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VISUALIZATION OF GRAMMATICAL MATERIAL BASED ON THE EXAMPLE OF THE INSTRUMENTAL CASE IN POLISH

ABSTRACT

The purpose of this study is to create a graphic representation of the Instrumental Case in the Polish language. The visualization of grammatical material is a didactic tool used to explain grammar problems in the process of teaching and learning a foreign language, and it is understood here as the method of conveying meanings in the text through visual forms. The adopted research perspective is brain-based learning, as well as grammar instruction that takes into account not only the form but also the use and meaning of a given unit.

Keywords: visualization, foreign language didactics, grammar, brain-based learning, Instrumental Case

ABSTRAKT

WIZUALIZACJA MATERIAŁU GRAMATYCZNEGO
NA PRZYKŁADZIE NARZĘDNIKA W JĘZYKU POLSKIM

Celem niniejszego badania jest stworzenie graficznej reprezentacji narzędnika w języku polskim. Wizualizacja materiału gramatycznego stanowi narzędzie dydaktyczne wykorzystywane do wyjaśniania problemów gramatycznych w procesie nauczania i uczenia się języka obcego i jest tu rozumiana jako sposób przekazywania znaczeń w tekście za pomocą form wizualnych. Przyjęta perspektywa badawcza to uczenie się oparte na pracy mózgu, a także nauczanie gramatyki, które obok formy uwzględnia również użycie i znaczenie danej jednostki.

Słowa kluczowe: wizualizacja, dydaktyka języka obcego, gramatyka, uczenie się oparte na pracy mózgu, narzędnik

1. The visualization technique in the second language learning process

As Jolanta Nocoń points out, the transition from verbalism to content visualization can also be observed in the development of the school textbook as a genre of text. Visualization is understood here as "a way of conveying meanings in the text through means perceived visually (visual forms)"[1] and might be one of the elements of the foreign language didactics system. Modern textbooks display a tendency to iconization, which means that illustrations included are increasingly becoming the equivalent of written text.

An increasingly common iconic form included in textbooks and other educational materials is the graphization of verbal text, i.e., giving the verbal text a visual and spatial structure[2]. These include graphs, charts, infographics, visual notes, or mind maps. In this way, apart from the synthetic and dynamic transmission of key content, the relationships between individual elements are also shown, and the form makes it easier to understand the new grammatical concept and remember it. "As a result, the student not only reads, but also "sees" the content that he should assimilate"[3].

In teaching the grammar of a foreign language, graphization can be used, e.g., to present the construction of a grammatical structure or to organize the information about it[4]. However, the latter use does not show the thought process and meaning that a given form carries. Grammar visualizations are something deeper than just a visual note – they are an attempt to put ideas on paper, i.e., the way we perceive the meaning of a given structure.

Visualization is an input, i.e., linguistic data that the student receives, and, at the same time, it is an impulse and inspiration for the later output, i.e., the form production stage. It is both an exemplification of a given structure and an illustration of its functioning mechanism. Thus, the student, initially being only the recipient of the message and performing a somewhat passive role can adopt an active attitude and become the sender of his own message, prepared based on the assimilated rule. It should also be emphasized that the visualizations are a prototype use or example, so the teacher should indicate at the explication stage that they do not represent the only correct use of the concept illustrated. The drawings

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[1] J. Nocoń, *Podręcznik szkolny w dyskursie dydaktycznym – tradycja i zmiana*, Opole 2009, p. 19.

[2] Ibidem, p. 237.

[3] Ibidem, p. 240.

[4] K. Kwapisz-Osadnik, *Obrazowanie zjawisk gramatycznych: Projekt gramatyki wizualnej*, [in:] *Język trzeciego tysiąclecia III*, G. Szpila (ed.), Kraków 2005, pp. 57–69.

have their limitations and are not able to show the wide range of possibilities of a given structure.

From the student's point of view, it is important that visualizations simplify the explication, i.e., they make a concept that is or only seems complicated simpler. The mental attitude of a learner is of the utmost importance in the process of understanding what is new because their openness facilitates learning, while their closure, which may result from fear, apparent difficulty, or the amount of material introduced, hinders it significantly. The use of the discussed didactic measure organizes the material and, therefore, gives the student the impression of an organized structure that they can understand. The teacher's comments, which will expand and supplement the acquired knowledge, will not seem overwhelming or complicated (if they correlate with the visualization used). Thus, the effect obtained in this way is a student without fear of a new concept, one who accepts and assimilates them better. In addition, the student's curiosity is aroused, and such a way of explication is likely to be considered attractive, orderly, simpler, and clearer.

To sum up, grammatical visualizations can play a "basic role in the conceptualization of new meanings, facilitate communication in terms of complex, and at the same time highly abstract content, and stimulate further, more personal reflections and developments"[5]. Summarizing and expanding the role of visualization, it is as follows[6]:

a) a semantic and pragmatic illustration of a given structure,
b) helps to better understand the material,
c) stimulates the whole brain to work, as it combines elements of language and image and, therefore, uses the potential of neurons,
d) makes the process of remembering meaningful, i.e., it is a memory anchor and, by building associations, is an effective mnemonic,
e) invites students to think,
f) combines cognitive knowledge with emotions, and thus makes the didactic process more pleasant, interesting, and attracts attention,
g) may be a carrier of cultural information,
h) does not replace the teacher but supports them in their work,
i) it must be simple and legible,
j) accompanies the verbal explication.

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[5] W. Wilczyńska, *Wizualizacja jako środek komunikacji akademickiej*, [in:] *Język a komunikacja 28. Interdyscyplinarne studia nad świadomością i przetwarzaniem językowym*, J. Nijakowska (ed.), Kraków 2010, p. 117.

[6] M. Żylińska, *Neurodydaktyka czyli nauczanie i uczenie się przyjazne mózgowi*, Gdynia 2013; M. Chojak, *Neuropedagogika, neuroedukacja i neurodydaktyka. Fakty i mity.* Warszawa 2019; A. Andrzejewska, *Wizualizacja materiału gramatycznego na przykładzie języka hiszpańskiego jako obcego*, Opole 2024.

2. Focus on Form and Grammaring

The implications of teaching grammar in the post-methodical era, consistent with its macro-strategic assumptions[7], include the proposals of focus on form by Michael Long, and grammaring by Diane Larsen-Freeman. These projects, not being connected to any of the methods, call for a complete look at the presentation of grammar concepts. Constructing their theories, which are somewhat identical in their assumptions, both Long and Larsen-Freeman pay attention to three integral aspects of grammar, i.e., form, meaning, and use. Both ideas are also a suitable basis for creating and analyzing visualizations of grammatical material.

Focus on form (FonF) is a way of teaching grammar proposed by Michael Long in the late 1980s. It has recently become extremely popular in teaching Spanish as a foreign language and inspires both theoretical considerations and practical solutions. It is a response to the two extremes that have emerged in teaching grammar. The first is focus on meaning, which emphasizes the meaning of a given linguistic unit, and the second is focus on form, which emphasizes the essence of building language forms[8]. In turn, FonF proposes that students first learn the meaning, perceive the context and use of linguistic features, and then explore some linguistic features. Therefore, the word 'form' in the name of the FonF proposal refers to the broadly understood linguistic form that is at the center of interest and which the student is invited to explore. FonF is, therefore, a proposal somewhere between the other two options, thus emphasizing the importance of both the context and the correct construction of the linguistic form.

This proposal was made at the time of the heyday of the communicative approach, which believed language input is enough for the full development of language acquisition. However, Long and other researchers have noted that despite repeated exposure to a given form, as well as frequent use of a given form, students in many cases are unaware of the grammatical meaning of the problem introduced, directing their attention more to the lexical component. Long finds the reason in the basic assumption of the communicative approach, contextualization, in which the wider and richer the context becomes, the less attention is paid to the form[9].

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[7] B. Kumaravadivelu, *Macrostrategies for the second/foreign language teacher*, "The Modern Language Journal" 1992, 76 (1), pp. 36–42.

[8] M. Long, *Focus on form in Tasked-Based Language Teaching*, "University of Hawai'i Working Papers in ESL" 1998, 16/2, p. 36.

[9] R. Llopsis-García, J.M. Real Espinosa, J.P. Ruiz Campillo, *Qué gramática enseñar, qué gramática aprender*, Madrid 2012, p. 61.

At some point, the student feels lost in the "sea of contexts"[10] and, as a result, begins to ignore not only the meaning but also the very presence of the introduced form, or gives the form the meaning brought by the context brings and not the form itself.

Therefore, FonF proposes a relative decontextualization, which consists in removing from the input all elements that may distract from the interpretation of the new component and distract attention from it in general. In this way, the introduced form appears to be the only one responsible for the meaning. This does not mean, however, that Long negates the essence of context; quite the opposite. However, he clarifies its proper use by juxtaposing his proposal with the practice of contextualizing the communicative approach and decontextualizing in the formal approach to language. "Technically, it is a step forward in walking through the forest to be able to see the trees one by one"[11]. The main reason for such a lively academic interest in FonF is the fact that it is a model consistent with psycholinguistic conclusions drawn from research in the field of applied linguistics concerning foreign language acquisition, as well as having empirical evidence of effectiveness[12].

The second approach considered in this paper is Diana Larsen-Freeman's grammar proposition, which changes the perspective on grammar from a rigid set of rules to a dynamic process. Referred to as "grammaring", a term coined by the author, it shows grammar as an activity performed by the language user, a living process having its own dynamics and signifying the correct use of grammatical structures.

The researcher contrasts her vision with grammar understood as a finished product, a set of rules to be learned and used. Thus, Larsen-Freeman postulates a change in the perception of language itself, i.e., its nature and functions, which in turn is a factor necessary to modify the way of teaching. This modification, however, does not affect the choice of teaching method or change of materials but the approach of the teacher and students to the language and its grammar. Grammar should be discovered in minds since it is created in minds; it should not take the form of dry facts[13]. The main goal of teaching grammar is not only to understand structures but, above all, to use them correctly and boldly in communication in

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[10] Ibidem.

[11] Ibidem, p. 63.

[12] A. Castañeda Castro, Z. Alhmoud, I. Alonso Aparicio, J. Casellas Guitart, M.D. Chamorro Guerrero, L. Miquel López, J. Ortega Olivares, *Enseñanza de gramática avanzada de ELE: Criterios y recursos*, Madrid 2014, p. 12.

[13] A. Mystkowska-Wiertelak, *O dynamicznej naturze gramatyki*, "Języki Obce w Szkole" 2006, 5, p. 47.

a foreign language. In addition, Larsen-Freeman postulates the inclusion of grammar in the group of language skills, and she justifies this by saying that the ability to use grammar correctly is a separate competence.

The tool used in 'grammaring' is the analysis of grammatical structure in three dimensions which are intertwined, interdependent, and contribute to the full understanding and correct use of a given grammatical structure. These dimensions are:

a) form – "how is this structure built?" (morphological, phonetic level),
b) meaning – "what does it mean?" (semantic level),
c) use – "when and why is it used?" (pragmatic and stylistic level).

Each of them is important and has its own nature, therefore attention should be paid not only to the correctness of the form but, above all, to the transfer of meaning carried by the grammatical structure, and to the practical dimension, i.e., linguistic pragmatics, and thus the adequacy of the use of a given form. It is these three dimensions that constitute language, which is "a dynamic process of schema-building, involving the use of linguistic forms to express meaning in a way that is appropriate to a particular situation"[14].

The visualizations that are analyzed and proposed in this work concern the semantic, pragmatic, and stylistic levels, excluding the morphological and phonetic levels. This decision rests on the fact that the form is the easiest to visualize, hence the number of such illustrations is the largest, and their significance does not concern the aspect of the meaning of grammar. In turn, the fact that grammar carries meaning is the basic premise of this analysis.

3. Instrumental Case and its visualization[15]

The doctrine of cases arose millennia ago against the background of the grammatical description of classical languages. And although over the course of time only details underwent changes, the rules have not been subjected to much verification[16]. Therefore, it should not come as a surprise that each case is taught as a separate grammatical unit, and it is especially helpful in teaching Polish as a foreign language. In teaching each case, it is important to present the grammatical form

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[14] D. Larsen-Freeman, *Teaching Language: From grammar to grammaring*, Boston 2003, p. 14.

[15] The drawings that appear in this subchapter are by Przemysław Wysogląd and have been specially prepared for the purposes of this work.

[16] J. Tokarski, *Fleksja polska*, Warszawa 2001, p. 49.

(ending distribution, changes in the subject), its meaning, and use. In this work, the emphasis will be put on teaching meaning and use, as teaching form is quite common and does not seem to engender methodological problems. In fact, the focus on the forms is overused while teaching Polish, which leads to foreigners misusing the created forms and confusing them in communication.

The perspective of cognitive linguistics can be helpful in teaching foreign languages. The category of grammatical case in the cognitive approach is understood in various ways, but a useful definition of case seems to be the position of Rudzka-Ostyn, who described Polish cases from a cognitive perspective: "a set of concepts about the roles (relations) in which people or things appear to each other (...) always means someone or something in relation to someone or something else"[17]. Therefore, it is important to name and present these relationships to students, and Langacker's construal theory can be a helpful tool in this task: "an important aspect of meaning is construal, understood as a specific way of conceptually presenting a given situation or object"[18]. Even Langacker himself sees these relations as "different types of archetypal roles (…) associated with actions and events"[19]. It is, therefore, worth looking at the roles of the Instrumental to learn its meaning and usage.

The Instrumental is introduced in the curricula of Polish courses as the second after the Nominative case, or as the third after the Nominative and Accusative cases. The reason is that it is the most easily formed of the Polish cases and used with the verb 'to be', which is needed to build introductory sentences about one's identity. The Instrumental is used to define oneself, one's role in society, and to create definitions in general. It can be a physical object or an abstract entity.

These are the relations most often performed by the Instrumental and its visualizations, collected on the basis of the analysis of scientific and pedagogical grammars:

3.1. The tool/instrument being used

This is the prototypical use of the Instrumental from which it gets its name. This role is described by Langacker as follows: "An instrument is a tool by which an agent exerts influence on another entity. A typical instrument is an object physi-

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[17] B. Rudzka-Ostyn, *Z rozważań nad kategorią przypadka*, Kraków 2000, p. 81.

[18] Ibidem.

[19] R.W. Langacker, *Gramatyka kognitywna. Wprowadzenie,* Kraków 2009, p. 472.

cally manipulated by the agent, which is not an independent source of energy, but only an intermediary in its transfer between the agent and the patient"[20]. Its use in Polish corresponds to English prepositions *by*, *with* and *via*. It can also be a synonymous construction for the following phrases: *using*, *by use of* and *through*. Here are some examples of verbs that have an Instrumental government due to this usage: *bawić się* (to play), *jechać* (to drive), *kierować* (to drive), *wracać* (to return).

Fig. 1

The first example shows a situation where a boy is writing something on a piece of paper and his dad is watching him. Sentences using the Instrumental that illustrate this image are:

(a) *Janek pisze **ołówkiem*** (Janek is writing with a pencil).
(b) *Janek pisze **lewą ręką*** (Janek writes / is writing with his left hand).

In both cases (pencil and hand) these are the tools used by the agent. The narrower range is marked by an ellipse, which allows it to be brought to the foreground as an object of attention.

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[20] Ibidem, p. 473.

Fig. 2

The second example shows the use in the Instrumental form of nouns that name means of transport. They are also a tool/instrument used by the agent. The above illustration is accompanied by the following statements:

(a) *Piotr jedzie* ***czerwonym samochodem*** (Piotr is driving a red car).
(b) *Piotr kieruje* ***maluchem*** (Piotr is driving a Fiat 126p).

The entire tool, the car, is enclosed in an ellipse here to show the narrower range. The arrow shows the role of the agent that is using the tool. An additional value of this illustration is the cultural element concerning the iconic Fiat 126p in Poland. In this way, students can enrich their knowledge of Polish history and society.
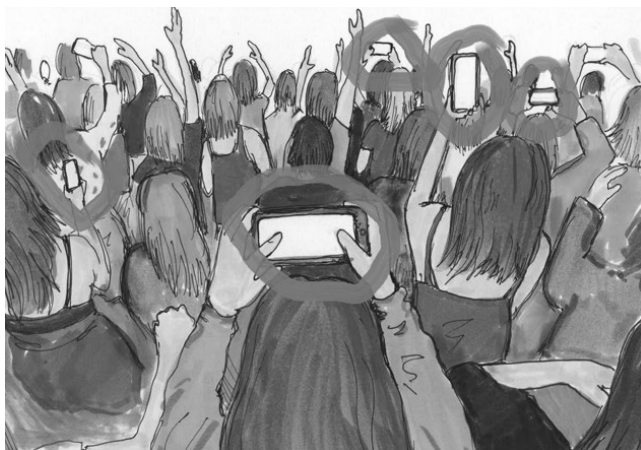

Fig. 3

The final example of using the Instrumental as a tool is related to contemporary times, i.e., recording a concert using mobile phones. It is important that the scenes shown in the visualizations are close to the student, that they can identify with them to some extent, and that they arouse their emotions. The above illustration can be described with the following sentence using the instrumental:

(a) *Wiele osób nagrywało koncert* **telefonami** (Many people were recording the concert with their phones).

The narrower range has been marked with an ellipse to bring it to the foreground.

3.2. The verb 'to be' (*być*, *zostać*, *stać się*) to express another noun

This is one of the most basic uses of the Instrumental in functional terms. Students learn to introduce themselves in the first language classes, and talking about their nationality, profession or role in society requires the use of this case. It is important to emphasize the Instrumental is used when the verbs *być*, *zostać* or *stać się* are followed by a noun or a noun with an adjective, because the adjective itself is used in the Nominative case.

In each of the three examples presented here, the main scope manifests itself in a combined shot of the scene, presenting it as static. Time is not dynamic, there is no action here, there is only a description.

Fig. 4

(a) *Janek jest* **małym chłopcem** (Janek is a small boy).
(b) *Jest* **synem** (He is a son).
(c) *Jest* **leworęcznym dzieckiem** (He is a left-handed child).

It was intentional to choose such characters in the examples that would show diversity, i.e., the use of 'to be' with different nouns, i.e., an adult and an immature person, as well as an animal.

Fig. 5

(a) *Piotr jest **wysokim brunetem*** (Piotr is a tall brunet).
(b) *On jest **ojcem*** (He is the father).

Fig. 6

(a) *Mruczek jest **białym kotem*** (Mruczek is a white cat).
(b) *On jest **zwierzęciem*** Janka (He is Janka's pet).

4. The location with certain prepositions: *poza* (besides, behind), *przed* (before, in front of), *między* (between, among), *nad* (over, above), *za* (beyond, behind), *pod* (under), and more

The prepositions naming the location determine the relationship between the viewer and the viewed situation, therefore this usage obviously includes a spatial domain. The location reference is marked with an arrow leading from the situation viewed to the viewer (Magda and Piotr in Fig. 7, Piotr in Fig. 8).

Fig. 7

(a) *Magda i Piotr znajdują się przed* **obrazem** (Magda and Piotr are in front of the painting).

Fig. 8

   (a) *Piotr stoi nad **Jankiem*** (Piotr is standing over Jan).

4.1. Combined with the preposition *z/ze* (with) for expressing "company"

The expression of accompaniment with the adverb *z/ze* (with) is illustrated by the figure/background opposition. A companion (who is a person or a thing) who takes the form in the instrumental becomes a figure.

Fig. 9

(a) *Janek je kanapkę z **sałatą, serem i pomidorem*** (Janek is eating a sandwich with lettuce, cheese and tomato).

Fig. 10

(a) *Magda jest na koncercie z **koleżankami*** (Magda is at a concert with her friends).

4.2. Case government – with certain verbs: *interesować się* (to be interested), *cieszyć się* (to enjoy), *martwić się* (to worry), *męczyć się* (to get tired), *opiekować się* (to look after), *pasjonować się* (to be passionate about), *przejmować się* (to care), *stresować się* (to be stressed), *zajmować się* (to deal with), *zarażać się* (to get infected)

It is worth noting that most of these verbs are in the emotional domain. For this reason, sentences with them can be considered as examples from the domain of emotions. In the visualization below, the verb *interesować się* (to be interested) illustrates the character's specific emotional approach to art.

(a) *Magda i Piotr interesują się **sztuką*** (Magda and Piotr are interested in art.).

Another characteristic of the Intrumental Case is the fact that it might be distinguished by two interrogatives:
1. *(z) kim?* – with who? / with whom?
2. *(z) czym?* – with what?

Fig. 11

Distinguishing it by means of the above questions is a good idea for Polish native speakers, but for foreigners, the questions are additional information, and the distinguishing element will be the roles of this case discussed above.

Each of the visualizations presented above contains sentences that relate to the picture, and which should be given to the student as an example of an Instrumental in context. The forms of this case have been bolded to draw the learner's attention to the key points in the sentence. If several visualizations have been prepared for a given use, it means that it was decided to show the multitude of uses in a given category. Moreover, in many examples, adjectives appear next to nouns to show their combined functioning on a pragmatic and stylistic level.

Illustrations can also be a good starting point for exploring vocabulary, for communication exercises (e.g., describing a picture or writing dialogues), or for writing essays. In each of the additional uses, however, it is worth remembering to use the Instrumental and formulate commands in such a way as to practice building and using this form.

In addition, the same protagonists appear in the illustrations to create a co-herent story of their family, which is thought to be a prototype of Polishness. Students will get to know the next scenes of events from their lives, just like in the series. This is to arouse curiosity, emotions, as well as make them relate to some

situations that they experience themselves. As a result, it is supposed to affect the effectiveness of learning Polish as a foreign language by using the knowledge that the brain learns more willingly what is pleasant, what is interesting, what seems close to a person, and what evokes emotions[21].

5. Conclusion

Based on specific studies, visualizations influence better understanding, assimilation, and memorization of grammar concepts. Therefore, they are worth using in teaching foreign grammar units. The starting point for taking up this study was the lack of illustrations to visualize grammar in textbooks for teaching Polish as a foreign language (only forms are illustrated). Therefore, a further goal could be to create a grammar of the Polish language with visual elements, modeled on the study of Spanish entitled *Gramática básica del estudiante de español* (2005). The researchers use cognitive point of view to explain grammar and they embed the explanations in the focus on form approach.

Future prospects resulting from the topic under discussion are as follows:
a) improving drawings,
b) expanding the database of drawings about other grammar problems,
c) creating grammar exercises in the spirit of focus on form and grammaring,
d) creating visual representations of subsequent cases and other grammar concepts.

It is worth mentioning that visualization is not a precise representation of the meaning of a given expression, but it is worth looking for graphical ways to "present some aspects of the conceptual structure in a friendly way, and at the same time clear enough to serve as the basis for semantic and grammatical analyses"[22]. The final effect depends on the quality of the visualization and the idea for it.

Awareness of the visual potential of materials can contribute to building new visualizations, as well as their appropriate search and selection, and a more conscious use of this tool during classes. It can help draw attention to visual elements, including drawing on the board and taking notes. Moreover, it can show a wide range of possibilities and the potential of a tool that can be successfully used when building the plot of classes, introducing characters who will color the teaching

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[21] P. Bąbel, M. Wiśniak, *12 zasad skutecznej edukacji: Czyli jak uczyć, żeby nauczyć*, Sopot 2015, pp. 133–145.

[22] R.W. Langacker, *Gramatyka kognitywna…*, p. 29.

process, and creating serial stories with their participation. Visualizations also have a mnemonic dimension, they organize knowledge, and support the process of saving information in long-term memory.

It is worth mentioning that not every visualization will bring spectacular results in work in every group. There are many factors that affect the success of this tool. They can be grouped depending on the teacher, student, material, and didactic conditions. The teacher's task is to select the material properly and to prepare for its use. On the side of the student is the ability to read and understand the context. In turn, the elements related to the material are its legibility, correctness, compliance with the description of the language, and the didactic conditions are the right place, time, materials, and equipment.

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