

Vocabulary in the English language as a proposal for meaningful learning in Elementary School: a case study¹

*Isabella Marcela Teixeira Laborda Mendes*²

*Iandra Maria Weirich da Silva Coelho*³

*Marta de Faria e Cunha Monteiro*⁴

ABSTRACT

This study presents the evaluation of a vocabulary teaching proposal in the English language for Upper Elementary Education, focusing on meaningful learning. The research is theoretically based on the Theory of Meaningful Learning, and the methodological procedures involve applied research with a qualitative approach, in the form of a case study. Data collection was carried out through three assessments: a pre-test, a post-test, and a delayed post-test, and the analysis was supported by an observation grid focused on student performance. The results highlight the use of mind maps, with an emphasis on regional/local vocabulary, as potentially significant elements for learning English vocabulary. The main advantages were the ability to use different expressions and words in a given context, vocabulary progression and expansion, greater word retention, mastery, and gradual development of the lexical repertoire related to the theme.

KEYWORDS: Teaching. English language. Vocabulary. Meaningful Learning.

¹ English version by: Sérgio Freire, *E-mail:* sergio_freire@uol.com.br e Marta de Faria e Cunha Monteiro, *E-mail:* martamonteiro20@hotmail.com.

² MA in Technological Teaching. Instituto Federal do Amazonas, Manaus, Amazonas, Brazil. Orcid: <https://orcid.org/0000-0001-6441-1210>. *E-mail:* isabella.marcela@gmail.com.

³ PhD in Linguistics. Instituto Federal do Amazonas, Manaus, Amazonas, Brazil. Orcid: <https://orcid.org/0000-0003-3513-962X>. *E-mail:* iandrawcoelho@gmail.com.

⁴ PhD in Linguistics. Universidade Federal do Amazonas, Manaus, Amazonas, Brazil. Orcid: <https://orcid.org/0000-0001-5931-079X>. *E-mail:* martamonteiro20@hotmail.com.

O vocabulário em língua inglesa como proposta de aprendizagem significativa no Ensino Fundamental: um estudo de caso

RESUMO

Este estudo apresenta a avaliação de uma proposta de ensino de vocabulário em língua inglesa, para o Ensino Fundamental II, com foco na aprendizagem significativa. A pesquisa tem como aporte teórico, a Teoria da Aprendizagem Significativa e os procedimentos metodológicos envolvem uma pesquisa de natureza aplicada, com abordagem qualitativa, do tipo estudo de caso. A coleta de dados foi realizada a partir da realização de três diagnósticos, pré-teste, pós-teste e pós-teste tardio, cuja análise contou com auxílio de uma grelha de observação, com foco no desempenho do estudante. Os resultados apontam o uso de mapas mentais, com ênfase no vocabulário regional/local como elementos potencialmente significativos para a aprendizagem do vocabulário em inglês. As principais vantagens foram a capacidade de usar diferentes expressões e palavras em determinado contexto, a progressão e expansão vocabular, maior retenção de palavras, domínio e evolução gradativa do repertório lexical relacionado à temática.

PALAVRAS-CHAVE: Ensino. Língua Inglesa. Vocabulário. Aprendizagem Significativa.

El vocabulario en inglés como propuesta de aprendizaje significativo en la Educación Primaria: un estudio de caso

RESUMEN

Este estudio presenta la evaluación de una propuesta para la enseñanza de vocabulario en inglés, para la Educación Primaria II, con enfoque en el aprendizaje significativo. La investigación tiene como aporte teórico la Teoría del Aprendizaje Significativo y los procedimientos metodológicos involucran una investigación de carácter aplicado, con enfoque cualitativo, del tipo estudio de caso. La recolección de datos se realizó mediante la realización de tres diagnósticos, en formato pretest, postest y postest tardío, cuyo análisis se apoyó en una cuadrícula de observación, con énfasis en el desempeño del estudiante. Los resultados apuntan al uso de mapas mentales, con énfasis en el vocabulario regional/local, como

elementos potencialmente significativos para el aprendizaje de vocabulario en inglés. Las principales ventajas fueron la capacidad de utilizar diferentes expresiones y palabras en un contexto determinado, progresión y ampliación del vocabulario, mayor retención de palabras, dominio y evolución gradual del repertorio léxico relacionado con el tema.

PALABRAS CLAVE: Enseñanza. Lengua Inglesa. Vocabulario. Aprendizaje significativo.

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Introduction

This article is an excerpt from research conducted within the Master's Program in Technological Education at the Federal Institute of Amazonas, in which we developed, applied, and evaluated a set of activities related to food vocabulary in English for eighth-grade students in middle school, with a focus on integrating local culture. The approach, which we named Amazonglês, was shaped into a Potentially Significant Teaching Unit, based on the assumptions of the Theory of Meaningful Learning (Ausubel 2000; Moreira 2012).

From this perspective, it is understood that “[...] the English language enables new forms of student engagement and participation in an increasingly globalized and pluralistic social world” (Brasil, 2017, p. 241). With this in mind, we highlight the importance of vocabulary learning, as it is a crucial element, followed by grammar, to assist students in developing fluency in English (Rodrigues, 2006).

Thus, agreeing with Vaz (2012, p. 36), we affirm that “vocabulary learning is essential for students to understand the basic ideas conveyed, whether in oral or written messages, in any foreign language.”

Beyond the relevance of vocabulary learning, other factors justify this research, such as the gap in studies on this topic and the “[...] absence of clear principles that should guide vocabulary teaching” (Gattolin, 2005, p. 3).

Another relevant factor is the difficulties experienced by higher education students in reading skills, due to the gap found in classroom practices related to vocabulary teaching in elementary and middle school (Gattolin, 2005). In this sense, it can be said that “[...] the great challenge for English teachers, especially in middle school, is to create didactic situations that stimulate their students' interest in the subjects being taught” (Silva; Vargas, 2018, p. 32).

Although we recognize the importance of the four skills in English language learning, in this research, we investigated focused on vocabulary learning. The motivation for this research stems from experiences acquired throughout the teaching and learning process of English, as well as observations related to students' curiosity about specific topics and words from their daily lives, especially translations of words, particularly local food and drink from the region.

Thus, we used the Theory of Meaningful Learning (Ausubel 2000; Moreira 2012) to give meaning to vocabulary learning, paying attention to students' prior knowledge and using the potential motivation related to the desire to know the regional vocabulary in English. Therefore, for this proposal, we developed a potentially significant teaching unit focusing on the process of teaching and learning English vocabulary, considering the importance of relating local culture through translated words.

Based on different studies, we emphasize the existing gap regarding investigations related to the language teaching and learning process with the potential use of this theory. Therefore, with this research, we aim to contribute to the field of languages and outline a new investigative path supported by this theory.

Thus, our objective is to evaluate a teaching proposal called Amazonglês as potentially significant material for learning English vocabulary in middle school.

To achieve this objective, we aim to emphasize the progressive performance achieved by students, based on the development of vocabulary, with evidence of learning based on the analysis of two criteria: mastery and

breadth. To analyze these criteria, we used illustrative scales created from the Common European Framework of Reference for Languages – CEFR (Council of Europe, 2020) for levels pre-A1 to A2 to compose an evaluation and monitoring grid.

The methodological procedures involved empirical qualitative research using a case study method (Yin, 2015), with participants being eighth-grade students from a public school in the city of Manaus. Data collection involved three stages: pre-test, post-test, and delayed post-test (applied after thirty days to assess understanding and assimilation of the vocabulary worked on), following Zilles' model (2001).

The Teaching of English and Vocabulary Learning

The process of teaching and learning English contributes to expanding possibilities and enabling students to actively participate in social spheres, opening new pathways for the construction of broader and more critical knowledge (Brasil, 2017). In the regional context, in addition to the guidelines of the National Common Curricular Base - NCCB (Brasil, 2017), we also consider the directives related to the Amazon Curricular Referential - ACR⁵ (Amazonas, 2018, p. 345). The document states that:

The teaching of English becomes focused on its social and political function as a lingua franca, detached from the notion of belonging to a specific territory, fostering its use aimed at interculturality, enabling the engagement and participation of students in an increasingly globalized world (Amazonas, 2018, p. 345).

Regarding the teaching and learning process of this language, we emphasize the need for new approaches that can meet students' needs, preparing them to learn a new language, interact with today's globalized

⁵ The ACR is a document that was drawn up by a multidisciplinary team of Basic Education teachers from the state and municipal networks that was formed from the Constitution of the State Commission for the Implementation of the NCCB (Brasil, 2017) in Amazonas (Amazonas, 2018, p. 18).

society, foster different connections, and access various possibilities for using the language.

In the context of this research, we highlight the importance of this teaching and learning process for younger students, since learning English at this stage “provides not only contact with the linguistic system itself but also with the culture and way of life of other civilizations, which allows for cultural enrichment” (Silva; Vargas, 2018, p. 33).

According to Leffa (2000, p. 19), **the lexicon** or vocabulary is an essential element in the identification of a language, and the author states that “[...] literature has placed great importance on the word. Common sense intuitively tends to define a language more as a set of words than as a set of sentences or syntactic rules.”

Along this line, Oliveira (2019, p. 126) argues that:

Learning a word consists of not only understanding its lexical meaning but also its grammatical function, making it clear that understanding the grammatical function of a word does not presuppose mastering metalinguistic taxonomy. In other words, it is possible to know that the function of an adjective in each sentence is to modify a noun without knowing such terms, for example.

Certain strategies adopted by teachers are necessary for vocabulary teaching to happen effectively in English classes. Such an objective can naturally be achieved when students are offered more study alternatives. Agreeing with this statement, Leffa (2000) discusses how vocabulary teaching can be centered on what the teacher exposes to the student, emphasizing the development of strategies that the student must use to acquire the vocabulary of a language.

Oliveira and Silva (2016) point out that regardless of the pedagogical approach used by the teacher in the classroom, if the focus of the English lesson is on vocabulary, communication will be achieved. Considering this, we

highlight the importance of a proposal that can contribute to the students' vocabulary learning process in a meaningful way by contextualizing Amazonian vocabulary. This is because “[...] cultural contact enriches the use of new words. That’s how language works” (Freire, 2020, p. 140).

Theory of Meaningful Learning and Potentially Significant Teaching Unit

For this research, we adopted the Theory of Meaningful Learning (Ausubel, 2000; Moreira, 2012) as the theoretical framework. According to this theory, students' pre-existing knowledge must be considered, as it plays a fundamental role in the process of acquiring and storing new knowledge. In Meaningful Learning Theory, the term “subsumers” is frequently used, referring to specific knowledge that gives meaning to new knowledge presented to or discovered by the individual (Moreira, 2012).

According to Padilha (2021, p. 41), “These subsumers can be symbols, concepts, propositions, facts, ideas, mental models, or even images. Through interaction, they allow new knowledge presented or discovered by an individual to have meaning.” In this proposal, the knowledge already present in the students' cognitive structure serves as subsumers, which can be extensive or limited and not very differentiated, as learning becomes meaningful and, therefore, anchors new information (Molin, 2017).

Thus, we integrated contextualized activities into English lessons, related to the students' reality, with the learning of new vocabulary through the association of regional words translated (whenever possible), aiming to reframe the vocabulary teaching and learning process in English.

In doing so, we seek “[...] the gradual construction of basic knowledge to, at a later stage, introduce more complex content, aiming at the organized construction of anchor points for new knowledge” (Lessa, 2021, p. 8). Considering that meaningful learning connects the prior knowledge and experiences students possess with new information, aiming to incorporate a

new repertoire into their cognitive structure, we used a methodology that supports the pursuit of this meaningful learning through the development of a Potentially Significant Teaching Unit (PSTU). These are teaching sequences that are theoretically grounded.

A PSTU based on the assumptions of Meaningful Learning Theory can be systematized in eight steps: defining the topic, creating/proposing a discussion situation or questionnaire, presenting a problem situation, introducing the knowledge to be taught/learned, reviewing general aspects and reintroducing the topic, concluding the unit, evaluating the learning, and finally, the PSTU will only be considered successful if the evaluation of students' performance provides evidence of meaningful learning (Moreira, 2012). In constructing this PSTU, several principles must be considered, including the students' prior knowledge. This is a necessary condition for Meaningful Learning Theory and plays an important role in teaching and learning since, for learning to be meaningful for the student, the teacher must first understand what the student already knows, and then present the content they wish to teach (Ronch; Zoch; Locatelli, 2015, p. 488).

Moreira (2012) also states that certain circumstances are necessary for meaningful learning, especially considering potentially meaningful materials and the willingness to learn. In this regard, it is crucial to focus on the construction of materials with careful attention to identifying students' prior knowledge and their needs. Therefore, "the selection of strategies and resources by the teacher must be appropriate to the content being developed and the context in which it is designed" (Padilha, 2021, p. 27).

Methodology

The methodological procedures involved applied research with a qualitative, descriptive approach. According to Prodanov and Freitas (2013, p. 70), "[...] the environment serves as the direct source of data. The

researcher maintains direct contact with the environment and the object of study in question, requiring more intensive fieldwork.”

As a technique, the case study was used, which, according to Yin (2015, p. 4), arises from the need to understand complex social phenomena and is commonly used to contribute to our understanding of “[...] individual, group, organizational, social, political, and related phenomena.” In line with the qualitative approach, it allows for a greater and more satisfactory understanding of the environment in which we live today. These considerations align with the main focus of this research, which is the teaching and learning of vocabulary in English.

Data collection involved four stages: i) Exploratory stage (Initial diagnosis and data gathering, Initial bibliographic review, Initial visits and first contact with the school's pedagogical team, Application of a questionnaire to gather pedagogical information regarding the school's planning for selecting the most suitable grade and profile); ii) Development of the proposal (Designing activities in accordance with the school's planning, outlined following the structure of a Potentially Significant Teaching Unit supported by Meaningful Learning Theory, Systematizing the existing or acquired information about the object of study); iii) Application of the Amazonglês proposal (Administering a pre-test (subsumers) to participants, Executing the planned activities, Post-test with students through cognitive tests, Conducting a delayed post-test (after 30 days), with the objective of evaluating the vocabulary retained in students' memory); and iv) Analysis of the results obtained (Analysis and interpretation of the collected data, Presentation of results for evaluation and evidence of learning).

The didactic operationalization of vocabulary was carried out through pre-planned activities, outlined within a PSTU with eight steps (Moreira, 2012). Based on these procedures, we developed a set of activities related to food vocabulary in English, covering the syllabus for the 8th grade of Middle School and integrating local culture by incorporating regional vocabulary. It is worth mentioning that the planning of the topic breakfast food and

quantifiers was developed in line with the considerations of the National Common Curricular Base (Brasil, 2017).

The lexical items selected for the proposal are highlighted in Table 1:

TABLE 1 – Amazonglês Vocabulary

Vocabulary			Verbs	Expressions
<i>Fruits</i>	<i>Drinks</i>	<i>Food</i>		
<i>Apple</i>	<i>Milk</i>	<i>Bread</i>	<i>To eat</i> <i>To drink</i>	<i>Many/much</i> <i>Too many/too much</i> <i>Not too many/not too much</i> <i>A lot</i> <i>Até o tucupi</i> <i>Merreca</i> <i>Que só</i>
<i>Banana</i>	<i>Juices</i>	<i>Cereal</i>		
<i>Tucumã</i>	<i>Yogurt</i>	<i>X-caboquinho</i>		
	<i>Coffee</i>	<i>Banana frita (fried pacovan banana)</i>		
	<i>with milk</i>	<i>Queijo coalho (coalho cheese)</i>		
		<i>Ham</i>		
		<i>Eggs</i>		
		<i>Farofa de ovo (farofa with eggs)</i>		
		<i>Tapioca</i>		
		<i>Butter</i>		

Source: Prepared by the authors

The proposal was applied and evaluated with 26 students aged between 12 and 13 years old, from the 8th grade of Escola Estadual Nathália Uchôa, in the municipality of Manaus, Amazonas.

The assessment diagnosis comprised the use of pre-test, post-test, and delayed post-test, following the model of Zilles (2001). The pre-test aimed to collect initial information about the students' prior knowledge regarding specific vocabulary. The post-test was used to verify the learning outcomes obtained during the implementation of the proposal, and the delayed post-test, conducted 30 days later, aimed to assess the vocabulary retained in students' memory.

To assist in this assessment, an observation grid based on Vaz (2012) was used to evaluate participants' performance, with the goal of assessing vocabulary mastery and breadth. For this purpose, we based our evaluation on the illustrative scales for pre-A1 to A2 levels from the Common European Framework of Reference for Languages (CEFR, 2020), as shown in Table 2:

TABLE 2 – Illustrative scales for pre-A1 to A2 levels

Vocabulary Breadth		Vocabulary Mastery
A2	Has sufficient vocabulary to carry out routine transactions involving familiar topics and situations	Manages a limited repertoire that addresses concrete everyday needs. Has enough vocabulary to meet basic communicative needs
	Has enough vocabulary to express basic communicative needs. Has enough vocabulary to cope with simple survival needs	
A1	Has a basic vocabulary repertoire of words/signs and phrases related to concrete particular situations	No descriptor available
Pré-A1	No descriptor available	No descriptor available

Source: Council of Europe (2020, p. 131-133)

It is worth noting that the criterion of breadth refers to the ability to use different expressions and words in a given context (Council of Europe, 2020). For this proposal, we adapted these scales and used them to evaluate the frequency of words present in the activities produced by students. In this criterion, we prioritized the student's ability to reproduce enough vocabulary to meet basic communicative needs concerning the topic of food. Regarding mastery, we checked whether the students could use the lexical repertoire related to the topic in different activities and contexts.

Before concluding this section, it is important to note that the research was submitted to the Research Ethics Committee for Human Beings at the Federal Institute of Education, Science, and Technology of Amazonas (IFAM), receiving the Certificate of Presentation of Ethical Appreciation (CAAE) n. 54525321.4.0000.8119 and favorable opinion n. 5.264.870.

Results and Discussion

The activities applied involved mind maps in which the vocabulary proposed in the PSTU (Potentially Significant Teaching Unit) was explored

gradually, initially addressing words followed by expressions and grammatical elements to assist students in learning the vocabulary and understanding its use in different contexts.

In this sense, for the student to be able to use grammatical elements and propositions in the language, it is necessary to learn a set of lexical items. Thus, these propositions cannot be learned meaningfully if the student has not previously acquired (basic) vocabulary. Therefore, it is worth emphasizing that vocabulary should be acquired, not memorized (Silva; Vargas, 2018). As the authors complement, the importance of this lies in the fact that part of the teachers makes the English language even more irrelevant to learners because the content taught in the classroom does not explore the learners' prior knowledge, which hinders the anchoring of new knowledge (Silva & Vargas, 2018, p. 31).

Following these precepts, learning vocabulary in English can be "[...] perceived by students as non-significant content, which may lead to a probable rejection or detachment from interest in the subject" (Silva; Vargas, 2018, p. 31), making it necessary that the content have relevance and significance for the student, as a contextualized and, whenever possible, local activity articulated with the students' social, historical, and cultural reality.

Starting from this premise, the proposal sought to contemplate the students' prior knowledge based on already known vocabulary in the language, particularly related to local vocabulary with words about food that are constantly used by students as part of their daily meals (breakfast). Additionally, there was an emphasis on words that are part of this context and should not be translated.

From this perspective, considering that meaning lies in people, not in things, as Moreira (2012) states, it is necessary to emphasize that it is not about significant material or a significant class, but about potentially significant materials and lessons that must have logical meaning for the students.

Such statements support the use of local vocabulary to be inserted into the proposal, considering the students' and their families' breakfast (or afternoon snack), and not just the vocabulary or food used by native speakers. In some cases, these are kinds of food that are not part of the student's culture and do not make sense in their learning.

During the classroom activities, it was possible to observe that students progressively evolved through each step in the evaluated criteria. The first activity⁶ involved creating a menu in the form of a mind map. The students were initially divided into six groups. In Figures 1 and 2, we can observe the mind maps created by the students:

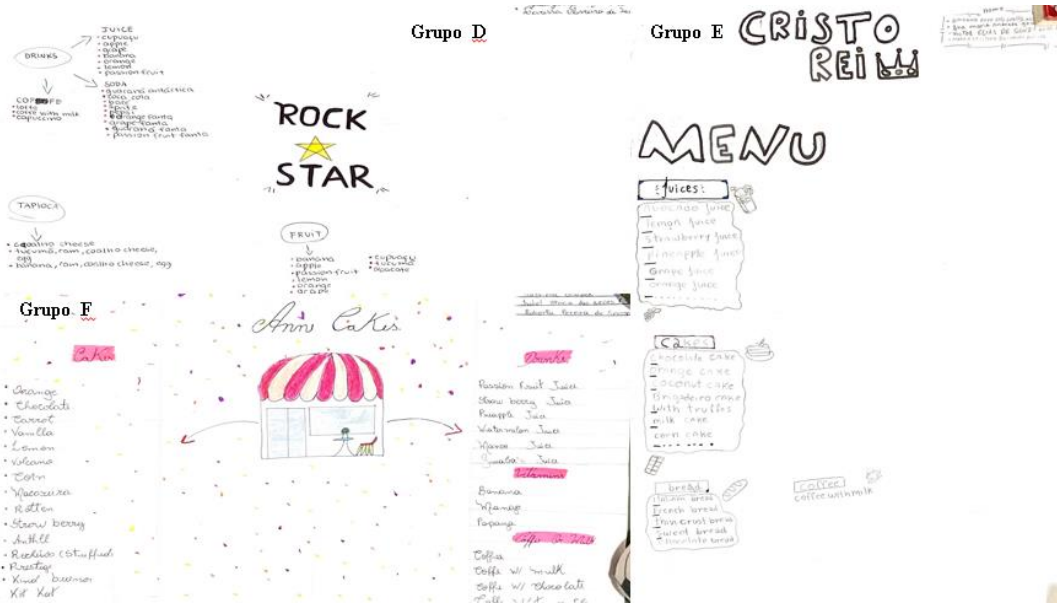
FIGURE 1 – Mind maps created by groups A, B, and C



Source: Authors' collection

⁶ Figures 1 and 2 are menu creations in the form of mind maps made by the students. In group A, in the sandwich category, we see foods like: x salad (literal translation made by the students), x American, double cheese, hot dog, and hot dog (special). In group B, in the drinks category, we see: juice, water, grape juice, and strawberry juice. In group C, within the sandwich category, we can observe foods like: cheese sandwich, open sandwich. In the fruits category: apple, cherry, and melon. In the drinks category: coffee, lemonade, and soda. In the cakes category: chocolate cake, _____. In the tapioca category: tapioca pancake, tapioca cheese _____. In group D, in the drinks category, we see some options like cupuaçu, apple, grape, banana, passion fruit. In the tapioca category: coalho cheese (a type of cheese), tucumã (regional fruit), ham, eggs, banana. Group E presented in the drinks category: avocado juice, lemon juice, pineapple juice, grape juice, coffee with milk, and orange juice. In the bread category: French bread, Italian bread, sweet bread, and chocolate bread. In group F, in the cakes category, we see various options like: orange, chocolate, carrot, vanilla, corn, strawberry, among others. In the fruit category: banana, apple, passion fruit, orange, grapes, cupuaçu, and avocado. In the drinks category: passion fruit juice, strawberry juice, pineapple juice, watermelon juice, mango juice, and guava juice. In the vitamins category: banana, mango, and papaya. In the coffee or milk category: coffee, coffee with milk, and coffee with chocolate.

FIGURE 2 – Mind maps created by groups D, E, and F



Source: Authors' collection

The use of mind maps allows for storing, organizing, and prioritizing information, and making associations through keywords and/or images. In this sense, in the mind maps, the associations were completely free (Moreira, 2012), allowing students, starting from an image and keywords (worked vocabulary), to create interconnected branches and organize how these words are associated with one another through graphical representations.

The use of this visual strategy contributed to the expansion of vocabulary use as new categories of words could be related. As a result, the students were able to relate/integrate the learned vocabulary.

To highlight the initial results regarding performance, Table 3 shows some data based on the observation grid in the criteria of mastery and breadth:

TABLE 3 – Summary of groups in menu production

Groups	Evaluation Criteria
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Group A	Mastery: Unable to control the repertoire in the context of breakfast food in English
	Breadth: The group presented between 1 and 3 words within the evaluated parameters
Group B	Mastery: Unable to control the repertoire in the context of breakfast food in English
	Breadth: The group presented between 4 and 8 words. They only defined the category “drinks” and repeated words, meaning there was no deepening of vocabulary
Group C	Mastery: Able to control the repertoire in the context of breakfast food in English
	Breadth: The group presented ≥ 9 words, specifically 18 words, and demonstrated six different categories, exploring each one. It is noticeable that the group aimed to present different food options, not just those presented in class, meaning the vocabulary was extensively explored
Group D	Domain: Can control repertoire in the context of breakfast foods in English Language
	Amplitude: Displayed ≥ 9 words, precisely 34 words. It demonstrated three categories with three subdivisions in the drinks category. Among the categories we can see that the Group brought some regional foods, there was prior research and concern in bringing the foods to English Language
Group E	Mastery: Able to control the repertoire in the context of breakfast food in English
	Breadth: The group presented ≥ 9 words, specifically 34 words. They demonstrated three categories with three subdivisions in the “drinks” category. Among the categories, it can be observed that the group brought in some regional food. There was prior research and a concern to present food in English
Group F	Mastery: Able to control the repertoire in the context of breakfast food in English.
	Breadth: The group presented ≥ 9 words, a total of 27 words. The group demonstrated a variety of cakes, fillings, drinks, and included some regional food. This group also conducted prior research, demonstrating a concern for introducing different words to compose the food vocabulary for the menu

Source: Prepared by the authors.

The participants worked hard on the menu creations, and prior research was conducted on new words to insert into the activity. Of the groups analyzed, two teams failed to grasp the objective of the proposed activity.

The students’ participation in this activity was positive. Regarding the creation of the mind maps, teamwork and the use of resources such as colored pencils, markers, and poster boards were essential. In this process, some

students demonstrated their artistic talents through drawings and paintings, while others showed leadership by delegating tasks to their team members.

The second activity involved written practice with the creation of an exclusive recipe, conducted in step 7 of the proposal. The students were assigned to create an exclusive recipe with the purpose of bringing the elements presented in this PSTU. It is important to highlight that the participants presented their recipes to their classmates, and the oral skill was not a determining factor in the evaluation.

From the perspective of Meaningful Learning Theory, creating recipes as an evaluative resource for vocabulary can be a fun and effective way to test students' knowledge, as they are challenged to apply their vocabulary in a practical and realistic context, which can help strengthen their understanding and retention of the learned words.

In Table 4, we can observe that all evaluated groups demonstrated progress compared to the previous activity, based primarily on the final objective of this activity, which was the use of the vocabulary covered during the PSTU in the form of recipe creation. The analysis of the number of words presented is based on the keywords listed in the recipes:

TABLE 4 – Summary of groups in creating exclusive recipes

Groups	Critérios de avaliação
Group A	Mastery: Able to control the repertoire in the context of breakfast food in English
	Breadth: Within the evaluated parameters, the group presented ≥ 9 words. The group presented 9 different words, including preparation methods and ingredients
Group B	Mastery: Able to control the repertoire in the context of breakfast food in English
	Breadth: Within the evaluated parameters, the group presented between 4 and 8 words, specifically 7 different words. The group included regional elements in the ingredients, preparation methods, and other elements to complement their recipe
Group C	Mastery: Able to control the repertoire in the context of breakfast food in English
	Breadth: The group presented ≥ 9 words, with a total of 13 different words, including preparation methods and ingredients. The group included regional elements and the previously studied vocabulary, along with other elements to complement their recipe

Group D	Mastery: Able to control the repertoire in the context of breakfast food in English
	Breadth: Presented between 4 and 8 words, specifically 8 words, including preparation methods and ingredients
Group E	Mastery: Able to control the repertoire in the context of breakfast food in English
	Breadth: The group presented ≥ 9 words, with a total of 12 words. Among them, preparation methods, ingredients, and regional elements were used to compose their recipe
Group F	Mastery: Able to control the repertoire in the context of breakfast food in English
	Breadth: Presented between 4 and 8 words, totaling 6 different words. Among them, preparation methods and ingredients

Source: Prepared by the authors.

Regarding mastery, we found that all six evaluated groups presented their menus within the expected context, with the lexical repertoire referring to breakfast elements. In terms of breadth, students demonstrated positive vocabulary progression, as all teams managed to complete this stage satisfactorily. In general, the activities proposed in the PSTU showed a significant improvement in the students' vocabulary learning in both evaluated criteria.

Figures 3 and 4⁷ present some of the recipes that were analyzed. The analysis was based on the words mentioned in the preparation methods and ingredients present in the recipes:

⁷ Figures 3 and 4 are exclusive recipes presented by the students as the final activity. In group A, the recipe presented is called “x-heart attack,” and we can observe some ingredients such as: one French bread, four slices of fried pacovan banana (a type of regional banana), 50g of tucumã pulp, two slices of coalho cheese, and two slices of tomato. In the preparation method, we can see that the group presented some parts in Portuguese, but then followed with their translation into English.

FIGURE 3 – Recipes from groups A and B

Escola Estadual Natividade Uelma
Muniz, 11 de outubro de 2022
Quilombo Maria Glauceirina
Prof.:

Alunos: Paulo V. Braga,
- Amulya duy Aguiar Pinheiro
- Annyllany Cavalcanti
- Soraia U. Matileno

X-tudo sobre... TUDO

(Fazem montagem no pão) But:
After the French bread and plate
fill the fried plantain, tucumã
and coelho cheese inside the bread
wait for the cheese to melt
and add Tomato.

CABOQUINHO
com creme
de alho

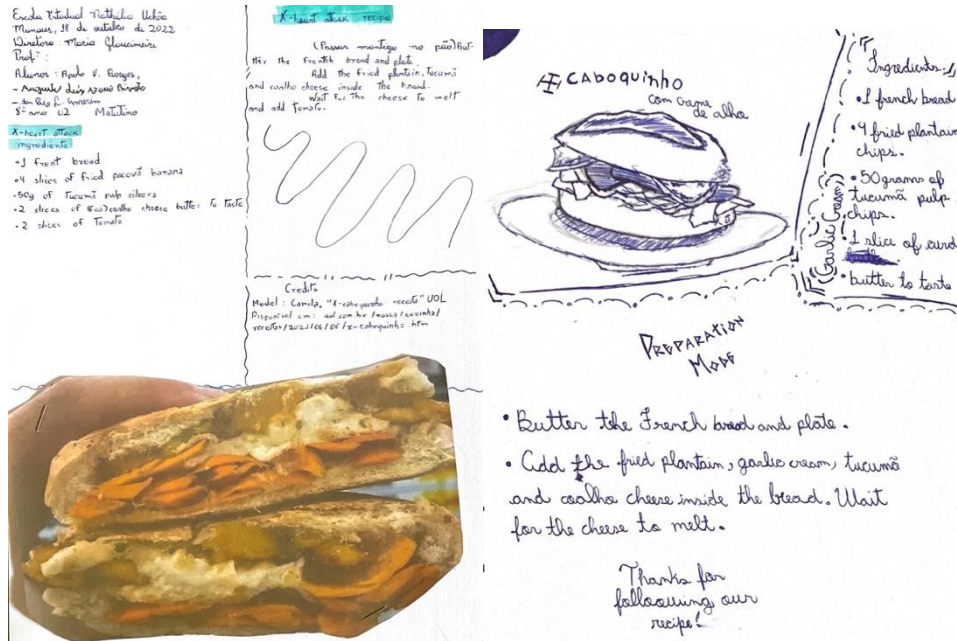
Ingredients:

- 1 french bread
- 4 fried plantain chips.
- 50 grams of tucumã pulp chips.
- 1 slice of eard
- butter to taste

PREPARATION
MONTA

- Butter the French bread and plate.
- Add the fried plantain, garlic cream, tucumã and coelho cheese inside the bread. Wait for the cheese to melt.

Thanks for following our recipe!



Source: Authors' collection

FIGURE 4 – Recipes from groups E and F

LUCKYERRE
Margarita Andreia
Jussara dos
Misthos
Misthos

SUPER SANDWICH
on a TUCUMÃ and chicken

PREPARATION

- 1- TAKE TWO SLICE OF FRENCH BREAD.
- 2- PUT IT ON THE KITCHEN PLATE.
- 3- TAKE A SLICE OF QVALIO CHEESE & AND SOME PIECES OF TUCUMÃ.
- 5- TWO SLICES OF LETTUCE and a piece of tomato.
- 6- HEAT THE CHEESE ON THE PLATE, THEN ASSEMBLE THE SANDWICH.
- 7- SHIP A SHREDDED and SEASONED chicken.

MOUNTING

- 1- PUT THE GRILLED BREAD.
- 2- PLACE THE SLICE OF LETTUCE and a tomato
- 3- THEN add the GRILLED CHICKEN.
- 4- THEN the tucumã and qvalio CHEESE.
- 5- then close LIKE BREAD.

SIDE DISH

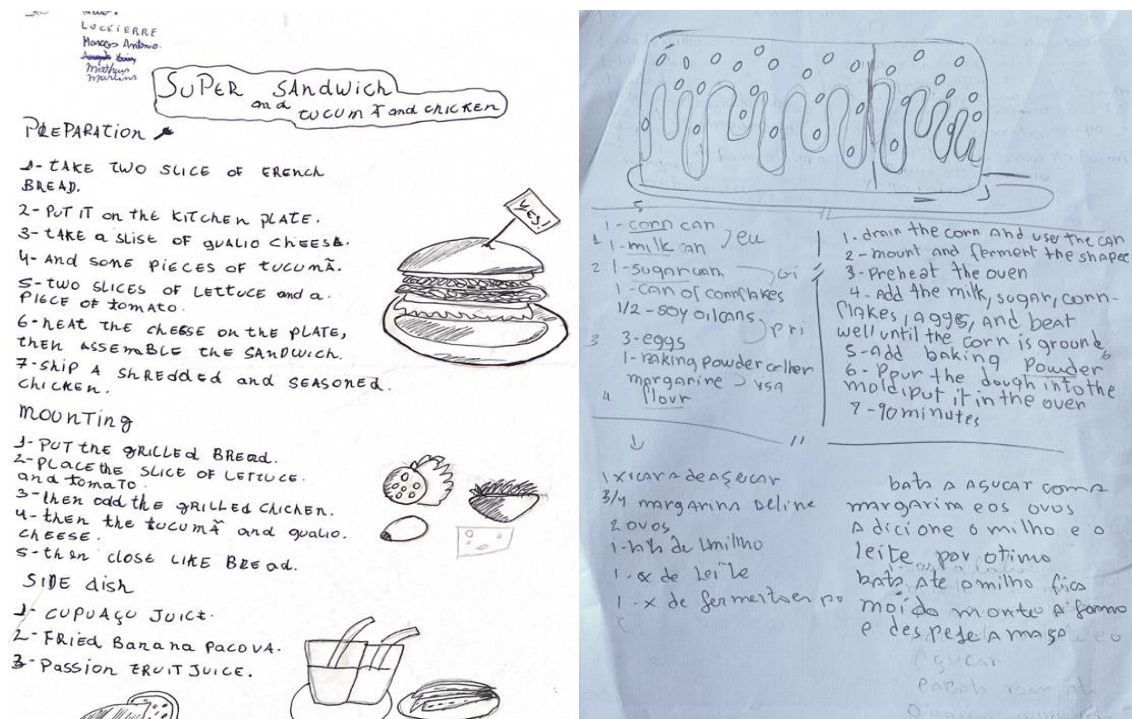
- 1- CUPUAÇU JUICE.
- 2- FRIED BANANA PACOVA.
- 3- PASSION FRUIT JUICE.

Ingredients:

- 1- corn can
- 1- milk can
- 1- sugar can
- 1- can of corn flakes
- 1/2- soy oil cans
- 3- eggs
- 1- baking powder
- margarine
- 1- flour

- 1- drain the corn and use the can
- 2- mount and ferment the shape
- 3- preheat the oven
- 4- add the milk, sugar, corn-flakes, eggs, and beat well until the corn is ground
- 5- add baking powder
- 6- Pour the dough into the mold put it in the oven
- 7- 10 minutes

batu a açúcar com margarina e os ovos
Adicione o milho e o leite por último
batu até o milho ficar moído monte a forma e despeje a massa



Source: Authors' collection

Results after the application of the tests

The tests applied at the beginning and end of the proposal demonstrated significant results regarding the learning of English vocabulary. The pre-test aimed to verify which words related to the theme of food were already part of the students' lexical repertoire, allowing for an “interaction between prior knowledge and new knowledge in a non-literal and non-arbitrary manner” (Moreira, 2012).

Regarding the post-test and delayed post-test, the objective was to evaluate whether the vocabulary exposed through Amazonglês was significant enough for the students to retain as many words as possible in their memory.

In this sense, it is worth noting that the regional words and activities developed with Amazonglês aimed to assist in providing meaning and cognitive stability for learning new words related to food vocabulary in English. This implies the students' vocabulary progression, as shown in Table 5:

TABLE 5 – Comparison of tests applied individually

Number of words and students		
Pre-test	Post-test	Delayed Post-test
≥ 9 words: 2 students	≥ 9 words: 11 students	≥ 9 words: 1 student
4 a 8 words: 4 students	4 a 8 words: 6 students	4 a 8 words: 19 students
1 a 3 words: 10 students	1 a 3 words: 4 students	1 a 3 words: 5 students
0 cited words: 10 students	0 cited words: 4 students	0 cited words: 0 students
Words in Portuguese: 0 students	Words in Portuguese: 1 student	Words in Portuguese: 1 student
Total: 26 students	Total: 26 students	Total: 26 students

Source: Prepared by the authors

The pre-test data demonstrate that most participants cited between 1 and 3 words, highlighting the limited lexical repertoire of the students. Another relevant finding was the number of students who were unable to present any vocabulary for analysis, indicating a lack of prior knowledge.

The post-test data show a considerable increase in vocabulary, especially concerning the breadth criterion, with a quantity of nine or more words. This seems to demonstrate the development of the ability to retain a significant amount of vocabulary in memory. However, it is noted that there was a decrease in breadth in the delayed post-test, with 19 students reporting a total of 4 to 8 words.

In terms of vocabulary mastery, among the three words cited most frequently, we highlight "cupuaçu juice." While "juice" is a common word in the language, for the student from Manaus, "cupuaçu juice" acquires a familiar meaning related to their cultural context. In the delayed post-test, although a month had passed since the proposal's application, the students still had command over the vocabulary proposed in the PSTU.

Based on the analyzed data, we can highlight aspects of progressive learning and vocabulary retention. The data showed that, in terms of vocabulary mastery, the students evolved significantly. This evolution was observed when they were able to apply the vocabulary in the appropriate context, explaining and contextualizing it.

In terms of vocabulary breadth, the results were also significant. In the pre-test, the students demonstrated limited lexical repertoire, varying between 1 to 3 words (14 students) and no words (10 students). These results indicate that, before the application of the proposal, more than half of the students had little to no prior knowledge of food-related vocabulary in English. The post-test data showed an increase in vocabulary. After one month, the delayed post-test revealed that 25 students were able to retain a

significant amount of vocabulary in their memory, confirming the relevance of Amazonglês for the teaching and learning process.

From these results, we highlight the assumptions of the Meaningful Learning Theory as fundamental components in the process of learning vocabulary in English. These assumptions point to the inclusion of potentially significant materials that go beyond simple memorization, promoting relevant and meaningful vocabulary expansion for the students.

Final Considerations

In this study, we evaluated the meaningful learning of vocabulary through activities that unfolded in a Potentially Significant Teaching Unit (PSTU) about food present in breakfast in the English language. To present this specific vocabulary, we planned and applied activities that included some kind of food and expressions used in the North region, which served as cognitive anchors for the students' learning.

The results demonstrated that the use of regional vocabulary in the introduction of English language learning contributed to allowing students to expose this prior knowledge during the application of the proposal, which was essential for facilitating and enhancing meaningful learning. Along with the use of mind maps, especially with the strategy of creating exclusive recipes, it was possible to demonstrate the contributions to the students' lexical repertoire expansion and appropriation of the vocabulary presented in the PSTU.

In general, the results highlighted activities that integrated the use of mind maps with the use of regional/local vocabulary as potentially significant elements for learning English vocabulary. The main advantages were the ability to use different expressions and words in a given context, vocabulary progression and expansion, greater word retention, and gradual mastery and evolution of the lexical repertoire related to the theme.

Finally, we emphasize the need for further studies on strategies aimed at facilitating the process of teaching and learning vocabulary in a foreign language, especially supported by the Meaningful Learning Theory, considering the lack of work in the field of languages grounded in this theoretical framework.

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