Systematic Training on Self-assessment to Improve Writing Performance

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Modality: Research Report

Presented as Partial Fulfillment for the Degree of Magíster en Pedagogía de los

Idiomas Nacionales y Extranjeros con Mención en la Enseñanza de Inglés. CES: RPC-

SE-19-N˚.140-2020. Cohort 2021 - 2022. Author's email:

nora.acosta@casagrande.edu.ec Guayaquil, July 5th, 2022

Systematic Training on Self-assessment to Improve Writing Performance

This action research intends to evidence how systematic training on self-assessment can improve the written performance of a group of students in a public institution in Ecuador. On one hand, experience shows that students normally find writing one of the most difficult skills and they struggle mostly with organizing their ideas and being coherent. On the other hand, as stated by Brown and Lee (2015), every "successful learner has developed the ability to monitor his or her own learning" (p.415). This process of monitoring their own work can be a great support on developing writing skills, and thus, forming successful writers. Self-assessment is seen as one possible solution to the problem of poor written products and low grades in writing. Moreover, in their study, Fahimi and Rahimi (2015) concluded that including self-assessment methods in writing can foster the progress in students writing ability., These authors emphasized that it can also facilitate the transfer of these abilities in future tasks (p.735).

All teachers envision their students becoming independent learners through a process of planning, drafting, revising, and editing (Seow,2002, p.315) their written products and self-assessment may support this endeavor. In addition, self-assessing could improve critical thinking, creativity, and personal accountability. It could allow students to reflect upon the multiple manners they learn, promoting their metacognitive skills and thus, better language acquisition. It is expected that systematic training on self-assessment will improve the student's written performance, while meeting an international standard.

Literature Review

Self-assessment

Brown and Harris (2014) defined self-assessment as "an evaluation of a student's own work products and processes in classroom settings" (p.22). Another definition is given by Andrade and Du (2007) which stated that self-assessment is a process of formative assessment in which students reflect on their work and their learning (p.160). They also argued that self-evaluation identifies strengths and weaknesses of every student and help them achieve real knowledge. The purpose of self-assessment, in terms of this study, is to improve writing, and students must learn how to judge their performance as accurately as possible and according to Yan (2020) they can also adjust their first attempts to a more goal-oriented product. (p.4).

Yan and Brown (2017) defined self-assessment as "a process during which students collect information about their own performance, and the quality of their learning process and outcomes according to selected criteria to identify their strengths and weaknesses" (p. 1248).

Benefits of Self-assessment

Teaching students to self-evaluate their performance in acquiring English can have lots of benefits. One of the benefits of self-assessment is that it "may help students understand what it means to learn a language autonomously" (Brown, and Hudson, 1998, p.666). This kind of assessment empowers students to be the owner of their learning process, produces a feeling of self-confidence and motivation (Rolheiser & Ross, 2001). Consequently, it involves the student directly in their learning process. In addition, self-evaluation helps students take action to change what is not working. Additionally, it helps define their weaknesses and their strengths.

Andrade (2019) has the same perspective of the positive influence of self-assessment in learning in general and advice training on the subject: " …, the evidence presented in this review strongly suggests that self-assessment is most beneficial, in

terms of both achievement and self-regulated learning, when it is used formatively and supported by training." (p.87).

Additionally, Mazloomi and Khabiri (2018) mentioned that "a number of empirical studies indicate that when development-oriented SA is utilized, it will ultimately lead to increased productivity and autonomy, higher motivation, less frustration and higher retention rates among learners" (p.2). In other words, long term memory can be fostered by self-assessment.

While self-assessing, teachers and students build a sense of community, which is described by Kadry (2021): "Self-assessment is also considered as an effective pedagogical tool that improves instruction and enhances the collaborative relationship between teachers and students." (p.277).

To finish, Harris and Brown (2018) provide a summary of self-assessment benefits:

> "Ultimately, the power of self-assessment, when implemented well, is that students will (a) gain a much better and more nuanced understanding of what quality of work and performance is within the domain, (b) understand more accurately how their work compares with external standards, (c) receive timely feedback on their work in a language they understand and (d) use this feedback within a cycle of self-regulated learning toward improved outcomes." (p. 3)

Challenges of Self-assessment

Brown (2015) observed that "the disadvantage of subjectivity looms large and must be considered whenever you propose to involve student". (p.415). The author referred to the lack of training that a student may have while self-assessing their work. Students may not be fair in their judgment, and as sometimes they are more worried

about the grade than anything, there is the risk that they give excellent feedback to poor-quality pieces of work (Rolheiser & Ross, 2001).

As suggested by Andrade and Du (2007) "students had positive attitudes toward self-assessment after extended practice" (p.1), and this extended practice needs time, time that most teachers claim not to have; time is a constraint when training systematically to self-assess, this is a process that needs time The same author pointed out that "not enough is known about what students actually do, think and feel when they are asked to self-assess" this can prevent researchers from constructing a useful theory of self-assessment (p.162).

Besides, as stated by Check & Schutt (2011), the usefulness of self-assessment for decision-making depends, in part, upon whether the student can accurately or realistically judge the qualities of their own work (p.23). Without these two previously mentioned characteristics the process of self-assessment is questioned.

Strategies for training how to self-assess

Self-assessment is a process that needs to be progressively taught to students. For Students that do not have training in self-assessment, it is helpful to use the "Four Stage Model" (Rolheiser & Ross, 2001), which will allow students to take self-evaluation seriously. In stage 1, the authors suggested determining meaningful criteria that they can use when judging their performance. In stage 2, teachers must teach how to use these criteria applied to their work, and students must analyze clear, practical examples of how good self-evaluation stands for. In stage 3, the teacher needs to give feedback on their self-evaluations. In stage 4, students must create "viable" (p.8) action plans to change what they did wrong. This model can be of great assistance for students and teachers in applying self-evaluation inside the classroom.

Rubrics will also be used to assess students' written performance. As highlighted by Panadero (2020), "rubrics may support student learning in different ways, such as facilitating the understanding of expectations and feedback, as well as through supporting students' self-regulated learning (SRL)" (p.10).

Self-assessment and writing

In her study, Kadri (2019) highlighted the benefits of self-assessment as a powerful strategy to enhance self-regulation and writing (p. 278). The reflection that occurs when students assess their product results in corrections and thus, in an improvement of their work.The same author, Kadri (2019) emphasized that "the comparison of the writing tests before, during and after the self-assessment treatment showed an improvement in the students' writing performance which means that if these students used the self-assessment techniques accurately, their writing competence would be enhanced" (p.294)

After analyzing some of the advantages and disadvantages of self-assessment and its relation to the writing process, it is important to evidence how systematic training on self-assessment affects the written performance scores of 11 graders in a B1 English class from a public institution in Quito.

<center>**Innovation**</center>

This innovation aimed to analyze the impact of self-assessment on students' writing performance in an English class. It lasted four weeks, and the teacher dedicated four sessions of 80 minutes each. Furthermore, the course unit was "Wild Nature" (Wilder World Student book 3, Unit 2) and the CEFR standard to be met was: "Students can present a topic in a short report or poster, using photographs and short blocks of text (CEFR p.77). The first thing done was training students on self-assessment following four stages as suggested by Rolheiser and Ross (2001). Before starting the systematic

training, the teacher addressed the importance of self-assessment in the learning process using a video.

In stage 1, the teacher analyzed the objectives of the Unit, mainly the standard, and the skills. They observed an example of a poster that mirrored an acceptable product of what they had to do, then students and the teacher created the rubrics with all the elements necessary for the writing activity and explained the activity to the students.

In stage 2, they analyzed an example of a good writing product that met the standard was. Then, as homework, students had to create their poster as a pretest. The content of the Unit was taught during the rest of the days.

In stage 3, they applied the checklist to self-evaluate their first practice. Teacher gave feedback of this process and then give the posters corrected. They had to compare the teacher's feedback with their results in the checklist. After this, as a second practice they had to use a rubric to self-assess their work.

In stage 4, they planned how to improve their work with the teacher's feedback. They had to write a small plan to improve their work in the criteria that they needed the most. When they handed in the final product, they had to give a new grade to this new product. After this, students received the teacher's grade and compared the results of self-assessment with their scores.

Research Methodology

The type of research used in this work is Action Research. According to Lari, (2019), "action research is a cyclical research process that may be used to improve instructional practice, assessment tools, and student outcomes" (p.1). Furthermore, the setting where action research takes place is the classroom and it tries to explain problems that may arise while teaching.

A concept given by Taylor (2020), mentions a characteristic of AR: "it is participatory and is aimed at empowering the practitioner first and then others to increase their effectiveness" (p.137). Additionally, explanation. and improvement are two important goals for conducting classroom research.

The questions that this research aims to answer are:

- What is the effect of self-assessment in students' written production?

- Which part of the written activity will be most impacted by applying self-assessment?

- What benefits and difficulties did students find while self-assessing?

Participants

Participants were 36 students from the 2nd BGU of a public school in Quito, who have the B1 CEFR level, and were between 15 and 16 years old. There are 17 girls and 19 boys. The school is implementing an English project, and the groups in the High School section are divided into levels only for this subject. To set students into levels A2, B1, and B2, teachers considered their class performance, grades from previous years, and the results of a mock of B1 Preliminary.

Instruments

Written performance.

To answer research question 1: What is the effect of self-assessment in students' written production? The instrument the researcher applied was a pre and posttest. Students' assignment was to create a poster that included photos under each photo they had to include a block of text, describing a Natural Disaster. The poster had to include real photos, and below them descriptions of a Natural Disaster, at least 4 pictures with their descriptions in blocks of at least 50 words (See appendix 1).

To answer question 2: Which part of the written activity will be most impacted by applying self-assessment? A rubric was used to determine the component of writing that was most impacted; organization and layout were the elements that were affected the most after the intervention the descriptors, with specification of what is expected in each level.

Grammar. The highest score ranged out of 5, the descriptor was "The student uses structures of past simple of regular and irregular verbs appropriately". The lowest grade is 0 and says: Student does not use simple past tenses.

Vocabulary. The highest score ranged out of 5, the descriptor was: "The student uses vocabulary related to natural disasters, extreme adjectives, and superlatives correctly at every time". The lowest grade is 0 and says: "Student does not use vocabulary related to natural disasters".

Organization. The highest score ranged out of 5, the descriptor was: "The student organizes his or her writing using subordinating conjunctions (e.g., Since, when, where, if, although, because) at least 3 times during the writing". The lowest grade is 0 and says: "The student never uses a subordinating conjunction, or he or she uses them incorrectly".

Layout. The highest score ranged out of 5, the descriptor was: "The student presents a well-organized poster with photographs and text blocks. He uses appealing colors and understandable font". The lowest grade is 0 and says: "The writing is not organized by using photographs and text blocks, and/or the colors don't allow the reader to understand the text". Layout is included because it is a requirement for the standard.

Self-assessment checklist.

To train students with self-assessment in writing, I used a checklist that covered 4 criteria in: Vocabulary (3 items), Grammar (1 item), Organization (1 item) and Layout

(1 item), with 3 bands: *still need more work, almost there, I am there*. As a final self-assessment, they used a similar rubric to the teacher`s one (See appendix 2). The result was compared with the teacher's feedback to determine the impact of self-assessment (See appendix 3). This checklist was checked by an expert.

Survey.

"Surveys, or questionnaires, are a research instrument frequently used to receive data about participants' feelings, beliefs, and attitudes in regard to the research topic or activities. Surveys are often used for large sample sizes with the intent of generalizing from a sample population to a larger population. Surveys are used with any number of participants and can be administered at different times during the study, such as pre-activity and post-activity, with the same participants to determine if changes have occurred over the course of the activity time, or simply change over time". (Clark, et al., 2020, p.77)

To answer the research question ·3: what were students` benefits and difficulties on self-assessment during the implementation? a written questionnaire was used, and it included 3 questions.

Question #1. Did self-assessment help you improve your grade?

Question #2. Was it difficult to follow the rubrics? Why?

Question #3. Which problems did you encounter while self-assessing?

Question #4. Was self-assessment difficult to you? Why?

Data Analysis

To answer research question #1 What the effect of self-assessment in students' written production is, a *paired-sample t-test* was completed. The *paired-sample t-test* allows for a comparison of pretest and posttest and the effects of the intervention. The analysis was done in Microsoft Excel using the Analytics Tools Pack.

To answer the research question #2: Which part of the written activity will be most impacted by applying self-assessment? The same results of pretest and posttest were analyzed but considering every aspect of the rubric separately.

To answer question #3: What benefits and difficulties did students find while self-assessing? I organized the answers classifying them into positive and negative answers and determined the percentages of each group.

Ethical Considerations

As stated by Cohen et. al (2002), ethical issues may arise during an innovation. Everything can go "smoothly" once, but other time there can be lots of problems. According to the author, ethical considerations are critical to any implementation. They consider the concept of the "subject's right to freedom and self-determination". "Being free is a condition of living in a democracy" (p.66). Furthermore, as suggested by Check and Schutt (2011), practitioners who conduct research in their schools should maintain high standards. It is the researcher's obligation to ensure the rights and well-being of the participants. The researcher must be aware of all the possible consequences of the study (p.50).

For this research project an informed consent was asked from the representative of the students, to avoid any future problem (see appendix 4). The research took place without any problem and with the collaboration of all 39 students. Another aspect of these considerations included the permissions from authorities and coordinators through a letter (See appendix 4).

<div align="center">

Results

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The first research question #1: What is the effect of self-assessment in students' written production? is answered with the Pre- and Post- test grades from the poster which assess the improvement in relation to the international writing standard. The

posters were graded using the teacher´s rubric that measured their progress in the use of
vocabulary, grammar, *organization,* and *layout.* On the one hand, the average of the
Pretest was 10 (50%) out of a possible total of 20 points. On the other hand, the posttest
yielded a result of 17 (86%). Which means a percentage of 3.4% overall improvement
or a difference of 7 points. The *paired t test* evidenced a significant difference of
0.0005 between pre and posttest. This can be observed in Figure 1.

Fig. 1
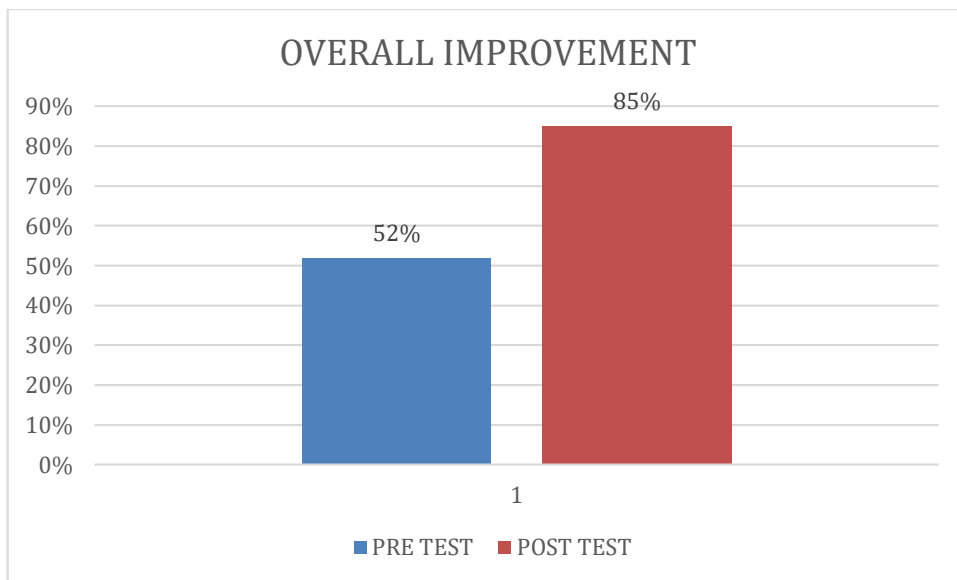
To answer research question #2: Which part of the written activity will be most
impacted by applying self-assessment? the same results were used. This time the grades
were analyzed separately. There is an improvement in vocabulary of the 15%, in
grammar of the 16%, in organization the improvement is of the 47%, and in layout the
progress is of 53%. The results showed an overall improvement in all the aspects of the
rubric. Interestingly, the aspect with more impact was the referent to layout, with a
53%, of difference comparing the pretest and the posttest. This could have happened
because at their level, students are used to writing articles and letters, but posters with
blocks was a new activity for them. Thus, in the pretest, students had problems in

matching the photos with the text, but eventually corrected their mistakes. We can observe the results in Figure 2.

Fig. 2
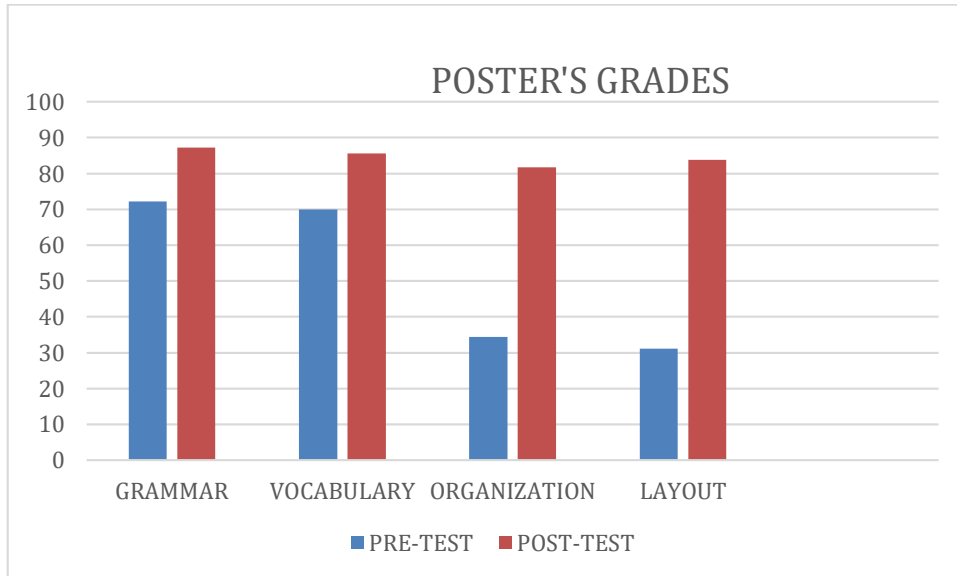
To answer research question 3: What challenges and benefits did students find while self-assessing their poster? students answered an open-ended written questionnaire. In the first question which asked if they thought self-assessment helped them to improve their grades 89% of the students answered positively. For example: "Yes, because that made me see my mistakes and fix them". "Yes. I think it helped me improve a lot, because I could reflect on what I was doing from another perspective and helped me solve some mistakes that I made prior to the final poster" "Actually yes, because I was able to know which things, I have to improve to be better".

In the second question from the questionnaire which asked if the rubric was difficult to follow, 66% of the student expressed their confidence while following the rubrics, some of the answers were: "No, because with the instructions of the teacher everything was clear," "No, because I was able to understand each category of the rubric and how to grade each one"," No, because the rubrics shows the topics clearly and it guided me to do my projects- 24% of the students reported a difficulty in

understanding the rubrics. For example: "A little bit, because I have not been used to doing it", "yes, because sometimes for me was difficult to understand the idea of the teacher's concepts"

In the third questions: Which problems did you encounter while self-assessing? The results were: 72% of the students in total, reported at least one problem while self-assessing, 5 students had problems because they overestimated their products, 4 students reported problems in finding their mistakes, 5 students acknowledged problems with vocabulary, 4 students had problems with grammar, 3 students evidenced problems with the layout of the poster. According to these numbers, we can conclude that most of the students had difficulties at the beginning of the process of self-assessment.,

Regarding question #4: Was self-assessment difficult to you? Why? 72% of the students reported no difficulties while assessing and the 14% reported a certain degree of difficulty during self-assessment. In general, the opinions of the students facing self-assessment is positive. Among other answers they responded: "In general, the self-assessment was easy, also the unit was a bit easy. "After finishing the unit, I recognize that I have learned new things". "Not really, I think self-assessment is an easy activity to make whenever I feel like something is missing in my work. It's just about asking questions to yourself"." No, because it helped me to realize my mistakes". "No, I really enjoyed that because I can know about my own thoughts, and then I can reflect" "No, I think it's a very good idea, to learn to correct our mistakes by ourselves".

Discussion

Research question 1 aimed at establishing the effect of self-assessment in student's written production. The innovation concluded that there was a significant improvement in student's grades. This matches with what was stated by Andrade and Du (2007), who established self-assessment as a way of achieving "real knowledge" by

identifying weaknesses and strengths. Students also adjusted their attempts to a more goal- oriented product (Yan, 2020). This goal-oriented product was the written standard from the CEFR (Council of Europe, 2018, p.75).

Research question 2 that wanted to stablish which of the writing areas self-assessment impacted the most progress evidenced that organization and layout. These two aspects were particularly impacted by the innovation. The progress of the students in these two areas was notorious. This matches with the result of Kadri (2019) who emphasized that "the comparison of the writing tests before, and after the innovation showed an improvement in the students' writing performance" (p.282). The author concluded that self-assessment helped students to perform better.

Research question 3 What benefits and difficulties did students find while self-assessing? one of the benefits of self-assessment according to Brown and Hudson (1988) is to help students understand "what it means to learn a language independently (p.666). After training the students they were involved in their learning process, which clearly resulted in a feeling of self-confidence and motivation (Rolheiser & Ross, 2001). Students reported a correction of their former mistakes. Self-evaluation helped students take action to change their mistakes.   For example, they mentioned "because I could reflect on what I was doing from another perspective and helped me solve some mistakes that I made prior to the final poster" or "Yes, because that made me see my mistakes and fix them"

Regarding difficulties, this research coincides with Brown and Lee (2015), "subjectivity" as one of the most worrying problems of self-assessment. The researcher observed that most of the students graded their product higher in comparisons with the teacher's grade. Besides, some students also reported their fear to give a non-realistic grade to their product.

Although the result of this research matches with bibliography and previous studies, the sample and the time were too short to determine if there was a real impact on learners. A deeper study that includes larger sample in Ecuador may be needed to corroborate the results of this research.

Conclusions

The analysis of the data provided evidence that self-assessment improved significantly writing scores. This improvement aligns to previous research which states that self-assessment promotes awareness of the way students learn. Consequently, self-assessment helped the group to improve their final grade consciously.

Self-assessment can also scaffold the achievement of international written standards. The clear objective stated at the intervention's beginning helped students understand what was expected from them.

Despite the doubts students had, they understood the rubrics and the concept of self-assessment. Eventually, they started reflecting upon their metacognitive skills. However, the part they found most difficult was the disposition of the text under the photographs and the organization of their writing with the subordinating conjunctions. In general, they were not used to creating authentic posters, and the concept of subordinating conjunctions needed a further explanation.

The researcher observed that most students had at least one problem with self-assessment at the beginning, but generally, their attitude towards self-assessment was positive. They were accustomed to giving more importance to their grade than learning. Ultimately, they understood that learning does not happen without reflecting on their mistakes. When they read the rubrics, despite the difficulties encountered at the beginning, they managed to understand and correct their mistakes with motivation and confidence.

Students, in general, were not used to self-assessing and struggled with giving impartial grades. As a result, they tended to overestimate their performance, which showed a lack of training in this process. Besides, the training they received could have made them more aware of their weaknesses and, thus, improved their grades in the post-test. In general, they were better at assessing themselves at the pretest in grammar and vocabulary, probably because they are more used to self-assessing these skills rather than self-assessing more complicated issues like organization.   Finally, regarding the layout, where they had the most problems, it indicates they were not used to creating posters with photos including specific information.

Limitations

The main limitation found during this intervention was the time. Even though the authorities permitted the intervention, the teacher still felt the pressure of accomplishing the content in the syllabus. Systematic training in self-assessment is an endeavor that requires patience and time. The other B1 course in the school continued with the syllabus faster than the intervention group.

The most challenging aspect was the systematic training on self-assessment, mainly because students had no idea how to do it. However, it is evident that practice makes perfect, and the self-assessment process is tied to the more significant concept of independence and requires an institutional policy rather than isolated attempts. Additionally, the use of Forms did not allow to maintain the students' anonymity; in this project, the names were hidden.

Recommendations

It is necessary that systematic training on self-assessment starts in the early stages of schooling. The ideal scenario would be that students self-assess themselves more naturally, which can be achieved only with practice and intentional teaching.

Therefore, a school compromise must permit the application of formative assessment as a mandatory policy. With this implementation, teachers can avoid the time constraints and the harmful improvisation.

The usefulness of self-assessment depends upon whether the student can realistically judge the qualities of their work. Without this, self-assessment is useless. Applying a systematic strategy like the 4-stage model created by Rolheiser and Ross (2001, p. 11-12) may support teachers and students in improving their self-assessing skills. However, further research is needed in this field.

Teachers should include students in creating the rubric to precisely know each project or activity's main objectives. In addition, the time students spend creating the rubric will help them grasp the general expectations of the written assignment, which can lead to achieving the standard more quickly. Use platforms that allows anonymity to avoid ethical issues for sharing answers of the students, to maintain the ethical considerations and avoid unnecessary exposure of the involved part.

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Appendix 1

Lesson plan

Available upon request.

Appendix 2

Rubric for teacher and students self-assessment

Available upon request.

Appendix 3

Checklist for systematic training

Appendix 4

Consent letters

Appendix 5

Transcript of interviews

Available upon request

Appendix 6

Grades

Available upon request.

Appendix 7

Eportfolio

Available upon request.