Online Clustering to Improve IB Students' Writing: A Mixed Design Study

José Andrés Cedeño Olivares

Guide: María Rossana Ramírez Ávila

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Abstract

This action research study with analysis of quantitative and qualitative data aimed at applying the online clustering strategy to enhance students' writing skills and text quality. Twenty young students between fifteen and sixteen years old participated in this study. They belonged to the Diploma Program of the International Baccalaureate from a public high school in Guayaquil, Ecuador. Most of them were at A1 and A2 level. The instruments applied for the study were a pretest and posttest, rubrics for scoring the written assignment, and a questionnaire. The findings disclosed that the participants wrote better texts because of the prewriting strategy. Significant variations in the pretest and posttest indicated that online clustering strategy had a positive impact on the students' writing achievement. A t-test was used to determine the mean scores between the pretest and posttest. The difference in means is statistically significant at the <0.05 level. On the other hand, the effect size obtained was $d = 1.8$, which is a large effect size. Regarding students' perspectives, results disclosed that most of the students had positive perceptions of clustering prewriting strategy to improve their writing skills. The findings might have implications for EFL researchers, teachers, and learners.

Keywords: online clustering, prewriting strategy, writing achievement, perspectives, online tools.

Resumen

Este estudio de investigación de acción con análisis de datos cuantitativos y cualitativos tuvo como objetivo aplicar la estrategia de agrupación en línea para mejorar las habilidades de escritura y la calidad del texto de los estudiantes. Veinte estudiantes de entre quince y dieciséis años participaron en este estudio. Pertenecían al Programa del Diploma del Bachillerato Internacional de una escuela secundaria pública en Guayaquil, Ecuador. La mayoría de ellos estaban en los niveles A1 y A2. Los instrumentos aplicados para el estudio fueron una prueba preliminar y una prueba posterior, rúbricas para calificar la tarea escrita y un cuestionario. Los hallazgos revelaron que los participantes escribieron mejores textos debido a la estrategia de pre escritura. Las variaciones significativas en la prueba previa y posterior indicaron que la estrategia de agrupación en línea tuvo un impacto positivo en el logro de escritura de los estudiantes. Se usó una prueba t para determinar las puntuaciones medias entre la prueba previa y la posterior. La diferencia en las medias es estadísticamente significativa en el nivel <0.05. Por otro lado, Cohen's $d = 1.8$, lo cual representa un impacto grande. Con respecto a las perspectivas de los estudiantes, los resultados revelaron que la mayoría de los estudiantes tenían percepciones positivas de la estrategia de pre escritura de agrupamiento para mejorar sus habilidades de escritura. Los hallazgos podrían tener implicaciones para los investigadores de inglés como lengua extranjera, maestros y estudiantes.

Palabras claves: agrupación en línea, estrategia de pre escritura, logros de escritura, perspectivas, herramientas en línea.

Online Clustering to Improve IB Students' Writing

Writing is a very important skill, which has not been taken into consideration for many years in the English language teaching-learning field especially in schools (Adriati, 2013). For Richards and Renandya (2002), this is because writing is one of the hardest skills to boost. However, writing skills have a strong emphasis in many curricula around the world, Ecuador not being an exception.

The national curriculum guidelines point out that students, at the end of their obligatory studies (3rd Bachillerato), are expected to "write simple, coherent essays about familiar topics, personal interest, experiences, events, and desires, and justify their opinions" (Ministerio de Educación, 2014, p. 7). These expectations are in accordance with the global scale of the Common European Framework of Reference for Languages, which indicates that students at a B1 level are able to write texts in which they express their opinion, give reasons, and further explanations (Council of Europe, 2003).

Writing is a complex action involving a series of cognitive processes, and encompasses the search for new knowledge, assimilation, reflection, planning, production, and adjustment (Abbott, Berninger, & Fayol, 2010). All of these processes, if not addressed properly, can cause anxiety and frustration in the students (Maghsoudi & Haririan, 2013). Graham and Perin (as cited in Inal, 2014) presented evidence in a meta-analysis report that one of the greatest challenges for students is to know how and where to start. Graham and Perin also reported to Carnegie Corporation of New York that involving students in pre-writing activities has a positive impact on the quality of students' writing, avoiding problems such as the lack of ideas and even disorganization, which are a dilemma that affects most writers before starting the writing process (Graham & Perin, 2007). Therefore, it is frequent to observe anxious pupils sitting in front of the computer for hours without knowing what to write.

Other common problems that impede writers and students from starting the writing process is lack of prior preparation; they are not conscious of the prewriting cognitive processes and their benefits (Flower & Hayes, 1981). Besides, certain teachers demand from their students to produce quality written texts without providing them with a previous orientation, the necessary tools, and motivation in order to help them deal with the complex process of writing (Joyce, Gitomer, & Iaconangelo, 2018).

As an evidence of these problems, year by year, since the implementation of the International Baccalaureate (IB) in an emblematic public high school in Guayaquil city in 2016, IB students have really struggled with the generation and organization of ideas when starting to elaborate the different written components, which has led, as a result, to a low writing performance. During the life of the program (three cohorts launched), it has been shown that criterion B called Message, in the assessment rubric for Paper 1 (written texts) in the Language AB Initio Guide (International Baccalaureate Organization, 2018), is a critical aspect that has led to the decline of the final score. This criterion evaluates the development of ideas, the logical structure of the work (paragraphing, sequencing), and the correct use of cohesive devices. In the last two years, it reflected results mostly between 0 and 4 marks (currently, the maximum grade is 6), which means that the tasks did not meet the standards or they were partially or generally fulfilled. These results were extracted from the records of the institution where the study was carried out.

With all of these antecedents, it was necessary to pay attention to how to teach writing in a more effective way in order for the students to be able to meet IB standards. Students should be guided with the purpose of becoming independent and successful writers (Davidson, 2007). To help students generate and convert their thoughts into coherent and well-structured ideas, the clustering practice –also called mind mapping-

emerges among various prewriting strategies to facilitate the writing process in a potential way and to improve the quality of written texts (Buzan, 2005).

For the purpose of this study, a technology tool called Coggle was incorporated, which is a friendly online mind map creator. This web tool offers services such as the unlimited quantity of maps and the option to share, export, and publish maps for free. Genc Ilter (2009) emphasized the importance of incorporating technology in the language learning process: "With the help of technology students can be active, motivated and involved in language learning process" (p. 137). The use of this online mapping tool provides other benefits including confidence. This is possible thanks to the collaborative work feature, which also generates a profound impact on the generation and organization of ideas (Chang, Chiu, & Huang, 2018).

In the following section, previous studies associated with writing texts and the effect that online clustering as a prewriting strategy provides, are argued. Additionally, the design of the research and its final results are disclosed and discussed.

Literature Review

The importance of writing lies in giving the students the opportunity to get involved with the language, besides organizing and generating ideas to translate their thoughts into comprehensible text (Richards & Renandya, 2002). Unlike other linguistic skills that involve natural processes, writing needs explicit and direct instruction, which will allow the students to express their ideas and feelings (Graham, 2008). Raimes (as cited in Ghufron, 2018) mentioned that the process of writing includes some parts such as syntax, content, the writers' process, audience, purpose, word choice, organization, mechanics, and grammar. The weaknesses in these aspects, if not addressed, generate difficulties of organization in the text, precision, ambiguity, and fluency (Raimes, 1987). Byrne (as cited in Ghufron, 2018) highlighted some of the problems students

face when writing: physiological, linguistic, and cognitive. Given this background, there is a need to address these situations from the very beginning, before writing, through prewriting strategies.

Clustering

Clustering is a prewriting strategy designed by Gabriele Lusser Rico (2000), who was an accredited professor of English at San Jose State University in the United States. This strategy is commonly used in English as a Foreign Language (EFL) contexts to help students come up with as many ideas as possible, organize their thoughts, and generate positive emotions before starting the writing process. According to Pica (as cited in Adriati, 2013) clustering is a "non-linear brainstorming process that generates ideas, images, and feelings around a stimulus word until a pattern becomes discernible" (p.40).

The practice of clustering can be done in two different ways: paper-based or computer-based. However, according to research, there is a more positive effect on students when technology is implemented. A study based on Computer-Supported Cooperative Learning (CSCL) prewriting strategies for enhancing students' performance included a meta-analysis case conducted by Goldberg (as cited in Lan, Sung, Cheng, & Chang, 2015), which points out that the results of using computers with students who are learning writing are: more engagement, motivation, written work with more length, and quality. Likewise, the study determines that writing in computers makes the process more social since students can share and collaborate with peers in contrast with paper-based environments.

On the other hand, Hayes and Ge (as cited in Lan et al., 2015) conducted a study using a mixed-methods design with American fifth graders to prove enhancement in the writing performance in CSCL environments. They found that performance, motivation,

and cooperative learning augmented in the group that used computers, in contrast with the control group, which did not use technology tools. The presence of critical thinking was evident while the students were sharing their thoughts and interacting in an online forum. These findings corroborate that the integration of technological tools has a great impact on students' achievement and attitude, but it is still necessary to confirm if the clustering strategy works better with technological tools in order to address students' performance in writing texts.

Another study conducted by Yunus and Chien (2016) examined 25 Pre University students' perceptions on the use of mind mapping strategy in their Malaysian University English Test (MUET). Their ages ranged from18 to 19 years old. The statistics showed that most of the students had positive perceptions of mind mapping prewriting strategy to improve their writing skills. There were notable improvements in the organization of ideas, a deeper understanding of topics, and creativity.

Yunus and Chien (2016) applied a questionnaire that comprised of nine questions that yielded qualitative and quantitative data based on the students' perceptions of the use of mind mapping strategy in enhancing writing skills. The first seven had the purpose of collecting the perceptions of the students about the use of mind mapping through a Likert scale. The last two were open questions and allowed the students to indicate what benefits they had when using the strategy. When looking at the results of the closed questions, it was found that 88% agreed that mind mapping helped in the organization of ideas, 84% considered mind mapping as a valuable strategy for understanding concepts, ideas and boost creativity, 92% strongly agreed that helped them understand the relationship between the ideas they wrote and the subject of writing, and finally 56% concluded that mapping was not a complicated task. These conclusive results confirmed the viability and effectiveness of the present action

research and allowed a clear understanding of the perceptions of the students regarding the use of clustering or mind mapping as a prewriting strategy.

Benefits of Mind Mapping

One of the benefits of using clustering is that it improves writing fluency; this is the natural flow and organization of a written task (Buzan, 2005). For the International Baccalaureate Organization (2018), fluency is as important as accuracy in the communication of written texts; the fluency of the message concerns the development, relevance, organization, and clarity of the ideas. Brown (1994), however, talked about the constant fluid of the language either written or spoken; it is manifested for a short period of time and without any type of correction. For Fellner and Apple (2006), fluency in a written text is evident when it presents a pleasant message, organized and easy to understand, in addition to the number of words or ideas produced in a range of time regardless of the spelling. Those definitions hold points in common so that it could be determined that a fluid text has arguments that are presented in a logical and sequential manner, having clarity in the presentation of ideas. According to Fellner and Apple, teachers can help their students improve their writing fluency allowing them to engage in intensive writing and review their works; likewise, ongoing feedback will help them become adept in elaborating written texts fluently.

The use of strategies such as online clustering helps students present a solid grasp of the topics covered, as well as favors the extension of the message. The linguistic knowledge, in addition to being vital for organization and fluency in the writing of texts, is also essential if depth is sought in knowledge; when students learn strategies, they can come to go beyond and build a text with solid arguments (Rothstein, Rothstein, & Lauber, 2007). Therefore, students will be able to provide examples and details that reveal the nature of the content.

Given the conflict situation in students of the Diploma Program of the International Baccalaureate at the prewriting stage (no planning; therefore, lack of ideas and disorganization in the written texts) and the online clustering benefits posed by the literature, the objectives of this study were directed to the following two research questions: Is there any significant improvement in writing texts by means of applying the online clustering strategy in IB students? And what are the IB students' perspectives of applying the online clustering strategy before writing?

Innovation

The innovation lasted five weeks (one session per week), equivalent to twenty-five pedagogical hours. To prove its effectiveness, the online clustering strategy was applied in several sessions of the unit (formative assessment) and before the students set the topic for their final written work (summative assessment) according to the themes established in the English AB Initio Language-Specific Syllabus (2013) of the IB program. For a successful application of the strategy, it was necessary for the students to become familiar with the practice of clustering from the first week of the unit. For that reason, the teacher modeled the procedures step by step. The teacher's role was to mentor, supervise, guide, and give feedback during the whole writing process.

In the first session, according to the theme for that week, the teacher set a central idea in the middle of the whiteboard. As a whole group, he motivated the students to think by asking guiding questions in order for them to generate and cluster ideas until a mental map was completed with a variety of significant arguments. The next day, the teacher requested the students to work in small groups, so that everyone could do the same, participate collaboratively and cluster ideas on a piece of paper. While the students worked, the teacher monitored and provided feedback. It is worth emphasizing

that the students from this session had the opportunity to get acquainted with the clustering rubric (Appendix 1).

Likewise, there was another session to introduce the Coggle tool, under the parameters similar to the paper-based clustering. First of all, the teacher set the model by creating one online mind map with the help of the students. This image was visualized through a projector. Once finished, from their computers, students were asked to work in pairs and start to write the central idea provided by the teacher, which was enclosed in a square, circle or any other geometric figure preferred by the student. Then the students wrote as many ideas as they came to their minds related to the central topic, which would be connected by lines. Once again, the ideas were enclosed with the selected figure and the students kept clustering in the same way. The idea was to work online collaboratively. That is, students contributed to one another to reach as many ideas as possible to fill the map. For that purpose, one of the students was in charge of setting a template, writing a topic, and adding the partner's email to invite him or her to work online. At the end of the unit, students would have enough arguments to write a full piece of writing.

Throughout the unit, students' clustering works were focused and graded based on the flow of ideas (fluency), interrelation, and depth of content, not on the design of the mind map or aspects related to grammar and spelling in order to have better results. As it was said before, students were acquainted enough with the clustering rubric since the beginning. The idea was that they could provide peer feedback and meet the expected goals.

At the end of the unit, for the purpose of the summative assessment, students were asked to think of an environmental problem present in their community. They would promote awareness about that issue by creating a blog taking into consideration the

following steps: describe the problematic situation, identify differences and/or similarities between their own culture and the target culture, and reflect on these differences and/or similarities by responding to a set of guiding questions located in the English AB Initio Guide (2018). Finally, they would post the final work on blogger in order to generate an impact on the target audience. The blog entry, which is a personal text type, consisted of a piece of writing between 200 and 350 words (this would depend on the student's level) with the purpose of informing, explaining, and persuading an extended audience.

To proceed with the summative assessment, there were two stages. In the first one, students selected the topics for their written assignment under their own initiative, based on the class unit "Sharing the Planet". Without the induction of the teacher, the students proceeded to plan, that was, selected key ideas and organized them in a sequential way according to their convenience and learning styles, which would allow them to set the topic, draw up an outline, and be able to write the first draft of their written assignment.

In the second stage, on the contrary, students used the online clustering strategy in order to generate and organize their ideas. Paired students collaborated online through the web tool called Coggle. They started choosing a theme from the unit. They framed the theme with a variety of figures from Coggle (squares, triangles, and ovals, among others.). Then the students started to cluster as many ideas as possible to create their mind maps. They carefully set the topic for their blog entry, created an outline, and wrote the first draft to submit it. After that, their written assignments with hand-written feedback from the teacher were returned for edition and subsequent submission of the final work, which had to be posted on Blogger. The blog entries were assessed by the

researcher with the help of two American experts according to the following criteria: organization, clarity of ideas, relevance, and extension of the message (Appendix 2).

Methodology

This section shows the research methodology used in this study and give information related to the participants' profile. Additionally, it describes the instruments used, procedures of data collection, and the validity-reliability of the instruments. Finally, it recounts the ethical standards taken into account for this study. The design used was Classroom Action Research (CAR) since the research was conducted in the classroom by the teacher, who is the researcher. According to Sut, Rabadia, and Hanapi (2018), this sort of investigation is to collect information in the teaching-learning process with the purpose of overcoming educational problems and improving teaching practice.

Participants

The sample consisted of eighteen females and two males, who were accessed by convenience sampling method, which is a non-probability technique that consisted of recruiting participants conveniently given the accessibility and proximity to the researcher (Etikan, Musa, & Alkassim, 2016). These students had a higher degree of commitment to their studies. Their ages ranged between 15 and 16 years old. They were selected among Intermediate Ecuadorian EFL students of Second Baccalaureate, who belonged to the Diploma Program of the International Baccalaureate program in an emblematic public high school in Guayaquil. At this point in their secondary studies, students are required to have B1.1 language proficiency level (Ministerio de Educación, 2012). However, the results of their proficiency tests taken on the online platform called MM Online Placement Test (2018) for the purpose of this innovation, showed that most of them are in A1 as shown in the table below.

Table 1

Proficiency level of the sample in the English language

Proficiency Level	Number of students	%
A1	14	70
A2	5	25
B2	1	5
Total of students:	20	100

Instruments

This action research involved analysis of quantitative and qualitative data. The instruments applied for the study were a pretest and posttest, rubrics for scoring the mind maps and the written assignment, and finally a questionnaire. The rubrics were created in an online rubric maker called iRubric. The mind map rubric was adapted from Clayton School website (2008). The blog entry rubric was adapted from the Language AB Initio Guide (2018).

On the other hand, the pretest, posttest, and the questionnaire were reviewed before application by two Teaching English as a Second Language (TESL) experts graduated as masters in the United States, who came to Ecuador and volunteered in the educational location of the present investigation, in order to increase reliability and validity. Lastly, all of the instruments were piloted before the treatment.

To answer research question No.1: "Is there any significant improvement in writing texts by means of applying the online clustering strategy in IB students?" the researcher applied a pretest and posttest template to collect quantitative data (Appendix 4, 5). Both consisted of the same performance task, which was measured through the blog entry rubric. The rubric had four criteria: relevance, extension of message, clarity, and organization of the ideas. The scores per each criterion oscillate between one (poor)

to four (excellent). Numbers gathered were coded in the statistics program called Statistical Package for the Social Sciences (SPSS) for analysis and interpretation.

A second rubric was applied to collect quantitative data. That is the clustering (mind map) rubric. Although the clustering rubric does not directly answer the first research question, the researcher considered it necessary in order to detect the number of ideas generated; the more ideas, the more arguments to support the text. Likewise, as the clustering work is a type of graphic organizer, it contributed to arrange or order the ideas in the students' written texts. In the rubric for the clustering work, there were four criteria: structure, depth of content, communication, and interrelating ideas. The scores per each criterion oscillate between one (poor) to four (excellent). Numbers gathered were coded in SPSS for analysis and interpretation.

Research question No. 2 related to the IB students' perspectives of applying the online clustering was addressed with a questionnaire, which consisted of seven written open questions posed to the students before and after the innovation. The answers to the questions reflected students' perspectives towards the experience involved in the writing process with and without the implementation of the online clustering strategy in the prewriting stage. Data was analyzed qualitatively by the researcher.

Ethical Standards

Ethical aspects were considered to guarantee the transparency of the present investigation, promote the objectives of the research, and foment moral values such as respect and fairness. In order to recognize the contributions made in the educational framework and guarantee the author's rights or patents, the present work was regulated according to the APA guidelines found in the sixth edition of the Publication Manual of the American Psychological Association (2010). The data shown below was not manipulated or falsified, much less published in other research. It has been tried as

much as possible to avoid bias in the different aspects of the investigation by maintaining neutral stance, keeping meticulous records and including all of the findings. Any personal information provided by the sample was treated confidentially since all were underage students. It is worth noting that the consent of all the parents was obtained before proceeding with the data collection. The participation of the students was free and voluntary.

Results

During and after the teaching-learning process, it was possible to collect quantitative and qualitative data based on the performance of the clustering work, the blog entry, and perspectives on the innovation strategy. The following results of the pretest and posttest answered the first research question: Is there any significant improvement in writing texts by means of applying the online clustering strategy in IB students?

Table 2

Descriptive Statistics of the pretest and posttest

	N	Min.	Max.	Mean	Std. Deviation
Pretest Grades	20	4.00	11.00	8.3500	2.18307
Posttest Grades	20	8.00	16.00	13.0500	2.98196
Valid N (list wise)	20				

The scores of the blogs oscillated between 0 to 16 marks. Table 2 shows that the mean grade in the pretest was 8.35 compared to the posttest mean 13.05, which clearly shows that there was an improvement in the grades with the intervention of the online clustering strategy.

A t-test was used to detect the mean scores between the pretest and posttest. The difference in means is statistically significant at the <0.05 level (p=.000). On the other

hand, the effect size obtained is $d = 1.8$. According to guidelines specified by Cohen, this corresponds to a large effect size.

Figure 1. Results of the pretest and posttest per constructs.
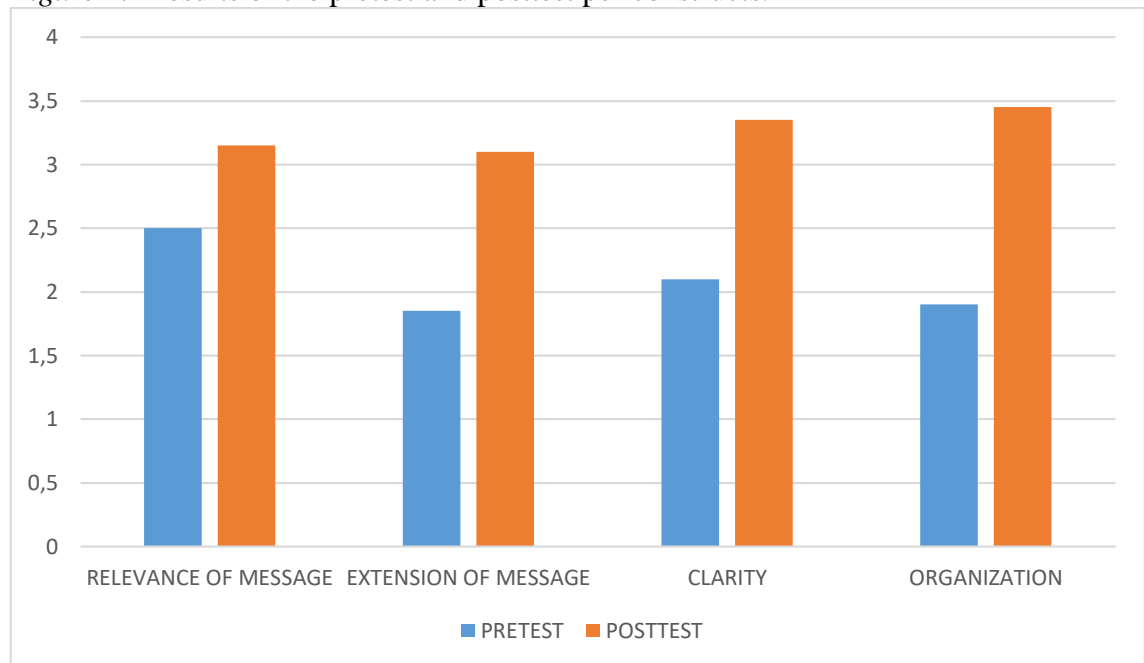
As shown in Figure 1, there were four different constructs in the rubric for scoring the blog entry. In a general way, the grades per construct improved in the posttest. The results regarding relevance and extension of the message were good. Ideas were mostly appropriate to the task and were mostly developed with some examples and details. On the other hand, students' set cultural differences between their culture and the target culture with clarity. Likewise, their responses were generally structured in a logical manner leading to mostly successful and organized delivery of the message.

The p-value for "relevance of message" and for "extension of the message", "clarity", and "organization" was <0.05, implying that the difference in means is statistically significant. According to guidelines established by Cohen's, the construct "relevance of message" is equal to 0.79, which corresponds to medium effect size. The "extension of the message" is equivalent to 1.71, "clarity" 1.5, and "organization" 2, numbers which are compatible with a large effect size.

On the other hand, the clustering strategy, once implemented, was also evaluated. As students worked collaboratively, there were ten grades for each pair in generating and organizing the ideas for the mind map. The results disclosed a mean grade of 12.90 out of a maximum grade of 16. Now, the analysis per descriptor.

Figure 2. Results of the clustering work per descriptor
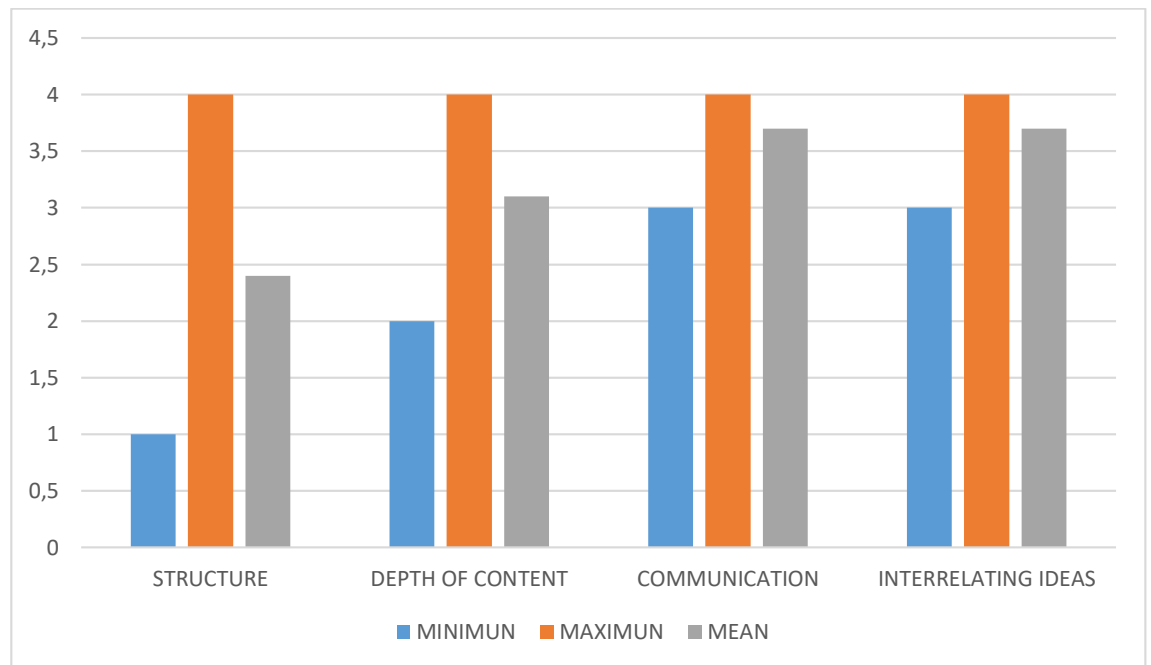
As presented above, there were four different criteria. The means were the following: 2.4 structure, 3.1 depth of content, 3.7 communication, and 3.7 interrelation of ideas, being the last three criteria the highest scores. Students showed a solid grasp of most of the content and extension of ideas. Likewise, they made highly effective use of words and images, which reflected an excellent communication. Finally, there were highly effective efforts to connect ideas together. Regarding the structure, students gave ideas suitable to the topic.

To know the students' perspectives in applying the online clustering strategy, a questionnaire was used before and after inserting the innovation. These results answer the second research question. The first question was the following: Could you tell me

how much you like writing texts? Fourteen students out of twenty answered they like

writing. The number of students who liked writing augmented to eighteen in the post-

questionnaire, which indicates that the implementation of the online clustering strategy

contributed to positively change the students' perspective towards the writing of texts.

Figure 3. Results of Question 1 of the Questionnaire
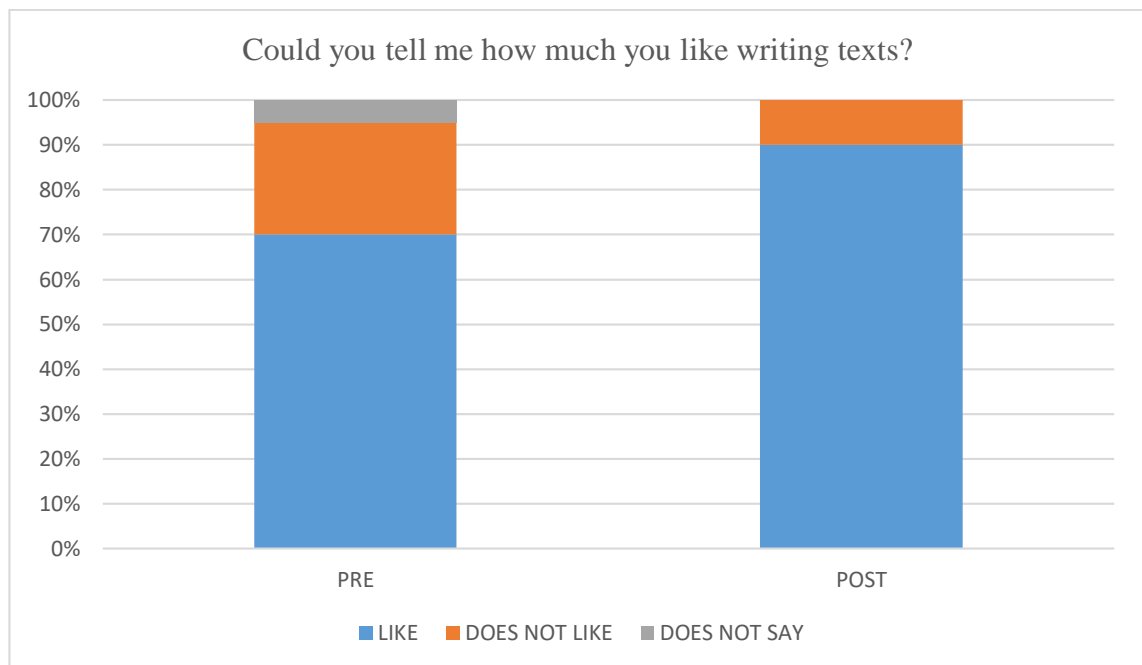
The second open-ended question in the interview was: *What do you find difficult*

in the writing process? In the beginning, the answers were very diverse. They

mentioned the use appropriate of verb tenses, lack of vocabulary, organization of ideas,

lack of sources, and time. Through the analysis, it is notable that the concern for the

organization of ideas increased in the post-questionnaire, in which the fifty percent of

students indicated that the organization of the arguments is an aspect of serious

consideration in the elaboration of written texts, that if it is not addressed well, it could

create a true chaos that impedes the understanding of the text.

Question three posed the following: According to your opinion, what is the most

important part of the writing process? A forty percent said the arguments, the rest

mentioned strategies to collect and organize information, collect and use pertinent

vocabulary, grammar use, and text clarity. In the post-questionnaire, approximately a forty-five percent exalted the need for strategies to organize the text and a thirty percent text clarity, factor that is also intimately related to the organization of the text.

Figure 4. Results of Question 4 of the Questionnaire
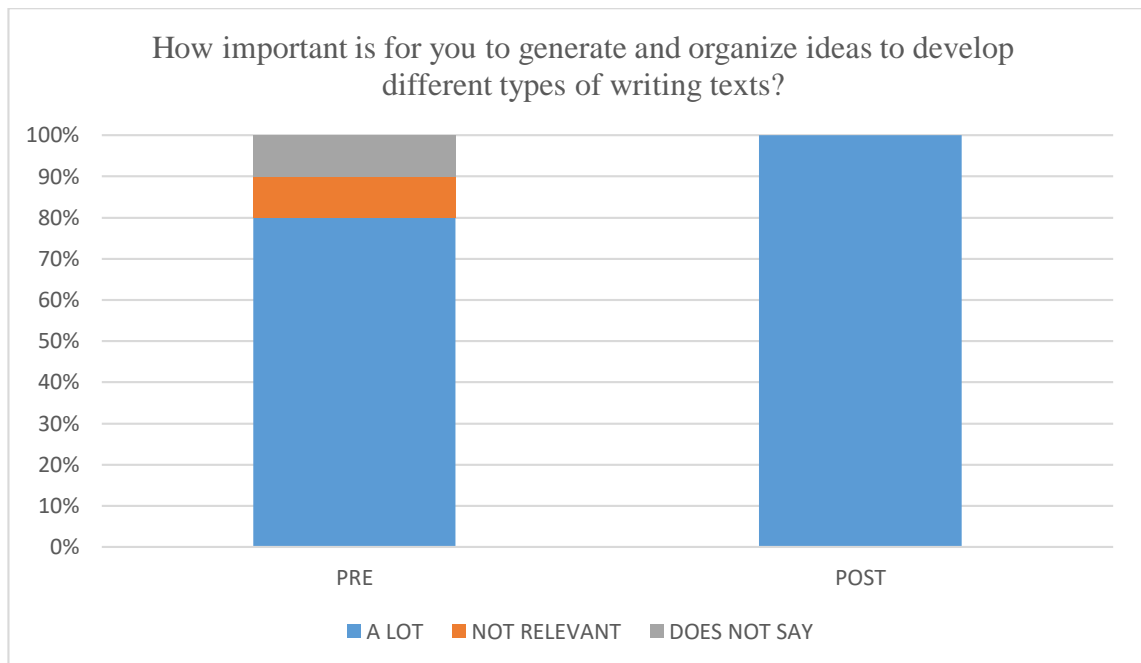
Question four was how important is for you to generate and organize ideas to develop different types of writing texts? Eighty percent of the students reported that the generation and organization of ideas at the moment of creating different types of written texts is of great consideration. This number is contrasted with that of the post-questionnaire in which the percentage augmented to one hundred percent of the sample. This perspective leads us to the idea that the use of clustering generated awareness for the structuring of ideas within a written text.

Figure 5. Results of Question 5 of the Questionnaire

What strategies do you use to generate and organize your ideas?
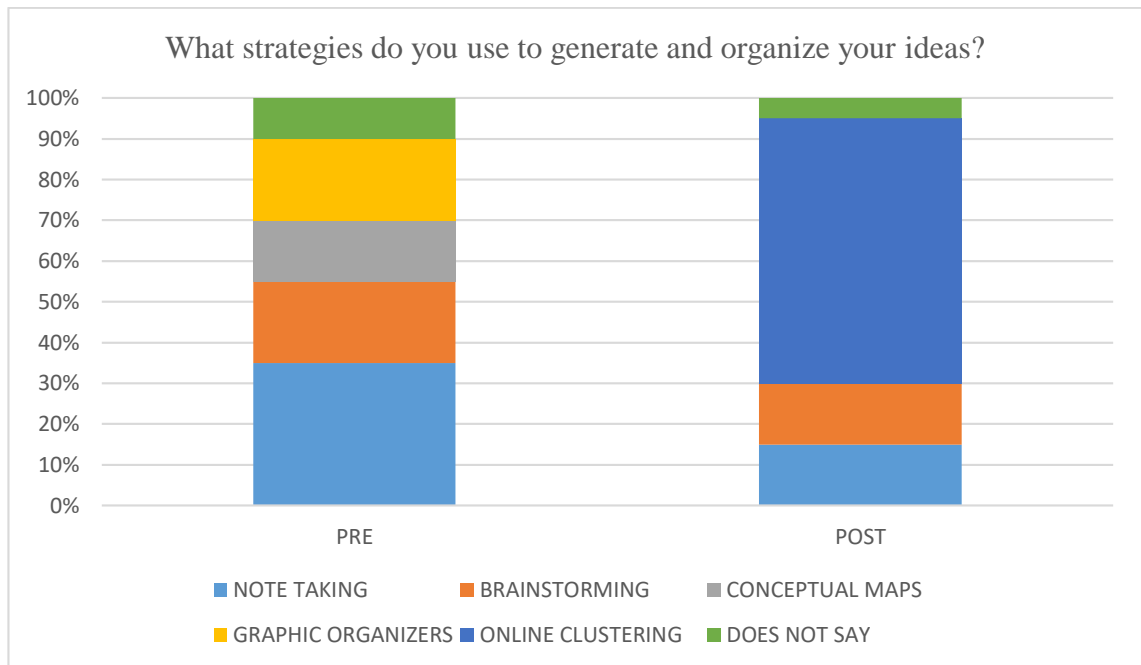
Question five was a very personal question and said: What strategies do you use to generate and organize your ideas? In the beginning, the highest response was note taking followed by brainstorming. The rest mentioned conceptual maps, graphic organizers, and some of them did not indicate. On the other hand, after applying the innovation, approximately a sixty-five percent of students leaned remarkably for the strategy called online clustering. The missing students remained in note taking, brainstorming, and one did not specify. The inclination of more than half of the population for the use of the clustering strategy, according to the analysis, is because of the benefits it offers in the writing process as well as the option to collaborate among peers, which is something fascinating for them.

Question six inquired what difficulties students had found when using their preferred strategies. They made allusion to disorganization of ideas, problems with data collection, and the misuse of the strategy. On the contrary, in the post-questionnaire, participants were asked to indicate the problems found using the online clustering strategy. Almost the fifty-five percent of students found the strategy time consuming; they explained that this could have been due to the speed of the computers or the

internet connection. A thirty percent had complications with the management of the

strategy and the rest found no difficulties. All of this leads to conclude that the

complications are mainly external factors to the strategy.

Figure 6. Results of Question 7 of the Questionnaire
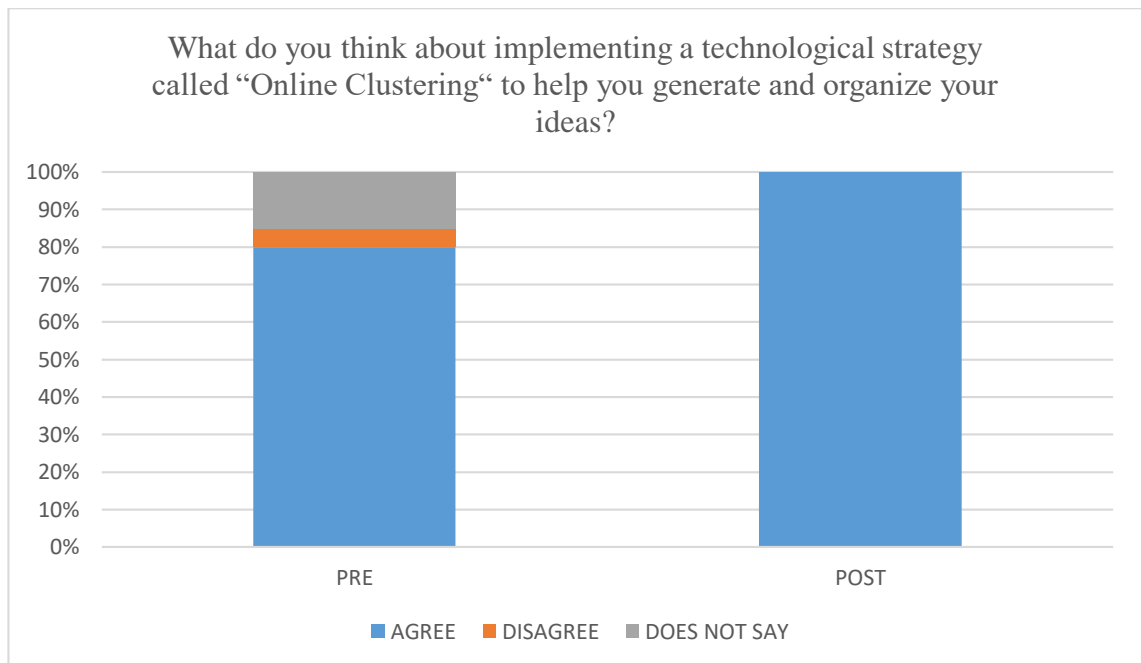
Question seven was: what do you think about implementing a technological

strategy called "Online Clustering" to help you generate and organize your ideas? In the

beginning, the eighty percent agreed. After the implementation, the one hundred percent

agreed to continue using the strategy and manifested it was beneficial to generate and

organize ideas of their written texts.

Discussion

The present study aimed at enhancing the writing of International Baccalaureate

students by producing and organizing details that support their text through the online

tool called Coggle, which allowed students to generate and cluster their ideas during the

prewriting stage. Two essential questions were posed to address the situation. The first

was: Is there any significant improvement in writing texts by means of applying the

online clustering strategy in IB students? And the second: what are the IB students' perspectives of applying the online clustering strategy before writing?

Regarding the first research question, it can be said with security that there was a significant improvement in writing texts by means of applying the online clustering strategy in IB students. Lan, Sung, Cheng, and Chang (2015) were not mistaken in saying that mental mapping has proven to be one of the most effective tools in terms of writing performance and motivation. It really helped the students in the planning stage and acquiring deeper knowledge in the applied topic. Such is the case of the present study in which the significant rise in the average of the grades in the posttest is evident. It went from 8.35 to 13.05 over 16. In the pretest, the lowest grade was 4 and the highest was 11 over 16. In the posttest, the lowest grade was 8 and the highest 16, which proves the enhancement in writing texts. The total number of ideas in the text rose to 7 onwards.

As Goldberg (as cited in Lan, Sung, Cheng, & Chang, 2015) pointed out, the results of using computers in the teaching - learning process were students more motivated, but overall written assignments improved in length and quality. This is patent because, at the level of descriptors, the minimum rating rose from 1 to 2 and the maximum from 3 to 4 over 4. The relevance of the message, extension of the message, clarity, and organization had the following average grades: 3.15, 3.10, 3.35, and 3.45. The relevance of the message was good; the ideas were relevant and demonstrated an understanding of most of the unit's theme. In the extension of the message, most of its ideas were developed with details and examples that support the text. With respect to clarity, cultural differences were presented sometimes in a clear and coherent way. Finally, the organization of the text and events were mostly in a logical way leading to successful delivery of the message.

On the other hand, the final clustering process was also graded through a rubric. Pica (1986) said that clustering before writing favors the generation of ideas, images, and feelings through a visual stimulus. This is corroborated. There were four main descriptors: structure, depth of content, communication, and interrelation of ideas. The evaluation of the final clustering work yielded good results between 10 and 16 out of 16. The work was done in pairs in order to get the benefits from the collaborative work. According to the criteria, in the structure, the minimum note was 1 and the maximum 4; the general average was 2.4, which means that a number of 3 to 4 ideas radiated from the central topic, which were reacted with the class unit plan. With regard to the depth of knowledge, the minimum grade was 2 and the maximum was 4; the average was 3.1, which means that students through their ideas reflected an understanding of most of the topic and included extensions of ideas in their mental maps. The minimum note of the communication descriptor was 3 and the maximum 4, the average was 3.7, which means that there was a highly effective use of keywords and images related to the subject. Finally, the interrelation of ideas had a minimum of 3 and a maximum of 4 points; the average was 3.7, which means that there was a great effort so that the ideas were connected with each other.

The notable advances in writing texts (blog entries) were possible thanks to the benefits offered by clustering. The use of clustering in this research stimulated the organization of ideas or words through a scheme or plan (Ghufron, 2018). Lastly, the technology and collaboration through the online tool called Coggle definitely exploited the students' learning potential and fomented creativity along with critical thinking (GencIlter, 2009).

Regarding research question No. 2, what are students' perspectives towards applying online clustering before writing? Data found were in accordance with the study

of Yunus and Chien (2016), who said a high percentage of their Pre University students were really engaged with mapping because it helped them understand, organize, and relate ideas. Likewise, in this study, the students concluded that the most important part in the writing process is to plan before writing. They also found online clustering beneficial for conceiving and organizing ideas to create written texts; as a result, they strongly recommend the use of the strategy. Collaborating with his peers online was something that interested them. For instance, someone expressed: "It is good to interact; it makes learning manageable". Likewise, they expressed that the strategy facilitated the flow of information, helped them deepen knowledge, and also managed to improve interpersonal relationships with their peers fomenting critical thinking. Another student manifested: "The clustering activity was fun and enriching because I could learn many things from my friend; things that I did not even know about the class. Also, it helped me to know my friend a lot".

On the other hand, the parts of the writing process described by Raimes (as cited in Ghufron, 2018) such as syntax, word choice, organization, and mechanics were the most common responses among students as worrisome and requiring consideration. For instance, someone said: "Writing would be easier if I mastered all the verb tenses and if I had enough vocabulary words; they give coherence to the written text". Likewise, Byrne (as cited in Ghufron, 2018) highlighted some of the problems students face when writing, among then the linguistic component. Then it is understandable that the students have exposed answers such as those, although their perspectives changed with direction to the need for strategies that help them generate ideas and consolidate their mental schemes.

Conclusions

To conclude, the online clustering strategy was useful because students improved the quality of their written texts by means of planning since the very beginning of the writing process, being the organization and generation of ideas tangible benefits of online clustering. On the one hand, students demonstrated positive perspectives on the use of online clustering. The implementation of e-tools really favored students' attitude toward writing and helped students to feel more committed to each other and show their previous and acquired knowledge. On the other hand, this innovation addressed the research gap that existed because it was applied with students of Diploma Program of the International Baccalaureate. Likewise, Coggle proved to be useful as an e-tool in helping students create ingenious mind maps with solid arguments, which endorse a variety of written texts.

Finally, a minimum of students indicated that not all of them learned in the same way and that they would have preferred to use other strategies to conceive their ideas. For that reason, the students' cognitive processes are of great relevance to take into consideration since they allow identifying the types of learning individually, how they perceive knowledge. It is also important to consider how the students conceptualize this knowledge that is, how they form these ideas and generate attitudes and behavior towards them.

Limitations

The time that has been allocated to the pedagogical activities within the classroom generated limitations in the application of the present study. The Ministry of Education of Ecuador (Ministerio de Educación, 2016) established under ministerial agreement number 2016-00020 only five pedagogical hours (40 minutes each) of Semantic Foreign Language for the upper level: Baccalaureate, which represented a challenge not only in

the teaching of English, but also in the application of the present investigation.

Likewise, it was imperative for students to have more time. Some sessions of the

innovation took longer periods than others, which did not allow them to have flexibility

in the development of their tasks.

On the other hand, some students presented a lack of technological skills.

According to a census of population and housing carried out by the National Institute of

Statistics and Census (Instituto Nacional de Estadísticas y Censos, 2010), it was

established that only 31.6% of Ecuadorians used the computer and 26.7% used the

internet. Consequently, it is evident that the lack of abilities to manage technological

resources and the internet put at risk the flow of results of this pedagogic innovation.

Fortunately, students showed a willingness to learn, which help to overcome the

barriers.

Recommendations

First, teachers should consider factors that engage students and allow them to

have equal opportunities in the prewriting process. They could vary the grouping

configurations, for instance, from individual to small groups or as in this project, in

pairs when using prewriting strategies. Only in this way, it will be possible to enhance

their academic development.

Second, it is necessary to deepen more in the students' profiles in order to allow

them to express their knowledge and understandings more linked to the culture,

language, and personal experiences. For that purpose, prewriting strategies used should

fit with this requirement such as the case of online clustering.

Third, it is strongly recommended to use online tools with IB students as a

powerful mean for interaction, feedback, and collaboration. Teachers can feel confident

in familiarizing students more with online prewriting strategies and teaching them the importance of planning.

Finally, something that was not covered by this study was the implication of other technological tools. Coggle tool was selected and proved to be one of the most complete and free, but there could be others that work better and without the need for internet access. There is a wide range of pages that offer the possibility of making mind maps or online clustering with other benefits besides sharing, publishing, and teamwork, although it is true that extra features could be part of the premium versions.

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Appendix 1

Rubric for the Clustering Work

Objective: To assess students' performance in the clustering work.

Jose Cedeño   Student: _____

Rubric: Clustering

Scoring rubric for clustering to organize and show how ideas are interrelated. Adapted from:
https://www.claytonschools.net/cms/lib/MO01000419/Centricity/Domain/206/Mind%20Map%20Rubric.pdf

Clustering

iRubric

	Poor 1 pts	Fair 2 pts	Good 3 pts	Excellent 4 pts
Structure	Poor Two ideas or less radiate out from center. Not very clear.	Fair From three to four ideas radiate out from center but are not suitable to topic.	Good From five to six ideas radiate out from center in a clear picture.	Excellent From seven to eight ideas branch out from the key idea in a logical and organized manner.
Depth of Content	Poor Bare minimum of content covered. No extension of ideas evident.	Fair Shows a basic level of coverage of key ideas only. Attempts extension of a few ideas.	Good Shows a solid grasp of most of the content. Shows extensions of most key ideas.	Excellent Shows a solid grasp of all the content covered. Extensions of the key ideas show a deep understanding of the interrelated nature of the content.
Communication	Poor Limited use of key words. Some images are not applicable.	Fair Key words are used. Average understanding of topic.	Good Good use of key words and images connected to central topic. Good understanding of topic.	Excellent Highly effective use of key words and images and deep understanding of topic.
Interrelating Ideas	Poor Limited or ineffective effort to connect main ideas together.	Fair Good or adequate effort to connect main ideas together.	Good Effective effort to connect main ideas together.	Excellent Highly effective effort to connect main ideas together.

Comments:

Appendix 2

Rubric for the Blog

Objective: To assess students' performance in the writing task through a blog entry.

Jose Cedeño   Student: _____

Rubric: Blog Entries

Rubric to be used for assessing EFL students' blog entries. Adapted from: English AB Initio Guide (2018).

BLOG ENTRY   iRubric

	Poor 1 pts	Fair 2 pts	Good 3 pts	Excellent 4 pts
Relevance of the Message	Poor A few ideas are relevant with bare minimum of content covered.	Fair Some ideas are relevant. They show a basic level of coverage of the content.	Good Ideas are relevant to the task. They show a solid grasp of most of the content covered.	Excellent Ideas are relevant to the task. They show a solid grasp of all the content covered.
Extension of the Message	Poor Some ideas are stated, but with no development. The blog has less than 50 words.	Fair Some ideas are stated, but with little development. The blog contains between 150-50 words.	Good Most ideas are developed with some detail and examples. The blog contains between 250-150 words.	Excellent All ideas are developed well, providing details and relevant examples. The blog contains between 350-250 words.
Clarity	Poor Comparisons between the student's and the target culture are not clearly stated.	Fair Cultural differences and/or similarities are rarely presented in a clear and coherent manner.	Good Cultural differences and/or similarities are sometimes presented in a clear and coherent manner.	Excellent Cultural differences and/or similarities are consistently presented in a clear and coherent manner.
Organization	Poor The response is not organized, so it is understandable. Student's opinion is not supported by facts.	Fair The response does not follow a logical structure, making the message difficult to determine. Student's opinion is present but it is still supported by some facts.	Good The response is generally structured in a logical manner, leading to a mostly successful delivery of the message supported by facts from a variety of resources.	Excellent The response is structured in a logical manner, supporting the delivery of the message through facts from a variety of resources.

Comments:

Appendix 3

Estimados Estudiantes:

La información de la siguiente encuesta se utilizará para el estudio denominado "Online Clustering to Improve IB Students' Writing" (Los Efectos de Aplicar la Estrategia de Agrupación en Línea con Estudiantes BI). Los datos obtenidos en este instrumento se tratarán con estricta confidencialidad.

Gracias por su participación libre y voluntaria.

Atentamente,
Lic. José Andrés Cedeño
Candidato a Máster

High School: Unidad Educativa Fiscal Vicente Rocafuerte
Course: 1st International Baccalaureate "A"

Open-Ended Questionnaire

Objective: To know the students' perspectives of the proposal through the application of a series of questions to all the target students after the pretest and posttest.

1. Could you tell me how much you like writing texts? (¿Podría decirme cuanto le gusta escribir textos?)

_____
_____
_____
_____

2. What do you find difficult in the writing process? (¿Qué encuentra difícil en el proceso de escritura?)

_____
_____
_____
_____

3. According to your opinion, what is the most important part in the writing process?

(De acuerdo a su opinión, ¿qué es lo más importante en el proceso de escritura?)

_____

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4. How important is for you to generate and organize ideas to develop different types of writing texts? (¿Cuán importante es para usted generar y organizar ideas con el propósito de desarrollar diferentes tipos de textos escritos?)

_____

_____

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_____

5. What strategies do you use to generate and organize your ideas? (¿Qué estrategias usted utiliza para generar y organizar sus ideas?)

_____

_____

_____

_____

6. What difficulties have you found when using such strategies? (¿Qué dificultades usted ha hallado cuando usa tales estrategias?)

_____

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_____

_____

7. What do you think about implementing a technological strategy called "Online Clustering" to help you generate and organize your ideas? (¿Qué piensa usted de implementar una estrategia tecnológica llama "Agrupación en Línea" para ayudarlo a generar y organizar sus ideas?)

_____

_____

_____

_____

Source: José Andrés Cedeño Olivares

Appendix 4

Pretest Template

Date: _____

Student's name: _____

Instruction:

Think of an environmental problem that is present in your community today. Promote awareness about that issue by creating a blog taking into consideration the following steps: describe the problematic situation, identify the differences and/or similarities between your own culture and the target culture, and reflect on these differences and/or similarities by responding to a set of guiding questions. Finally, post the work on blogger in order to generate an impact on your target audience (Piece of writing between 200 and 350 words).

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Source: José Andrés Cedeño Olivares

Appendix 5

Post Test Template

Date: _____

Student's name: _____

Instruction:

Think of an environmental problem that is present in your community today. Promote awareness about that issue by creating a blog taking into consideration the following steps: describe the problematic situation, identify the differences and/or similarities between your own culture and the target culture, and reflect on these differences and/or similarities by responding to a set of guiding questions. Finally, post the work on blogger in order to generate an impact on your target audience (Piece of writing between 200 and 350 words).

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Source: José Andrés Cedeño Olivares

Appendix 6

Design from Your Goals

Instructional design of units for transfer of learning to real life contexts

Institution: Year of study: Student description: (include English Level) Professor: Unit title: Weeks: Hours:	**Unidad Educativa Fiscal Vicente Rocafuerte** **2ⁿᵈ Bachillerato in Sciences (1st International** **Baccalaureate)** **Male and female students from 15 to 16 years old** **13 students (A1), 6 students (A2), 1 student(B2)** **Lic. José Andrés Cedeño Olivares** **Sharing the Planet** **5 weeks** **25 hours**

I. Transfer Goal (Stage 1)

Standards the unit will work with:

Goal:

I want my students to apply online clustering as a prewriting strategy so that, in the long run and on their own, they can produce personal texts such as blogs for an extended virtual audience in the target language.

Breakdown of transfer goal

A. If we see and hear them do this, they CAN transfer this learning.	B. If we see and hear them do this, then they CANNOT (yet) transfer:	C. What I will commit to doing differently in my classroom to ensure my results look like Column A.
Collect pertinent information and use consistent facts.	Struggle with gathering proper information in a systematic way. Improper selection of text elements which makes difficult for the reader to understand.	Provide the students with different safe and academic online searchers and model how to use them. Help the students scan specific and consistent information and record it.
Brainstorm and cluster ideas in an organized way using online tools.	Present ideas that are no relevant and don't follow a logical structure. Struggle with web platforms management.	Model and have students practice brainstorming, clustering in an organized way, and the use of web tools.

Create short personal texts and adapt them according to the audience, context, purpose, meaning, and variation.	No transmission of thinking, communicative, and research skills to the target language at the pace, within the contexts, and for the purposes required.	Use stimulus questions to encourage the exploration of conceptual understandings while focusing on language skills.

II. Summative Performance Assessment Task (Stage 2)

Goal	*Create a short blog (personal text according to the IB Guide 2018) between 200 and 350 words (this will depend on the level of the student) with the purpose of informing, explaining, and persuading an extended audience.
Role	Writer-Blogger
Audience	Bloggers
Situation	The school has requested students to raise awareness about environmental issues that are affecting the community. To that end, students are asked to write blogs to generate awareness for the cause.
Performance	Think of an environmental problem that is present in your community today. Promote awareness about that issue by creating a blog taking into consideration the following steps: describe the problematic situation, identify the differences and/or similarities between your own culture and the target culture, and reflect on these differences and/or similarities by responding to a set of guiding questions. Finally, post the work on blogger in order to generate an impact on your target audience.
Standards	**English Language Learning Standards - A2 PROFICIENCY LEVEL** "Produce longer, more detailed, complex transactional, expository and informational texts than those presented in previous years and with more variety in sentence structure and lexical range". "Produce simple procedural and narrative texts with some detail and variety in sentence structure yet may contain some usage error". **Common European Framework – A2 LEVEL PROFICIENCY** **Creative Writing** "Can write a series of simple phrases and sentences about their family, living conditions, educational background, present or most recent job"

	Overall written interaction A2 Can write short, simple formulaic notes relating to matters in areas of immediate need.

III. Knowledge and skills the students need to succeed in the assessment. (Stage 1)

What students will need to know	The skills students will need to be able to do
The subject in question to a large extent.	RESEARCH SKILLS: To search for consistent arguments in order to create personal texts.
Arguments and vocabulary related to environmental issues.	THINKING SKILLS: To evaluate topics from their own and different perspectives and generate concepts.
ICT informative processes (For clustering and blogging).	TECHNOLOGICAL SKILLS: To master technological tools in order to generate and organize ideas; on the other hand, to address their audience virtually.
Proper writing etiquette.	SOCIAL AND COMMUNICATION SKILLS: To communicate effectively and interact with a demanding public by addressing their concerns with open-mindedness.

IV. Essential Questions (Stage 1)

Essential questions support the transfer goal, signal inquiry, guide instruction, and can be asked over and over throughout the unit without reaching a final answer.	
1. What can I do to help the environment?	3. What can I do to make the world a better place?
2. How do my surroundings affect the way I live?	4. How does clustering help in their writing?

V. Learning Activities (Stage 3) For Avance I, include a summary of activities for first unit. For Grado you must include a separate plan for each unit. Identify research related activities under intention.

Transfer goal: I want my students to apply online clustering as a prewriting strategy so that, in the long run and on their own, they can produce personal texts such as the blog for an extended virtual audience in the target language.

Abbreviated Performance Task: Students will create personal blogs with the purpose of informing and persuading an extended virtual audience.

Learning Activities(from student's perspective)	**Intention**	A	M	T
Week 1 - (5 hours) PHYSICAL GEOGRAPHY *Objective: Connect ESL students to places and cultures around the world. Explore famous places in the world more nearly and learn aspects of their geography.*				
Students watch a video "Understanding: Geography"	Initiating	X		
Students discuss the different cultures and industries they watched and the connections between a place's cultures and industries and its geography.	Initiating		X	
Students are provided with maps of different cities around the world and discuss roads, major buildings, parks, natural geographic features, town centers or shops, and other kinds of things found on such maps.	Developing	X		
Students talk about their own neighborhoods. How big are they? What activities take place there? Are there parks or businesses? What kinds of buildings are in their neighborhood?	Developing		X	
Students explore their neighborhoods to make their neighborhood maps. Each map should be designed as a square, with a student's home at the center. Then they cluster ideas regarding local geography, economy, and culture of their communities.	Developing		X	
Students use creative symbols to represent map features. For further information, they go online to the following websites: http://www.greenmap.com/grmaps/gallery.html http://www.mapquest.com	Developing	X		
Once students are finished with their maps, they write a descriptive and a comparative paragraph about neighborhoods.	Formative Assessment			X

Each paragraph should include answers to the following questions: • What kinds of terrain and vegetation can be found in your neighborhood? • What do the buildings in your neighborhood look like? What similarities do the buildings have? • What kinds of activities take place in your neighborhood? Where do they take place? • Has your neighborhood changed since you've lived there in local geography, economy, and culture? If so, how? • What similarities and/or differences did you find with the neighborhoods of the target culture? Now, students share their maps and paragraphs with the class. Then they discuss the similarities and/or differences between the local maps, the overall similarities in their area, and how these similarities help define the local culture. At this point, students start selecting a topic to address based on the theme of this session. On the other hand, students now proceed to plan, that is, select key ideas <u>according to their convenience</u> and organize them. Finally, students write the first draft of their blog entry (PRETEST). **Performance Task**: Think of an environmental problem that is present in your community today. Promote awareness about that issue by creating a blog taking into consideration the following steps: describe the problematic situation, identify the differences and/or similarities between your own culture and the target culture, and reflect on these differences and/or similarities by responding to a set of guiding questions. Then all students are asked to fill out a questionnaire about their writing experience (QUESTIONNAIRE). Adapted from: http://www.discoveryeducation.com _____ _	Review and Closure				**X**
	Initiating				
	Initiating				
Week 2 - (5 hours) CLIMATE *Objective: Extend students' understanding connected to climate change and environmental issues.*	Initiating	**X**			

Students engage in a brainstorming and online clustering in response to the term "climate change. They can write what they know, what they think they know, what they've heard, what they're unsure about, or what they want to know.	Developing		X	
Students turn and interpret their clustering to a partner. After they have heard each other's writings, students work together to write a collaborative summary in which they combine their ideas.	Developing		X	
As a class, students discuss what they noticed as they went through this process. What did they know? What did they learn from their peers? What was it like to engage in this process? What questions do they have? Were there disagreements?			X	
Students watch a video the video "Climate Changed Explained" Retrieved from: https://www.youtube.com/watch?v=ifrHogDujXw	Developing		X	
Now, students engage in a conversation based on the following questions: • What's your favorite type of weather? • Do you think the weather is changing? If so, why do you think this is? • Which countries have suffered extreme weather conditions recently? • What are the biggest threats to the world are at the moment? • What can people contribute to saving the world?	Formative Assessment Review and Closure			X
Students are provided with worksheets that contain five tasks based around the topic of climate change (Climate Change-The Evidence, How green are you? – Survey, Recycling Race, Global Warming Message Board, Climate Change – Discussion Statements) These tasks are thought provokers and lead to discussion. Retrieved from: https://www.teachingenglish.org.uk/sites/teacheng/files/climate-change-worksheets.pdfFor more information, consult the guide for teacher on procedure including worksheet tasks and answers to tasks. Retrieved from: https://www.teachingenglish.org.uk/sites/teacheng/files/climate-change-lesson-plan.pdf				X
				X
	Initiating			
Students write a reflective paragraph on how to contribute to saving the environment by responding to a set of guiding questions provided by the International Baccalaureate Guide. The questions provoke students' own ideas and thoughts on the subject and may trigger some strong reactions.	Initiating			

	Developing				
Finally, students share their work with the class and review the main concepts. _____ –	Developing	X			
Week 3 - (5 hours) THE ENVIRONMENT			X		
Objective: Understand important causes of environmental problems and some solutions.	Developing			X	
Students state possible causes of environmental deterioration and find possible solutions through online clustering.	Developing				
Students compare and contrast their answers.			X		
Students watch two videos "The Environment. Learn English", retrieved from https://www.youtube.com/watch?v=Oa7ntoCf8yU and "10 Major Current Environmental Problems", retrieved from: https://www.youtube.com/watch?v=A0pB1qw8SMs	Developing	X			
Students think about these environmental concerns according to the videos and share possible solutions: • How can we help the environment? • What makes a sustainable environment? • What is your responsibility to the community? • How do our choices affect us, our community, and the whole world? • How do systems achieve equilibrium?	Formative Assessment Review and Closure		X		
Based on the same videos, students in small groups create mind maps on a piece of paper according to the different environmental concerns. They add causes and consequences.			X		
Students are provided with 6 cards, which are reading passages based on environmental concerns and the solutions. They read in small groups and become experts on that subject. They summarize the information, take notes, and keep adding ideas to the mind maps. Retrieved from:	Initiating				X

https://www.teachingenglish.org.uk/sites/teacheng/files/Environmental%20problems_worksheets.pdf

	Phase				
	Initiating				
Students are regrouped, so the new group has one member from each of the original groups. Experts explain and the others take notes and keep adding ideas to the mind maps. If necessary, students search on the internet for appropriate solutions.	Initiating				
Students prepare presentations in the same groups for the whole class and show their findings and summaries based on what they registered on their mind maps. There should be enough ideas and they should appropriately be organized.	Developing				
Students review the topic, compare and contrast their works, and come to conclusions.	Developing	X			
Week 4 - (5 hours) GLOBAL ISSUES		X	X		
Objective: Raise awareness about main problems that affect humanity such as poverty, war, and pollution, and its impact on people. Likewise, raise awareness of the importance of actions for making the world a better place and how to contribute with governmental and non-governmental organizations.	Developing				
	Developing			X	
Students are provided with different posters with one picture in the middle related to global issues.	Developing				
Students think about those pictures and discuss:	Developing			X	
• What environmental, political, and social issues pose challenges to societies throughout the world? • What are the origins of those issues? • What are the possible solutions to those challenges?	Developing			X	
Students cluster around the pictures what they know, what they think they know, what they've heard, what they're confused or unsure about, or what they want to know.	Formative Assessment				
Now, students are provided with four reading passages about global social problems. They read in small groups and become experts on that subject. They summarize the information to share with the other groups. Retrieved from: https://en.islcollective.com/resources/printables/worksheets_doc_docx/global_social_issues/upperintermediate-b2/96968	Formative Assessment			X	
	Review and Closure	X			

Students are regrouped, so the new group has one member from each of the original groups. Experts explain and the others take notes. Students delve into the matter and search for more information on the internet.			X	
Students think about possible global serious problems that are rarely mentioned.	Iniatiating		X	
Students watch the video "5 Greatest Problems No One Is Talking About"				X
Students discuss what they watched on the video and think about: • How are we connected to the world? • What is a global citizen, and what are the responsibilities?	Formative Assessment			X
Likewise, students register their new conceptions by clustering on another poster and propose solutions to global problems.				
Students organize stations or stands based on their posters and show what they thought, what the real situation is, and what their commitment to humanity is. Students are asked to visit all the stations.	Summative Assessment			
Students give constructive feedback on their work (if possible, students are encouraged to register their comments on a smaller piece of paper stuck on the wall using the expressions "I liked it because…" and "I didn't like it because …")	Review, Closure, and Ongoing Assessment		X	
Finally, students review the main points of the lesson and clarify some possible gaps by means of a "suggestion mailbox". Students randomly take out paper strips and answer appropriately.			X	

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Week 5 - (5 hours) THE DESCRIPTIVE, COMPARATIVE, AND REFLECTIVE BLOG

Objective: Generate awareness of the global environmental problems through a written task addressed to a broad audience.

			X
Students are now induced by the teacher to use the online clustering strategy in order to generate and organize their ideas. They collaborate in pairs through the web tool called Coggle for that purpose (INNOVATION). Students at this point can corroborate or change the topics for their blogs. Once they have gathered as many ideas as possible, students start writing an outline and the first draft to submit it and receive feedback from the teacher thinking of an environmental problem that is present in their community. They promote awareness about that issue by creating a blog entry taking into consideration the following steps: describe the problematic situation, identify the differences and/or similarities between their own culture and the target culture, and reflect on these differences and/or similarities by responding to a set of guiding questions. Finally, they post the work on blogger in order to generate an impact on your target audience. Students write the final draft taking into consideration the teacher's feedback (POSTTEST).Once the work is returned, students post them on Blogger. They receive feedback from peers including the school community in other courses. They are ready to improve and answer people's concerns. Finally, students fill out the same questionnaire to narrate their writing experience but based on the innovation (QUESTIONNAIRE).			

Learning process: A = Acquisition, M = Meaning Making, T = Transfer
Intention: Hook, **formative assessment**, initiating, developing, review, closure**, research**, other.
Indicate Week 1, 2, etc. and number of hours.

VI. On-going Self-Assessment

As I reflect on student learning, what will I do if my plan is not yielding my expected results?
I will keep monitoring. I will create circumstances that allow students to receive ongoing and helpful feedback from me as a teacher and their peers, which will be critical for their improvement. On the other hand, I will keep reminding them of the goals and the assessment criteria and showing them how to achieve them. This will definitely allow the students to self-assess, meet the expectations, and keep improving.