

## Student's Self Assessment and Engagement Through the Application of Grammarly AWCF

Joan Chandra Jovando

Universitas Negeri Surabaya  
[Joanchandra30@gmail.com](mailto:Joanchandra30@gmail.com)

### Abstrak

Perkembangan teknologi yang terus menerus menyebabkan munculnya banyak perangkat lunak yang dapat digunakan dalam proses belajar mengajar. Salah satu jenis perangkat lunak tersebut adalah apa yang dikenal sebagai alat Automated Writing Evaluation (AWE). AWE mampu mendukung proses belajar mengajar dengan menyediakan apa yang dikenal sebagai Automated Written Corrective Feedback (AWCF) bagi penggunaannya. Grammarly adalah salah satu alat AWE yang menonjol dalam beberapa tahun terakhir, mendapatkan popularitas di seluruh dunia, meskipun demikian, penelitian yang dilakukan tentang efektivitas keterlibatan siswa dengan alat AWE sejauh ini masih belum meyakinkan. Penelitian ini akan difokuskan untuk menemukan seberapa efektif siswa dapat menggunakan Grammarly AWCF. Penelitian ini akan menjadi studi kualitatif berdasarkan kerangka teori yang dikembangkan oleh Zhang dan Hyland (2018) tentang keterlibatan siswa dengan AWCF yang mencakup tiga dimensi seperti: keterlibatan perilaku, keterlibatan emosional, dan keterlibatan kognitif. Data akan dikumpulkan dengan menggunakan kuesioner, wawancara, dan analisis teks yang diambil dari 10 mahasiswa jurusan Pendidikan Bahasa Inggris 2018 yang dipilih melalui non-probability sampling. Data yang diterima dari siswa akan dianalisis dengan menggunakan analisis tematik yang meliputi lima langkah: pengenalan, pengkodean, pembuatan tema, penyelesaian tema, dan penulisan kesimpulan dari tema. Data yang dianalisis akan disajikan dengan menggunakan metode deskriptif. Hasil penelitian menemukan bahwa meskipun para siswa secara umum memiliki keterlibatan emosional yang positif dengan AWCF yang mereka terima dari Grammarly, artinya mereka menghargai umpan balik, keterlibatan perilaku dan kognitif mereka agak negatif. Sebagian besar siswa hanya menerima umpan balik yang mereka terima dari Grammarly tanpa terlalu memikirkannya, artinya mereka tidak dapat mendeteksi kesalahan yang dilewatkan oleh perangkat lunak atau mereka mengikuti AWCF yang salah. Ini menyiratkan bahwa siswa tidak dapat terlibat secara efektif dengan AWCF yang mereka terima dari alat AWE dan bahwa mereka masih memerlukan bimbingan guru.

**Kata Kunci:** Automated writing evaluation (AWE), Automated written corrective feedback (AWCF), Grammarly, Self-assessment, and Student engagement.

### Abstract

The continual development of technology has led to the appearance of many software that could be used in the teaching-learning process. One such type of software is what is known as Automated Writing Evaluation (AWE) tools. AWE tools can support the teaching-learning process by providing what is known as Automated Written Corrective Feedback (AWCF) for its user. Grammarly is one of the AWE tools that has stood out in recent years, gaining popularity worldwide, despite of that, the research done on the effectiveness of student engagement with the AWE tools has remained inconclusive so far. This research will be focused on finding how effective are students able to use Grammarly AWCF. The research will be a qualitative study based on the theoretical framework developed by Zhang and Hyland (2018) about student engagement with AWCF which includes three dimensions: behavioral engagement, emotional engagement, and cognitive engagement. The data will be gathered using a questionnaire, interview, and analyzing a text taken from 10 students 2018 the English Education major chosen through non-probability sampling. The data received from the students will be analyzed using thematic analysis which includes five steps: familiarizing, coding, generating themes, finalizing themes, and writing conclusions from themes. The analyzed data will be presented using descriptive method. The result of the research found that while the students do have a generally positive emotional engagement with the AWCF they received from Grammarly, meaning that they appreciated the feedback, their behavioral and cognitive engagement was rather negative. Most of the students simply accepted the feedback they received from Grammarly without giving it much thought, meaning they couldn't detect the error that the software missed or they followed the wrong AWCF. This imply that student couldn't effectively engage with the AWCF they received from AWE tools and that they still needed teacher guidance.

**Keywords:** Automated writing evaluation (AWE), Automated written corrective feedback (AWCF), Grammarly, Self-assessment, and Student engagement

## INTRODUCTION

With the continual development of technology, various types of software that could be used to support the process of teaching and learning have been made available. One type of such software that could be used by both English as a foreign language (EFL) teachers and students are automated writing evaluation (AWE) tools. There are many AWE tools already available to students such as Criterion, MY Access!, Write&Improve, WriteToLearn, and Grammarly. These types of software are particularly popular in writing classes as they offer various features that could be used to improve the user writing, whether it's in the form of qualitative or quantitative feedback. Teacher and students could input their writing into these AWE software which will then be analyzed and then returned to the user in the form of automated written corrective feedback (AWCF). Among all of the previously mentioned AWE software, one of the biggest and most widely used AWE software currently is Grammarly. Boasting a total user amount of more than 30 million people, Grammarly has gained worldwide use including in Indonesia, which is why Grammarly will be the AWE software used in this research.

As a result of the reasons mentioned above such as the appearance of many AWE software and their possible use in the classroom, AWE and AWCF has seen growing interests as a particular field of research. There has been several research done on the topic over the decade. One of the most popular research topics related to AWE and AWCF among researchers is how students self-assess their writing with the help of AWE tools and how they engage with the AWCF they received from it. The term student engagement was first defined by Fredericks et al (2004) as encompassing three inter-related dimensions: behavioral, emotional, and cognitive. However, this definition was found to be too broad because it was used in the context of student engagement with school and so it was further defined by later researchers to fit in the context of student engagement with AWCF.

According to Zhang & Hyland (2018), student engagement with AWCF contains three aspects which is behavioral engagement, emotional engagement, and cognitive engagement. Behavioral engagement is related to how much time the student spent revising their writing, emotional engagement is related to how well the students respond emotionally to the feedback and their opinion towards it, while cognitive engagement is related to how in-depth the students processed the feedback they received and the strategies they used to revise their writing. In the context of teaching learning process, behavioral engagement can be seen when students actively take part in discussion and ask questions of someone else about the feedback they received, emotional engagement means that

students feel confident about the feedback they received and thus more motivated to improve their text using the feedback, cognitive engagement is seen when students takes note of the feedback they received and reflect whether its correct or not based on their previous knowledge. Other than that, Handley et al (2011) have also found that the process of student's engagement with feedback includes five essential components which are: readiness to engage with feedback which refers to student willingness to invest time and effort in using the feedback, understanding of the feedback which refers to student ability to understand feedback, perception of feedback which means student's opinion of how good the feedback is, reflection on feedback meaning students ability to think about the feedback they received, and action on feedback which means students willingness on actually using the feedback to revise.

While there has been several research done on the topic about the effectiveness of student engagement with AWCF, those researches such as Cheng (2017) and Stevenson (2016) tend to produce mixed results. Some researchers such as Cheng (2017) and Palermo & Thomson (2018) showed positive results in which improvements can be seen in the student's writing after the implementation of AWE into their writing and students reacts positively to the feedback they received from the AWE tools. However, there are also researches which show negative results such as Stevenson (2016) and Koltovskaia (2020), these research shows that while students tend to like AWCF, the AWCF they received could be very limited compared to teacher's feedback and that students could not use the AWCF they received effectively.

According to previous studies, it seems clear that there has not been a definitive result yet in whether AWCF affects students writing positively or negatively. Most of the previous research was also conducted in a way where students have to revise their own writing instead of text provided by other. To gain further insight into how students self assess and engage with the use of AWE software which in the case of this research will be Grammarly, whether they are able to use it effectively or not and whether the use of such software should be encouraged in a teaching learning process, the researcher is inspired to focuses on finding how students use Grammarly to self assess and revise a text through the application of Grammarly AWCF.

## METHODS

This study aims to find how students engage with the feedback they received from Grammarly in self-assessing their writing, in order to do this, this study will be done qualitatively. Qualitative study refers to a set of methods

which involves wide and open discussion with the participants of the study (Moen & Middelthorpe, 2015; Maxwell, 2014). The advantages of using qualitative study will be in the fact that it gives the researcher a certain amount of flexibility in conducting their research and finding the answers to the research question, other than that, qualitative study also allows the researcher to use a smaller amount of samples compared to quantitative study. Unlike quantitative study, qualitative study focuses on analyzing and describing words instead of numbers. The data collection in a qualitative method is usually done through interviews or questionnaires with the participant of the study

As the researcher does not intend to modify or manipulate the data, the studies will be done using descriptive method. Edgar & Manz (2017) described that descriptive method is a method which focuses on the behavior or objective of the phenomena to produce qualitative results. This method is simpler compared to other methods as the researcher do not need to modify the object or area of study but instead describe what happen in the study as the finding of the research. This method is used when the aim of the research is to understand the subject more deeply.

Based on the above statement, the researcher will use the qualitative study to collect the data and then analyze it using the descriptive method in order to find the needed data to answer the research questions.

The participant used for the sample of this research will be 10 students chosen through non probability sampling from the total population of 98 UNESA English Education major 2018 students. All the participants must have experience in using Grammarly to assist their writing. This research will be conducted in Universitas Negeri Surabaya's English department. The researcher chose this because the researcher wanted to find out how advanced learners specifically engage or use the feedback they received from Grammarly to self-assess their writing.

The main instrument used for this research will be a questionnaire, interviews, and analyzing a text. Considering the current pandemics, these instruments are chosen because they can be done indirectly between the researcher and the participants through an online platform such as Gform and popular online meeting platforms such as Zoom and Gmeet. The questionnaire will be separated in two sections, the first section will simply be used to ask for the participant's identity, this will include their name and student numbers. In the second section of the questionnaire, the participants will be asked to answer several open-ended questions related to the research questions. The participants who have filled out the questionnaire will then be asked to join an online meeting where the interview will be held through. During the

analyzing a text stage of the research, the participants will be asked to revise a text provided by the researcher to see how they will engage with the feedback they received from Grammarly in their revision process.

The data needed for this research will be gathered using questionnaire, interview, and analyzing a text done in the following ways: Questionnaire is a data collection method made up of a list of questions meant to gather information from the participants. The participants of the study will be asked several questions related to the first and second research questions through the questionnaire. Interview is a data collection method which includes asking people who have knowledge, experience, or opinions about a specific topic or subject matter questions in order to gather data. This method will be used in the research to find out the answer to the first, second, and third research question. Analyzing a text is a data collection technique which involves analyzing written language to identify themes, patterns, and meanings in the data. This will be the main data collection method used to answer the third research question.

Once the data have been received from the 10 participants, the data will then be analyzed using the thematic analysis method. The first thing the researcher will do is to familiarize the data from both the questionnaire and the interview before simplifying the data through coding so that it can be more easily interpreted. After the data has been coded, the researcher will begin the process of identifying pattern from the code and trying to find similar theme which appears within those codes. The result of this study will be written in the form of a description.

## **RESULTS AND DISCUSSION**

The data that have been collected from the ten participants through questionnaire and interview will be analyzed using thematic analysis. The process of thematic analysis is separated into five steps which are: Data familiarization which refer to the process of learning the data by rereading and taking notes of the data, coding which includes identifying pattern from the data, searching for themes from the generated codes, finalizing the theme, and drawing a conclusion from the themes.

To answer the first questions of the research, the researcher will analyze the data received from the participant's answers using thematic analysis by generating codes from the participant's answer and then looking for some commonalities within the answer to find a common theme among them. This study has found that the participants have a generally positive affective engagement with Grammarly. The reasoning behind the participant's positive affective engagement can be boiled down to the software ease of use along with its automatic

and concise feedback, supporting previous research done by Warschauer & Ware (2006) and Jim Ranalli (2018). Unlike other AWE software, Grammarly gave its user several options on how they could use the software, allowing the user to integrate Grammarly directly into their Microsoft Word along with the standard ways of copying their text into either the installed AWE software, or the AWE website. This feature alone means that Grammarly is already one step ahead of other AWE software when it comes to its ease of use and availability.

With that said, Grammarly is not without its faults. The participants of this research have actually pointed out several interesting negative aspects that have not been mentioned in previous researches, these negative aspects include the price of Grammarly's premium subscription and the features locked behind it, along with some technical issues that the participants encountered.

In regards to whether Grammarly should be implemented in class or not, despite the facts that AWCF software is known to help teacher's work and encourage students to revise their own writing (Li, Link, & Hegelheimer, 2015), it seems that further consideration is needed. When the participants were asked the question, the participants were quite split in their opinion. The participants who supported the implementation of Grammarly in the classroom stated that Grammarly could help the students in their learning process thanks to all of its features while the skeptics of the implementation argued that the convenience of using an AWE software such as Grammarly might cause students to become overly reliant on using the software, halting the growth of their actual skills. Some participants suggested a different option by looking at the situation of the classroom and letting the teacher choose whether they want to implement the software or not depending on their judgment, perhaps only using the AWE software to help unfocused feedback or only allowing them to use it for the purpose of L2 learning (Jim Ranalli, 2018).

The participant's positive engagement with the feedback can be seen when they were asked to revise a text with the help of Grammarly, with most of them stating that the feedback they received was generally useful in helping them spot the mistake in the text and explaining the mistake to the participants, shortening the time they will need to revise the text even though there are some suggestions that the participants chose not to use. These suggestions are not used by the participants mainly because they think it's an unnecessary change for the text, as some of the mistake detected by Grammarly was a simple difference in the English accent and words such as adjectives that are most likely written by the author as a way to add flavor into the text. Even though the participants rely heavily on Grammarly for its feedback,

the software is not without fault as well. While most of the participants either didn't encounter any problem from the feedback from Grammarly, some of them were able to point out some inaccuracies from the feedback, such as not being able to detect tenses or just detecting correct words as a mistake.

The data found in this study indicates that the participants have a higher level of affective engagement with AWE software feedback such as Grammarly compared to other types of feedback such as teacher and peers feedback. The reason behind the participants' particularly high affective engagement with AWE feedback is the software's availability, meaning its ability to give the user feedback whenever and wherever they want to (Warschauer & Ware, 2006) provided their device are connected to an internet, unlike other feedback which have to rely on the other person being free of previous activities. Availability alone wouldn't be enough however, if the feedback wasn't accurate, the participants added that the feedback they received from Grammarly helped them spot mistakes in their writing and explain why it was considered a mistake. The participants also stated that they enjoy the concise and specific feedback given by the software which supports previous research done by Jim Ranalli (2018). Despite the participants' high affective engagement with the feedback, most of them still did not fully rely on it, stating that sometimes the feedback given by the software was rather unnecessary, such as the difference in the English accent along with the unnecessary removal of adjectives from the text. Participants were also able to detect some inaccuracies within the feedback like its failure to detect mistake and wrong tenses.

Based on the analyzing a text done in the research, it can be seen that the participants preferred to use the MS Word add-on version of Grammarly as long as their device supports it, with only some participants using other possible methods of Grammarly.

The participants stated that the text being revised in the research was neither particularly difficult nor easy. The research also finds that the participants have a bad cognitive and behavioral engagement with Grammarly that are indicated by the participants' tendency to rely too much on the feedback they received from Grammarly. This can be seen by the fact that most of the participants seem to not be able to detect the mistake within the feedback given by Grammarly, they simply trusted the feedback without self-revision, while this will indeed shorten the time needed to revise the text, it also causes their revision to become incorrect. These results contrast previous research done by Stevenson, Phakiti (2014) which states that AWCF improves the quality of student writing.

The participants seem to also not be able to detect the rather obvious mistakes that Grammarly also missed, indicating that an AWE software such as Grammarly might have a tendency to cause its user to be too hyper focused only on the errors that the feedback highlighted. In this regards, the result of this study supports previous research which states that students could not make good use of the feedback they received from AWE software (Attali, 2004; Warschauer & Grimes, 2008).

## CONCLUSION

From the result of the research and the discussion following it, there are several conclusions that can be drawn from the research.

Based on the previously developed framework of student engagement with AWE feedback, the study has examined how the participants interact with the AWE program and can provide the following insight. Due to its various features and accessibility, which make it a simple to use program even without outside assistance, the study has discovered that participants' perceptions and affective engagements with Grammarly are generally positive. Despite this, participants' opinions on whether or not the software should be used in the classroom are still somewhat divided, with everyone having their own justifications for supporting, restricting, or rejecting its use.

This positive perception and affective engagement extend to the AWCF provided by the Grammarly software, with the participants noting that it was generally concise and helpful even if there were a few instances of inaccuracy. They argued that it was still rather helpful in at least pointing out a potential error, in which case the participants could use their own judgment on whether to use the feedback provided by Grammarly or not. The other major contributing factor for the participants positive engagement with the feedback they received from Grammarly is its accessibility, which enables participants to use it whenever they needed it makes it preferable compared to other types of feedback like teacher feedback and peers feedback.

This study has revealed a potential drawback of using AWE software like Grammarly, which is the tendency to make its user overly dependent on it as can be seen from the way the participants of the study engaged behaviorally and cognitively with the feedback they received. If the program were to be used in a teaching-learning process, this could cause a number of possible issues since reliance on the software could prevent students from improving their own English skills. Previous research have argued that the use of AWE software should be limited to a final revision of the text however, even if that were the case, this research has demonstrated that the feedback provided by

Grammarly causes the participants to be hyper-focused only on the words that it has highlighted, causing them to miss other mistakes that the Grammarly couldn't detect.

In conclusion, while participants generally have a positive perception and affective engagement with both Grammarly and its feedback, the result of the participants behavioral and cognitive engagement are still rather negative. What this means is that the use of AWE software such as Grammarly, should be limited in its application, perhaps even more so in the case of students with lower proficiency, and teacher should still be expected to offer guidelines and advice in how the students are expected to use such software.

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