



Mentimeter: una herramienta de evaluación formativa que promueve la interacción y participación de los estudiantes de inglés como lengua extranjera

Mentimeter: a formative evaluation tool which promotes English as a Foreign Language students' interaction and participation

Mentimeter: uma ferramenta de avaliação formativa que promove a interação e a participação dos alunos de Inglês como Língua Estrangeira

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Resumen

El objetivo de la presente investigación consistió en descubrir las características de la aplicación web Mentimeter y sus ventajas como herramienta de evaluación formativa en las clases de inglés como Lengua Extranjera, toda vez que se observó que los estudiantes de Primer Semestre solamente se sentían motivados a completar una actividad siempre y cuando la misma contara con una nota o fuese parte del proceso de evaluación sumativa. La metodología de investigación aplicada fue la investigación-acción educativa, pues la misma permitió a los investigadores practicar la enseñanza reflexiva para así poder transformar el criterio erróneo que tenían los estudiantes sobre la evaluación formativa en las clases de inglés; es así que, la meta fundamental fue lograr que los estudiantes concienticen sobre la importancia del conocimiento más allá de una calificación. Para el presente estudio se seleccionaron 150 estudiantes de inglés, considerando la familiaridad de estos con los docentes-investigadores, quienes impartieron clases a los mencionados estudiantes durante el período académico marzo-agosto 2021. Con la finalidad de recolectar datos se aplicó una encuesta de satisfacción después de la fase de reflexión; adicionalmente, se desarrollaron las cuatro fases de la investigación acción: diagnóstico, planificación, observación y reflexión. Los resultados obtenidos mostraron que es recomendable utilizar actividades elaboradas en la herramienta Mentimeter tales como: speech bubbles, word web, drag and drop y test cortos, como parte del proceso de evaluación formativa; puesto que, estas actividades son dinámicas, interactivas y motivan la participación de los estudiantes. La encuesta de satisfacción demostró un 80% de aceptación en cuanto a la implementación de la aplicación web Mentimeter en las clases de inglés como Lengua Extranjera. Por tanto, se recomienda considerar el uso de herramientas tecnológicas para motivar la participación de los estudiantes e incrementar la relevancia que amerita la evaluación formativa como parte del proceso de enseñanza-aprendizaje de inglés.

Palabras clave: relevancia; interactivo; aplicación; herramienta; proceso.

Abstract

The objective of this research was to discover the characteristics of the Mentimeter web application and its advantages as a formative assessment tool in the English as a Foreign Language classes, since it was observed that First Semester students only felt motivated to complete an activity as long as it had a grade or was part of the summative evaluation process. The applied research

methodology was educational action research, since it allowed researchers to practice reflective teaching in order to transform the erroneous criteria that students had about formative evaluation in the English classes. Thus, the fundamental goal of this study was to make students aware of the importance of knowledge beyond a grade. For the present study, 150 English students were selected, considering their familiarity with the teacher-researchers, who taught the aforementioned students during the academic period March-August 2021. In order to collect data, a satisfaction survey was applied after the reflection phase; additionally, the four phases of the action research were developed: diagnosis, planning, observation and reflection. The results obtained demonstrated that it is advisable to use activities elaborated in the Mentimeter tool such as: speech bubbles, word web, drag and drop and short tests, as part of the formative evaluation process; given that, these activities are dynamic, interactive and motivate students' participation. The satisfaction survey presented 80% acceptance regarding the implementation of the Mentimeter web application in English as a Foreign Language classes. Therefore, it is recommended to consider the use of technological tools to motivate student participation and increase the relevance of formative assessment as part of the English teaching-learning process.

Keywords: relevance; interactive; application; tool; process.

Resumo

O objetivo desta pesquisa foi conhecer as características do aplicativo web Mentimeter e suas vantagens como ferramenta de avaliação formativa nas aulas de Inglês como Língua Estrangeira, pois observou-se que os alunos do Primeiro Semestre só se sentiam motivados a realizar uma atividade desde que teve nota ou fez parte do processo de avaliação somativa. A metodologia de pesquisa aplicada foi a pesquisa-ação educacional, pois permitiu aos pesquisadores praticar o ensino reflexivo para transformar os critérios errôneos que os alunos tinham sobre a avaliação formativa nas aulas de inglês; Assim, o objetivo fundamental foi conscientizar os alunos sobre a importância do conhecimento além de uma série. Para o presente estudo, foram selecionados 150 alunos de inglês, considerando sua familiaridade com os professores-pesquisadores, que lecionaram os alunos mencionados durante o período acadêmico de março a agosto de 2021. Para coletar dados, foi aplicada uma pesquisa de satisfação. após a fase de reflexão ; além disso, foram desenvolvidas as quatro fases da pesquisa-ação: diagnóstico, planejamento, observação e reflexão. Os resultados obtidos mostraram que é aconselhável a utilização de atividades elaboradas na

ferramenta Mentimeter como: balões de fala, teia de palavras, arrastar e soltar e testes curtos, como parte do processo de avaliação formativa; uma vez que essas atividades são dinâmicas, interativas e motivam a participação dos alunos. A pesquisa de satisfação mostrou 80% de aceitação quanto à implementação do aplicativo web Mentimeter nas aulas de Inglês como Língua Estrangeira. Portanto, recomenda-se considerar o uso de ferramentas tecnológicas para motivar a participação dos alunos e aumentar a relevância da avaliação formativa como parte do processo de ensino-aprendizagem de inglês.

Palavras-chave: relevância; interativo; inscrição; ferramenta; processar.

Introducción

In the educational field, numerous techniques and tools are used in order to reach students in their training and even more so when it comes to English as a second language of learning. Every student wants to learn in the fastest, funniest way and specially to take advantage of all the circumstances that arise in the classroom; considering that today there are easily accessible tools for formative evaluation (Gaitán, 2020).

This research work is based on Mentimeter as an online web tool for formative assessment in English as a Foreign Language classes to ask questions, surveys and play games with the active participation of students (Universidad del Pacífico, 2021).

In this context, the experience of educational innovation that is presented in this work starts from the general and specific objectives. With them, it is intended to discuss the relevance that Mentimeter has in formative evaluation by discovering the main utilities in the field of education through the review of literary sources; to finally associate formative assessment through action research (Fondo de las Naciones Unidas para la Infancia (UNICEF), 2021).

General Objective:

- To discover the features of the Mentimeter web application and its advantages as a formative assessment tool in English as a Foreign Language classes.

Specific Objectives:

- To discuss the relevance of formative assessment and its application in English classes by reviewing secondary sources.
- To describe the main uses of the Mentimeter tool and its application in the educational field with the help of an exhaustive literature review.

- To associate the use of the Mentimeter tool with formative evaluation through action research.

Certainly, there are other relevant works that mention Mentimeter, as is reflected in the work Tools for gamification in the higher education classroom (María Pilar Cáceres Reche, 2020) and on the other hand, the evaluation of the application as a facilitator of interaction and learning in the classroom; work developed as one of the challenges of teaching (Català Oltra, 2021); both works carried out in different situations.

The difference between these mentioned works and the one we present is that the previous ones are developed in a general context using gamification dynamics and, in this case, it is applied as a formative evaluation tool in English as a Foreign Language classes.

To elaborate this work, it was based on action research that is aligned with practice or reflective teaching, analyzing at the same time the formative evaluation and Mentimeter as a tool for improvement in the field of teaching-learning of English as a Foreign Language. The action-research allows the members of a group to actively participate in the research process, contributing to the identification of the problem under study and the identification of possible solutions. (Ocampo, 2019). Besides, the action-research allows the study of a social context where, through spiral steps, research is carried out at the same time as intervention, thus building the expected results through practice, being the main characteristics of this type of research. (Hernandez, 2014).

Literature Review

Evaluation: It is an opinion about a person or situation, which is obtained through a series of questions and results in a score or classification.

Objectives of the Evaluation: The objectives are very varied from simply learning to measuring progress.

Evaluation Tools: It is a software used to create the evaluation and analyze its results. This term is also used in the evaluation methodology. While a methodology is a way of evaluating the subject on the basis of a specific theory (Nelen, 2020).

Assessment tools in education and learning: Without those that are developed in an educational environment and are used to determine the progress of students in relation to learning objectives. It is necessary to consider certain characteristics to find the appropriate evaluation tool:

- Questions and bank of random questions.

- At the end of the activity, display scores with percentages.
- Results in real time that allows to show the answers.
- Feedback of the answers.

Online tools for learning: There are many online tools, but the most appropriate ones must be applied in the classroom according to the needs and objectives set. Among the best known we can name:

- **Socrative:** Designed for playful participation in the classroom. Collaborate with student learning and you can take quizzes, surveys and evaluations (RECURSOS EDUCATIVOS, 2021).
- **BookWidgets:** Tool that allows you to create interactive exercises and automatic results (Doensen, 2021).
- **LoveMySkool:** It allows collaboration between teachers, students and parents with a constructive impact on academic results. Learning application where teachers, students and parents can see the courses in consuming the contents both online and offline (LoveMySkool, 2022).
- **Kahoot:** It allows you to create gamified evaluation questionnaires. The teacher creates contests in the classroom to develop learning or reinforce it (Yáñez, 2022).
- **Mentimeter:** Web application to interact and participate. It allows working with some participation formats to an audience, a class or a meeting where the participants can respond from a cell phone, tablets or PCs with real-time results (Allende, 2021).

Today, there is a variety of educational applications, but few are the ones that adapt to the purposes that teachers and students require; since these applications must have certain conditioning characteristics to guarantee their continuity. The applications must be simple that allow evaluation, learning and feedback that reviews and reinforces the content.

The Mentimeter application allows you to ask questions, survey online games with real-time and immediate participation when connected to the Internet to finally have the results. Mentimeter is a highly valued tool due to its adequate characteristics to encourage and optimize student participation. Mentimeter, being an educational resource, is being adapted as a digital tool to significantly improve learning with students (Cuerda, 2021).

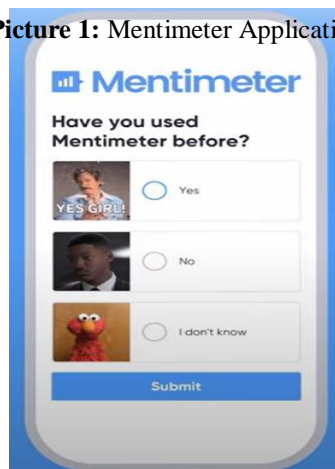
The free version of Mentimeter allows you to create unlimited presentations, open questions, create a word cloud, order from largest to smallest or make scales; which through these activities

encourages student participation and at the same time eliminates the fear of error since it does not require users to provide their names. All these activities applied in Mentimeter arouses interest in students when it comes to evaluating their acquired knowledge and also checking if they know more or are faster than the rest of their classmates (Sevillano & Delgado, 2021).

What is MENTIMETER?

It is a tool used to add interaction to presentations with live questions, quizzes and polls and motivate student participation. These interactive activities can be done using 13 question types such as: multiple choice, word cloud and Likert scales (Rogowski, 2018).

Picture 1: Mentimeter Application



Author: Mentimeter

Source: <https://www.commonsense.org/education/website/mentimeter>

How and why Mentimeter enhances teaching and learning experiences.

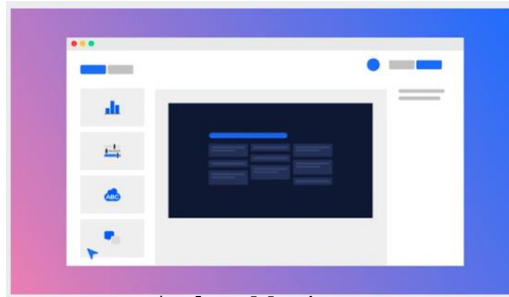
There are some reasons how and why Mentimeter is used by teachers and students, the main reasons are the next:

- Students are motivated to learn more, as well as develop questions, engage in discussions, and assess their own knowledge.
- Educators are capable of communicating with their students on a completely new level, while being able to assess and improve their own skills and sessions
- It gives great insights on how students feel and what they want to learn
- It can be used as a learning and as an assessment tool.
- Anonymity draws out even the shyest students and make the most hesitant people talk.

- Everyone is given a voice. Everyone is heard. You no longer need to worry that people are being left out.
- Reaches out beyond attendance to meaningful presence and participation.
- Breaks the static “sitting there and listening”, by creating a new communication channel.
- Learning by quiz is the key to innovation, progress, and creativity (University of Dundee, 2022)

MENTIMETER: Key features.

Picture 2: Key features



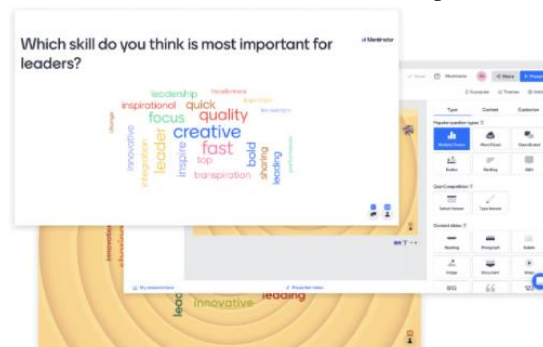
Author: Mentimeter

Source: <https://www.mentimeter.com/features>

- Build beautiful interactive presentations in the presentation builder.
- Collect polls, data and opinions from participants using smart devices.
- Get insights on participants with trends and data export.

MENTIMETER: Build interactive presentations.

Picture 3: Build interactive presentations.



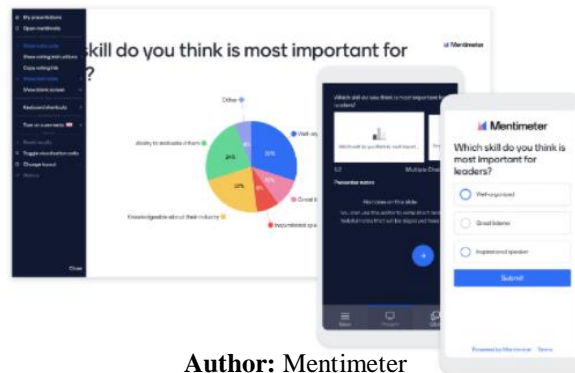
Author: Mentimeter

Source: <https://www.mentimeter.com/features>

- 13 interactive question types including Word clouds and Quizzes.
- Build entire presentations quickly and easily with Content Slides.
- Select from different presentation themes or build your own.
- Integrated with free stock image and GIF libraries.

MENTIMETER: Present to engage.

Picture 4: Present to engage.



Author: Mentimeter

Source: <https://www.mentimeter.com/features>

- Easy-to-use presenter mode.
- The audience interacts anonymously with a smart device.
- Use the Mentimeter to moderate and control presentations.
- Enable profanity filters in multiple languages

MENTIMETER: Analyze data and take action.

Picture 5: Analyze data and take action.



Author: Mentimeter

Source: <https://www.mentimeter.com/features>

- Export data in a PDF or Excel file.
- Compare data over time with Trends.
- Segment response to get deeper insights.
- Collect feedback via surveys (Pomona, s.f.)

Methodology

Considering that being a teacher implies knowing our students and being able to determine their needs to ensure that knowledge can reach them, facilitate meaningful, collaborative learning and allow students to arouse interest in the classroom and in the subject; This research was framed within the educational action research (Barberá, 2018).

The educational action-research is based on reflective practice or teaching, which allows the teacher to permanently reflect on their teaching practice in order to transform it; In this context, this study is based on the need to make students aware of the importance of knowledge about a qualification; since, it has been noticed that students currently give much more importance to obtaining a good grade that allows them to be promoted to an immediately higher level, than to the level of knowledge acquired within the teaching-learning process of English as a Foreign Language (Paredes & Paredes, 2011).

The fundament before mentioned foundation, the teacher-researchers carried out this study putting into practice each of the phases of action research: diagnosis, planning, observation and reflection. Regarding the methodology, qualitative research is conducted, since the action research corresponds to the same.

Considering the sample, the participants are selected according to the level of familiarity with the teacher-researchers, for which the workload assigned to them is taken into account. Given that the teachers were working with First Semester students, 150 students were chosen who, in the academic period March-August 2021, were part of the English classes of the authors of this research.

Talking data collection techniques and instruments; Throughout the investigation, participant observation is applied to identify the level of commitment of the students with their knowledge and the achievement of the objectives set in the English subject based on the results, the instrument used is the work diary, same that allows teachers to reflect on their practice; At the end of the study, a satisfaction survey is applied in order to know the level of acceptance of the Mentimeter web

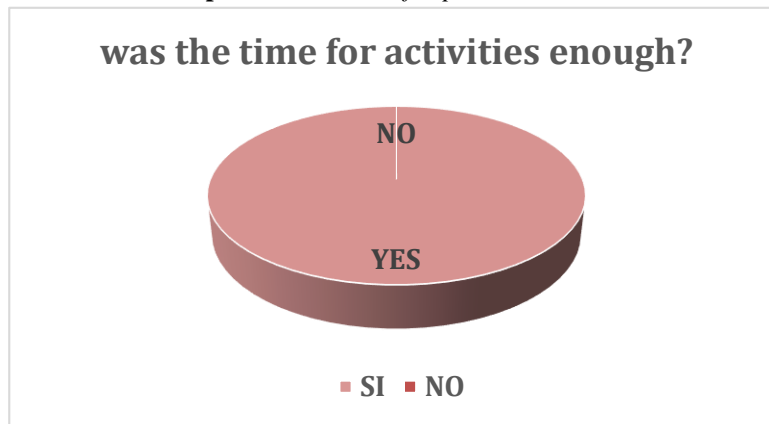
application as a formative evaluation tool, for which a 10-question questionnaire is prepared on the Microsoft Forms platform; finally, the researchers present the respective reflection corresponding to the final stage of the research-action (Arias, 2012).

Results

The results are presented in relation to: what was observed during the investigation, the phases of the research-action, and the results of the satisfaction survey.

In order to collect relevant information and reflect on teaching practice, the researchers apply a work diary, which is made up of the following criteria: planning, teacher intervention and student manifestations.

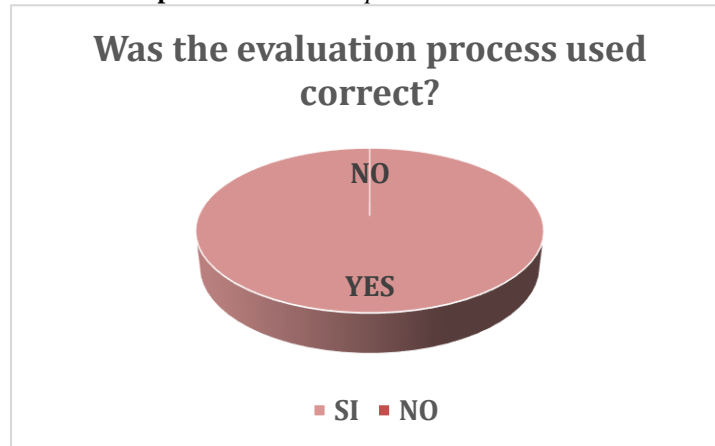
Graphic 1: *Time used for planned activities*



Author: Researchers
Source: Work Journal

Analysis and interpretation: As shown in graphic 1, the time assigned to each of the activities was correct, thus allowing the implementation of an opinion activity (Word web) at the beginning of the class and a quick test at the end. at the end of the class with the use of the Mentimeter tool, according to the need, topic and planning elaborated by the teacher.

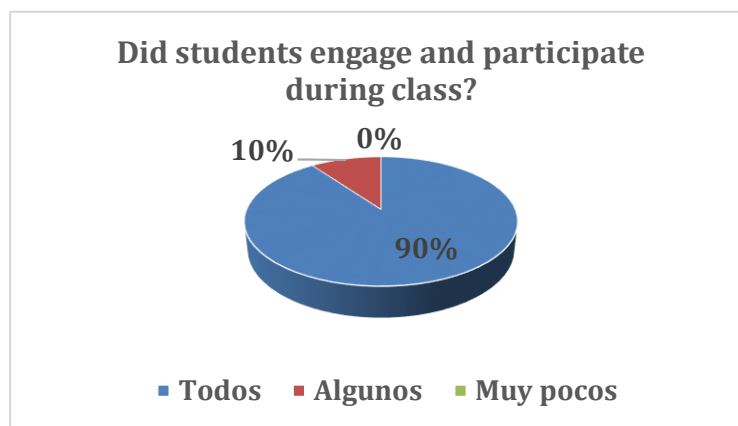
Graphic 2: Evaluation process used in the class



Author: Researchers
Source: Work Journal

Analysis and interpretation: considering the relevance of the formative evaluation in the present study, the students' reaction to the application of an evaluative activity in each class was observed; given that students are used to their participation always being quantified; however, as shown in graph 2, it was possible to observe that this evaluation process is the most pertinent, since it allows to demonstrate the understanding of the topic dealt with in each lesson.

Graphic 3: Student demonstrations



Author: Researchers
Source: Work Journal

Analysis and interpretation: how the participation of the students can be observed was 90%, it should be emphasized that the 10% of students who did not get involved in the activities were mainly due to the fact that they experienced connectivity problems or failures with their equipment. As mentioned in the introduction and methodology, the present study was developed during the virtual modality.

In the observation phase, it was also possible to notice that contrary to what was expected, the students responded positively to the formative evaluation process, since it allowed them to maintain interest and demonstrate the knowledge acquired during the lesson; however, at the beginning the tendency of the participants to ask whether the activity would be evaluated quantitatively or not persisted.

For the analysis of the phases of the research-action, the following table will be used:

Table 1: Phases of action research

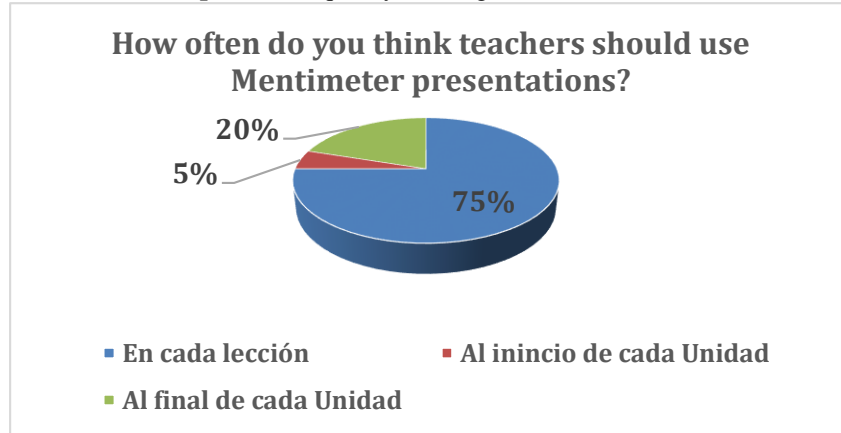
Phase	Results obtained	Observations
Diagnostic	The students were not clear about the concept and relevance of formative assessment as part of their training.	
Planification	An activity was planned with the use of the Mentimeter tool for each presentation presentations such as: word web, speech bubbles, and drag and drop; same that were related to the topics of the Units planned for the academic period	The contents of the Units are based on the text American Jetstream Elementary.
Observation	The 90% of the students participated in the planned activities with the implementation of the Mentimeter tool and the remaining 10% did not interact properly due to connectivity problems.	These results can be verified in graphic 3.
Reflection	During the investigation it was possible to show that the students had a wrong idea of what the formative evaluation process implies and this is due in large part to the activities, strategies and evaluation techniques used by the teacher. The need to be promoted to the next level makes students focus only on the grades they get in each activity and many times they are not able to substantiate or demonstrate their knowledge, especially because in the English subject students must produce. It can be concluded, then, that this study contributed significantly to motivating students to learn, to focus more on the knowledge acquired, the ability to demonstrate their skills in the target language and to assess the teacher's interest in implementing the use of technological tools in the classroom that promote their participation and level of commitment during the teaching-learning process of English as a Foreign Language.	

Author: Researchers

Source: Phases of action research

Finally, the results of the satisfaction survey applied at the end of the study are presented, for which the participants received the link of the instrument that was prepared in Microsoft Forms.

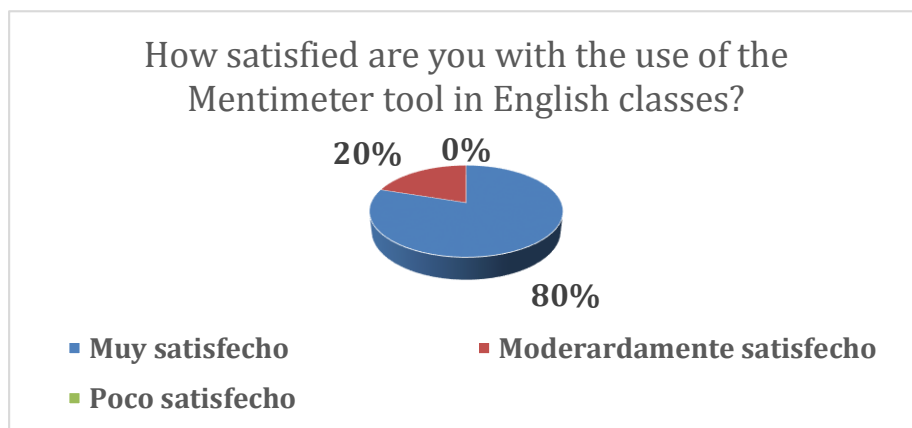
Graphic 4: Frequency of using the Mentimeter tool



Author: Researchers
Source: Microsoft Forms

Analysis and interpretation: The 75% of the surveyed state that the teacher must implement activities elaborated in the Mentimeter tool in each lesson, while 5% indicate that they must be applied at the beginning of each Unit and 20% indicate that they could be used at the beginning of each Unit. At the end of each Unit, the last percentage is due to the fact that students are used to being evaluated only at the end of each topic or unit through a formative evaluation process.

Graphic 5: Level of acceptance of the use of the Mentimeter tool



Author: Researchers
Source: Microsoft Forms

Analysis and interpretation: The 80% of students state that they feel very satisfied with the implementation of activities elaborated in the Mentimeter tool as part of the formative evaluation process within the classes of English as a Foreign Language, only 20% indicate that they feel little satisfied. It should be considered that due to connectivity problems or failures in mobile devices, there is a certain percentage of students who cannot participate appropriately in the activities planned by the teacher; therefore, they do not feel motivated to connect to classes and actively participate in them.

Conclusions

Once the investigation is concluded, the following conclusions are presented:

The main utility of the Mentimeter web application is to carry out participatory sessions; This platform allows you to carry out activities in different formats such as: speech bubbles, word web, drag and drop and short tests. The main advantage as a formative assessment tool is that the activities mentioned are presented in a dynamic and interactive format and encourage participation; In this way, students understand that evaluation does not always have to be a stressful process that conditions the level of their knowledge. Additionally, for the teacher it is a friendly tool that is easy to use and access, and although it is true that it has a paid version, teachers can develop multiple activities in the free version, as was the case of the teacher-researchers who were part of the present study.

Considering that the objective of formative evaluation is for the student to be responsible for their learning and to build knowledge that allows them to develop a well-founded and critical opinion, it is concluded that formative evaluation is transcendental for the development of students as responsible citizens who generate changes and improvements in your environment (Méndez, 2020).

In relation to what was observed during the investigation, it can be affirmed that the Mentimeter application is useful not only for the teacher to develop dynamic activities to evaluate their students, but also that it presents an outstanding characteristic that is evidenced in that it is a friendly tool, very easy to use, so a teacher can create an activity in speech bubble and word web format in less than 5 minutes.

The virtual modality in which the teaching-learning process of English as a Foreign Language is currently being developed has been a great opportunity for teachers to update their knowledge of

new Information and Communication Technologies; therefore, today it is not strange to show the use of these in the educational environment; therefore, it can be concluded that the combination of activities developed in the Mentimeter web application have had a significant impact, since students enjoy the evaluations in an easy, entertaining, interactive way that contributes to their learning.

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