"Palitárvore da Predicação" and "Varal da Predicação": proposals for the development of syntactic awareness in elementary education /

Palitárvore da Predicação e Varal da Predicação: propostas para o desenvolvimento da consciência sintática na educação básica

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ABSTRACT

The aim of this work is to contribute to discussions about the teaching of grammar in elementary education. More specifically, the aim is to present two pedagogical proposals: the "Palitárvore da Predicação", for the study of the simple sentence, and the "Varal da Predicação", for the study of the complex sentence. Such activities, constructed with manipulable materials, aim to develop students' syntactic awareness, based on the assumptions of Generative Theory, such as the proposal of Faculty of Language and language as a system, in order to deal with notions such as argument selection, phrase and structural hierarchy. In this way, we consider, on the one hand, the need to overcome a purely classificatory teaching of syntax and, on the other, the urgency of implementing a scientific approach to grammar in elementay education. It is expected, therefore, to collaborate with a grammar teaching perspective in which the student is given the opportunity to reflect on the functioning of the structure of their language, explaining their previous grammatical knowledge and favoring the process of scientific literacy.

KEYWORDS: Generative Theory; Teaching of grammar; Syntactic awareness; Pedagogical proposals.

RESUMO

Pretende-se, neste trabalho, contribuir para as discussões acerca do ensino de gramática na educação básica. Mais especificamente, objetiva-se apresentar duas propostas pedagógicas: o "Palitárvore da Predicação", para o estudo do período simples, e o "Varal da Predicação", para o estudo do período composto. Tais atividades, construídas com materiais manipuláveis, têm o intuito de desenvolver a consciência sintática dos estudantes, partindo de pressupostos da Teoria Gerativa, tais como a proposta de Faculdade da Linguagem e de língua como sistema, a fim de tratar de noções como seleção argumental, sintagma e hierarquia estrutural. Desse modo, consideram-se, de um lado, a necessidade de superar um ensino puramente classificatório de sintaxe e, de outro, a urgência da implementação de uma abordagem científica da gramática na educação básica. Espera-se, portanto, colaborar com uma perspectiva de ensino de gramática em que seja oportunizada ao estudante a reflexão sobre o funcionamento da estrutura da sua língua, explicitando seus conhecimentos gramaticais prévios e favorecendo o processo de letramento científico.

PALAVRAS-CHAVE: Teoria Gerativa; Ensino de gramática; Consciência sintática; Propostas pedagógicas.

1 Introduction

There has been much discussion about the role of grammar in Portuguese language classes, given the urgency of the development of skills related to communicative practices of reading and writing in elementary education. In fact, it is indisputable the importance of promoting a kind of work with language that allows students to improve their textual skills in order to become autonomous when dealing with the most diverse texts and in the most diverse socio-interactive situations. However, there is no unanimity regarding how the treatment of grammatical phenomena may become relevant in that context.

In this context, it is possible to think that the work with grammar may take up even more of the Portuguese class time, limiting student's contact with the most diverse textual genres. However, it is also possible to consider that explicit work with grammatical phenomena may contribute positively to language classes, either with the aim of enhancing the student's awareness of text structure – which cannot be constructed without manipulating the structural elements of language – or with the aim of providing students with scientific training through the analysis of how their own language works. Thus, this article considers that grammar teaching plays a fundamental role in the

linguistic development of elementary education students and that the foundations of the Generative Grammar Theory may greatly contribute to this development.

In order to effectively address grammar in language classes, there are some challenges to be faced, such as the difficulty faced by Portuguese language teachers in promoting grammar teaching that is descriptively consistent. In this sense, it is verified that many teachers sometimes reproduce, in their teaching practice, a mechanistic and descriptively outdated approach to grammatical phenomena, since they are disconnected from materials that aim at the theoretical reflection on Portuguese teaching.

Regarding the descriptive consistency in the treatment of grammatical phenomena, it is known that the descriptions offered by traditional grammars are, in many cases, limited and incoherent. Therefore, it is necessary to ensure that the scientific linguistic knowledge coming from the various branches of Linguistics is present in teacher training, in order to overcome the obstacles that still persist in the teaching of Portuguese. Furthermore, it is essential to start from the tacit grammatical knowledge of students so that, in fact, reflective language teaching is possible, enabling the introduction of scientific thinking about the different linguistic uses, including about those that students bring from home to the classroom.

Specifically regarding syntactic analysis, both in simple and compound sentences, it is noted the persistence of activities that involve the identification and classification of sentence terms – simple or clausal phrases –, without providing opportunities for reflection on how the linguistic structure actually works. In this way, the study of nomenclature becomes the purpose of the study of syntax, which favors learning by memorization. Additionally, it is observed that the description proposed in elementary education is based exclusively on traditional grammars, which makes the description occasionally incoherent.

Therefore, this work is intended to discuss theoretical and methodological alternatives that may be included in the debate on productive and reflective grammar teaching. In this sense, the general objective of this work is to contribute to the discussions about grammar teaching in elementary education. More specifically, the objective is to present two pedagogical proposals – "*Palitárvore da Predicação*" (roughly, "Predication Stick Tree") and the "*Varal da Predicação*" (roughly, "Clothesline of Predication") – for approaching syntax, both at the level of simple sentences and at the level of compound sentences, in the light of a scientific perspective that allows students to reflect on how the structure of their language works, making their implicit knowledge explicit.

To this end, it is discussed, in the next section, what is understood by grammar teaching from a scientific perspective. Then, a discussion is presented on how the approach to the sentence may reach coherent theoretical descriptions. Subsequently, the pedagogical proposals suggested in this work are described, "*Palitárvore da Predicação*" and "*Varal da Predicação*". At the end, the final considerations of the article are verified.

2 Grammar teaching from a scientific perspective

It is understood that grammar teaching, much more than a metalinguistic approach to grammatical structure, in which specific structures that constitute the utterances of a language are identified and labeled, is also an opportunity to awaken, in the classroom, the interest in discovering how linguistic objects work through a scientific perspective. This means that the methodological approach ceases to be one in which the teacher presents a ready-made description of a given phenomenon for students to memorize and it becomes one in which, based on language data, students, properly guided by the teacher, are invited to reflect and come to conclusions about the perceived regularities on language. Thus, in language classes, the work with absolute truths is abandoned in favor of the discovery based on doubt and curiosity, as described by Foltran (2013) and Foltran, Knöpfle and Carreira (2017).

Therefore, the starting point is the reflexive approach to grammar in the terms of Franchi (2006), according to which linguistic objects of a grammatical nature need to be understood by students based on how they actually function and are structured in language, which goes far beyond the simple memorization of grammatical nomenclature. In order to make this approach concrete in practical terms, Franchi (2006) suggests that linguistic, epilinguistic and metalinguistic activities should be developed. Linguistic activities are related to those in which students are provided with conditions for the simple exercise of linguistic knowledge. They are activities that allow the practice of linguistic use of grammatical knowledge that is already internalized even before students' arrival at school. Epilinguistic activities, on the other hand, are related to those that have the role of stimulating students to diversify linguistic resources, reflecting on and raising hypotheses about these uses. Finally, metalinguistic activities refer to those in which there is the construction of systematizations, with coherent naming and classification, which result from the observation of language facts.

For this approach to be viable, some assumptions need to be a part of the school project. First of all, the knowledge of language and grammar that students bring to the classroom must be considered, methodologicaly, as the starting point. This movement allows students to understand that the grammatical analysis being carried out is not found, in a ready-made manner, in a manual, but it is a part of a work that follows scientific research guidelines on the grammatical knowledge that all speakers of their language have, including students themselves. Furthermore, students will be given the opportunity to realize that language is, in addition to a socio-historical construct, a product of human cognition, the result of the genetic capacity of the species.

In this sense, Pilati (2017) argues that two assumptions arising from generative studies are crucial for the elementary education classroom: the proposal of linguistic innateness and the proposal that language grammars are configured as systems. Regarding the first assumption, it is argued that the starting point for the treatment of grammatical phenomena must be the reflection on the grammatical knowledge that students already have of their own mother tongue, without disregarding the fact that we are all endowed with a Faculty of Language (Vicente and Pilati, 2011; Pilati, 2017; Pilati, 2020; Pilati, 2024). This means bringing to consciousness a vast implicit prior knowledge about the structure of language, strongly optimizing the quality of reflection undertaken in the classroom, providing conditions for the expansion of the diverse uses of language and, mainly, fighting the false idea that students only learn Portuguese at school.

Regarding the second assumption, it is important to mention that the presentation of grammar based on its systematic functioning allows students to study language, observing its regularities, testing hypotheses and establishing generalizations about grammatical phenomena, which is typical of investigative practice. In this way, students will perceive grammar no longer as a list of rules, but as a system of which we have full knowledge, and it is up to the school to provide conditions for the explanation of this knowledge.

These assumptions are the basis of the proposal entitled "*Aprendizagem Linguística Ativa*" (or "Active Linguistic Learning"), by Pilati (2017; 2024). The author emphasizes the need for students to assume themselves as the protagonists in the process of linguistic creation and reflection, testing knowledge, analyzing grammatical forms, recognizing new forms and developing new skills. In practice, this can be done through the use of concrete and manipulable materials, which can help raise awareness about the grammatical structure of language (Pilati, 2020). This is because the systematic functioning of the linguistic structure, something that is highly abstract, needs to be visualized, tested and manipulated, and not only mentioned by the teacher, so that it

actually becomes part of students' consciousness. A similar technique is used in the teaching of other sciences such as Biology, Mathematics and Chemistry, in which students are led to observe nature, develop experiments in labs and dissect animals in order to visualize the structures of the subjects. Based on this premise, "*Palitárvore da Predicação*" and "*Varal da Predicação*" were created, so that students may concretely manipulate simple and clausal phrases, understanding how they constitute the simple and compound sentences.

Based on the scientific perspective for grammar teaching, it is intended to place the student at the center of the teaching and learning process, in a movement of scientific initiation (see Foltran, Rodrigues and Lunguinho, 2020), through which, with the help of the teacher, explicit grammatical knowledge on the functioning of the grammatical structure is constructed. This approach is expected to contribute to the scientific literacy of students and restore the fascination for the language we speak in the classroom, as advocated by Oliveira and Quarezemin (2016).

3 Syntax in elementary education

Grammar teaching, particularly syntax teaching, is still heavily influenced by the approach of traditional normative grammars (Kenedy, 2013) and by the "*Nomenclatura Gramatical Brasileira*" (or "Brazilian Grammatical Nomenclature") (Nespoli and Melo, 2024). This perspective, under a scientific view of language, reveals a set of descriptive inconsistencies, already widely explored in literature, which ends up distancing students from a deep understanding of how grammatical objects work in the structuring of linguistic units. In addition, the use of a purely deductive method, through which students are presented with definitions, examples, exceptions, and exercises (Pilati, 2020), has in no way collaborated for the understanding of how a sentence, for example, is formed from general principles underlying the structures of natural languages.

Thus, it is assumed that, in order to achieve a way of teaching grammar that allows the development of students' syntactic awareness, it is fundamental to work with the explanation of the mechanisms that underlie the structuring of sentences, as suggested by the linguistic theory. Therefore, notions such as argument selection, phrase and structural hierarchy, aligned with a coherent framework of syntactic functions and adapted to the level of maturity of students, must constitute, in an integrated manner, the basis of any syllabus of syntax classes.

Regarding sentence analysis, it is considered, in this work, that, unlike the traditional idea that this analysis should initially start with the essential terms – subject and predicate –, it should,

in fact, start with the notion of argument selection, that is, the analysis of the central element responsible for designing the sentence, whether simple or compound (Duarte, 2007). Thus, it is necessary to lead students to the perception that the sentence structure is organized based on a nuclear element, the predicator, responsible for selecting the constituents – or arguments – that compose the sentence together with it.

In this sense, as Duarte and Brito (2003) point out, the grammaticality of a sentence depends on the following requirements of the predicator being met: (i) the required arguments (and only the required ones) must be present; (ii) the constituents that correspond to the arguments must conform to the categorical selection properties (c-selection) of the predicator; and (iii) the constituents that correspond to the arguments must conform to the semantic selection properties (s-selection) of the predicator. A brief analysis of the following data illustrates this perspective.

(1) a. *João disse mentiras.* (or John told lies.)

    b. *João disse que a blusa é bonita.* (or John said that the blouse is beautiful.)

(2) a. *Cigarro é prejudicial à saúde.* (or Cigarrettes are harmful to one's/your health.)

    b. *Que se fume todos os dias é prejudicial à saúde.* (or Smoking every day is harmful to one's/your health.)

In the examples presented, the verbal predicator "*disse*" (or "told; said") in (1) and the non-verbal predicator "*prejudicial*" (or "harmful") in (2) are underlined. In all sentences, two arguments are selected by the predicators, one internal, on the right, and one external, on the left. As previously stated, the presence of these arguments is related to the grammaticality of the sentences. This becomes evident when we try to remove the external argument from (2a,b), for example, as in "**É prejudicial à saúde*" (or "*is harmful to one's/your health"). Disregarding the possibility of a null external argument, whose reference could be inferred from a broader context than that of the sentence itself, this example is ungrammatical due to the requirement imposed by the predicator for an external argument.

Additionally, in the examples presented, the arguments selected correspond to constituents that form categories compatible with the requirements of the predicator. Although the perception of what the category of a constituent is becomes clearer in the discussion on phrases to occur later on, it is possible to anticipate that a predicate imposes the form of its argument. In (1), for example, the predicator "*disse*" (or "told; said") can select, as an internal argument, both a

non-clausal constituent ("*mentiras*" (or "lies"), in (1a)), as well as a clausal constituent ("*que a blusa é bonita*" (or "that the blouse is beautiful[1]"), in (1b)). Note that a predicator such as "*comprar*" (or "to buy") could not select a clausal constituent as an internal argument ("**João comprar que a blusa é bonita*") (or "*John to buy that the blouse is beautiful"). Or even the predicator "disse" (or "told; said") could not select a prepositional constituent as an internal argument ("**João disse de mentiras*") (or "*John told/said of lies"), for example.

Finally, both in (1) and in (2), the selected arguments are all constituents semantically compatible with the semantic properties of the predicators. This means that in (1), for example, the external argument of the predicator "*disse*" (or "told") needs to present properties such as [+agent] and [+animate], in such a way that it linguistically expresses someone capable of saying something (see Mioto, Silva and Lopes, 2007). Thus, the constituent "*a rua*" (or "the street"), since it does not present such properties, would not be, outside of a highly specific discursive context such as the literary one, a candidate for being an external argument in (1a), for example ("**A rua disse mentiras*") (or "*The street told lies").

The approach to the notion of argument selection also becomes interesting for the comprehension of a distinction that causes many difficulties of analysis among students: the difference between complements and adjuncts. Adjuncts, unlike complements, are constituents not predicted by the selection properties of the predicator, and, therefore, they are not argumentative, but they play a fundamental role in expanding the informational field in the sentence, as in "*João disse mentiras quando estava na festa*" (or "John told lies when he was at the party"). The clause constituent "*quando estava na festa*" (or "when he was at the party") is not predicted by the predicator "*disse*" (or "told"), but it favors the specification of the information conveyed in the sentence.

Regarding the notion of phrase, it is necessary to recover Kenedy's (2013) statement that adresses the urgency of the inclusion of this notion, as well as its exhaustive analysis, in elementary education. The approach to this notion in elementary education helps to avoid, initially, the use of a vague nomenclature such as "term", for example. A term in a sentence is nothing more than a phrase, which corresponds to a set whose linguistic elements function as a single block around its

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[1] It is known that, although it is an external argument, the most frequent position of this clause is at the right position of the predicator: *É prejudicial à saúde que se fume todos os dias* (or It is *harmful* to one's/your health to smoke every day). This is one of the factors that makes it difficult for students to understand the external argument in the form of a clause that holds the same syntactic function of a subject. For a more detailed reflection on the teaching of clausal subjects, see Nespoli and Lima (2024).

head, structuring the sentences of languages. Just as the idea of a mathematical set predicts, a phrase can be made up of more than one word, such as "*à saúde*" (or "to one's/your health") in (2), it can be unitary, that is, made up of a single word, such as "*cigarro*" (or "cigarettes") in (2a), or by a Ø, as in "*Ø Fui ao cinema*" (or "*Ø Went to the cinema"), in which the symbol "Ø" indicates the phonetic absence of expression of the phrase "*eu*" (or "I"). It can also be a sentence, like "*que se fume todos os dias*" (or "smoking every day") in (2b).

Consolidating this notion in a conscious manner favors students' understanding that it is the entire block that can be syntactically manipulated and that it is the block that performs the syntactic function, not words. Thus, lists of syntactic functions of nouns, adjectives, numerals and others may be eliminated from grammar classes, being enough the explanation of the formal and functional behavior of the phrases (see Menezes, 2005). The analysis of the phrase in brackets in example (3) below is as follows.

(3) a. [*Aquele menino esperto*] *estuda*. (or [That smart boy] studies.)

   b. *Eu vi* [*aquele menino esperto*]. (or I saw [that smart boy].)

The highlighted constituent is, in terms of form, a noun phrase (NP), since its head is the noun "*menino*" (or "boy"), and, functionally, it is the subject in (3a) and the complement in (3b). In a traditional approach, we would have to refer to this constituent as a term of the sentence, a subject in (3a) and a complement in (3b), whose descriptive similarities would be restricted to the fact that they share the noun "*menino*" (or "boy") as the head, a word that performs the syntactic function of the head of the subject, in (3a), and the head of the complement, in (3b). This last analysis absolutely contributes to the understanding, based on generalizations, of the language as a system, since it would be enough to formally describe this linguistic unit as a NP.

Finally, it is important to highlight that phrases are sensitive to syntactic operations. Pronominalization, for example, is an operation that allows the replacement of a NP with a pronoun, such as "*Ele estuda*" (or "He studies") or "*Eu o vi*" (or "I saw him"), in the case of (3). This type of operation allows us to prove that, in fact, the set "*aquele menino esperto*" (or "that smart boy") is a phrase[2], scientifically favoring the development of the student's awareness of the syntactic

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[2] Operations such as pronominalization are treated as constituent tests, analytical mechanisms that prove the existence and the limits of a given phrase. There is a vast specialized literature on what these tests are.

structure and of mechanisms that are fundamental to the text structure, such as the use of pronouns as a resource for referential cohesion.

Regarding the notion of hierarchy, it is possible to explore, in the classroom, the perception that, although phrases are positioned next to one another in a linear manner when we pronounce a sentence or when we write it, the underlying syntactic articulations do not necessarily occur between the elements that are positioned in a contiguous way. Thus, it is necessary to consider that phrases are structured within the sentence based on hierarchical relations, which became evident in the generative theory through the X-bar theory, used to describe the syntactic structures of sentences (Chomsky, 1970).

In order to be possible to represent the relationships within the sentence, according to this theory, the syntactic tree diagram was used, as shown in image 1 below. Through the representation of the relationships between the sentence constituents in the tree structure, it is possible to illustrate the hierarchical way in which phrases relate to one other and form the sentences.

Image 1. Representation of a tree structure.
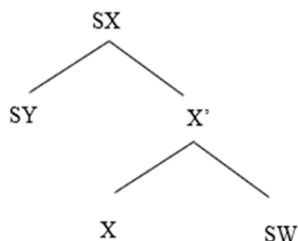
Source: elaborated by the authors of the present article.

In image 1, "X" is a variable that can be replaced by the verb category (V), for example, gaining a maximum projection of verbal phrase (VP). In the position of SW and SY, with "W" and "Y" also being variables, we would have phrases that occupy the position on the right, in a relationship of brotherhood with the head – complements – and phrases that occupy the position on the left, in a higher hierarchical position – specifiers –, respectively. Thus, the sentence in (4), below, would have as its representation (quite simplified, given the advances in theory) the tree structure of image 2.

(4) *A menina leu um livro*. (or The girl read a book.)

Image 2: Tree representations of the sentences in (4).
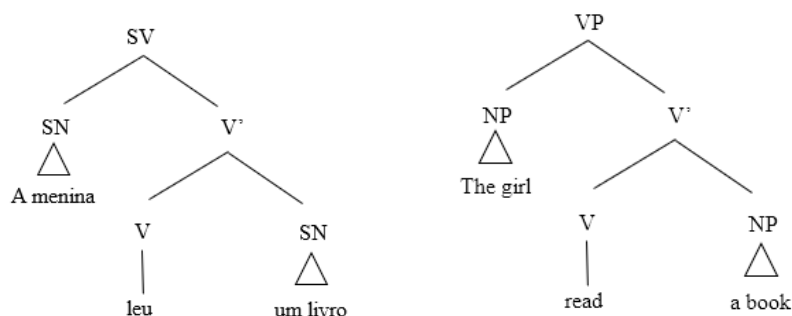
Source: elaborated by the authors of the present article.

By briefly analyzing the representation in image 2, it can be observed that the NP "*a menina*" (or "the girl"), the external argument, is not directly concatenated with the verb "leu" (or "read"), but rather at level V', an intermediate level below of which the verb and the complement "*um livro*" (or "a book"), the internal argument, are concatenated. Therefore, it is clear that the sentence is not a sum of words, but rather the hierarchical combination of simple elements until the formation of more complex structures.

A relevant reflection for elementary education arising from the notion of hierarchy is that there are phrases that are embedded, that is, they are internal to others; on the other hand, there are phrases that are found at a clausal level within the sentence. By analyzing the examples in (5) and (6), below, it is possible to clarify this distinction.

(5) a. *João duvidou* [*da sua vinda*]. (or John doubted [your coming].)

   b. *João duvidou* [*de que você viria*]. (or John doubted [that you would come].)

(6) a. *João duvidou da nossa capacidade* [*de criação de equipes de alto desempenho*]. (or John doubted our ability [of the creation of high-performance teams].)

   b. João duvidou da nossa capacidade [de criar equipes de alto desempenho]. (or John doubted our ability [to create high-performance teams].)

The phrases, being clausal or not, highlighted in brackets in the examples, are introduced by prepositions in all the examples in Portuguese. However, there is a difference between the phrases highlighted in (5) and those highlighted in (6), when the verb "*duvidar*" (or "to doubt"), the predicator that projects the sentences, is assumed as a reference point: in (5), we see that these

are phrases of clausal level, since they are directly related to the verb, and may even take over other positions within the sentence ("*Da sua vinda, João duvidou*" / "*De que você viria, João duvidou*") (or "Of your coming, John doubted" / "That you would come, John doubted"); in (6), we see that these are subclausal-level phrases that are internal to the NP "*a nossa capacidade de criação de equipes de alto desempenho*" / "*a nossa capacidade de criar equipes de alto desempenho*" (or "our ability of the creation of high-performance teams" / "our ability to create high-performance teams"), whose head is "*capacidade*" (or "ability"), proven by the impossibility of assuming other positions within the sentence ("**De criação de equipes de alto desempenho, João duvidou da nossa capacidade*" / "**De criar equipes de alto desempenho, João duvidou da nossa capacidade*"). (or "*Of the creation of high-performance teams, John doubted our ability" / "*To create high-performance teams, John doubted our ability").

We say, according to Duarte (2007), that the grammatical relationship exercised by the highlighted phrases in (5) is at the clausal level, since they are directly articulated with the verb that projects the clause; in (6) the grammatical relationship exercised by the highlighted phrases is at the subclausal level, since they are internally articulated with other phrases, which are articulated with the verb that projects the clause[3]. Understanding the hierarchical relationships and which phrases are clausal and which are subclausal greatly favors the understanding of how a sentence is syntactically organized in the language.

It is interesting to highlight that this entire description is a theoretical explanation of how syntactic relations are established in the internalized grammar of speakers. Therefore, promoting a description that includes these discussions makes classes more scientifically coherent and even more intuitive. Furthermore, a consistent approach to the sentence allows for the development of syntactic awareness about language and also about writing (see Gerhardt, 2017), since the manipulation of the formal elements of language is a part of the written production process.

The pedagogical proposals – the object of this work – are presented next, which seek, based on the assumptions made in this section, to develop students' awareness of the syntactic structure in Portuguese classes.

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[3] From these grammatical relations arise the differences between complements and adjuncts of verbs, on the one hand, and certain complements and adjuncts of non-verbal elements, on the other. Since the hierarchical differences in sentence structure are not systematically clarified, students often do not deeply comprehend the differences between these grammatical relations.

4 The pedagogical proposals

The pedagogical proposals presented in this section may be put into practice at the beginning of the teaching-learning process of content related to syntax. In this way, students may have different degrees of depth in their explicit knowledge of the syntactic structure of the Portuguese language when exposed to the activities.

4.1 "*Palitárvore da Predicação*"

The pedagogical activity "*Palitárvore da Predicação*" has the objective of working on the notion of verbal predication, with special attention to the awareness on what the argument grid/structure, the semantic selection and the categorical selection are, following the perception of the hierarchical relationships that the constituents establish among themselves when they are concatenated in different syntactic positions. Regarding the activity, it may be said that the name "*Palitárvore da predicação*" (roughly, "Prediction Stick Tree") is not random. In fact, it was thought about based on a vocabulary crossover between the manipulable material used and the product of the activity: popsicle sticks that, when arranged, form syntactic trees[4]. Observe how the activity is processed below.

In the first part of the activity, when students enter the classroom, they find a series of tree representations such as the ones shown in the image below. In some images, the syntactic tree is already completed; in other images, only the predicators are concatenated; and finally, there is a group of tree representations without any type of concatenated predicator. This is the system which the student will need to understand its functioning in order to complete the missing parts without any command over the sentence structure being performed.

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[4] The activity "*Palitárvore da predicação*" was initially thought about, designed and implemented in a seventh grade class of a private school in Botafogo, Rio de Janeiro, in 2022. At the time, the students themselves painted the popsicle sticks, produced the material, and participated in the proposed activity. It is worth mentioning that, after that activity, the students who were studying Portuguese syntax, throughout other classes, kept and handled the popsicle sticks in order to process the content that was being taught. At the end of the year, they took the proposal to the school's cultural fair for presentation. To develop the activity, the students were invited to sit on the floor of the classroom, building the trees in that space. There is also the possibility of using the classroom board as in the images shown in this article.

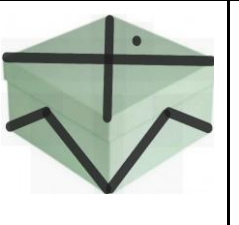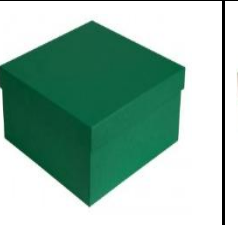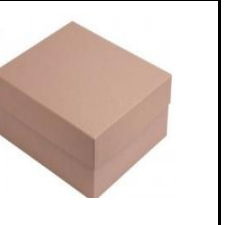**Image 5:** Tree representation on the classroom board.

Source: personal file.

Students are instructed to divide themselves into five groups and then choose the color of a box[5]. Each box represents a type of predicator: (i) black box, direct transitive verb; (ii) light green box, indirect transitive verb; (iii) light green and black box, direct and indirect transitive verb; (iv) dark green box, intransitives; (v) brown box, noun phrases and adjectival phrases, respectively exemplified below. Students must relate the colors of the boxes to the colors of the tips of the popsicle sticks that form the syntactic trees and to the colors of the phrases and predicators already concatenated in the tree representations that serve as a model for the construction of the system.

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[5] The use of boxes is interesting because it introduces students to the notion of different typologies of linguistic categories to which they need to be combined. When making the boxes, we suggest that the teaching staff works with cardboard boxes, which are cheap and may be recycled.

Table 1: Boxes and predicators.

Direct transitive	Indirect transitive	Direct and indirect transitive	Intransitives	Noun phrases and adjectival phrases
COMEU ATE	*OBEDECEU* OBEYED	*DEDIQUEI* DEDICATED	*CHOROU* CRIED	*FELIZ* HAPPY
BEBEU DRANK	*PRECISA* NEEDS	*EMPRESTOU* LENT	*EXPLODIU* EXPLODED	*PROFESSOR* TEACHER
DERRUBA KNOCKS DOWN	*CONCORDA* AGREES	*CONCEDEU* GRANTED	*IMPLODIU* IMPLODED	*ADVOGADO* LAWYER
COMPRAVA BOUGHT	*ACREDITAVA* BELIEVED	*PAGOU* PAID	*MORREU* DIED	*MÉDICO/* DOCTOR
FEZ DID	*LEMBROU* REMEMBERED	*PERDOAMOS* FORGIVE	*MURCHOU* WITHERED	*ALEGRE* CHEERFUL
QUERIA WANTED	*DUVIDAVA* DOUBTED	*EXPLICO* EXPLAIN	*TRABALHOU* WORKED	*GRÁVIDA* PREGNANT
SENTE FEELS	*CONVERSA* TALKS	*DEU* GAVE	*DANÇOU* DANCED	*AMOROSA* LOVING

Source: elaborated by the authors of the present article.

There is another group of boxes in the room. This one contains three boxes, which will all be full of syntactic constituents, that is, the grammatical categories. In addition to the phrases, there are linking verbs in one of the boxes, which are not predicators. Observe the distribution of the categories in the boxes: box 1, noun phrases, color yellow; box 2, prepositional phrases, color red; box 3, linking verbs, color orange. As observed with the predicators, the phrases should be

presented to the students in the same colors that were used for their respective boxes in this part of the activity.

Table 2: Boxes, phrases and linking verbs.

Noun phrases	Prepositional phrases	Linking verbs
A MENINA THE GIRL	*DE DOCE* (MADE OF) SWEET	*SER* TO BE
AS CRIANÇAS THE CHILDREN	*EM CASA* AT HOME	*ESTAR* TO BE
A MALA THE SUITCASE	*NA ESCOLA* AT SCHOOL	*PERMANECER* TO STAY
O CÉU THE SKY	*AO PAI* TO THE FATHER	*CONTINUAR* TO CONTINUE
O PRESENTE THE PRESENT	*À PROFESSORA* TO THE TEACHER	*PARECER* TO LOOK LIKE/TO SEEM
OS DEUSES THE GODS	*NA MADRUGADA* AT DAWN	*FICAR* TO STAY
OS HOMENS THE MEN	*DE COLO* TO BE HELD	*ANDAR (ESTAR)* TO BE

Source: elaborated by the authors of the present article.

The only command given to the students is: <u>build the trees with the items present in all of the boxes, which must be empty at the end of the organization of the system</u>.

To enter the discussion on epilinguistic knowledge, it is necessary to return to the discussion presented in section 3 of this article about the relations established between the heads of the phrases and the terms they select. We are, therefore, dealing with predicators, external arguments and internal arguments. Thus, the analyses of the system produced must be conducted according to the principles of sentence structuring and for this purpose, questions were developed to guide this step of the class. The initial question is:

1. In the tree representations in which there was only one concatenated item (verb / noun / adjective), why were those items concatenated, initially, in the system?[6];

Once this step is over, the questions seek to highlight the characteristics of the predicators, which are presented through colors in the system. Thus, the next questions are:

2. a. Which box(es) does the black box need items from, in order to form a sentence?[7];

b. Which box(es) does the light green box need items from, in order to form a sentence?[8];

c. Which box(es) does the light green and black box need items from, in order to form a sentence?[9];

d. Which box(es) does the dark green box need items from, in order to form a sentence?[10];

e. Which box(es) does the brown box need items from, in order to form a sentence?[11];

f. What is the similarity and the difference between the items of the orange box and the black box, the light green box and the light green and black box?[12];

Students should realize that if there are five boxes, it is because there are five groups of predicators. A verbal predicator that selects three arguments, another verbal predicator that selects two arguments, and another verbal predicator that selects one argument. The last type of predicator is not verbal, but a noun predicator. On the board, it is possible to see the system that highlights the difference between the two types of predicators.

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[6] Guide to the teacher: the first concatenated items were the predicators, responsible for selecting the syntactic constituents.

[7] Guide to the teacher: the items in the black box need two items from the yellow box.

[8] Guide to the teacher: the items in the light green box need one item from the yellow box and one item from the red box.

[9] Guide to the teacher: the items in the light green and black box need two items from the yellow box and one item from the red box.

[10] Guide to the teacher: the items in the dark green box need one item from the yellow box.

[11] Guide to the teacher: the items in the brown box need one item from the yellow box and one item from the orange box.

[12] Guide to the teacher: the items from all of these boxes are verbs; however, only in the black box, the light green box and the light green and black box, there are items already concatenated since the beginning of the activity. The verbs from the orange box were only concatenated later on. The first ones select the constituents and the second ones do not.

Figura 6: Tree representation: verbal predicators and noun predicator.
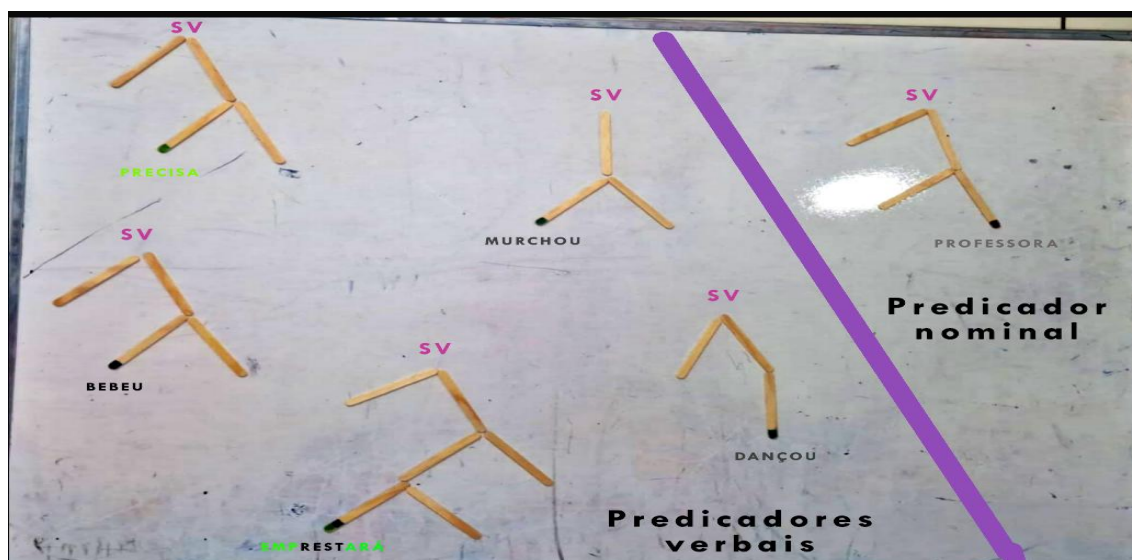
Source: personal file.

The following questions should lead students to reflect on the differences between the boxes that are a part of the second group. They correspond to the syntagmatic categories selected by the predicators. The suggested questions are:

3. a. What are the differences between the yellow boxes and the red boxes?[13];

    b. What is the difference between the yellow boxes and the red boxes, on one side, and the orange box, on the other?[14];

The following question should lead students to reflect on the difference in the position in which the constituents selected by the predicators are concatenated.

4. In relation to the top of the tree representation (the maximum projection – the VP), what are the most internal and most external arguments?[15];

---

[13] Guide to the teacher: in the yellow boxes, there are phrases that have the category [+N;-P] as the head, that is, the noun phrases. In the red boxes, there are phrases that have the category [-N; +P] as the head.

[14] Guide to the teacher: the yellow boxes and the red boxes present constituents that will perform a syntactic function and that were selected by the predicator to be a part of its argumental grid/structure. The orange box presents verbs that, consequently, do not perform a syntactic funtion, but they connect the predicator to its external argument, as it can be seen in the image below.

[15] Guide to the teacher: the external arguments occupy positions to the left of the predicator, while its internal arguments occupy positions to its right.

In the image below, the system clearly shows that the internal arguments are mostly verbal complements, but they are not so when faced with a type of monoargumental verb, which only selects the internal argument, which is, in this case, the subject. Based on students' intuition, one way to explore the difference between monoargumental verbs is to perform the movement operation between the argument and the verb. When faced with unaccusative verbs, the subject may be realized before or after the verb; however, when faced with unegartive verbs, the subject is mostly only realized before the verb.

The image below highlights the verbal predicator and the noun predicator. Regarding the first type, it is possible to observe the difference between the tree projections with at least two arguments selected and the tree projections in which only one argument is selected. In the first group, there are structures in which the verbal predicator needs to select complements that are internal to the maximum projection, that is, to the verbal phrase (VP). In the second group, there are no complements, since the predicator, in order to have its argumental grid/structure satisfied, only needs one constituent, which can be external or internal. Regarding the noun predicator, it is up to it to select a single argument that is external and there is always a linking verb.

Image 7: Tree representation: external argument, internal argument and linking verb.
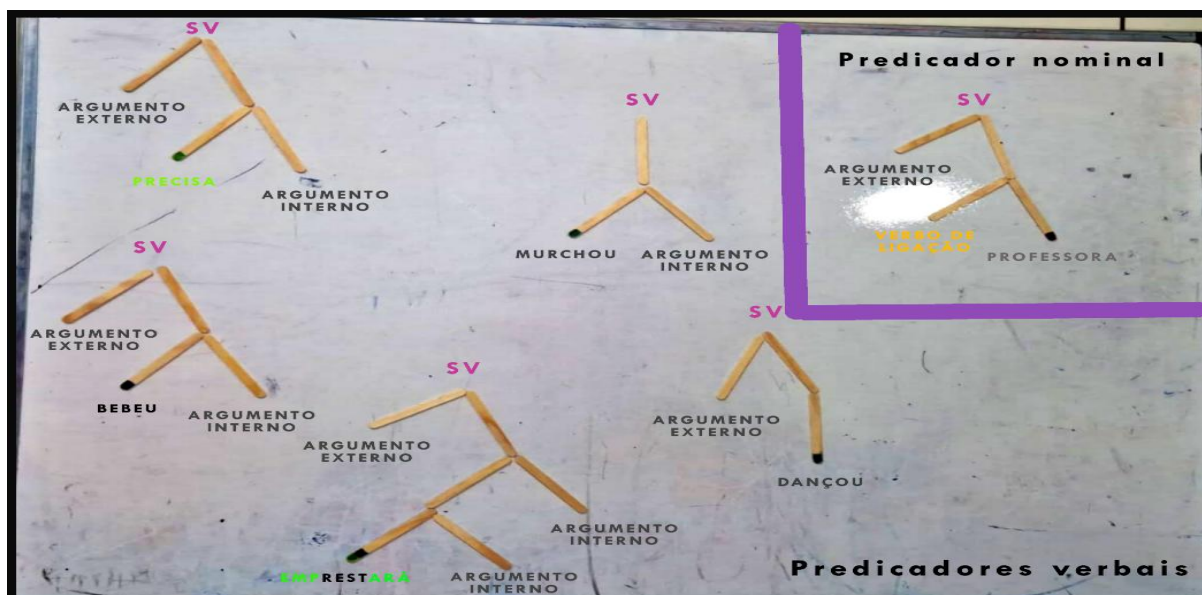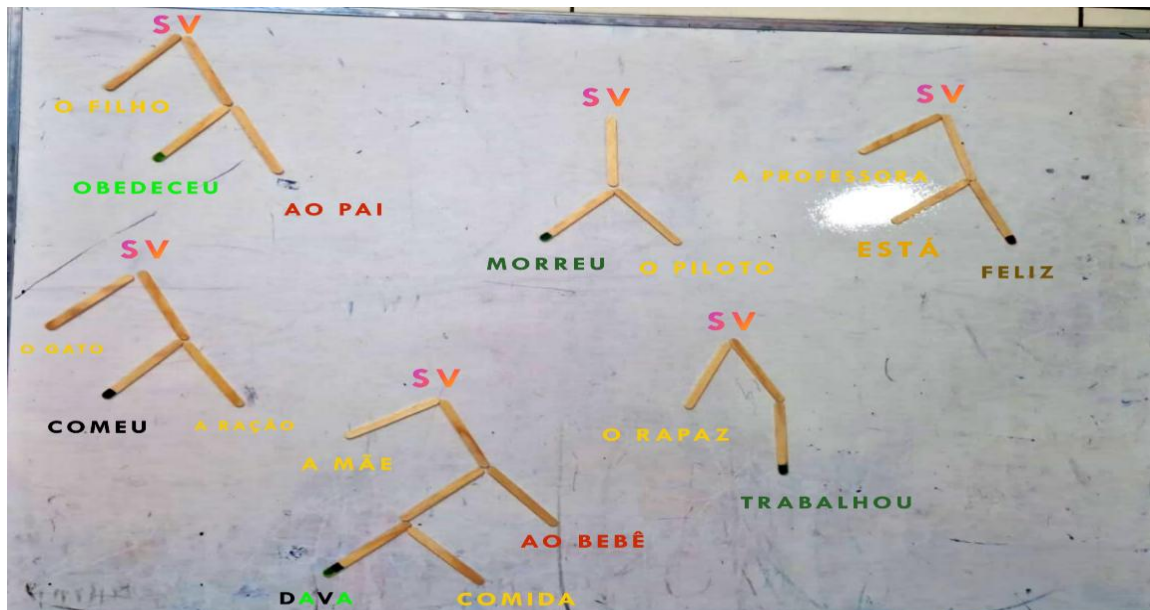

Source: personal file.

In order to conclude the epilinguistic reflections, students should be invited to answer questions about the (re)choices of the phrases that they have made, throughout the activity, until

all the boxes were empty and that they have produced the complete system. We present, below, a photograph of a part of the complete system displayed on the whiteboard in the classroom after the activity.

Image 8: Tree representation: a part of the complete system.

Source: personal file.

To this end, the following question was created:

5. For the system to be built, was it enough to just select the yellow, red and orange items?[16];

The fulfillment of the categorical and semantic features explains why the sentences in (8) are good, but in (9), disregarding the literary contexts, only the categorical selection is fulfilled. In (10), there is also no grammaticality, because there is a failure in the categorical selection. Sentence patterns such as in (9-10) are possible for students to attempt, especially in the younger age groups.

(8) a. [*A menina*] *cantou* [*uma música*]. (or [The girl] sang [a song].)

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[16] Guide to the teacher: no. It was necessary to consider semantic features present in the phrases and that interacted with the sentence hierarchy.

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b. [*A criança*] *precisa* [*de colo*]. (or [The child] needs [to be held].)

(9) a. *[*O muro*] *cantou* [*uma música*]. (or *[The wall] sang [a song].)

   b. *[*A criança*] *obedece* [*a pedregulhos*]. (or *[The child] obeys [gravels].)

(10) a. *[*A criança*] *precisa* [*colo*]. (or *[The child] needs [be held].)

   b. *[*A menina*] *comeu* [*de comida*]. (or *[The child] eats [of food].)

Consequently, students' awareness of semantic selection will come from their need of going back to the boxes and from the exchanges of items between groups so that the best constituents and predicators are selected and concatenated, generating grammatical sentences. With the selection and combination of constituents and predicators, sentences such as those expressed below[17] may be produced, which will be arranged in the syntactic trees.

Table 3: Suggestion of base sentences to the activity[18].

AS CRIANÇAS THE CHILDREN	*PRECISAM* NEED	*DE COLO* TO BE HELD	
A MENINA THE GIRL	*COMPROU* BOUGHT	*A MALA* THE SUITCASE	
O CÉU THE SKY	*ANDA* IS	*ASSUSTADOR* SCARY	
A CRIANÇA THE CHILD	*DEU* GAVE	*O PRESENTE* THE PRESENT	*AO PAI* TO THE FATHER
OS DEUSES THE GODS	*ESTAVAM* WERE	*ALEGRES* CHEERFUL	

Source: elaborated by the authors of the present article.

---

[17] At this point in the activity, it is important to emphasize that the process of selecting words in the phrase boxes, in the predicator boxes and in the linking verb box brings a certain degree of randomness to the activity. This occurs because, even if the teacher prepares the sentences in advance, it is possible that students select phrases that are not expected by the teacher, but they generate grammatical sentences, when concatenated in the appropriate position. Thus, the table presented above is only a suggestion, and it is up to the teacher to decide whether the sentences of the activity will have a specific theme that may lead to other debates.

[18] It is suggested that the teacher, when preparing the activity, build the sentences in advance as in table 3 and pay attention to the fact that there will be many more noun phrases than prepositional phrases and adjectival phrases. It is also necessary to pay attention to the fact that only the brown noun phrases can function as subject predicates, therefore noun predicators, in order to highlight the difference between them and the other noun phrases that are not predicators and that will be in yellow.

After all the reflections arising from the epilinguistic stage, students should be invited to work with metalanguage, which is the product of the analysis of the system they themselves built. Thus, finally, all the items in the system will receive names. It is essential to start the nomenclature with the predicator, since it is the one that makes all the selection of arguments. Note that, as previously discussed, this is a proposal that diverges from everything found in textbooks and teaching systems that usually begin the presentation of syntax with the subject, in classes that already deal with its classification.

Table 4: First set of boxes: metalanguage.

First set of boxes				
Black	Light green	Light green and black	Dark green	Brown
Direct transitives (DTV)	Indirect transitives (ITV)	Direct and indirect transitives (DITV)	Intransitives (IV)	Noun predicators

Source: elaborated by the authors of the present article.

Table 5: Second set of boxes: metalanguage[19].

	Second set of boxes							
	NP	PP	LV	EA	IA	Subject	Complement Direct object	Complement Indirect object
Yellow	■			■	■	■	■	
Red		■			■			■
Orange			■					

Source: elaborated by the authors of the present article.

In the last step of the metalanguage presentation, the two tables above must be combined in such a way that students perceive the relationship between the type of predicator – the first group of boxes – and the types of phrases/linking verbs – the second group of boxes – in order to understand the nomenclature of syntactic functions. To facilitate this step, we have included table 6 below.

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[19] In table 5, the abbreviations are explained as follows: NP stands for Noun Phrase; PP stands for Prepositional Phrase; LV stands for Linking Verb; EA stands for External Argument; IA stands for Internal Argument.

Table 6: Summary of the syntactic relations established in the system[20].

	DTV		ITV		DITV			IV	NOUN PREDICATOR	
Phrase	NP	NP	NP	PP	NP	NP	PP	NP	NP	NP/AdjP
Syntactic funtions	SUBJ	DO	SUBJ		SUBJ	DO		SUBJ	SUBJ	SUBJECT PREDICATE
				IO			IO			
Special verb										LV

Source: elaborated by the authors of the present article.

Adding to the debate is the fact that teaching elementary education students the notions of argument selection, phrase and syntactic hierarchy through tree representations allows them to recognize the structure of any natural language. In the next section, we will present "*Varal da Predicação*", another activity based on these syntactic notions for presenting sentence structure to students.

4.2 "*Varal da Predicação*"

The name "*Varal da Predicação*" (roughly, "Clothesline of Predication") comes from the objective of the activity to explain the predication relations that occur in the sentence composed of completive clauses, which correspond, to a certain extent, to the so-called subordinate substantive clauses in traditional grammars[21]. The completive clauses are selected as arguments by a predicator of the matrix clause, in the same way that, in the simple sentence, a predicator selects a simple phrase as an argument. The analysis of the data in (11) below illustrates this discussion.

(11) a. *Joana deseja* [*um futuro próspero*]. (or Joana wishes [a prosperous future].)

b. *Joana deseja* [*que os dias sejam melhores*]. (or Joana wishes [that the days would be better].)

---

[20] In table 6, the abbreviations not seen in table 5 are explained as follows: SUBJ stands for Subject; DO stands for Direct Object; IO stands for Indirect Object; AdjP stands for Adjectival Phrase.

[21] It is worth highlighting that the activity was initially designed to work with argumental clauses, but it can be adapted to deal with other sentences that make up the compound sentence.

As mentioned in section 3, it is possible to notice that, in both sentences, the predicators "*deseja*" (or "wishes") are underlined, which select two arguments, one external, on the left, and one internal, on the right – between brackets. The internal argument, in (11a), is filled by a NP, "*um futuro próspero*" (or "a prosperous future") and, in (11b), it is filled by a clausal phrase, "*que os dias sejam melhores*" (or "that the days would be better"). Thus, it becomes evident that this clause acts as a complement to the head of the sentence, the predicator "*deseja*" (or "wishes"). The same process occurs with the NP "*um futuro próspero*" (or "a prosperous future"), in the simple sentence. Therefore, the analysis centered on the predicator allows the visualization of subordination in a coherent way, since it illustrates that this mechanism acts in both clauses and simple phrases. Thus, the teaching of syntax should consider that the relations established in the compound sentence are a reflection of those established in the simple sentence (Duarte, 2007).

Therefore, "*Varal da Predicação*" seeks to explain this notion to students. To carry out this activity, a clothesline – which can be made with string – with several colored signs, already hung on it, should be used. These signs represent the predicators of different sentences. The students' task will be to complete the sentences on the clothesline, tying white signs below these colored signs, as shown in the following image[22].

Image 9: Example of a simple sentence formed at the clothesline.

Source: personal file.

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[22] "*Varal da Predicação*" was carried out in 2024 at a school in the city of Duque de Caxias, Rio de Janeiro, to three ninth grade classes. The activity took place during a visit that the *Grupo de Estudos em Sintaxe* (GESINT-UFF) (or the Syntax Study Group) made to the school, during a pedagogical event. Therefore, there were students from the three classes who, together, manipulated the "*Varal da Predicação*" in order to form the sentences. Soon after, there was the epilinguistic moment in which the students demonstrated that they had understood the structural organization of the syntactic sentences that were formed on the clothesline. The students demonstrated a strong interest in the activity and, according to reports from the teaching staff, the students began to raise their hypotheses about the structure of the language during classes.

Note that the white signs represent the arguments of the predicators. These arguments can be either simple phrases or clausal phrases, as long as the students always construct compound sentences. The class will carry out the activity based on observing some examples already prepared at the beginning of the activity. The sentence illustrated in the example above, "*Marina está convencida da aprovação*" (or "Marina is convinced of the approval"), is a simple sentence, as it is one of the sentences used as an example, and not one of the sentences that must be built by the students. The motivation for using simple sentences as examples will be explained later. Finally, for the activity to be carried out appropriately, there are some patterns that the teacher must observe when preparing the activity.

First of all, the teacher who applies the activity must be careful to use signs of three different colors, so that they can represent three types of predicator: (i) verbal, (ii) adjectival and (iii) noun. The different types of predicators can be seen in the data in (12) below:

(12) a. [*Quem estudar sintaxe*] <u>*terá*</u> [*sucesso*]. (or [Whoever studies syntax] <u>will have</u> [success].)

   b. [*Ismael*] *está* <u>*certo*</u> [*de que todos irão amar o Varal da Predicação*]. (or [Ismael] is <u>sure</u> [that everyone will love *Varal da Predicação*].)

   c. *É uma* <u>*surpresa*</u> [*que os alunos não gostem de sintaxe*]. (or It is a <u>surprise</u> [that students do not like syntax].)

In the data in (12), we find three underlined words: in (a) a verb, in (b) an adjective and in (c) a noun. Even though they present these formal differences, they all act as predicators. This statement is evidenced by the fact that they all select arguments, which are highlighted by square brackets. In (a), "*terá*" (or "will have") selects an external argument, on the left, and an internal argument, on the right. In (b), "*certo*" (or "sure") selects an external argument, on the left, and an internal argument, on the right. Finally, in (c), "*surpresa*" (or "surprise") selects only one external argument.

The colors used for this differentiation will also be useful for dividing the class into three groups. Thus, each group is responsible for the signs of the same color. However, this difference in terms of the predicators should not be explained to the students at the beginning, as this question should be asked to them later on. Therefore, the teacher provides three types of colored signs,

which can be made with materials such as EVA or colored cardboard, as shown in the image below[23].

Image 10: Examples of predicators to be hung on the clothesline.

Source: personal file.

In addition, the colored signs must have colored strings tied to them. These strings are necessary for students to hang the arguments selected by the predicate on the colored sign. In order to make the colored string, it is necessary to use three different colors, which serve to illustrate (i) the external argument with the function of a subject (ii) the internal argument with the function of non-prepositional complement and (iii) the internal argument with the function of prepositional complement.

By observing image 9, presented previously, and images 11 and 12, presented later, it is possible to notice that the strings on the right, which indicate the position of the internal arguments with the function of complement, are longer than the strings on the left, which indicate the position of the external arguments with the function of subject. This is a way of representing the notion of hierarchy in the system of "*Varal da Predicação*", so that, when hung on the clothesline, the signs containing the internal arguments are positioned lower than the signs containing the external arguments, as demonstrated in the tree representation in image 2, in section 3. This occurs because the internal arguments are first linked to their predicators. Leading students to this perception allows them to further deepen their awareness of the structuring of the sentence.

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[23] Note that the linking verbs are present on the signs along with the adjectival and noun predicator, but they do not correspond to the predicators of the sentences.

Based on the differentiation between the types of predicators and the types of arguments, the activity scheme includes the analysis by Duarte (2003), which addresses the different possibilities of predication in the configuration of the compound sentence. Verbal predicators may select up to three arguments: (i) external arguments with the function of subject (ii) internal arguments with the function of prepositional complement and (iii) internal arguments with the function of non-prepositional complement. Non-verbal predicators may only select up to two arguments: (i) external arguments with the function of subject and (ii) internal arguments with the function of prepositional complement. Therefore, all of these possible predication structures need to be explored in "*Varal da Predicação*". The images below show examples of these structures and their configurations in the clothesline.

Image 11: Example of a compound sentence projected by a verbal predicator.
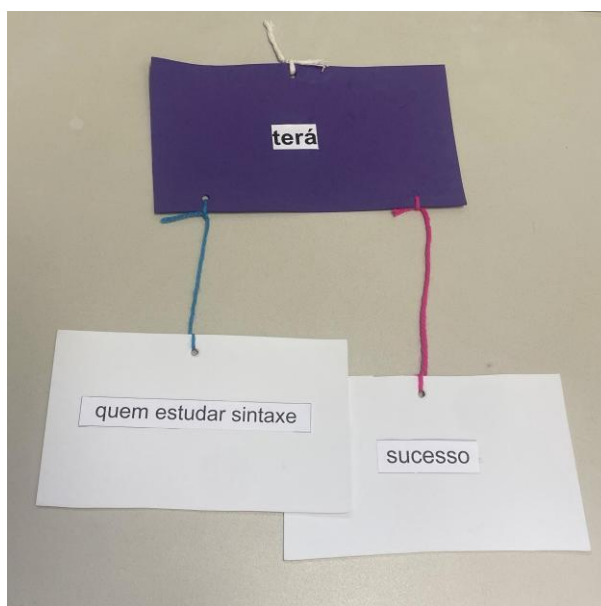
Source: personal file.

In the first image, we read "*Quem estudar sintaxe terá sucesso*" (or "Whoever studies syntax will have success"). As already seen in the data in (12), the verbal predicator "*terá*" (or "will have") selects two arguments, an external one, a subject, on the left, and an internal one, a complement, on the right. The internal argument is not preceded by a preposition, so it is a non-prepositional complement. Thus, in this example of a clothesline, the predicator sign required two colors of string, (i) blue to represent the subject and (ii) pink to represent the non-prepositional complement.

Figura 12: Example of a compound sentence projected by an adjectival predicator.
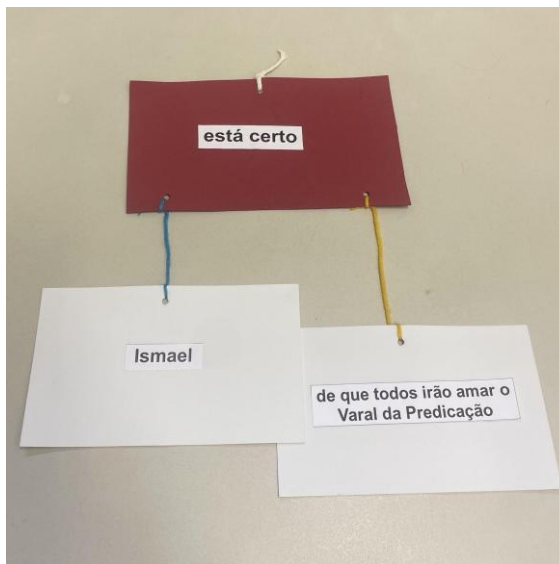
Source: personal file.

In the second image, we read "*Ismael está certo de que todos irão amar o Varal da Predicação*" (or "Ismael is sure that everyone will love *Varal da Predicação*"). As seen in the data in (12), the adjectival predicator "*certo*" (or "sure") selects an external argument, a subject, on the left, and an internal argument, a complement, on the right. Note that the internal argument is preceded by the preposition "*de*" (or "of", which is not present in the English translation of the sentence), so it is a prepositional complement. Thus, the predicator sign has two strings of different colors tied to it, (i) blue to represent the subject and (ii) yellow to represent the non-prepositional complement.

Image 13: Example of a compound sentence projected by a noun predicator.
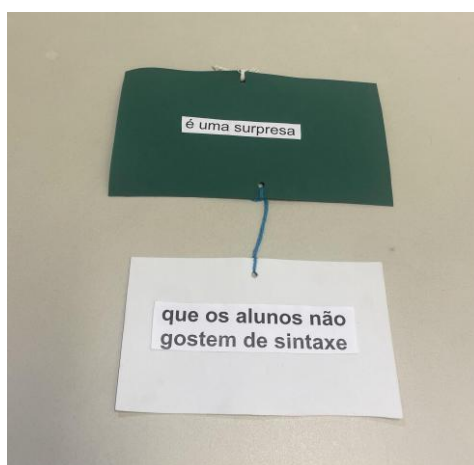
Source: personal file

Finally, in the third image, we read *"É uma surpresa que os alunos não gostem de sintaxe"* (or "It is a surprise that students do not like syntax") ou *"Que os alunos não gostem de sintaxe é uma surpresa"* (or "(The fact) That students do not like syntax is a surprise"). As was also discussed in the data in (12), the nominal predicate "surprise" selects only the external argument, a subject. Therefore, the predicator sign receives only a blue string, used to represent the subject.

The last item to be prepared by the teacher in order to carry out the activity are the sentences that will serve as examples. As mentioned initially, *"Varal da Predicação"* seeks to illustrate the reflection of the simple sentence in the compound sentence, it is necessary that all the sentences used as examples are simple sentences. The data in (13) provide some examples of these sentences. The predicators are underlined and their arguments are identified by brackets.

(13) a. [*Roberto Carlos*] <u>prometeu</u> [*o lançamento de um novo álbum*]. (or [Roberto Carlos] <u>promised</u> [the release of a new album].)

b. [*As Olimpíadas de 2024*] <u>serviram</u> [*de modelo para a organização de futuros eventos*]. (or [The 2024 Olympics] <u>served</u> [as a model for the organization of future events].)

c. [*Uma boa noite de sono*] *é um <u>privilégio</u>*. (or [A good night's sleep] is a <u>privilege</u>.]

d. [*O ser humano*] *é <u>reflexo</u>* [*da natureza*]. (or [The human being] is a <u>reflection</u> [of nature].)

e. [*As férias deste ano*] *foram <u>incríveis</u>*. (or [This year's vacation] was <u>amazing</u>.)

f. [*Marina*] *está <u>convencida</u>* [*da aprovação na disciplina*]. (or [Marina] is <u>convinced</u> [of her having a passing grade at the subject].)

Despite being sentences of the simple kind, they exemplify the three types of predicates and the three types of arguments present in sentences of the compound kind, which allows students to understand the syntactic system of the activity from the sentences themselves. For example, the predicator *"prometeu"* (or "promised"), in (13a), selects an external argument, a subject, on the left, and an internal argument, a non-prepositional complement, on the right. This analysis is the same verified in relation to the verb *"terá"* (or "will have"), in (12a), in the compound sentence. In addition, the predicator *"convencida"* (or "convinced") selects both an external argument, a subject, on the left, and an internal argument, a prepositional complement, on the right. This analysis is the same verified in relation to the predicate *"certo"* (or sure"), in (12b). Finally, it is possible to see that the predicator *"privilégio"* (or "privilege"), in (13c), selects only one external

argument, a subject, located on the left, in the same way that "*surpresa*" (or "surprise"), in (12c), selects an external argument, a subject, in the compound sentence.

In this way, the activity begins by dividing the class into three groups, based on the colors of the signs. After that, students are free to observe the examples of sentences and discover the meanings of the colors of the strings in order to form their own sentences. The teacher must also explain that all white signs must be used in the activity. Therefore, it is expected that there will be repeated changes of signs to ensure that they all match semantically and categorically with the predicator. At this point, the teacher must act as a mediator, exposing cases of signs that do not meet the semantic and categorical requirements of their predicator. However, the teacher must allow students' autonomy in the activity, since the building of the clothesline itself is based on students' observation and tacit knowledge. These skills allow students to build compound sentences, even without the use of nomenclature. Thus, "*Varal da Predicação*" differs from traditional syntax teaching methods, since it prioritizes students' grammatical analysis, as opposed to the mere presentation of already established grammatical concepts.

The building of the clothesline by students is a linguistic activity in which students use the mechanisms of their linguistic system, in a guided manner, in order to form sentences. In the next stage, the epilinguistic activity is put into practice. Then, the class must reflect on the linguistic activity carried out previously and, thus, map the grammatical patterns between the sentences that were produced. In order to do so, questions are asked about the grammatical system behind the manipulable materials, that is, about how the signs and strings represent the grammar of the language. The following questions may be used for this purpose:

(14) a. What are the similarities and differences between the colored signs?[24]

b. What is the role of the white signs?[25]

c.What are the similarities and differences between the signs that were hung with the blue string?[26]

---

[24] Guide to the teacher: the similarity between them is that they all act as predicators of sentences, that is, they demand the presence of arguments. The difference between them is their forms. There are signs that correspond to verbs, to adjectives and to nouns.

[25] Guide to the teacher: they all act as arguments of predicators.

[26] Guide to the teacher: the similarity between them is that they all act as the external arguments of the predicator, that is, they perform the syntactic function of subject. The difference between them refers to the fact that there are both clausal phrases and simple phrases in this position.

d. What are the similarities and differences between the signs that were hung with the pink string?[27]

e. What are the similarities and differences between the signs that were hung with the yellow strings?[28]

Thus, these questions seek to encourage students to notice (i) the similarities and differences between the predicators, (ii) the argument role of the white signs, (iii) the different syntactic functions represented by the colored strings and (iv) the presence of simple and clausal complements.

Finally, the metalinguistic activity is put into practice, in which the discovered grammatical patterns are named – as well as any scientific discovery. Thus, after the production of the linguistic material and the grammatical reflection on the language, the grammatical elements studied are meaningfully and coherently named. In order to do so, the teacher may work with more or less complex nomenclature, depending on the of the level of maturity of the class. One example is naming the functions as subject, direct complement (which corresponds, in the "*Nomenclatura Gramatical Brasileira*" - NGB (or "Brazilian Grammatical Nomenclature"), to the direct object) and prepositional complement (which corresponds, in the NGB, to the indirect object and the noun complement). It is important that the nomenclatures presented are related to the characteristics observed by students – as was done previously –, because, in this way, the class finds a reflection of the linguistic reality in its nomenclature. Therefore, students becomes aware of the mechanisms that govern the linguistic system and, thus, the understanding of the nomenclatures occurs in a meaningful way[29].

Furthermore, it is possible to note that this activity is not carried out in a way that is commonly seen in traditional teaching, in which the metalinguistic activity is not preceded by linguistic reflection. Grammar teaching, in the traditional context, has become a mere memorization of labels already established by the NGB, which do little to promote the comprehension of language as a system. Therefore, proposals such as "*Varal da Predicação*" act in opposition to the traditional perspective and seek to teach grammar based on the observation of the language and the raising

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[27] Guide to the teacher: the similarity between them is that they all act as the non-prepositional complement of the predicator, that is, they perform the syntactic funtion of direct object. The difference between them refers to the fact that there are both clausal phrases and simple phrases in this position.

[28] Guide to the teacher: the similarity between them is that they all act as the prepositional internal argument of the predicator, that is, they perform the syntactic function of indirect object or a noun complement. The difference between them refers to the fact that there are both clausal phrases and simple phrases in this position.

[29] The teacher may also, at a later time, relate the completive clauses analyzed through the "*Varal da Predicação*" to the set of substantive clauses of traditional grammars.

of hypotheses about its functioning. Thus, the classroom becomes a laboratory in which students can actively learn about their own language.

Final considerations

This work presents two pedagogical proposals aimed at the teaching of syntax in elementary education: "*Palitárvore da Predicação*" (roughly, "Predication Stick Tree") and the "*Varal da Predicação*" (roughly, "Clothesline of Predication"). The first activity involves the study of simple sentences; the second involves the study of compound sentences. By describing these proposals, we intend to contribute to the discussion on the theoretical and methodological alternatives that may be included in the debate on a productive and reflective way of teaching grammar, based on the use of manipulable materials. We also hope that these proposals may serve as inspiration for elementary education teachers to create other activities that are relevant to the linguistic development of students.

In order to prepare the activities, the assumptions of the Faculty of Language and language as a system were taken into consideration, aligned with the framework of the Generative Theory, as suggested by Pilati (2017; 2024) in the "*Aprendizagem Linguística Ativa*" (or "Active Linguistic Learning") proposal. Thus, in both activities, the starting point is the tacit knowledge of grammar and syntax that students bring to the classroom, and the methodological procedure of each activity is to unveil, with due guidance from the teacher, the properties that characterize the linguistic system.

Finally, it is important to highlight that proposals such as those presented in this work still play a fundamental role in the development of scientific literacy in elementary education. This is because the scientific work of observing regularities, testing hypotheses and establishing generalizations about grammar may contribute to the development of the reflective practice in itself, since it does not start from ready-made answers that must be memorized, but rather from the construction, based on data, of plausible explanations about grammatical phenomena.

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