonly confused words and concluded that Microsoft Word had a poor performance in this field. This way, Microsoft word only covered 31% of the errors identified by Paper Rater and Grammarly. When it comes to missing words, none of the programs identified any errors, so there is no need for further explanation about this issue. Finally, mentioning the unnecessary Words, Grammarly found a total of thirty errors, Paper Rater sixteen and Microsoft Word four. Based on it, Microsoft Word only covered 13 % and Paper Rater 53% of the errors identified by Grammarly.

In order to answer the second research question, which dealt with the content feedback proposed by Ashwell (2000), the elements were presented as follows: In relation to Organization, Microsoft Word and Paper Rater provide zero suggestions and Grammarly gave a total of sixteen ones. However, Grammarly only labelled the essays as "slightly off" or "just right". Apart from that, nothing else was brought as feedback. In relation to paragraphing, Microsoft Word and Grammarly did not provide any kind of suggestions. Paper Rater, however, provided feedback to all the essays regarding sentence length, the use of passive voice in the sentences and sentence beginnings as well. In relation to cohesion, While Microsoft Word did not give any suggestion, Paper Rater offered sixteen suggestions covering the transitional words score analyzing the quality of the transitional phrases used in the essays. Similarly Grammarly gave a total of sixteen suggestions but it just labelled how clear the texts were, ranking them into three categories: very clear, mostly clear and a bit unclear. Regarding Relevance, Microsoft Word and Paper Rater did not provide any suggestion. Although Grammarly labelled the sixteen essays into levels of engagement, which were "very engaging", "engaging" and "a bit bland", they did not provide any kind of practical solution.

In order to answer the third research question, some samples of essays were analyzed to observe how the different programs provided feedback and, in general, it was possible to analyze that the way that the programs provided feedback were different. While Grammarly generally mentioned what the problem was and showed the error, in the content section it only offered indirect or implicit written corrective feedback as explained by Bitchener and Knoch (2008), Microsoft Word and Paper Rater offered direct or explicit written corrective feedback as they provided the corrections for the errors. Ferris (2003).

5.2 LIMITATIONS OF THE STUDY AND SUGGESTIONS FOR FURTHER RESEARCH

The current study had some limitations. The small number of essays was a limitation that prevented the generalization of the conclusions stated about this subject under investigation. In this line of thought, it would be profitable to conduct studies that would handle a larger number of essays. This researcher does not see the fact of not having interviewed the students as a limitation, but a study in which the perception of students in relation to the feedback provided would surely bring benefits to understand how the different feedback style of the three programs could impact students own sense of achievement and improvement. In addition, once the essays were taken from students at a university website to which this researcher did not have any kind of direct contact, it is not possible to know if the essays provided were a first draft or a final version, which, consequently, could affect the total number of mistakes provided. Furthermore, it could be considered in further studies other automated programs that claim to provide content and form feedback to analyze to what extent they would do so. Therefore, it could deepen the level of discussion and even the way the researchers tend to analyze content and form feedback provided by such programs. Finally, similar to the study conducted by Dikly and Bleyle (2014) there should be further studies involving such programs and, at the same time, the professor's feedback, comparing to what extent the automated scoring and instructor feedback are perceived by students as beneficial and whether the use of the two modalities interchangeably (automated and from the professor) would bring more benefits to students' writing skills.

5.3 PEDAGOGICAL IMPLICATIONS

According to Ferris et al (1997), Although it is time-consuming and sometimes difficult, one of the most crucial tasks of the teachers is to provide written feedback on student papers. Based on that, Ferris (1999) researched about the type of errors students were making and she concluded that around 50% of the errors were "treatable errors", which meant that they could be solved or learnt though grammar rules or books and the other 50% were "untreatable errors" and involved questions that are not usually found in a set of rules or grammar books, such as word choice, missing and unnecessary words. In relation to content, Ashwell (2000) highlighted the importance of analyzing the multiple-sentences structures and work on paragraphing, cohesion, relevance, and organization. The combination of both types of feedback, form and content, would bring more benefits to students (FATHMAN; WHALLEY;1990).

In this sense, Hyland and Hyland (2006) mentioned that the technology and computer facilities have facilitate the delivery and mediation of feedback, in both practice and research. Based on this belief, that the research of feedback is facilitated by the technology, this study was carried out and the conclusions found here could be analyzed by teachers in order to conclude to what extent the automated feedback devices are suitable to assist teacher and students in relation to feedback.

From the results of this study, it is possible to conclude that such programs are not totally prepared to provide comprehensive feedback once there were features that were simply not analyzed or were only labelled as "engaging" or "very engaging" although, it must be stated, they worked on many writing aspects in a detailed manner. With that, it is at the teacher discretion to conclude if the covered features are suitable enough to be used as an assistant to the teacher. What can also be concluded that technology is not able to replace teachers and such programs should help teachers and facilitate their workload, not substitute them under any circumstances.

Also, independent of the choice of the teacher, this study provided a model of feedback framework covering form and content and such framework could be used by teachers as a guide to separate and group chunks of feedback to students, be it online or paper-based feedback. This framework could also be taught to students so that they would know beforehand what types of features will be analyzed in their writing production and it will also facilitate the role of the teachers in deciding to which areas of writing the students need to pay closer attention. Still regarding the framework, teachers can analyze which aspects of this study brought positive and solid feedback and leave just those features to be analyzed by the programs and provide their own feedback in the features they feel the program is not good enough to provide structured feedback.

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APPENDIX A – B1 Essay – Reality Show

If I won a place in a reality show, of course I never would go in any case. I wouldn't be able to live with a lot of strangers on the stage in front of the cameras for 24 hours, day and night, controlled by the "big brother".

Firstly I couldn't renounce to my private life, my intimacy and my affective relations. I need my room, my house, my freedom, my friends, my world, a real world not a world made for people's curiosity and show business. I couldn't survive this strange, awful, apparently glamourous prison. Money couldn't convince me and a hypothetical success isn't my goal , really to be successful is not my cup of tea.

I've seen a reality show once or twice in my life, I usually prefer other formats or films and I generally don't like television with its lies, rhetoric and false reality, I'm obliged to know reality shows by mass media and, sometimes, by newspapers. In my opinion it's a place where people are bossy, stupid, competitive, bad-mannered, cheating, irresponsible, without dignity, maybe they are actors, actresses or simply performers well paid, but there are other ways to earn a living.

Finally I think that this unbearable process of idiocy of Italians depends, not at all, but in a large part, also on this kind of format exalted by media and audience. Reality shows with their characters, games, words, votes, confessions, sexual trips is the mirror of our cultural and expressive poverty, maybe it is an open window on this country and other European countries, interesting for a sociological document or essay, not for an ethical or aesthetic research.

APPENDIX B – B2 Essay – Earthquake

Last night the earth trembled. It was half past three and everybody was sleeping. Before going to bed I felt a little bit strange but I couldn't imagine that something like that would have happened. Suddenly I felt my bed quaking, I began calling my parents because I was completely shocked, the dogs started barking, it seem to me to be the character of an action film. It lasted few seconds but it seemed to last forever.

After that I tried to sleep but it was impossible for me so I turned on the TV and I will never forget what I've seen. There was rubble everywhere, people who was digging with bare hands, who were looking for their friends and their relatives. I stayed in front of the TV the whole day and the news was getting worse. Many people were still scared and they couldn't realize what had happened, somebody has lost a son, a niece, a uncle and somebody else has lost everything they owned. The homeless began to get in touch with their relatives to know if they were still alive, they started to find a place where they could stay because their house was completely destroyed like Onna inhabitants, a small village that was entirely reduced to rubble.

I think that if the houses had been built according to the anti- seismic system, more people would have been saved, there wouldn't have been as many people without a place to live. The government said that many buildings were made of stone and this is not possible in a seismic area like Abruzzo. Some people said that an event like that can't be predict but a geologist called Giuliani studied the previous quakes and he had imagined that something terrible would have happened but he was accused of creating panic.

In front of that I felt a bit useless ,I would like to help these people but I don't know what to do. In my opinion, one of the most important things that the government should do after this catastrophe is to rebuild these villages in a safe way. The only thing the Italian could do at this moment is collect money, clothes, blankets to help them to come back to their everyday life.

APPENDIX C – B2 Essay – Lack of respect

One of the biggest problems which affect our society is the lack of respect that young people have for other people. These guys don't have values to follow: they think that insulting, hurting and hitting other people is fine. They don't understand how much the can hurt other people.

Every time we watch TV or read newspapers, we find cases of young people who have behaved violently towards other guys or other people in general. For example there are people who find funny hurting the guys who go to the same school as them only for stupid reasons. They think that hurting them physically or psychologically is fine, they don't understand that that boys or girls will suffer for many years remembering what happened in his or her past. There are also young people who think they are superior to others and so they think that the life of these people isn't important. An example of this behaviour is given by the guys who burned an Indian man only to have fun. There are also guys who don't accept the fact that they can't have everything, so if a girl rejects them they hit and rape her.

Personally I think that the first reason for this behaviour can be found in the absence of their parents while they grow up. Their parents don't bring them up very well, don't give them good examples or true values, so these guys don't understand what is right and what is wrong. Another way to reduce this behaviour is introducing good teachers in schools: unfortunately very often teachers are the first people who give bad examples.

I think that it will be hard to change the situation because nowadays most young people are arrogant, violent and evil but I think that the families and the State should fight for this cause. We can't accept that our children will be hurt in the worst ways only because they are some ways different. A society where a child is criticized only because he isn't cool enough or because he has different origins is not a real society.

APPENDIX D – B2 Essay – **Making punishment fit the crime**

In the article "Making the punishment fit the crime", we can find examples of the US judge Cicconetti's creative punishments. With his "creative justice", people who commit crimes or offences get to choose, as a punishment, between jail or a "creative sentence".

For example, Michelle Murray, who abandoned some kittens in the forest, was not put in jail but was left a few hours in that same old forest where she did such cruel action. In the Us these types of punishment have been really successful since criminals have learnt not to commit small offences again.

Personally, I think that creative punishments would be very effective in Italy. This is true for two reasons: firstly because I believe that punishments should be made to improve one's own moral behaviour within society. Secondly, if someone commits a minor offence, he or she should not simply pay a fine or be put in jail, because in this way offenders could reoffend. In my opinion an effective punishment should have the aim to do something good for others. For example, if a teenager is caught drinking and smoking, he or she should be punished by spending a day in a school to talk about the bad consequences that these actions have on our health.

In conclusion, in order to become better citizens, offenders should be provided with the right kind of punishment for their offence and they should be made to understand the social and moral implications behind their actions by being actively involved within the community.

APPENDIX E – B2 Essay – Shopping

A whole day of shopping is the dream of every girl, especially the young ones, and the nightmare of parents, boyfriends and men in general. Going shopping is something very important, and almost necessary for some people, but what's the best place to go and do it?

Nowadays, shopping malls are very big and beautiful, full of shops and places where men can have a rest and children can have some fun, while mums and girlfriends are wasting their salaries. Moreover, in shopping malls shops close at 10 p.m. and are open also on Sunday, so also people that work all week can go there. The bad things are that in shopping malls there is always air conditioning, which is something that really annoys me, and there are no places where people can meet and have a conversation.

The best thing about going shopping downtown is surely the fact that we can walk in the open air and that we can see monuments while going from one shop to another. On the other hand, being in the open air has negative aspects, for example when it rains or snows it becomes impossible to do some shopping without getting stressed or ill!

In conclusion, I prefer going shopping in shopping malls just because there you can have a walk and relax : there are no cars honking at you and no sidewalks full of stressed people that push you because they are late! What chaos!

APPENDIX F – B2 Essay-Women

Women that take off their clothes to sell watches or lipstick; women that dance almost naked in front of thousands of viewers: this is what you get on TV today. It is sad but it really seems that the ultimate weapon to attract viewers is a naked body, a female one of course.

So can we say that we are treated as objects? Of course we can. But I think that half of the blame is on us. Most men may see women as objects but on the other hand most women do nothing to prove them wrong. A perfect example is given by Big Brother. This year there's a 20-year-old girl in the house who underwent surgery to get bigger breasts. There's nothing wrong with it but it becomes sad when those breasts are all you have to give as a person. So if women act like that how can we ask to be respected and be treated as something more than hot bodies?

It shouldn't be surprising, therefore, that there is still no equality between men and women. Statistics say that the average wage is higher for men and that 20% of women leave work after having baby. So, the picture that we get of women is not very flattering. Either we are destined to have babies and be housewives or, if things go wrong, we can always show a little bit of skin on TV and become rich and famous.

As long as things stay this way I don't think there can be equality between men and women. We are more than breasts and legs and we should really start to show it.

APPENDIX G – My ideal house 1

I am reading a beautiful book titled "Racconti" by Giuseppe Tomasi di Lampedusa. The author, who was a prince, in this biography talks about his wonderful country house located in a village called " Santa Margherita Belice" in Sicily.

The house, indeed, was a Palace of the XVII century and also had a Cathedral, a theatre , a superb English garden with a fountain and a lot of statues. The Prince and his parents could choose where they liked eating because the house had five living rooms and could host a lot of friends and relatives because there were a great numbers of bedrooms. The was even a gallery where antique paintings could be seen.

If I was a princess I would like to have a house like this. Unfortunately I am not a princess, so I can dream of a less expensive home. It is a cottage located in a residential area near Rome. It is a spacious house with three bedrooms, a living room, a study room for my husband, a kitchen, two bathrooms an and store room. It has a large garden all around the house which is ideal for eating outside in the summer and a garage.

The neighbourhood is quiet and my neighbours friendly (don't believe me, please!). The house is only 30 km from the city and you can get to the centre easily. Moreover it is a ten-minute walking to the train station. The train takes twenty minutes to get to Rome. This kind of house , in my opinion, is the right compromise between living in the country side and enjoying city life.

APPENDIX H – My ideal House 2

Like everyone, , I dream of an ideal house waiting for me. It'll be a seaside villa. I don't care where, but I'd like nature surrounding the house and an exotic beach with a fabulous view over the ocean.

My future house will be a warm and relaxing place: a patio in the surrounding garden, with a lot of trees and flowers and a hammock in a corner; but, at the same tine, the garden is also a terrace overlooking a small beach surrounded by rocks. The living room will have a view over the sea and a glass wall to admire the breathtaking landscape; T'd also like a fireplace in the middle (I know: we're at sea, but fire is so cozy…and then…this is my dream, so let me dream!)

Each room will have a different style, so each one will be a sort of "other little world": the big red kitchen in a modern style; the living room will be rustic, with a lot of sofas; my bedroom in an ethnic style with a round bed and all furniture made of bamboo (but the wardrobe must be another large room!), the other ones (also for guests visiting me and my family) in liberty style, in abstract art style with big murals on the walls, and one very colourful and full of toys for my future children; the bathrooms in Indian or exotic style, with sauna and Jacuzzi surrounded by mirrors. Oh…also a store room: it's very useful!

I hope the neighbours will be warm and friendly. The place'd be in a quiet neighbourhood, but not too far from town center and well connected, also by public transport. This house is perfect for everybody! It's a smoking house but, sorry, pets outside only.

APPENDIX I – My ideal house 4

It is in the countryside, at the house of my grandparents, where I spent my first 10 years. My grandparent's house is a cottage in the mountain, surrounded by a big garden, where there are many kinds of trees and flower beds. I used to help my grandmother do the gardening and also used to go to the near mountain hills with my grandfather. I used to be surrounded by nature and that's why now I still love it and respect it.

So if I had to think about the house of my dreams, it would be definitely a cottage, somewhere in the countryside, maybe in a small village near the city. It would have a garden too, where I can do gardening in my free time. I would love to have a beautiful lawn at the front of the house and also a patio surrounded by flower beds. I would like this house to be very simple outside and inside. I really like balconies so I want to have a big, wide one that surrounds part of the house and where through the hot summer evening's one can sit down and relax, observing the landscape. Inside I would love to have a big and comfortable kitchen, a large and shiny living room with big windows which have a view of the garden. I dream of having a reading room with bookshelves all over the walls, a desk and a lamp. And the last element will be the second floor which will serve only for night zone with bedrooms and bathrooms.

I enjoy living in the countryside because of the nights full of silence and brightly shining stars and because of the mornings full of bird singing. When I was a little girl I and my grandfather used to lie down on the lawn and observe the stars. He taught me how to recognise them. I enjoy living in the countryside because of the beautiful landscapes and all these things that you would not know if lived only in the city.

APPENDIX J – School and university 1

Here I am, at University. Well, this is really a wonderful world. I feel very very well here, and and I think that I have found my way. For this reason I am going to compare my experience in two different University faculties instead of that at school.

Last year I started University choosing the faculty of Economy and management. Well, I think that this choice of mine was the worst I ever made: I was tired all the time, I wasn't happy or enthusiastic about everything I did. The days were much more thing and exhausting for me than for my mates. Yet I always studied very hard, with diligence and enthusiasm. However, I began to think that this wasn't my real way... and in May, I decided to try to change my course of studies, although I was really worried and afraid of failing again. But now, after a few months in this fantastic faculty, I'm absolutely sure of my choice, and I can say I am extremely happy: I love my new friends, I love the complicity and the relationship with my professors, especially with the language lecturers. It seems like being back to high school.

When I was at school, in the Classical high school, my lessons were very hard, but I felt well, I loved my teachers and companions, the atmosphere was so warm and familiar, that I didn't feel tired. In fact, I miss my loved school a lot! Now, I feel that I have found that magical atmosphere of warmth and serenity of the secondary school, even better, maybe because I'm growing up and I can enjoy more this climate. Well, today I do the same amount of homework and hard studies, at least is harder than the economic subjects: my timetable is challenging with full days and many hours of lessons. I'm really glad of my decision of Languages faculty, so I can study with interest and enthusiasm. We lead such a sheltered life there. I'm very satisfied with my choice and think that I have found my way, at least I hope so. When I graduate, certainly I will feel nostalgia for these years and for this protected environment, and it will be in that moment that I'll have to start to live in the real world, in which I'll have to start fighting for my rights!

APPENDIX K – School and university 2

There are moments in our life, which everybody remembers –these are school and university years. These moments are important because they built our life and help us find our place in the society where then we spent most of our conscious life. Of course passing and living through all these moments we change and grow up having our own experience.

My primary school experience was really nice. I still have good memories from these years. But my secondary school experience was quite stressful. At the age of thirteen I had to change town and with my family moved to the capital of my country.

But even if this change was really difficult, later I loved my new school and I have good memories from my classmates, my teachers and my school. I was really good at history, philosophy, literature and psychology.

Now that I am at university I can see that it's really different. There are many differences – ideas change, thoughts change, things that occupy our mind change. In other words it is not the external world that changes, but ourselves and the way we look on life and on study as part of it. Being at university means having an idea of what you are going to do in your life. It means also studying not because it is un obligation, but because it is what you want. For me it is quite a good thing that at university you don't have to study maths, physics, chemistry and biology if you don't want to, but can choose something that you like and think will be useful for your future.

When I graduate, even it is still far away, I would love to continue my study till I get the highest degree at university. I would love to study at different universities, seeing different places and countries and then of course start working. For now I'm interested in what I'm doing and hope carry on doing it as long as possible.

APPENDIX L – School and university 3

Leaving high school and entering post---secondary study was a big adjustment for me! University is so much bigger, and the large number of students attending can be overwhelming. At secondary school I went from room to room for classes; at university I'm more likely to go from building to building. At school my class size might range frome 30 students down to perhaps five or six. At University my classroom might often seat several hundred students. But I'm not alone in my experience of finding things very different! I think everyone-even students from the city school---find university a bewildering place at first.

At secondary school I knew all the teachers and administrative staff. At university, I have many teachers (professors, lecturers, tutors, demonstrators) whose names and location may take me a while to learn. In High School, there was Face to Face teaching, mostly takes place in the classroom, and there was reduced flexibility: what is learned in one subject tends to support things learned in another. Students were all the same age, maybe they live in the same locality. At university, there is a range of different classes taught in different ways. Lectures, tutorials, computer---based or online learning, laboratory or field work, and there are more flexible and variable programs, infact what is learned in different subjects can offer different, even conflicting views.Students are from different socio---economic situations, ages and cultural groups. There are lots of international students. Many other staff are located in various parts of university. For example, there are community services for students, such as counselling contacts, health and family care services, financial and legal aid advice, and there are the University Centre where I often go to bookshops, cafes etc.

The big difference from secondary school is that no---one actually takes me by the hand and takes me to these services. They are there from you but you are responsible for deciding whether you should use them! This is one reason why I like university much better than secondary school. I've found that I really like thinking things through and making my own decisions. But it's very different at first, and you can feel overwhelmed. I hope I get used to it after a while. Courage is essential! My dream, after graduating, is to teach Italian as a Foreign language in other Countries. I hope I will find jobs across the globe, I'm feeling adventurous! Infact I'm sociable, and I can imagine myself standing in front of a class of children or people... I'll enjoy doing lessing preparation, and I think I'm a good listener.

But, first of all, I have to continue my studies.. It's true, courage is the most important virtue of all!!!

APPENDIX M – School and university 4

High school, just memories now. Sweets memories and bad memories, but, of course, a great period that I miss… and I'm going to miss it so much. It was a fantastic period, although sometimes there were many problems. The biggest problem? Maths. I hate maths, it was a very difficult subject, it was my bad grade at school. a poor 6. But once in my "Student's career", I got a 10. Now I can say:" What a wonderful day!!!". I remember everything of that day. My English lessons with a fantastic teacher, my maths lessons (with a good looking teacher the last year) , my arts lessons 'cause I really love studying arts and above all I remember our great trips. Go on a journey with my friend's class was fabulous because it was like living in a boarding school just for a week, but our days were very funny!

And after our trip, we went back to school, even if we weren't ready to start again our lessons. Our lessons were not very easy because in school, I had to study many difficult subject like biology, physic, maths and chemistry. And I also hate chemistry. When I had to study chemistry: Evening of hell !!! On the other hand , when I had to study English, Italian literature or history and philosophy I was very happy and, above all, I always got good grades. Maybe that's why I chose to study languages at University.

University… a different world, but a nice world. For the first semester my work wasn't very hard because in the high school I used to study many hours a day, so it wasn't hard to go to lessons and study at the same time. In fact I passed all the exams that I took in January and with good grade, but I'm so worried for this semester because I've many lessons and different subjects. But of course, I hope it will be great as the first! At university I met many people: new friends and new professors (someone really nice, someone not very nice).

My university (Rome Tre) is a good university; I like its organization even if sometimes we've problems like too many lessons at the same time… this is a big problem : how can I stay in 2(or 3) different places at the same time? Impossible…. however, I like to go to university, because I have to study just subjects that I love and above all I don't have to study everything every day like I had to do at high school. To be honest, I don't know what I prefer… I really miss my classmates and someone of my old teacher, but, of course that's a natural law, and it must be like that! But now, my first objective is to graduate as soon as possible, and even with good grades, but, I know, I can't have everything that I want, but I can try to have it!

I want to take a degree as soon as possible because I'd like to take my specific degree abroad, to New York or in some other city in USA(I know, this is a dream). And when I take my degree I'd really like to work in publishing or to become a teacher. Yes, a teacher, because I always had a great relationship with my teachers, and I'll like to teach in a high school. Of course, if it were possible, I also like to be a professor. Now I believe that these are the most important things that I expect from my life and maybe I'm thinking like this because i desired to be not just a woman with a great career, but also with a fabulous family!

APPENDIX N – School and university 5

After I graduate I would like to find a job as an interpreter/translator maybe even to teach Bosnian language. There are many possibilities, the most important thing is not to give up and to be persistent. I could have a bright future if I went back to my home country and to work as a freelance interpreter, which is a well paid job.

My wish is to have my own family, get married eventually with my boyfriend. Having a job would help us to make our plans come true. I used to accept jobs to stay alive and to help my family but it was a temporary state of affairs. I realize that it was wrong way of making decisions, but that is life.

I would also like to work in other environments not only as an interpreter but to spread my horizons and I enjoy being challenged by new goals and tasks in other fields. I plan to go abroad to improve my English and Russian language and to work as an intern maybe for a United Nations or similar organization.

In conclusion, I am bit wiser than I was I would not accept a job where I had to work under continual pressure just because it is well paid job, other things are also important like the possibility of making a progress in career and to work on myself. I want to try new things in life and not to miss the best moments to appreciate every day. The way I see it for me the most important thing is to be happy, to love and to be loved and to feel peace in my heart.