



UNIVERSIDAD LAICA ELOY ALFARO DE MANABÍ
EXTENSIÓN CHONE

PEDAGOGÍA DE LOS IDIOMAS NACIONALES Y EXTRANJEROS

ARTÍCULO CIENTÍFICO

TÍTULO:

Atención sostenida en el aprendizaje del idioma inglés

Autoras:

Nathaly Justine Falcones Rodríguez

Stefany Noelia Villaprado Peñarrieta

Tutor:

Lcda. María Gabriela Mendoza Ponce

Chone – Manabí - Ecuador

2026

TUTOR CERTIFICATION

Lic. María Gabriela Mendoza Ponce, M. Sc.; professor of Universidad Laica Eloy Alfaro de Manabí, Extensión Chone, as the tutor of the degree work.

CERTIFICATION

The present degree work, called "Sustained attention in learning the English language" has been exhaustively reviewed in several work sessions. It has been concluded, and it is ready for its defense.

The opinions and concepts expressed in this degree work are the results of the perseverance and originality of their authors: Nathaly Justine Falcones Rodríguez and Stefany Noelia Villaprado Peñarrieta, being their sole responsibility.

Chone, February 2026



Lic. María Gabriela Mendoza Ponce

TUTOR



Uleam
UNIVERSIDAD LAICA
ELOY ALFARO DE MANABÍ

UNIVERSIDAD LAICA ELOY ALFARO DE MANABI

CHONE

DECLARACIÓN DE AUTORÍA

Quienes suscriben la presente: Nathaly Justine Falcones Rodríguez, Stefany Noelia Villaprado Peñarrieta, estudiantes de la carrera de Pedagogía de los Idiomas Nacionales y Extranjeros, declaro/declaramos para constancia que el siguiente trabajo de titulación: “Atención sostenida en el aprendizaje del idioma inglés”, es de autoría propia y ha sido desarrollado respetando derechos intelectuales de terceros y consultando las referencias bibliográficas que se incluyen en este documento.

Responsabilidad por opiniones, investigaciones, resultados, conclusiones y recomendaciones; así como la información obtenida en este trabajo de grado, modalidad de integración curricular, es de exclusiva responsabilidad de su(s) autor(es), excepto citas textuales.

Chone, February 2026

Nathaly Justine Falcones Rodríguez
C.I. 2300859630

Stefany Noelia Villaprado Peñarrieta
C.I. 2300343023



**UNIVERSIDAD LAICA ELOY ALFARO DE MANABI
CHONE**

APROBACIÓN DEL TRIBUNAL EXAMINADOR

**PEDAGOGÍA DE LOS IDIOMAS NACIONALES Y
EXTRANJEROS**

Los miembros del Tribunal Examinador, aprueban el informe de proceso de solicitud de (Artículo científico) sobre el tema “Atención sostenida en el aprendizaje del idioma inglés” del año lectivo 2025, elaborado por las estudiantes Nathaly Justine Falcones Rodríguez y Stefany Noelia Villaprado Peñarrieta.

X 

Lic. Rocío Bermúdez Cevallos
Decana

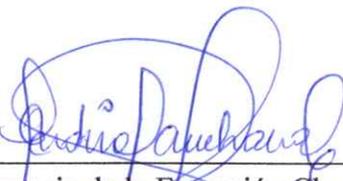


Lic. Gabriela Mendoza Ponce
Tutor



Primer Miembro del Tribunal

Segundo Miembro del Tribunal



Secretaria de la Extensión Chone

Chone, Febrero 2026

Dedication

This work, the result of my constant effort and dedication, is dedicated to my family, especially my parents, Paula Rodríguez and Ángel Falcones, who have been the mentors behind every achievement throughout this process, demonstrating unwavering support, unconditional love, and exceptional courage. Thanks to them, I have been able to achieve my goals and train as a professional who not only feels proud of herself, but will also make her parents proud of the great human being they have raised.

Nathaly Justine Falcones Rodríguez

This article is dedicated to my grandparents and my father, whose presence, wisdom, and constant encouragement have played a fundamental role throughout my academic journey. Their example of perseverance and integrity has motivated me to move forward with determination and purpose. This work stands as a small tribute to their influence and to the values they have instilled in me, both personally and professionally.

Stefany Nefia Villapardo Peñarrieta

Acknowledgment

I would like to express my sincere gratitude to God for allowing me to achieve my goals, because without Him nothing would have been possible. I am also deeply grateful to my parents, brothers, and sister for supporting me and being present at every stage of my life and for contributing in various ways to the achievement of my goals. Similarly, I thank my boyfriend for his patience, empathy, and constant support, as he has been a fundamental pillar in the successful completion of this process. Special thanks to my research collaborator for her support, collaboration, and willingness to carry out this article. Finally, I express my gratitude to my tutor, who was an indispensable guide in the development, execution, and completion of this project.

Nathaly Justine Falcones Rodríguez

I would like to express my sincere gratitude to my family for their constant support, patience, and encouragement, which have been fundamental to this achievement. I am also deeply grateful to my boyfriend for his understanding, emotional support, and motivation during the most demanding moments of this work. Special thanks go to my research partner for her collaboration, patience, commitment, and valuable contributions, which significantly enriched this study. Finally, I extend my appreciation to my tutor for their guidance, academic support, and constructive feedback, which were essential to the realization of this article.

Stefany Noelia Villapardo Peñarrieta

Index

TUTOR CERTIFICATION	ii
CERTIFICATION	ii
DECLARACIÓN DE AUTORÍA	iii
APROBACIÓN DEL TRIBUNAL EXAMINADOR.....	iv
Dedication	v
Acknowledgment.....	vi
Index.....	vii
Abstract.....	1
Resumen.....	1
Introduction.....	2
Literature Review.....	4
Sustained attention.	4
Attentional focus.....	5
Cognitive Functions.....	7
Factors that influence sustained attention.....	8
Learning English.	8
Linguistic Competence.....	8
Components of learning	9
Educational Resources.	10
Methodology.....	10
Results.....	12
Discussion.	17
Conclusion.	19
References.....	21

Table Index

Table 1 <i>Contrast between the observation form and the interview</i>	12
Table 2 <i>CAT-STA pre-test for sustained attention.</i>	13
Table 3 <i>Pre-test for vocabulary assessment.</i>	14
Table 4 <i>Intervention - Class descriptions.</i>	15
Table 5 <i>Post-test for sustained attention.</i>	16
Table 6 <i>Post-test for vocabulary assessment.</i>	16

Sustained attention in learning the English language.

Abstract.

Active breaks are brief periods of physical activity integrated into the school context as a pedagogical strategy that stimulates students' interest and promotes a learning environment conducive to the acquisition of new knowledge. The present research aims to evaluate the effectiveness of active breaks as a pedagogical strategy to enhance sustained attention in learning English as a foreign language in eight-grade students at the "Carlos Pomerio Zambrano" Educational Unit from the parish of Canuto, in the canton of Chone. The study adopted a mixed approach with a quasi-experimental design, using theoretical methods for data collection and empirical methods to evaluate its effectiveness, such as observation sheets, interviews, pre-tests, and post-tests, considering a single experimental group. The results obtained showed that applying active breaks during English classes intensifies students' sustained attention, which had an effective impact on the learning of new English vocabulary: in the sustained attention pre-test, 5% of the sample presented a high level, while in the post-test this percentage rose to 43%. Likewise, in the vocabulary pre-test, 48% of the students were at a low level, a percentage that fell to 29% in the post-test. In conclusion, active breaks increase sustained attention, optimizing English language learning.

Keywords: Sustained attention, vocabulary learning, active breaks, English.

Resumen.

Las pausas activas son breves periodos de actividad física integrados dentro del ámbito escolar como una estrategia pedagógica que estimula el interés de los estudiantes y promueve un ambiente de aprendizaje propicio para adquirir nuevos conocimientos. La presente investigación tiene como objetivo evaluar la efectividad de las pausas activas como estrategia pedagógica para potenciar la atención sostenida en el aprendizaje del idioma inglés como lengua extranjera en los estudiantes de octavo año EGB de la Unidad

Educativa “Carlos Pomerio Zambrano” de la parroquia Canuto del cantón Chone. El estudio adoptó un enfoque mixto con un diseño cuasiexperimental, utilizando métodos teóricos para la recolección de información y empíricos para evaluar su eficacia, tales como la ficha de observación, entrevista, pre-tests y post-tests, considerando un único grupo experimental. Los resultados obtenidos mostraron que aplicar pausas activas durante las clases de inglés intensifica la atención sostenida de los estudiantes, lo que impactó eficazmente en el aprendizaje de nuevo vocabulario en inglés: en el pre-test de atención sostenida el 5% de la muestra presentó un nivel alto, mientras que, en el post-test este porcentaje ascendió al 43%. Asimismo, en el pre-test de vocabulario el 48% de los estudiantes se situó en nivel bajo, porcentaje que se redujo al 29% en el post-test. En conclusión, las pausas activas incrementan la atención sostenida optimizando el aprendizaje del idioma inglés.

Palabras clave: Atención sostenida, aprendizaje de vocabulario, pausas activas, inglés.

Introduction.

Currently, education has undergone certain changes in the teaching and learning process of the English language, which has become a fundamental pillar within the educational system. In this context, vocabulary constitutes the basis for students to understand and communicate effectively. However, to achieve this mastery, students need to maintain their concentration for long periods of time in order to grasp, process, and retain new information. For this reason, sustained attention emerges as an essential element in the development of linguistic competence, especially in vocabulary learning, which is fundamental to strengthen receptive (listening and reading) and productive (writing and speaking) language skills.

In the Ecuadorian context, factors such as stress, fatigue, lack of motivation, and the school environment directly affect sustained attention, also known as vigilant

attention, “understood as the ability to maintain focus and concentration on a specific task for an extended period of time” (Huilca Alvarado & Villacís Ordoñez, 2023). In particular, these elements hinder the development of sustained attention and, as a result, have an impact on the English language learning process, making it a challenge for educational institutions.

Thus, at the “Carlos Pomerio Zambrano” Educational Unit in the Canuto Parish, Chone canton, it was found that eighth-grade students have difficulty maintaining attention during English classes, where learning requires a constant level of concentration. This behavior, observed repeatedly during the school day, reflects an imbalance in the conditions for developing sustained attention, as various factors such as demotivation, distraction, and cognitive overload interfere with the attentional process, which directly affects English language learning.

From this perspective, neuroscience recommends the application of effective and dynamic strategies that promote sustained attention in the learning environment. Several studies have shown that the use of active breaks has a positive effect on student concentration and attention. A study conducted by Páez et al. (2024) showed that a program of active breaks applied in secondary schools improved students’ ability to concentrate and maintain attention in class, as these breaks provided opportunities for relaxation and rejuvenation. Another study carried out by Fernández Barrionuevo et al. (2023) determined that developing classes with active breaks improves reading comprehension in a foreign language.

In light of the aforementioned, the purpose of this research was to evaluate the effectiveness of active breaks as a pedagogical strategy to enhance students’ sustained attention during the learning of English as a foreign language. Accordingly, the theoretical foundations of sustained attention and learning English as a foreign language

were examined, and the factors that influence the development of sustained attention during English lessons were identified. In addition, active breaks were applied as a pedagogical strategy to strengthen sustained attention in the process of learning new English vocabulary. Subsequently, changes in sustained attention and English vocabulary learning were analyzed before and after the intervention with active breaks.

In this sense, the present study contributes to expanding the range of educational alternatives available for teaching and learning English, presenting a methodology that can be applied in real learning contexts and adapted to different situations and educational levels. Consequently, it promotes a flexible and interactive approach to language teaching and learning that moves away from traditional models and focuses on more active practices centered on student well-being.

Literature Review.

Sustained attention.

Slattery et al. (2022) mentioned that sustained attention is the ability to maintain the focus of attention on a specific task over a long period of time, especially in conditions of monotony and repetition. As it is a complex process that requires concentration on an activity, it is the attentional focus that allows attention to be directed and maintained on relevant stimuli while inhibiting those that are irrelevant.

Posner's theory of attentional networks mentions that there are three functional networks of attention: the alertness or vigilance network, responsible for maintaining a state of readiness to process stimuli and perform tasks optimally, which is located in the brainstem and right hemisphere systems dedicated to sustained vigilance; the posterior or orienting network, which directs attention toward relevant stimuli; and the executive network, which establishes voluntary control in situations involving rapid responses (Parra Bolaños, Peña, & caballero Hernández, 2012). Sustained attention is particularly linked

to the alertness network, as it involves maintaining a continuous state of vigilance and readiness for prolonged periods. In other words, this neural network is what allows the brain to stay focused on the task and increase its level of alertness and concentration during the performance of tasks over long periods of time. As such, understanding this dynamic is essential in educational contexts, especially in second language learning, where students must maintain attention on repetitive or cognitively demanding activities.

Attentional focus.

Attentional focus can manifest itself internally or externally: Externally, the individual is able to perceive information from the environment, while internally, the individual processes that information cognitively. In the educational setting, the focus of attention is directed toward information on-topic and information off-topic. On the one hand, the internal focus of attention on-topic refers to the student's ability to reflect on and conceptualize new information cognitively, due to the prior exercise of external focus of attention when paying attention to class material or the teacher's explanation. Correspondingly, internal attention focus outside the subject is linked to the act of suddenly focusing on intrusive thoughts, while external attention focus outside the subject refers to the process of paying attention to distracting stimuli from the environment (Keller, Davidesco, & Tanner, 2020).

Molina (2018) states that the duration of sustained attention manifests itself based on the age of the student, indicating that at two years of age, attention can be sustained for a period of 7 minutes. Subsequently, at age five, it tends to double simultaneously, increasing significantly between ages 8 and 9. On the other hand, Requena Montes (2022) argues that children can maintain attention for a period of 15 to 20 minutes until the end of late childhood, between ages 11 and 12. Therefore, from the age of 12, adolescents begin to experience significant changes in their attention span, which increases

considerably to an hour in terms of the activity being performed.

According to Bernabéu (2017), sustained attention level decline throughout the day when performing different tasks. Therefore, when introducing new topics, it is important not to exceed fifteen minutes and to include five- to ten-minute breaks during each class session, given that meaningful learning requires full and constant attention.

From a Neuroscience perspective, the use of active breaks is recommended as a pedagogical strategy incorporated into the classroom, since the absence of active breaks in the classroom can have negative effects on learners' concentration and attention, as well as on their ability to acquire new knowledge. Because of this, "physical activity in the classroom is a promising strategy for students around the world to be active during school hours" (Jiménez Parra et al., 2022, cited by Páez Cornejo, Pérez Guevara, & Verdugo Arcos, 2024).

Active breaks or pauses are brief periods of physical activity incorporated into the educational environment with the aim of interrupting long class sessions, improving students' physical and cognitive health. In terms of mental health, active breaks help reduce stress and anxiety by releasing endorphins, which are hormones that promote feelings of well-being and lower stress levels. Physically, they increase blood flow to the brain, supplying oxygen and essential nutrients to enhance cognitive functions.

In this regard, studies have confirmed that temporary sessions of physical activity benefit concentration and attention span, enabling students to retain knowledge efficiently, as well as reducing mental fatigue and decreased performance during long working hours.

However, these activities depend on the environment in which they take place, as they can range from simple exercises, such as stretching and deep breathing, which are suitable for small spaces, to more dynamic and structured games that involve greater

movement and require large spaces for proper execution (Castillo Cortez, Cheza Castro, Figueroa Sacón, Revelo Gordón, & Rosas Páez, 2024).

Cognitive Functions.

Sustained attention is a cognitive variable that requires the use of several interconnected cognitive functions that are essential for the development and maintenance of attention. Selective attention is closely related to sustained attention, since while selective attention ignores irrelevant factors and focuses on those that are significant, sustained attention is responsible for maintaining that selection constantly during prolonged learning tasks, which is why it is called selective sustained attention (Danahy Ebert, Pham, Levi, & Eisenreich, 2024).

In addition, sustained attention facilitates verbal and visuospatial review processes that manifest themselves in working memory. This interaction allows for the temporary storage of information and the management of cognitively demanding activities, such as understanding and producing English language. Consequently, sustained attention and working memory function in an integrated manner, since while the former maintains the focus of attention, the latter stores and adapts the information necessary for learning English language (Medina Pulido, Olivella López, Araujo, & Pérez Esmeral, 2021).

Furthermore, sustained attention and inhibitory control are executive functions that interact systematically and play an essential role in learning. In particular, inhibitory control is responsible for ignoring internal or external distractions and paying attention to alternatives in line with one's own goals (Altamirano Droguett, & others, 2024). In this way, inhibitory control plays a modulating role that promotes the continuity of sustained attention directed toward specific goals, which strengthens information assimilation and academic performance.

Factors that influence sustained attention.

Various elements can significantly affect students' ability to maintain attention during class, especially in the process of learning English. Among the most influential factors is a lack of motivation, since when learners do not perceive usefulness, interest, or connection with the content, their willingness to participate actively decreases, which affects their concentration. Another important factor is environmental distractions, such as noise, conversation among classmates, or use of electronic devices, which interrupt the focus needed to promote sustained attention.

Similarly, cognitive overload from long, complex, or poorly paced activities causes mental fatigue, reducing students' ability to stay focused for long periods. If these factors are not properly considered during the development of the lessons, they can limit performance and make learning English harder (Le, 2021).

Learning English.

Learning English as a foreign language is a dynamic process that, in addition to involving the development of the main linguistic skills of a language, requires the constant activation of cognitive functions such as attention, memory, perception, and motivation. According to Tokuhama (2018), these processes must be intentionally stimulated through teaching practice. Furthermore, it is influenced by multiple internal and external factors, which shape the context in which the foreign language is taught and learned. As Rosales (2025) points out, "The acquisition of a second language is a complex process that involves multiple factors, including cognitive, affective, and socio-familial factors."

Linguistic Competence.

Linguistic competence in a foreign language involves activating neural networks related to attention and working memory. As Mora (2020) points out, sustained attention

is enhanced when the learning environment activates curiosity and the brain's reward system, which can be achieved through activities that integrate visual, auditory, and kinesthetic stimuli.

Listening comprehension, as indicated by Mendoza et al. (2023), involves decoding sounds and interpreting intentions and emotions, while oral production requires speech planning and vocabulary retrieval in real time.

Vocabulary is an essential component in learning English as a Foreign language. Lexicon allows students to understand what they are listening and reading, and to express their ideas clearly, since without sufficient words, it is difficult to communicate, even if one knows the grammar rules. However, vocabulary does not develop automatically; it requires constant exposure to new words, repeated practice, and attention to their use in different contexts. The results of a study conducted by Martinez-Vicente et al. (2023) show that a greater sustained and selective attention predicts better academic performance in English as a foreign language, suggesting that lexical development is closely related to attentional executive functions. Acquiring vocabulary in a foreign language such as English is a complex cognitive process. According to Jung et al. (2025), attentional control plays a predictive role in determining the ability of foreign language learners to memorize new verbal and lexical forms more solidly, because the response to an activity always depends on the demands of the environment.

Components of learning.

The role of the teacher is an integral part of teaching English as a foreign language, since "the teacher not only conveys information, but also inspires, motivates, and guides students in their learning process" (Moreira Zambrano, Proaño Muñoz, Párraga Cedeño, & Ganchozo Villavicencio, 2024). On the other hand, Rodríguez Vite (2019) emphasizes that the environment should foster a climate of harmony, trust, security, and respect that

facilitates positive interaction between teachers and students, as well as among students themselves. A good learning environment encourages participation, the free expressions of ideas, and the resolution of doubts, promoting effective learning. Finally, active learning involves students in the construction of their knowledge (Ramos Vallecillo, Murillo Ligorred, & Lozano Blasco, 2024). This is the opposite of traditional models based on a one-way transmission of information, where students take on a passive role. In other words, student participation goes beyond presence in the classroom, involving the ability to influence pedagogical decisions such as the methodology used and assessment methods (Ochoa Cervantes, Martínez Day, & Garbus, 2020).

Educational Resources.

Educational resources are defined as the set of materials used to facilitate the teaching-learning process, both physical and virtual, which aim to spark students' interest and adapt to their individual characteristics. These resources, as stated by Blázquez (1983) cited in Sandoval (2024), help to create the right situations for teachers and students to interact as human beings in a suitable environment, especially because of their ability to facilitate understanding and increase information retention. Among the main visual resources are: flashcards or educational cards, graphic organizers, among others. A study performed by Numonova (2024) concluded that "The use of visual aids has been shown to enhance the comprehension and usage of language." In turn, auditory resources play a crucial role in the development of listening comprehension and pronunciation in English as a foreign language (Barrera, 2019). These materials help students become familiar with different accents, intonations, and natural speech patterns of the language.

Methodology.

This research adopts a mixed approach, which enables the collection, analysis, and linking of both qualitative and quantitative information to gain a deep understanding

of the study carried out (Guelmes Valdés & Emilio, 2015). The population consisted of 167 students and two teachers from the upper elementary school of the “Carlos Pomerio Zambrano” Public School. The non-probabilistic, intentional sample consists of 21 students and two teachers from the eighth grade of the “Carlos Pomerio Zambrano” Public School, as this group meets the characteristics of interest to the researcher, such as age and educational level, in addition to intentionally selecting individuals from the population who are generally easily accessible (Hernández & Carpio, 2019).

The research was carried out under a single-group quasi-experimental design, which is characterized by observations and measurements before and after the intervention. In this type of design, participants are not selected randomly but belong to a previously established group. After applying the intervention, the data obtained in the pre-test and post-test phases of sustained attention were analyzed and compared, as well as a second pre-test and post-test of vocabulary, in order to determine the changes generated by the intervention (Ramos Galarza, 2021).

This study made use of the scientific method to carry out a systematic procedure, completing several phases such as observation and obtaining results during the research, since this method correlates theory with practice in order to generate new knowledge. Therefore, “the scientific method would be the procedure by which we can achieve objectives knowledge of reality, trying to answer questions about the order of nature” (Barahona Tapia, Rosillo Abarca, Ayala Ayala, & Barcos Arias, 2023).

In addition, the empirical method was implemented in order to discover and gather information that served as the basis for diagnosing and validating the research. To this end, the theoretical method was used to process, interpret, and analyze the results obtained through the empirical methods employed, with the aim of reaching reliable conclusions (Hernández et al., 2021 cited by López Falcón & Ramos Serpa, 2021).

Results.

The diagnostic phase lasted two weeks. Data was collected using an observation checklist during five class sessions, supplemented by a semi-structured interview with eighth-grade English teachers. A pre-test of English vocabulary consisting of five questions with a total of 23 items was administered to determine the students' basic vocabulary level. Similarly, Cognifit's CAT-STA sustained attention test was implemented to assess the children's sustained attention level prior to the intervention.

Table 1

Contrast between the observation form and the interview

Dimensions	Indicator	Observation sheet	Teachers' interview
Attention span.	Duration.	Attention is not maintained from the beginning to the end of the lesson.	Teachers believe that students maintain attention throughout the class.
	Recovery of attention span.	Limited use of active breaks to regain attention.	Teachers report using brief physical activities when students become distracted.
Cognitive Functions.	Working memory.	Difficulty following oral instructions.	Teachers mention verification through questions and activities on the whiteboard.
Factors influencing sustained attention.	Motivation.	Little interest and frustration are observed when tasks are complex.	Teachers indicate that lack of interest sometimes occurs when topics are difficult.
	Environmental distractions.	It is evident that students are often distracted by external stimuli such as noise or conversation among classmates.	Parameters such as external noise, conversation among classmates, and in some cases, student restlessness when not engaged in an activity.
Language proficiency.	Vocabulary comprehension.	Difficulties in reading and understanding simple sentences in English.	Teachers consider the vocabulary level to be very low.
Components of the English language teaching and learning process.	Teacher role.	Students receive timely guidance in understanding language content.	Teachers report that they conduct assessments and connect prior knowledge with new content.
	Learning environment.	Whereas the classroom environment is safe, there are distractions due to conversation among classmates.	Teachers say that the school environment depends on leadership.
	Student participation.	Although there is a good level of participation, there is difficulty in respecting turns and rules.	Teachers say they encourage participation through songs and motivation.
Teaching resources.	Visual and auditory.	Limited use of visual and auditory resources such as images, cards, or speakers.	Teachers mention using flashcards, posters, and auditory resources such as a speaker.

Source: own elaboration.

The results of the instruments applied reveal that students' sustained attention has limitations, especially in terms of duration and recovery of focus, due to the lack of pedagogical strategies such as active breaks. Although teachers perceive that students maintain attention and use various strategies, observation shows discrepancies between planning and classroom practice. Equally, factors such as a low motivation, environmental distractions, and difficulties in understanding English vocabulary negatively influence the learning process. However, the guiding role of the teacher and the promotion of student participation are recognized as strengths, reflecting the need to promote the use of teaching strategies that favor sustained attention and effective English Language learning.

Table 2

CAT-STA pre-test for sustained attention.

Level	Score range	Participants	Percentage
Low	70-91	11	52%
Medium	92-97	9	43%
High	98-100	1	5%
Total		21	100%

Source: own elaboration.

The Cognifit CAT-STA Sustained Attention Test, administered to students prior to the intervention, allowed for the assessment of their initial level of sustained attention during prolonged activities. The pre-test results show that 52% of the students are at a low level, 43% at a medium level, and only 5% at a high level. This Distribution highlights difficulties in developing sustained attention during long school days, which justifies the implementation of pedagogical strategies aimed at strengthening sustained attention and optimizing the learning process.

Table 3*Pre-test for vocabulary assessment.*

Level	Score range	Participants	Percentage
Low	0-10	10	48%
Medium	11-17	11	52%
High	18-23	0	0%
Total		21	100%

Source: own elaboration.

The diagnostic vocabulary test administered to eighth-grade students in General Basic Education, Class "A", prior to the pedagogical intervention allowed us to identify the initial level of lexical mastery corresponding to their grade level. The results show that 48% of students are at a low level, while 52% are at an intermediate level, with no students at a high level. This distribution reflects limitations in vocabulary development in line with the requirements of the educational level, highlighting the need to strengthen language skills.

The educational intervention was implemented over a period of six weeks with children aged 12 and 13, who were in the eighth year of general basic level. The purpose of the intervention was to use active breaks as an educational strategy to strengthen sustained attention in the process of learning new English vocabulary. During the lessons, active breaks were planned in relation to the topics taught in class, which were based on the English vocabulary diagnostic test. Each active break, applied after 20 minutes of class, had between 5-8 minutes per 45-minutes session, which promoted students' concentration and participation, helping to reduce stress and mental overload.

Table 4

Intervention - Class descriptions.

Section.	Topic.	Objective.		Material.	Active break.	Results.
1	Body parts	Students will recognize and use body parts vocabulary to describe people applying “Demonstrative Pronouns”	– – – – –	Pictures Flashcards Board Markers Notebook Pencils/Pens	“Simon says”: the teacher instructed the action and the students carried it out.	The students felt motivated, participated in class, and maintained their attention throughout the lesson.
2	Clothes	Students will identify and use vocabulary about clothing to describe what a person is wearing using the present continuous tense.	– – – –	Pictures Flashcards Board Markers Speaker	Dance and answer: The students danced while short musical snippets played, then the music was paused so the student could answer a question asked by the teacher.	The students demonstrated a high level of satisfaction with implementing this active break, which was reflected in their enthusiasm during the development of classroom activities.
3	Emotions	Students will identify and use emotion-related vocabulary to describe their mood using the verb “to be”.	– – – –	Pictures Speaker Board Markers Worksheets	Freezing Dance: When the sound stopped, the students adopted a static position and imitated the expression of the emotion mentioned by the teacher.	The students demonstrated a high level of satisfaction with implementing this active break, which was reflected in their enthusiasm during the development of classroom activities.
4	Daily routines	Students will talk about your daily routines using the simple present tense.	– – – –	Pictures Flashcards Speaker Board Markers	Mirror game: The children imitated the body movements performed by the teacher.	The teenagers showed happiness while developing the active break, which was reflected in their good academic performance during the lesson.
5	Feedback	Students will reinforce vocabulary related to body parts, clothes, emotions and daily routines in real contexts.	– – – –	Pictures Flashcards Speaker Board Markers	Moving with the bottle: The students moved following the movement of a bottle guided by the teacher.	The students maintained their attention throughout the lesson, and felt motivated to carry on participating in class.

Source: own elaboration.

Table 5*Post-test for sustained attention.*

Level	Score range	Participants	Percentage
Low	70-91	0	0%
Medium	92-97	12	57%
High	98-100	9	43%
Total		21	100%

Source: own elaboration.

The results of the post-test on sustained attention demonstrate the effectiveness of the active breaks incorporated after the intervention, reflecting a significant improvement in students' sustained attention. While the pre-test 52% of learners were at a low level according to the ranges established by Cognifit, in the post-test there was a favorable redistribution of performance level, with the low level being eliminated. In this sense, 57% of students are at an intermediate level and 43% are at a high level. This contrast between the pre-test and post-test results shows that the use of active breaks in English classes contributes significantly to increased sustained attention during long class sessions.

Table 6*Post-test for vocabulary assessment.*

Level	Score range	Participants	Percentage
Low	0-10	6	29%
Medium	11-17	7	33%
High	18-23	8	38%
Total		21	100%

Source: own elaboration

The post-test administered after the educational intervention, showed favorable results in the development of the students' vocabulary. The data obtained show that only 29% of students are at the low level, while 33% are at the medium level and 38% are at the high level according to their level of education. When comparing these results with those of the pre-test a significant improvement in lexical mastery can be observed, considering that initially 52% of students were at the medium level and no participants

were at the high level. These results indicate that active breaks increase sustained attention during English vocabulary learning.

Discussion.

The objective of this research was to evaluate the effectiveness of active breaks as a pedagogical strategy to enhance sustained attention in learning English as a foreign language. The results showed improvements in sustained attention and a significant impact on English vocabulary learning, revealing that active breaks boost cognitive functions such as sustained attention, which is the main function that gives way to other cognitive processes.

The data obtained through Cognifit's CAT-STA test indicate an improvement in sustained attention after the intervention with active breaks, evidencing a higher average post-test score compared to the pre-test. This supports Rodríguez (2020) statement that the implementation of active breaks allows students to recharge their energy, which translates into greater concentration and attention in academic activities. Furthermore, this coincides with the study conducted by Páez et al. (2024) in which an active break program implemented in secondary school students improved their ability to concentrate and maintain attention in class, as these breaks provided opportunities for relaxation and rejuvenation.

In the same way, the increase in sustained attention levels showed its impact on

vocabulary learning after the intervention, as the post-test showed a big difference compared to the pre-test. A study by Martínez-Vicente et al. (2023) shows that greater sustained attention and selective attention predicts better academic performance in English as a foreign language, suggesting that lexical development is closely related to attentional executive functions. According to Jung et al. (2025), attention control plays a predictive role in determining the ability of foreign language students to memorize new verbal and lexical forms more solidly, because the response to an activity always depends on the demands of the environment. This coincides with the study carried out by Fernández Barrionuevo et al. (2023), which mentions that developing classes with active pauses improves reading comprehension in a foreign language.

From a cognitive perspective, these findings align with the limited nature of sustained attention over time. According to Bernabéu (2017), the level of sustained attention decreases throughout the day when performing different tasks. Hence, when introducing new topics, it is important not to exceed fifteen minutes and to include five- to ten- minute breaks during each class session, given that meaningful learning requires full and constant attention. Thus, in learning English as a foreign language, this dynamic becomes highly relevant, since the acquisition and retention of new words demands a high level of sustained attention for the comprehension and interpretation of new messages, a condition that can be affected when breaks are not incorporated to allow for attentional recovery.

Hence, Posner's theory of attentional networks explains how the efficient functioning of the alertness network is responsible for maintaining optimal levels of vigilance over time. Accordingly, active breaks go beyond being simple interruptions in the rhythm of the class; they directly influence the reactivation of this network. As Parra Bolaños, Peña, & Caballero Hernández, (2022) indicate, the alertness or vigilance

network is responsible for maintaining a preparatory state for processing stimuli and performing optimally in tasks. It is located in the brainstem and in systems of the right hemisphere dedicated to sustained vigilance. In this context, sustained attention does not depend solely on the student's willingness, but on the ability of the educational environment to generate conditions that neurologically support this cognitive state.

Essentially, the study demonstrated that integrating active breaks as a pedagogical strategy during language learning in the classroom improves students' attention span, allowing them to concentrate on the task at hand while also contributing to the strengthening of their working memory, which enables them to perform tasks instantly and follow the teacher's instructions. Particularly, it confirms the need to prioritize student's physical and emotional well-being during long school days, especially when the task demands high mental effort and factors such as fatigue or academic stress prevent sustained attention. If these factors are not adequately considered in the development of the class, they can limit academic performance and hinder the process of learning English (Le, 2021). In this sense, an innovative pedagogical approach is promoted, transcending traditional pedagogical approaches and prioritizing the well-being of educational actors.

Conclusion.

In conclusion, the implementation of active breaks as a pedagogical strategy is effective in enhancing sustained attention in learning English as a foreign language, with evidence of improvements in attention levels and vocabulary learning afterwards the intervention. The findings highlight the relevance of incorporating active breaks into English classes as a pedagogical strategy that promotes student well-being and attentional recovery, contributing to the creation of more favorable cognitive conditions for vocabulary learning, which in turn helps to optimize macro language skills. For this reason, it is considered crucial for teachers to incorporate this type of pedagogical strategy

in various subjects, given that the brain requires periods of cognitive rest that promote the recovery of attention and allow for greater readiness to continue with academic content. Future research could expand on these results by considering more diverse samples or the inclusion of control groups.

References.

- Jung, J., Zhang, W., & Lee, M. (2025). The role of working memory and attention control in incidental L2 vocabulary learning from reading-while-listening. *ITL - International Journal of Applied Linguistics*, 1-43.
doi:<https://doi.org/10.1075/itl.24001.jun>
- Al Shiblee, A. J. (2025). Integrating Language Skills for Communicative Competence: A Contemporary Theoretical Approach in EFL. *British Journal of Education*, 85-90. doi:<https://doi.org/10.37745/bje.2013/vol13n68590>
- Altamirano Droguett, J., Goset Poblete, J., Campillay Arancibia, N., Castro Escobara, M., Letelier Záratea, A., & Robledo González, B. (2024). Decision-making during clinical practices: analysis from neuroeducation. *REVISTA MÉDICA CLÍNICA LAS CONDES*, 35(5-6), 445-451.
doi:<https://doi.org/10.1016/j.rmcl.2024.09.003>
- Barahona Tapia, L. I., Rosillo Abarca, L. V., Ayala Ayala, L. R., & Barcos Arias, I. F. (2023). NOTES ON THE SCIENTIFIC METHOD IN THE 21ST CENTURY FROM A LEGAL PERSPECTIVE. *Bibliotecas anales de investigación*, 1-7.
- Barrera, I. O. (2019). Uso del podcast como recurso didáctico para la mejora de la comprensión auditiva del inglés como segunda lengua (L2). *LFE: revista de lenguas para fines específicos*, 9-25.
- Bernabéu Brotóns, E. (2017). Attention and memory as key elements of the learning process. Applications for the school environment. *REIDOCREA*, 16-23.
Retrieved from <https://www.ugr.es/~reidocrea/6-2-3.pdf>
- Castillo Cortez, O. A., Cheza Castro, A. A., Figueroa Sacón, F. F., Revelo Gordón, V. E., & Rosas Páez, N. A. (2024). Influence of active pauses on the concentration and mathematical performance of ADHD students. *LATAM Revista Latinoamericana de Ciencias Sociales y Humanidades*, 5(5).
doi:<https://doi.org/10.56712/latam.v5i5.2922>
- Chomsky, N. (1965). *Aspects of the theory of syntax*. Cambridge: Cambridge, M.I.T. Press.
- Danahy Ebert, K., Pham, G. T., Levi, S., & Eisenreich, B. (2024). Measuring children's sustained selective attention and working memory: validity of new minimally linguistic tasks. *Behavior Research Methods*, 709-722.
doi:<https://doi.org/10.3758/s13428-023-02078-5>
- Fernández-Barrionuevo, E., González-Fernández, F. T., & Villoria Prieto, J. (2023).

- Effect of Active Breaks on reading comprehension in a foreign language. *Porta Linguarum, Monográfico VII*, 147-158.
doi:<https://doi.org/10.30827/portalin.viVII.29172>
- Grabe, W., & Stoller, F. L. (2020). *Teaching and Researching Reading (Third Edition)*. New York: Routledge.
- Guelmes Valdés, E. L., & Emilio, N. A. (2015). Some reflections on the mixed approach of pedagogical research in the Cuban context. *SCIELO*, 23-29. Retrieved from http://scielo.sld.cu/scielo.php?script=sci_arttext&pid=S2218-36202015000100004
- Hernández, C. E., & Carpio, N. (2019). Introduction to sampling types. *ALERTA*, 2, 75-79. Retrieved from <https://www.redalyc.org/articulo.oa?id=762279683009>
- Huilca Alvarado, G. D., & Villacís Ordóñez, J. M. (2023). *Sustained attention to the teaching-learning process of students in the General Basic Education program at the "Isabel de Godín" Educational Unit, Riobamba*. Riobamba, Ecuador: UNACH.
- Keller, A. S., Davidesco, I., & Tanner, K. D. (2020, September). Attention Matters: How Orchestrating Attention May Relate to Classroom Learning. *CBE—Life Sciences Education*, 19. doi:DOI:10.1187/cbe.20-05-0106
- Le, V. H. (2021). An Investigation into Factors Affecting Concentration of University Students. *Journal of English Language Teaching and Applied Linguistics.*, 7-12. doi:<http://dx.doi.org/10.32996/jeltal.2021.3.6.2>
- López Falcón, A., & Ramos Serpa, G. (2021). ABOUT THEORETICAL AND EMPIRICAL RESEARCH METHODS: SIGNIFICANCE FOR EDUCATIONAL RESEARCH. *Conrado*, 22-31. Retrieved from <https://conrado.ucf.edu.cu/index.php/conrado/article/view/2133/2079>
- Martínez Vicente, M., Martínez Valderrey, V., Suárez Riveiro, J. M., & Valiente Barroso, C. (2023). Relationship between Learning English as a Foreign Language and the Executive Attention Profile in Spanish Schoolchildren. *Psicología Educativa*, 159 - 166. doi:<https://doi.org/10.5093/psed2023a10>
- Medina Pulido, P. L., Olivella López, G., Araujo, C. B., & Pérez Esmeral, S. M. (2021). Working memory, sustained attention and academic performance in students aged 14 to 16 at an educational institution in Valledupar. *ResearchGate*, 66-75. doi:<https://doi.org/10.47307/GMC.2021.129.s1.9>
- Mendoza Laz, P., Morán Aguilar, M. A., Mendoza Cedeño, J. H., Freire Jáuregui, J. P.,

- Quiroz Alonzo, B. G., & Loor Mendoza, J. E. (2023, Mayo 08). Language Skills and critical thinking of Basic Education Students. *Universidad, ciencia y tecnología*, 63-72. Retrieved from Universidad Ciencia y Tecnología:
<https://doi.org/10.47460/uct.v2023iSpecial.701>
- Molina, A. A. (2018, February). ATTENTIONAL EFFECTIVENESS IN CHILDREN: Evaluation of primary school students. *UNIVERSIDAD DEL ACONCAGUA*. Retrieved from <http://bibliotecadigital.uda.edu.ar/803>.
- Mora, F. (2020). *Neuroeducation: You can only learn what you love*. Alianza Editorial.
- Moreira Zambrano, Y. M., Proaño Muñoz, M. M., Párraga Cedeño, E. L., & Ganchozo Villavicencio, S. M. (2024). Role of the Teacher in Basic Education in Ecuador. *CIENCIAMATRIA*, 429.
- Numonova, M. (2024). VISUAL AIDS IN ENHANCING THE LEARNING PROCESS IN ENGLISH LANGUAGE IN A PRIVATE SCHOOL (AKHMAD EDUCATION). *ResearchGate*, 309-312.
 doi:<http://dx.doi.org/10.54613/ku.v13i.1086>
- Ochoa Cervantes, A. d., Martínez Day, E. D., & Garbus, P. (2020). Analysis of participation concept in public secondary students. *Sinéctica*.
 doi:[https://doi.org/10.31391/s2007-7033\(2020\)0054-003](https://doi.org/10.31391/s2007-7033(2020)0054-003)
- Páez Cornejo, D., Pérez Guevara, V., & Verdugo Arcos, Á. A. (2024). Active breaks as a pedagogical strategy to improve students' academic performance. *Cumbres*, 10(1), 46-55. doi:<http://doi.org/10.48190/cumbres.v10n1a4>
- Paéz Cornejo, D., Pérez Guevara, V., & Verdugo Arcos, Á. A. (2024). Active breaks as a pedagogical strategy to improve students' academic performance. *Revista Cumbres Vol.10 N°1 Versión electrónica ISSN 1390-3365*
<http://investigacion.utmachala.edu.ec/revistas/index.php/Cumbres>
<http://doi.org/10.48190/cumbres.v10n1a4>. *Revista Cumbres*, 46-55.
 doi:<http://doi.org/10.48190/cumbres.v10n1a4>
- Parra Bolaños, N., Peña, C. E., & Caballero Hernández, E. F. (2022). Childhood ADHD through the attentional model of Posner and Petersen. *Revista Innovación Digital y Desarrollo Sostenible*, 2(2), 104-111.
 doi:<https://doi.org/10.47185/27113760.v2n2.60>
- Ramos Galarza, C. (2021). Experimental investigation designs. *CienciAmérica*, 1-7.
 doi:<http://dx.doi.org/10.33210/ca.v10i1.356>
- Ramos Galarza, C., Paredes, L., Andrade, S., Santillán, W., & González, L. (2016).

- Targeted, Sustained, and Selective Care Systems in University Students in Quito, Ecuador. *Revista Ecuatoriana de Neurología*, 25(1-3). Retrieved from <https://revecuatneurol.com/wp-content/uploads/2017/05/Sistemas-atencion-focalizada-sostenida-selectiva-universitarios-quito-ecuador.pdf>
- Ramos Vallecillo, N., Murillo Ligorred, V., & Lozano Blasco, R. (2024). University Students' Achievement of Meaningful Learning through Participation in Thinking Routines. *European Journal of Investigation in Health, Psychology and Education*, 1012-1027.
- Requena Montes, F. J. (2022). Optimization of Attention and Concentration in Dance Learning. *Dialnet*, 7-16. Retrieved from <https://dialnet.unirioja.es/servlet/articulo?codigo=9810430>
- Rodríguez Vite, H. (2019). LEARNING ENVIRONMENTS. *Universidad Autónoma del Estado de Hidalgo*. Retrieved from Universidad Autónoma del Estado de Hidalgo: <https://www.uaeh.edu.mx/scige/boletin/huejutla/n4/e1.html#refe0>
- Rodríguez, A. (2020). Pausas activas y su efecto en el bienestar emocional de los estudiantes. *Revista de Psicología Educativa*, 36, 201-215.
- Rosales Zamudio, K. L. (2025). Internal and external factors that influence the learning of Spanish as a second language in the Community of Madrid's Liaison Classrooms. *Repositorio Comillas*. Retrieved from Repositorio Comillas: <http://hdl.handle.net/11531/97585>
- Sandoval Villamizar, N. R. (2024). Use of teaching resources for learning and improving communicative English skills among sixth-grade students at the Pamplona Teacher Training School. Retrieved from Repositorio UNAD: <https://repository.unad.edu.co/jspui/bitstream/10596/61607/1/nrsandovalv.pdf>
- Slattery, E. J., O'Callaghan, E., Ryan, P., Fortune, D. G., & Mcavenue, L. P. (2022, June). Popular interventions to enhance sustained attention in children and adolescents: A critical systematic review. *Neuroscience & Biobehavioral Reviews*. Retrieved from <https://doi.org/10.1016/j.neubiorev.2022.104633>
- Tokuhama-Espinosa, T. (2018). *Neuromyths: Debunking false ideas about the brain*. Norton & Company.