

Vygotskian bases of Teaching-Orienteering Activity

Bases vigotskianas da Atividade Orientadora de Ensino

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RESUMO

O objetivo do artigo é discutir algumas bases vigotskianas que apoiam teórica e metodologicamente a Atividade Orientadora de Ensino. Para isso, inicialmente, o texto apresenta uma breve definição dessa Atividade. Em seguida, discorre sobre algumas ideias vigotskianas como formação de conceitos e relação entre pensamento e fala. Como considerações finais, o artigo aponta a potencialidade educativa desse modo geral de organização do ensino.

Palavras-chave: teoria histórico-cultural; organização ensino; Vigotski; atividade orientadora de ensino.

ABSTRACT

The aim of the article is to discuss some Vygotskian bases that theoretically and methodologically support the Teaching-Orienteering Activity. For this, initially, the text presents a brief definition of this Activity. Then, it discusses some Vygotskian ideas such as concept formation and the relation between thought and speech. As final considerations, the article points out to the educational potential of this general way of organizing teaching.

Key-words: cultural-historical theory; teaching organization; Vygotsky; teaching-orienteeering activity.

1 Introduction

The aim of the present article is to discuss some vygotskian bases that theoretically and methodologically support the Teaching-Orienteering Activity, object of this dossier.

In order to do so, we performed a bibliographic review with more recent texts that deal more specifically with this Activity. Another criterion used for choosing the texts, which based the analysis that will be exposed here, concerns accessibility. Thus, preferably, easily accessible articles and book chapters were used for those who have interest in going further in the theme. It is important to mention that this review did not intend to be neither exhaustive nor systematic, only aiming to provide a description of the most central and relevant aspects that characterize the Teaching-Orienteering Activity (hereinafter denominated TOA) to the reader. Thus, a brief TOA characterization was made from the selected texts.

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In consonance with the kind of review made, this characterization also did not aim to perform a systematization or a historical rescue of TOA's construction and proposition. Originated from the doctoral thesis by Manoel Oriosvaldo de Moura (MOURA, 1992), retired professor of School of Education at University of São Paulo, the Teaching-Orienteering Activity idea has been object of research, teaching, and extension of many works, it has resulted in a large number of publications, many master's degree dissertations and doctoral theses, and constituted an important heuristic source for already three generations of researchers. In this sense, the present text does not aim to carry out a systematic inventory of all this production, it would not even be possible in this article's scope. Nevertheless, it is important to highlight that the issues that will be approached here bring the contributions of these works that, although all of them may not be named, mark the collective mode of work of the research group that was created from the pioneer research by Moura (1992) – the Study and Research Group about Pedagogical Activity (Portuguese: Grupo de Estudos e Pesquisa sobre Atividade Pedagógica, abbreviated GEPAPe).

Besides the review, for the discussion of vigotskian ideas that support the Teaching-Orienteering Activity, we used some works by Lev S. Vigotski. We made use of, mainly, the last book written by the author and published in 1934, after his death. Due to the easy accessibility criterion, we preferably resorted to the Brazilian publication “A construção do pensamento e da linguagem” (VIGOTSKI, 2001), translated straight from the Russian book “Michlienie i rietch” (Thought and Speech). However, considering problems related to this translation, for some Vigotski's direct citations and aiming at more clarity and accuracy concerning the author's ideas, we resorted to the Argentinian translation *Pensamiento y habla* (VIGOTSKI, 2007), also made straight from the original in Russian, because we consider that some passages are more clarified in this work².

For the discussion of TOA's vigotskian bases, we also used some ideas discussed in the book “Sete Aulas de L. S. Vigotski Sobre os Fundamentos da Pedologia” (VIGOTSKI, 2018), a collection of texts that had never been published

² Concerning the problems in the Brazilian translation, see, for instance, Prestes e Tunes (2012).

before, released in Brazil in 2018, and also translated from Russian. However, once again for Vigotski's direct citations, we used another translation, "A Quarta aula: a questão do meio na pedagogia" (VIGOTSKI, 2010), because we judge that it presented more clearly the author's ideas in the excerpt used for the undertaken analysis³.

From these procedures, we carried the analysis that will be presented in this text and is organized in four parts. Initially, we will present a brief definition of Teaching-Orienteering Activity. Next, we will discuss some vigotskian ideas about the formation of concepts and the relation between thought and speech. Finally, we will weave the final considerations.

2 Teaching-Orienteering Activity: a brief characterization

Starting from the comprehension of the pedagogical activity as unit between teaching and learning or, more specifically, between the teaching activity performed by the teacher and the learning activity that takes place in the child or student, the Teaching-Orienteering Activity (TOA) constitutes a proposal of a general mode of teaching organization, coming from the the contributions by the historical-cultural theory (MOURA et al., 2010; MOURA; ARAUJO; SERRÃO, 2018). In other words, TOA is a general mode of organizing the pedagogical activity, that aims to promote learning and, thus, make human development advance (MOURA; SFORNI; LOPES, 2017).

In this sense, the Teaching-Orienteering Activity is, at the same time, a teacher's instrument to understand and perform their object of work – the teaching of concepts – and it is also a student's instrument that acts towards the appropriation of these concepts (MOURA, ARAUJO, SERRÃO, 2018). Or, as stated by Moura et al. (2010), TOA is a theoretical-methodological base of development for the ones who teach and for the ones who learn.

Understanding the pedagogical activity as human activity, TOA is structured from the conception of activity proposed by Leontiev (1978). In this

³ Among the lectures published in 2018, it was the only one that had already been translated in Brazil. Another translation of this same text may also be found in Vigotski (2017).

sense, it must be motivated by a necessity, whose satisfaction requires actions and operations intentionally planned for the materialization of the initial objective. Thus, Teaching-Orienteering Activity has a reason, it has the satisfaction of a necessity as its goal and it has actions and operations that enable putting in movement the appropriation of knowledge (MOURA; ARAUJO, 2018). In the words by Moura and Araujo (2018), in TOA “... teaching, understood as activity, must be organized in a way that subjects act motivated by a necessity, whose satisfaction requires instrument and mode of action to achieve it” (p. 212).

Based on the marxist idea that every knowledge is result of human work, the Teaching-Orienteering Activity seeks to recreate situations that, in humanity’s history, generated a real necessity whose attainment resulted in the production of certain concept. In this way, TOA puts the student in a situation that, synthetically and regarding the essential, is similar to a problem which humanity has come across in its historical development process and that originated a concept.

In this direction, Teaching-Orienteering Activity is composed of “learning trigger situations”, as pedagogical game, emergent situations of everyday life and the concept’s virtual history (MOURA; ARAUJO; SERRÃO, 2018), that have in common that fact of containing in themselves a mobilizing problem arising from necessities of practical order that generated the development of a certain concept in humanity’s history. The learning trigger situation that composes TOA aims to put the student in a “creative tension”, similarly to what human beings experienced when they had to solve the authentic problems generated by practical necessities throughout their historical process, seeking, in this way, to (re)create ways to solve problems from situations which, bearing in mind the proportions, humanity has already come across in its historical process (MOURA, ARAUJO, SERRÃO, 2018). Or, as stated by Moura e Araújo (2018):

The ‘teaching-orienteeing activity’ organizes learning trigger situations, actions in which humanity’s social practices, made objects in the shape of scientific concepts, may be subjectified (p. 212).

An example of a trigger situation is described and analyzed by Munhoz et al. (in press). The situation was organized from TOA’s theoretical-methodological

principles and developed by a teacher who was studying such principles in her teacher education process. The activity was carried out with a group of five-year-old children who attended kindergarten. A virtual story (“Ulysses's travel”) was elaborated from the book “Odyssey”, in the adaptation by Ruth Rocha, and tells that the greek hero Ulysses was captured by a sorceress, who keeps him hostage in the island and removes all his mathematical knowledges. Besides that, the sorceress gave him the task to take care of the animals in the island and prevent them from escaping. Through a letter, Ulysses asks the children for help about how he could do it without knowing how to count. The children get mobilized with the necessity to help the hero and, through a response letter, they propose that he controls the quantity of animals through one-to-one correspondence, using a small stone for each animal. Next, the hero thanks the help and presents a new problem. The quantity of animals increased a lot and it is not possible to control using the correspondence of one stone for each animal anymore. Then, Ulysses asks the children how he could control all the animals, making sure that none of them gets lost, using a small quantity of stones. In the development of the activity, a child says: “I know, a small stone is worth 3... or 4 or 5!”.

In the learning trigger situation analyzed by Munhoz et al. (in press), the problem presented to the children makes them face a situation similar to one lived by humanity in its historical process of creating the concept of number: controlling an ever-increasing quantity with the smallest possible number of sign-objects. And what the child says evidences the movement of the thought towards the resolution of the human problem synthesized and mediated by the concept *one is worth many* (MUNHOZ et al., in press)⁴.

After this brief Teaching-Orienteering Activity presentation, we will, next, discuss some vigotskian activities in which this way of teaching organization is based on.

⁴ Other examples of learning trigger situations may also be found in Rosa; Moraes; Cedro (2010), Moura; Sforzi; Lopes (2017), Moura; Araújo; Serrão (2018), Nascimento (2018); Panossian et al. (2018), Rosa; Matos (2018), Moraes; Lazaretti; Arrais (2019), among other publications.

3 Vigotskian bases

Discussing the process in which the development of conceptual thought occurs, Vigotski opposes the associationist idea that the concept comes from the concrete, the object, and that it is a simple association between terms.

Analyzing the investigation results carried out by Ach, Vigotski (2001) states that verbal associations between symbols and objects were not enough for the formation of concepts. Based on this investigation, Vigotski also states that learning words and associating them with objects do not lead by itself to the formation of concepts. He still discusses that concepts are formed through a process oriented to a certain end and composed of a series of operations whose function is to make use of means to solve the main task, in a way that this task can only be solved through the formation of concepts (Vigotski, 2001).

In his words:

In Ach's method, in which the functional conditions of concept formation are considered] the concept is taken in relation to a certain task or necessity that emerges in the thought, in relation to the understanding or the communication, in relation to the performance of some task, or instruction, whose execution results to be impossible without the concept formation (VYGOTSKI, 2001, p. 121).

According to Vigotski (2001), Ach denounced the mistake from the associative point of view about the process of concept formation, explaining the importance of considering the function to understand the concept. He also highlighted that the concept may only emerge and be formed as response to a concrete necessity "in the progress of an activity directed to reach a certain purpose of meaning, oriented to a certain objective or to the resolution of a concrete task" (VYGOTSKI, 2011, p. 126).

Based on the investigation by Ach and also by Rimat, and contrary to associationism, Vigotski discusses how the concept results from an achievement, an action of the thought, which is a process of productive character. For him, the concept has a function and one of its most important issues for its formation is the relation with the reality. The concept emerges as result of the thought. The

concepts are always formed in the solution process of some problem; only as a result of the solution for this problem that the concepts may emerge, the author reinforces.

However, although Vigotski (2001) makes use of the investigations carried out by those authors to affirm his comprehension about the process of concepts formation, he also weaves some criticisms to the methods used by them. One of them refers to the fact the Ach and Rimet believed that the proposed task would end in itself the solution for the problem it proposes (VIGOTSKI, 2001). Besides that, the method would not explain the genetic process of concept formation, being unable to reveal its genetic, functional and structural nature. According to Vigotski, it is necessary to explain how the modes of thought develop, as well as what the causal dynamic determination of concept formation is. And that is what he proposes to do in the book “Thought and speech” in the two subsequent chapters to chapter five, in which he approaches these researchers’ experiments.

After analyzing the development process of the conceptual thought, discussing the syncretic thought and the thought in complexes, Vigotski (2001) states that the experiments that he and his group of collaborators carried out show how the singular significant structure that may be genuinely called concept emerges from the syncretic images and connections of the thought in complexes, the potential concepts, and about the base of employing the word as the mean to form the concept. And synthesizing the discussion, the author states:

As we discussed, the concept emerges during an intellectual operation; it is not the association game what leads to the construction of the concept. In its formation, there is the intervention of all the intellectual functions of an original combination, whose central factor is the functional use of the word as mean of deliberate orientation of attention, abstraction, selection of attributes and its synthesis and symbolization with the help of the sign (VYGOTSKI, 2001, p. 176).

The relation with the word is one of the main distinctive traits of the process of concepts formation. For Vigotski (2001), the word has a central role in concepts formation. Also, according to the author:

the concept is impossible without words, the thought in concepts is impossible outside the verbal thought; in all this process, the central moment, that has all the fundamentals to be considered consequent cause of concepts maturation, is the specific employment of the word, the functional employment of the sign as a mean of concepts formation (p. 132).

In synthesis, Vigotski opposes associationism showing that the concept does not come from the concrete, the objects, being an accumulation or them being deposited, but, on the contrary: the concept is a movement, an achievement, an action of *thought*. Besides that, the author also highlights the role of the *word* in this process.

And it is in function of the relevance of the word in the concepts' development process that we will deal with it more thoroughly next.

4 The word and the process of concept formation

Having the formulation of a new Psychology as last objective, coming from the dialectic materialistic method, Vigotski (2001) and his collaborators undertake studies about human consciousness, aiming to reach an explanation that contemplates human development in its complexity and totality.

Consciousness, according to the author, although it involves thought, is wider, including it, but not being reduced to it. When dealing with the necessity to consider consciousness to understand thought, the author points out to this wider definition, which integrates aspects related to reasons and emotions in the consciousness:

Thought is not born neither from itself nor from other thoughts, but from the motivational sphere of our consciousness, which covers our inclinations and our necessities, our interests and impulses, our affections and emotions. Behind every thought there is an affective-volitional tendency. Only it has the answer to the last reason in the analysis of the thinking process (VYGOTSKI, 2001, p. 342).

In synthesis, according to Toassa (2016), for Vigotski, behind the consciousness, there is life itself.

Aiming to explain human consciousness, Vigotski dedicates to the study of the relation between thought and speech, that constitutes, for him, the key to understand it⁵.

The relation between thought and speech is, for Vigotski, something complex and essentially dialectic. In order to discuss this relation, the author also deals with other two types of speech: internal speech (to oneself) and external speech (to others) (VIGOTSKI, 2007). The discussion about these two speeches seems to translate the vigotskian understanding regarding the relation between the exterior and the interior, between social and individual, as well as the direction and explanation of human development.

Considering that the relation between thought and speech is dialectic and dynamic, Vigotski (2007, p. 503, our translation) states that, if the external speech is a process of transformation of thought into words, of materialization and objectification, in the internal speech:

[...] we observed a process in reverse, a process that goes from the outside in, a process of evaporation of speech in thought. But the speech does not disappear in any way in its internal form. Consciousness neither absolutely disappears nor evaporates in pure spirit. On the contrary, internal speech keeps being speech, that is, thought connected to the word. But, if in the external speech the thought is incarnated in the word, in the internal speech this word dies when giving birth to the thought. [...] The internal speech is dynamic, unstable, variable and it oscillates between the two extreme poles we have been studying, more shaped and stable, of the discursive thought: between word and thought.

Thought and internal speech, therefore, are not coincident but they are correlated. Moreover, because of the discussion undertaken by Vigotski, it is possible to understand that, when the author talks about thought, he also has in

⁵ Although in Brazil we are more accustomed to use the expression “thought-language relation”, perhaps because of the translation of Vigotski’s works which were published in Brazil under the titles “Thought and language” and, later, “The construction of thought and language”, in the present work we will use the expression “thought and speech” for considering that it better translates the author’s idea, since Vigotski is referring to a linguistic code developed by humanity, that is, speech or language. *Pensamiento y habla* (thought and speech) is the title of the Argentinian translation of Vigotski’s work (2007), which is also used in this text. According to Prestes e Tunes (2012), this translation officially inaugurates a radical change when translating “rietch” as speech and not language.

mind something that goes beyond the cognitive dimension, something wider, that also involves the issue about feeling, emotion. Talking about the “inexpressiveness” of thought and the imperfection of word, Vigotski cites the verses by the Russian author Tyutchev: “How can a heart expression find...” or “Oh, if the soul could express itself without words!”. He also states that the thought does not directly coincide with its verbalized expression and it may be compared to a “thick cloud that unloads a storm of words” (VIGOTSKI, 2007, p. 507, our translation). That is, thought and speech do not coincide, they are distinct processes, but in a complex, dynamic and dialectic relation. The thought, that also contemplates affective aspects, does not coincide, is not exhausted, and also cannot totally, completely or accurately express itself in the speech. On the other hand, without the speech, without the word, the thought has no form. According to Vigotski (2007, p. 507, our translation), “The thought does not reflect in the word, but it is accomplished in it”. Such idea is so important for the author’s comprehension about the relation between thought and speech that he repeats it three times in the text “Thought and word” (last chapter of the book *Thought and speech*⁶). The epigraph in this text also expresses such understanding: “I forgot the word I wished to say / And my disembodied thought returns to the palace of shadows”⁷. That is, for Vigotski, the word is the material base of thought; the word does not coincide with thought (not even the other way around), but it is its materiality:

We noticed that the relation between thought and word is a living process of thought birth in the word. A word without thought is, before anything else, a dead word. [...] But the thought that does not get materialized in the word remains as a shadow... (VIGOTSKI, 2007, p. 513, our translation).

When synthesizing his conception about the relation between thought and speech, Vigotski (2001, p. 484) states that the word is “absolutely indispensable to our thoughts”. And, in consonance with his dialectic, historical and processual view about human development, he exposes: “But the connection between thought and

⁶ Chapter “Pensamiento y palabra” of the book “Pensamiento y habla” (VIGOTSKI, 2007).

⁷ According to the Argentinian translation, it is an excerpt of the poem “The swallow”, by the Russian poet Osip Mandelstam, persecute by Stalin.

word is not a primary connection, given once and for all. It emerges in the development and it develops itself” (VIGOTSKI, 2001, p. 484).

Thus, being the concept an action of thought and having the word a highlighted role in its development, it is also important to stress that the relation between thought and speech is a *process* that takes place throughout the path of development and that the relation develops itself. It is a relation that, like every human development, has both a phylogenetic history, in humanity’s history, and an ontogenetic one, in each human being’s history. When discussing the concepts development in childhood, the author tells us:

[...] when a new word is assimilated, the development process of the corresponding concept does not end, but it is just beginning. When a new word is assimilated for the first time, it is not placed in the end, but in the beginning of the development, and it is always, in this period, an immature word. The gradual internal development of its meaning also takes to its own maturation. The development of the semantic aspect of the speech is here, like in all other parts, the fundamental and decisive process in the development of thought and speech of the child (VIGOTSKI, 2007, p. 422, our translation).

In this direction, according to Vigotski, when a child learns a word, this learning is only beginning, the central matter for the development of thought and speech is the development of the semantic aspect, that is, related to the meaning. In the relation between thought and speech, the meaning is essential.

The meaning of the word is, according to Vigotski (2001), what connects thought and word, it is the indecomposable unit of this relation. Like Marx, in his investigation, got to commodity as unit of analysis of the capitalist society, Vigotski proposed the meaning of the word as indecomposable unit between thought and speech. It is due to the fact that it is, at the same time, an intellectual (thought) and a discursive (speech) phenomenon. The meaning of the word is a thought phenomenon because it is an idea, a concept that is related to the word and materialized in it. And it is a speech phenomenon because it is a sound connected to thought, a sound that has meaning and, because of this, it is distinguished from all the other sounds of nature. The meaning of the word is the word seen from its interior (VIGOTSKI, 2001).

However, according to Vigotski (2001), the meaning is not enough for the comprehension of a word. It is also necessary to consider the sense. According to the author, the sense of the word varies in accordance with the sentence context (or “grammatical” context) and the interior psychological context, being the sum of all the psychological facts that it arouses in the consciousness. Thus, the sense is dynamic, fluid, complex, having several stability zones. And the meaning constitutes one of these zones that is more stable, uniform and exact. Vygotsky (2007, p. 494, our translation) states that the word easily changes its sense according to the context, while the meaning is a static, immutable point, remaining stable in different contexts: “The isolated word, taken from the dictionary, has only one meaning. But this meaning is nothing more than a potentiality that is accomplished in the living speech, in which the meaning is only one stone in the building of sense”.

In order to exemplify this discussion, Vigotski (2001) mentions the fable “The dragonfly and the ant”, by the Russian author Krilov. According to Vigotski, the word the author uses to finish his text – *dance* – has a very definite meaning. However, considering the fable context, such word acquires a much wider intellectual and affective sense, simultaneously meaning “have fun and die”. And he adds:

This enrichment of words that the sense grants them from the context is the fundamental law of the dynamics of the meaning of words. The word incorporates, absorbs all the intellectual and affective contents from all the context in which it is intertwined and starts to mean more or less of what its meaning contains when we take them isolatedly and out of context... (VIGOTSKI, 2001, p. 466).

The author continues his explanation regarding the sense saying that the word only acquires sense in the sentence, the sentence only acquires sense in the paragraph, the paragraph in the context of the book and the book, for its part, in the context of all the works of an author, in a system of relations. Vigotski (2007, p. 495, our translation) says: “The true sense of each word is defined, in the last level, by the abundance of aspects that exist in the consciousness related to what is expressed by the word”. And he completes it with a citation by the French

philosopher Frédéric Paulhan (apud VIGOTSKI, 2007, p. 495, our translation)⁸, from whom Vigotski borrowed the distinction between sense and meaning of a word⁹: “The word is an inexhaustible source of new problems. The sense of a word is never ended. In the last level, it is based on the conception of world and on the internal structure of the person in the set”.

Vigotski discusses the matter of sense regarding the word. Although the richness brought by the concept of sense because it contains in itself the possibility to overcome the division reason-emotion, cognition-affection (GÓES; CRUZ, 2006), representing a turning point in Vigotski’s work (2001), it was little developed by the author.

Leontiev (1978) discusses the concept of sense from human activity, deepening this dimension. This author introduces the adjectivation social and personal, respectively, to the vigotskian concepts meaning and sense and understands that the social meaning and the personal sense constitute, besides the sensory content, human consciousness. In order to discover the consciousness characteristics, Leontiev (1978, p.98) postulates that:

[...] we must study how men’s consciousness depends on his human way of life, his existence. It means that we must study how the vital relations of men are formed in these or those social-historical conditions and which particular structure engenders such relations. Next, we must study how the structure of men’s consciousness is transformed with the structure of the activity.

According to the author, the personal sense is constituted during the subject’s activity. And the way in which the individual appropriates (or not) certain social meanings depends on the relation of this individual’s interest with such meanings, that is, it depends on the personal sense that they present to the subject. In this aspect, Leontiev (1978, p. 104) establishes the importance of motive for the

⁸ Vigotski does not mention which Paulhan’s work he is referring to. Rochex (1995) affirms that it is a 1929 text named “La double fonction du langage” (The double function of language).

⁹ According to Toassa (2009), based on information obtained by the author with Kellogg, Paulhan’s article would be “Qu’est-ce que le sens des mots?” (What is the meaning of words?) But Vigotski’s true sources regarding this matter would be Voloshinov and Mandelstam, since, according to Kellogg and her, in Paulhan’s thoughts, there would be aspects that are incompatible with the vigotskian conception. However, Vigotski would have been prohibited to cite such authors due to censorship.

constitution of personal sense: “[...] in order to find the personal sense, we must find out the motive that corresponds to it”¹⁰. The concept of motive, however, may not be understood as translation of a purely individual or merely psychological necessity (LEONTIEV, 1978, p. 103), or, in other terms, as the feeling of a necessity. The author uses it to designate that in which the necessity is materialized objectively and to which the subject’s activity is oriented. Leontiev (1978, p. 104) gives the following situation as example:

Let us imagine a student reading a scientific work that was recommended. That is a conscious process that aims at a precise objective. Its conscious end is to assimilate the content of the work. But what is the particular sense that this student takes to this end and, consequently, the action that corresponds to it? It depends on the motive that stimulates the activity performed in the reading action. If the motive consists in preparing the reader for his or her future profession, the reading will have a sense. On the other hand, if the motive is to have the student pass the exams, if they are nothing more than simple formality, the sense of the reading will be different, he or she will read the work with other eyes; the student will assimilate it in a different way.

In the example given by Leontiev, it is clear that, changing the motive, the activity is also changed, although the action is still the same. The example also brings the importance of sense in the appropriation of something¹¹.

From the previously made discussion, we understand, with Vigotski (2001) and Leontiev (1978), that speech or language is a human production, always originating, like every human activity, from a necessity. Speech is a human historical and cultural construction that was developed from the necessity of communication coming from social relations. And, when appropriating it, the individuals update this story in themselves, modifying and humanizing themselves. Because, like Marx states that the man builds instruments and, using them, modifies himself, Vigotski states the same about the language, being the word an instrument of symbolic order. In the author’s words:

Initially, the speech to the children consists of a medium of contact among people, it is presented in its social function, its social role.

¹⁰ Rochex (1995) defends the use of the French word “*mobile*” (movable) instead of motive.

¹¹ For a deeper discussion about the issue of sense in Vigotski and Leontiev, we suggest Namura (2004), Asbahr (2014), Piotto; Asbahr; Furlanetto (2017) and Mendonça; Asbahr (2019).

But, little by little, the children learn how to apply the speech to serve themselves, to their internal processes. Soon, the speech becomes not only a medium of contact among people, but also a medium of interior thought for the children themselves. So, it will not be that speech that can be heard, that we employ when we address each other, but it will be an interior speech, silent, mute. But, as a medium of thought, what did speech emerge from? From the speech as a medium of contact. From the exterior actions that happened among the children and the people around them, one of the most important interior functions emerged, without which the own person's thought would be impossible (VIGOTSKI, 2010, p. 699, author's highlights).

Besides that, for Vigotski (2001), every word is always a generalization. Thus, only to illustrate in a very simple example, the word /CHAIR/ is a generalization of many and varied chairs. It means something used to seat, but it does not specifically refer to a certain chair, that is, it is a word that names a class of objects, but it does not refer to a specific object with only certain characteristics, it refers to an idea. When someone says /CHAIR/ the person is referring to a general idea of chair, that is, to a concept.

That is what the children are apprehending while they are appropriating the speech. However, as we have seen before, the process of concepts formation is something long and very complex. Vigotski dedicated himself to its study, thoroughly analyzing its development when investigating the syncretic thought, the thought in complexes and, finally, the conceptual thought. Here we will not be able to take care of this discussion with the depth it requires. However, it is important to point out that, according to Vigotski (2010), in the child, the process of appropriation of speech is different from what happens in adults.

It happens because when the children speak, although they relate the words with the same objects as the adults, they do it in another way. Despite the children, when they speak, also operate with generalizations, since every word is a concept, they are of another kind, that is, they are performed with the help of another mental action. According to Vigotski (2010), generalization in children have a more concrete, evident, visual or factual character. In order to explain this difference, Vigotski (2010) gives as example the identification of filiation through surnames. Just like we know that a surname refers to a group of people, but we can only define it through an authentic, real, filiation, that is, based on the legitimate, real,

kinship that exists among people, the children also generalize many objects through the word, but the relations among them are concrete, real, and they are not logic.

After presenting the relation between thought and word, we consider it is important, even briefly, to get to know Vigotski's view on the relation between word and action. Citing the sentence from the Gospel "In the beginning was the Word", and Goethe's contraposition "In the beginning was the action", the author affirms:

But, as observed by Humboldt, even if, like Goethe, we do not overvalue the word as such, that is, the voiced word, and, according to him, if we translate the biblical verse "In the beginning was the Verb", we may read it with another emphasis if we approached it through the history of development point of view. *In the beginning was the action*. He means that the word seems to him the supreme stage of men's development compared to the most supreme expression of action. Of course he is right. The word was not in the beginning. The action was in the beginning. The word constitutes the end and not the beginning of development. The word is the end that crowns the action (VIGOTSKI, 2007, p. 514, our translation, author's highlight).

That is, if Vigotski primarily approaches the matter of speech, especially in the end of his work, which was interrupted by his early death at 38 years old, it does not mean that he understands it as disconnected from human action. On the contrary, as expressed in the citation, the word is, in the last level, an action that was crowned by it.

Finally, we understand that the discussion about concepts formation is related to the discussion about the matter of speech and its relation with thought. Not by chance, Vigotski (2007) dedicated the last three chapters of the work that is considered his most important one (Thought and speech) to the discussion of the relations between these matters, approaching the study of development of scientific knowledges and ending with the discussion about the relation between thought and word (VIGOTSKI, 2007).

5 Final considerations

The aim of this article was to discuss some vigotskian bases that theoretically and methodologically support Teaching-Orienteering Activity. In

order to do that, we briefly presented this Activity and, next, we discussed some Vigotski's ideas that work as its base, especially the matter of concepts formation and the relation between thought and speech.

Teaching-Orienteering Activity is a general mode of organization of the pedagogical activity that (re)produces, synthetically and essentially, a real necessity experienced by human beings in their history and that resulted in the production of a certain concept, in order to create the conditions for students to appropriate this cultural production too. Through these learning trigger situations, the teacher, when organizing the teaching according to TOA's theoretical and methodological principles, puts the student in front of a problem which humans being have dealt with during their historical process and had to develop a way to solve it: a concept.

In synthesis, that is what Vigotski affirms about concepts formation and appropriation. According to the author, the concept is only formed from the necessity to solve a problem. That is, according to Vigotski (2007), the concept is an action of thought and it always meets a necessity, having a function. Besides that, it can only be formed as response to a concrete necessity.

It is also possible to relate the Teaching-Orienteering Activity to the process through which human beings appropriate humanity's greatest cultural-historical production – the speech.

From the relation between concepts formation and development of thought and speech proposed by Vigotski (2001), we understand that, just like the child learns to speak being put in a situation that is synthetic and essentially analogous to the one lived by human beings in their history, that is, moved by the necessity to communicate, and related to others that have already appropriated speech, product of collective human action, the process of teaching and learning scientific concepts should also happen in this way.

And that is what the Teaching-Orienteering Activity does.

TOA intentionally, systematically and deliberately (re)produces, in a certain way, the conditions of appropriation of speech in which children are inserted to and through which they appropriate this human cultural production. However, the difference between these two situations is in the fact that the learning of speech

occurs, in general, through a non-intentional and unsystematic process. On the other hand, the teaching of concepts requires a systematic and intentional teaching organization.

Concerning this aspect, it is important to remember the already mentioned Vigotski's criticism to Ach's investigations. The author states that, in those investigations, there was the understanding that the response to the presented situation would be given in the situation itself. That is, the concept would be given by the problem resolution itself.

In this point, it is necessary to highlight that, like Vigotski, the Teaching-Orienteering Activity understands that no learning trigger situation, be it a virtual story or a game, contains in itself the concept that is intended to be taught. The concept, as an action of thought, is not given in any situation, but must be appropriated by the one who organizes an activity with the explicit, specific and intentional purpose to promote its learning by someone. In full consonance with the historical-cultural theory, the teachers are central figures and they are absolutely indispensable for TOA. They, having appropriated the concept and modified themselves, may, collectively, organize their teaching activities in ways to mobilize the students for the appropriation of concepts through the recreation of necessities that have also moved human beings in their historical process of development. Thus, allowing others to appropriate the concepts and modify themselves.

The Teaching-Orienteering Activity, coming from the way through which the human being apprehends the symbolic productions of the species, making it explicit, allows the domain of the human way of learning and provides the means for teachers to organize their working activity in a way to enable that their students also appropriate the scientific concepts. This domain of the human way of learning allows the teacher to deliberately, systematically and intentionally use this way to teach and promote the learning of concepts. This domain, promoted by the Teaching-Orienteering Activity, also allows a contraposition to the most common mode of school education, which is mainly based on associationist ideas being guided by a verbalism that presupposes that learning a concept is summarized in repeating words. Opposing that, and based on Vigotski, TOA

understands that the concept is an action of thought that was originated from human activity in the historical process of development to meet a necessity and proposes the recreation of this situation so other human beings may have the right to appropriate symbolic productions by their species. Thus, for instance, the fact that a child knows how to speak the numbers from one to ten absolutely does not mean that the child understands the decimal numeral system. As seen before, Vigotski is emphatic to say that when children learn a new word, their learning and the learning of the corresponding concept are just beginning. For them to appropriate that system, it is necessary to be mobilized by an analogous situation lived by humanity that made the development of this conceptual system necessary, and their thought needs to be in movement. That is what was initiated and developed from the learning trigger situation “Ulysses’s travel”, organized from TOA’s theoretical and methodological assumptions and previously discussed here.

Maybe that is the reason why this general mode of teaching organization has demonstrated a great educational potentiality. The reports by teachers and schools that have used TOA to organize the pedagogical activity say that it generates a wide and effective engagement by both teachers and students. As highlighted by Moura, Araújo and Serrão (2018), the reports also mention that children considered to be “problems” in the school actively participate in the activities organized according to the Teaching-Orienteering Activity’s theoretical-methodological principles.

From the historical-cultural theory, we understand that the children who were able to appropriate the greatest human production have all the conditions to appropriate other symbolic riches produced by this same humanity. And if they do not do it, it is because, unfortunately, and for many reasons, the way how school education is organized does not allow it.

Synthetically and essentially recreating the way how human beings produced knowledge, the Teaching-Orienteering Activity seems to be a valuable tool to contribute to ensure that everyone is able to appropriate the human cultural production, making these symbolic riches *theirs*, transforming themselves and, thus, being able to transform the world.

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