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## Teaching Gestures and Technical-Semiotic Instruments in the Literacy

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**ABSTRACT – Teaching Gestures and Technical-Semiotic Instruments in the Literacy.** The article discusses the literacy teacher's *métier*, emphasizing pedagogical resources and teaching gestures. To understand the educational dynamics of literacy, it brings data constructed in a research with literacy teachers inspired by the theoretical-methodological principles of the Clinic of Activity and resumes the notion of professional gesture to circumscribe the notion of teaching gesture. From a cultural-historical perspective, the analyzes make explicit the articulation between teaching gestures and technical-semiotic instruments and suggest that the complexity of the teaching activity is related to the process of instrumental genesis oriented towards the activity of the teacher and students in the literacy process.

**Keywords: Literacy. Literacy Teacher. Technical Semiotic Instruments. Cultural Historical Perspective.**

**RESUMO – Gestos de Ensinar e Instrumentos Técnico-Semióticos na Alfabetização.** O artigo problematiza o *métier* do professor alfabetizador, com destaque aos recursos pedagógicos e aos gestos de ensinar. Para tanto, com objetivo de compreender as dinâmicas educativas de alfabetização, traz dados construídos com professoras alfabetizadoras em pesquisa inspirada nos princípios teórico-metodológicos da Clínica da Atividade e retoma a noção de gesto profissional para circunscrever a noção de gesto de ensinar. Em uma perspectiva histórico-cultural, as análises explicitam a articulação entre gestos de ensinar e instrumentos técnico-semióticos, e sugerem que a complexidade da atividade de ensino está relacionada ao processo de gênese instrumental orientado à atividade do professor e dos alunos em processo de alfabetização.

**Palavras-chave: Alfabetização. Professor Alfabetizador. Instrumentos Técnico-Semióticos. Perspectiva Histórico-Cultural.**

## Introduction

This paper<sup>1</sup> problematizes the *métier* of the literacy teacher, with special attention to the teaching gestures and teaching resources, from the analysis of data constructed with a group of literacy teachers. Although the research<sup>2</sup> presented here was carried out before the COVID-19 pandemic, in a condition of face-to-face teaching, the analysis of the *métier* of the literacy teacher, the teaching gestures, and the intricacies of pedagogical literacy practices contributes to understanding the (im)possibilities of effecting pedagogical processes, either in the face-to-face model or in the remote teaching model.

At the current historical moment, the social isolation imposed by the pandemic undeniably caused important ruptures and discontinuities to the educational process. The emergency remote education situation, defined by the pandemic, has evidenced the precariousness and difficulties to develop pedagogical activities, especially for children in early childhood education or in the early stages of literacy (Dias, Smolka, 2021, among many). In addition to the difficulties of accessing equipment and internet of reasonable quality, conditions that strongly affect public school students, the organization of pedagogical work with children in early childhood education and the beginning of elementary school remains a major challenge: what are the demands and specificities of the literacy teacher's work? How and what do teachers do when teaching – teaching gestures? How do they observe students and how do they adjust their own activity to mediate the students' activity? How do they choose and recreate the resources and procedures to be implemented in the classroom?

## Teaching gestures, resources, and technical-semiotic instruments in work situations

We take here the notion of professional gesture or gesture of *métier* as a reference to circumscribe the notion of teaching gesture. The gesture of *métier* can be understood as preexisting and characterizing the activity in a given field of work (Bronckart, 2006; 2009; Cizeron, 2010; Clot, 1998; 2007; 2010; Clot; Faïta, 2000; Felix; Saujat, 2015; Machado, 2004; 2007; Roger, 2010; 2013; Roger; Ruelland, 2009; Saujat, 2004; Sensevy, 2005; Wallian, 2015; Yvon; Clot, 2004; among others).

When dealing with the professional gesture, Cizeron (2010) highlights two distinct theoretical orientations. The first, emphasizing the professional gesture towards action, proposes to discuss the gestures inscribed in the body, empirically observable, or the verbal dimension of gestures (Goigoux, 2007; Sensevy, 2005, 2010). In the field of Education Sciences and Didactics, Sensevy emphasizes action and defines the teaching gesture as a certain way of doing, articulated to the knowledge to be taught, to an educational project, and to semiotic tools that crystallize the encrusted knowledge and allow its expression. He states that “a teaching gesture depends, above all, on how a given situation

produces, in the form of semiotic tools and related vocabularies, dense public meanings in knowledge” (Sensevy, 2010, p. 8, own translation).

The second orientation, which includes Work Psychology and, particularly, the Clinic of Activity (Clot, 2006; 2010), prioritizes the articulation with work. The professional gesture is linked to the know-how shared and inscribed in a professional genre, to the implementation of an identity, and to a type of professional activity. “The gesture is thus loaded with the lived sense of the situation by the actor who does it. [...] The worker is then the author of his gestures of *métier* and these are, at the same time, bearers of the history of a craft and of the style of each individual” (Cizeron, 2010, p. 2, own translation).

According to Clot, the movement of appropriation of a professional gesture – generic and social since it is inscribed in the history of the craft – transposes the gesture of the other, an external source of learning that can be modified, by becoming an internal resource for the development of the worker, given the need to make micro-adjustments to the specific conditions of each context: “In fact, the gesture is presented in the professional activity a bit like the word in the language activity. [...] Learning a gesture is to continually retouch it according to the heterogeneous contexts it traverses and at the core of those which it refracts” (Clot, 2010, p. 157, own translation).

In this article, we make use of the notion of gesture of *métier* as presented in the second orientation, thus seeking to analyze professional gestures in relation to the entire professional activity (Clot, 2010; Clot; Fernandez; Scheller, 2007). As Roger and Ruelland put it (2009, p. 9, own translation), the concept of gesture of *métier*

[...] allows to encompass different types of gestures that combine or interpenetrate in the daily course of action: gestures inspired by the common ways of doing things in the area, ‘generic’ gestures in our vocabulary; actions consistent with what is prescribed in the instructions etc, and this can be described as ‘professional’; gestures inspired by colleagues, professional relationships; gestures that are part of each person’s personal way of conceiving and doing the craft.

Thus, in an analogy with the notions of gesture of *métier* and teacher’s *métier* (teaching work or craft) elaborated by the authors of Work Psychology, we highlight the teaching gesture to specify an aspect of the teaching activity. By understanding that “teaching work cannot be reduced to teaching, nor does the practice in the classroom exhaust all teaching practices” (Amigues, 2009, p. 14, own translation), we understand that the teaching gesture integrates the teaching activity as one of its dimensions, such as work collectives, activity genres, rules of the work activity, and tools (Amigues, 2004).

Regarding the teaching gesture of the literacy teacher, it is “important to work and argue more deeply and insistently about the *social nature of this gesture, this work, this practice*, which is the teaching/learning of the written form of language in the school institution” (Smolka,

2014, p. 3, own translation, italics in the original). The notion of teaching gesture is linked to the history of the development of the pointing gesture, a prototypical example described by Vygotsky (2000), since the two forms of gestures have in common the social and historically mediated processes of meaning.

The teaching gesture is doubly mediated, by the teachers and by the semiotic tools, to share and produce with the students the meanings about the object of knowledge; the pointing gesture is mediated by the mother who attributes meaning to the baby's movements towards an object. The movements become an appropriated indicative sign for the baby – in this process, social mediation establishes semiotic mediation. “Something is required to serve as an object for full implementation of the gesture, and the meaning that this something acquires is essentially a secondary, derived meaning based on the primary meaning of the gesture” (Vygotsky, 1997, p. 249). In this process, “[the] internalization of social relationships consists in a conversion of physical relationships *between people* into semiotic relationships *within the person*. In other words, something that occurs in the public world also happens in the private world” (Pino, 2005, p. 112, own translation, italics in the original).

In both situations – pointing gesture and teaching gesture – social and semiotic mediation are a condition for the processes of production and appropriation of new signs and senses since both gestures embody the dimensions of meaning and appropriated intentional action in social relationships.

It is the teaching gesture, then – pointing, marking, giving meaning –, that we recall here, in all its complexity. If the pointing gesture is a place of emergence of meaning (production of signs and senses), the gesture of teaching constitutes (itself in) the historical elaboration of this gesture. The teaching gesture thus condenses many pointing gestures (Smolka, 2010, p. 128, own translation).

The gesture of *métier* maintains an intrinsic relationship with the tools or instruments of work; in the case of the teacher, we understand that the teaching gesture is inscribed in a pedagogical tradition and in the history of the craft, which provide numerous resources and means of teaching, such as manuals, pedagogical records, types of exercises, ways of using the blackboard<sup>3</sup>, organizing the classroom space and managing the activities of students, etc. (Amigues, 2004).

However, as Machado (2010, p. 3, own translation) states, “the working instruments do not act on their own. They are produced and given meaning by man and testify to his relationships with nature, the historical forms of social and cultural life.” Thus, although the instruments and resources available to the teacher carry the history of the craft, they only suggest possibilities, but do not determine exactly the teaching gesture, nor are they independent of the action of the teacher, since, at every teaching gesture, the *métier* is updated and renewed: “a gesture is released from the gesture of others, not by denying it, but by

improving it” (Clot, 2010, p. 161, own translation). These observations about the relationships between resources and instruments, teaching gestures and instrumental genesis are fundamental for the criticism of the conceptions of teaching as an activity regulated and defined solely by the resources and didactic materials – booklets, textbooks, handout material –, as if such resources had autonomy and independence regarding the teacher’s activity and teaching gesture.

According to Rabardel (1995, p. 4, own translation), the instrument can be considered as a mixed entity, which binds the subject and the artifact at once, as “a material or symbolic artifact produced by the user or by others; one or more associated usage patterns resulting from an individual construction or the appropriation of pre-existing social schemes.” And, in situations in which the artifact becomes an instrument for action, what the author names as instrumental genesis occurs: an artifact is instituted as an instrument for the subject towards the objectives of his action only when in use.

An artifact goes from its effective use by mediating an instrumental creation, itself dependent on the subject’s activity. An instrument results, therefore, from a double progressive selection: at the same time a selection in the artifact of the really necessary operations for its use in a given type of situations and, in the subject, a selection of the schemes socialized by the use of this artifact in this same type of situations (Clot, 2006, p. 120, own translation).

The integration of instruments to the activity allows the emergence and transformation of new functions related to the use and control of the instrument, as it transforms the process and the particular aspects of all psychic processes, constituting what Vygotsky calls an instrumental act. In his studies on the operations in which certain signs act as auxiliary psychological means for the memorization process, he argues that the nature of the instrumental act constitutes the singularity of the psychic processes and defines instrumental acts as the “general control of the operation, using a sign as a means in the operation of remembering” (Vygotsky, 1997a, p. 182). Still according to the author,

[the] invention and use of signs as auxiliary devices for solving any psychological problem confronting man (to remember, to compare something, communicate, select, etc.) is, *from the psychological aspect, at one point* analogous to the invention and use of tools (Vygotsky, 1997a, p. 60, italics in the original).

Unlike the work instrument, focused on transformations in the material world, operation with signs is “a means subjects have of influencing themselves, a means of self-regulation and self-control” (Friedrich, 2014, p. 50). Thus, the signs produced and appropriated in social relationships perform the function of a psychological tool. “From this perspective, the social nature of psychological tools becomes a focal subject of psychology as we seek to understand which objects obtain

this function over the course of human history; in which era, in what way” (Friedrich, 2014, p. 53).

This said, let us return to the teaching gesture: the teacher’s activity is mediatized by technical-semiotic instruments that integrate the *métier* itself, which he appropriates and makes use of in the classroom. The teacher’s activity is doubly directed and addressed to their own activity and to the activity of the group of students. Therefore, the teaching gesture is also mediatizing – “an activity aimed simultaneously at its object and at the activity of others that focuses on this object, an activity that also intervenes in the relationships between them” (Clot, 2010, p. 190, own translation). As a mediated and mediating activity, the teaching gesture constitutes an interrelationship with several aspects: actions and psychological dimensions, concrete material conditions, available means and resources, the historical and social dimensions of the craft.

Regarding the literacy process, how are teaching gestures articulated with the resources available to the teacher? How and what resources assume the status of psychological tools for the teacher’s activity? How can the teaching gestures and the resources used by teachers become psychological tools for the students? To problematize these issues, we propose to analyze data from the research with literacy teachers.

### **The subtleties of teaching gestures in literacy practices**

Focusing on understanding the educational dynamics of the literacy process, we present to the school our research proposal inspired by the theoretical-methodological principles of the Clinic of Activity (Clot, 2006, 2010, own translation), which “proposes ways of acting on the relations between activity and subjectivity, individual and collective” (Clot, 2017, p. 18, own translation).

The procedures of the Clinic of Activity seek to establish dialogical situations to address concrete and situated work actions by two methods: the instructions to a double and the self-confrontation sessions. “Both want to develop the psychological function of the collective to imagine new possibilities of thinking and acting. [...] The collective changes location during the intervention, becoming a source to modify the work organization” (Clot, 2017, p. 21, own translation).

In the instructions to a double session, the individual is asked to explain to an interlocutor

[...] the most accurate instructions so that he can replace it at work, without this replacement being noticeable to others. [...] This procedure aims to provoke a ‘re-entry’ into the action and, through it, the entry of the components and contradictions of the actual activity into the scene (Roger, 2013, p. 114, own translation).

The method of self-confrontation aims to provoke a dialogue about work situations, from the video recording as an “activity that will take place in an inner dialogue of the subject with himself, and with his interlocutors, who are the members of the working group to which he belongs” (Roger, 2013, p. 114, own translation). For the research at the school, simple self-confrontation sessions, where each teacher watched and commented with the researcher recorded excerpts selected by her, and crossed self-confrontation sessions, in which the pairs of teachers watched and commented with each other and with the researcher the recorded excerpts selected by them, were proposed<sup>4</sup>.

After the first contact with the management team of the municipal school where the research was conducted, the group of teachers from the initial grades of the Elementary School (ES) was consulted and expressed interest in discussing literacy practices. With the agreement of the group, we explained the activities we intended to develop throughout the school year in a meeting in which eight teachers from the ES classes from 1<sup>st</sup> to 5<sup>th</sup> grade confirmed interest in participating and authorized the researcher to film activities in their classrooms<sup>5</sup>.

Given the unforeseen events common to the daily school-life and the need to reschedule activities, it was possible to accompany six teachers – two from each class from 1<sup>st</sup> to 3<sup>rd</sup> year of the ES. During the school year, 28 activities were carried out with the teachers (observation sessions, interviews, and meetings – individually, in pairs and collectively) in the school environment and during the teachers’ working hours. Before the end of the school year, all teachers of the initial grades of the ES were invited to a general meeting aimed at sharing the overview of literacy practices, especially the forms of knowledge systematization and the technical-semiotic instruments proposed by the teachers.

At first, considering the procedures of instructions to a double (Clot, 2006), the teachers were invited to describe details of their work with the students, individually or in pairs. In these meetings, teachers and researchers defined the day and/or a specific didactic activity to be observed and filmed by the researcher. All video recordings were delivered to each teacher, so that they could select excerpts to be seen and commented, at first, with the researcher and, later, also with the teacher from another class in the same grade, according to the simple self-confrontation and crossed self-confrontation procedures.

For this article, we selected the recordings of situations with the participation of three teachers: T1, 2<sup>nd</sup> grade teacher, with more than five years of teaching experience; and 3<sup>rd</sup> grade teachers: T2, with less than three years of teaching experience, and T6, with more than ten years of teaching experience. During the 1<sup>st</sup> semester of school, when the first observations and interviews were made, the classes were characterized as follows by the teachers: most of the 2<sup>nd</sup> year students were in the initial literacy process and each of the two 3<sup>rd</sup> grade classes had about ten illiterate students. Note that the teachers participating in the research proposed to promote literacy from texts and did not use booklets in the literacy process.



The following analyses bring excerpts from interviews and meetings with teachers (T1, T2, and T6) and the researcher (RE). Formed by extensive discursive sequences, the selected recordings were delimited considering the situation of verbal interaction that allowed contextualizing and understanding the discussion of a given topic or event (Bakhtin, 1986, 1997). The discursive sequences are part of the set of video and/or audio recordings, transcribed according to an adaptation of the standards described by Castilho and Preti (1987)<sup>6</sup>.

Throughout the research, the choice of indirect procedures of the instructions to a double session and the self-confrontation to provoke the emergence of dialogical situations allowed the articulation between intervention, research and training (Nogueira, 2021). Similarly to several authors who follow the principles of the Clinic of Activity, we emphasize that the research situation establishes and qualifies the dialogue between the teachers and the researcher who, knowing the *métier* of the literacy teacher, makes comments and inquires about specific aspects of the activity. Thus,

[...] the fact that they belong [both] to the same professional field can be productive for professional dialogues and, consequently, for the development of the craft [...] and can be considered as another voice that enters the dialogue to discuss and reflect, and not necessarily a voice that overlaps and erases the other dialogues (Anjos; Smolka; Barricelli, 2017, p. 141).

The different intervention possibilities of teachers with the students during the literacy process were a very present aspect in interviews and meetings with the teachers participating in the research. As the discursive sequences presented below allow to problematize, the teachers involved had different ways of organizing literacy activities and assisting their students.

Discursive sequence 1 – Initial meeting with T2 (3rd year ES):

((The interview began with the request that the teacher explains to the RE, how she should act in her absence – as requested in the procedure of “instructions to a double”))

RE: Then go back a little bit... When you talked about the correction with the group that uses the book... about the group that has the most difficulty... How do you do it with them... When they're doing the crosswords for example... And they can't write... What do I... how do I talk to them?

T2: So... you're doing the crossword, you're verifying their reading... Then you know what letter you're thinking... And you always hear a: “teacher, how do you do that?” I have to stop each time... Right?... And going there and saying “look here at the drawing” there's always a drawing... What drawing is that? Always “try to do it your way.”

RE: Understood...

T2: There are times when they bring me everything wrong and I write the right name below and ask “is that how you write? Do you see if it's the same?” “no”... I'm correcting them, writing what's right bellow.

RE: And when they are writing how do you teach besides writing the right form bellow to correct? If they haven't done it yet, how do you act?

T2: For example the crosswords... "What animal is that?"... It's just that they... They help each other too... They sit together and one doesn't know how to do it and keeps trying... Then... I always put it like this... For example... There are the girls who can't read... they look... keep looking... "is that it, teacher?"... "uh... What drawing is that?"... Then they look "is it an EMA?"... I said "yes"... "and how do you make ema?" ... That they see there, right?... When I'm verifying [reading] "e-ma"... Then they do "e-ma"... Then they go and talk to each other for a while... There's a time that they come with the right name... "e-ma"... Some of them help... They help...

[...]

RE: So now explain it to me... Those who are not literate how can they make the crosswords... What do they use to find out what letter it is? Where do they find that letter?

T2: So... they look a lot... A LOT in the alphabet... I say it like this "look at that letter... It's just like this one... You keep thinking about it and then you tell me"... If they don't make it anyway, then I come back and say... Then I read "look here look... p... p... pa... pa..."

[...]

T2: There's one [student] now... he only knew vowels... They learned because... YES because I taught... He had glued it in his notebook earlier this year... I worked with it a lot: the alphabet... the letters of the alphabet.

RE: And how did you work the letters of the alphabet? Tell me a little about it.

T2: So... You know... There's... There were a lot of letters, like, with the little drawing they painted... And I said "t" tar-ta-ru-ga.

[...]

RE: Did you do that for everyone in the classroom?

T2: No... Only for those who were (not) literate... I managed to work the whole alphabet going two letters at a time... And now I work only at the junction of syllables and crosswords and I start to put texts of, like, four lines with the letters very LARGE.

In the first meeting with T2, the teacher commented on the organization of literacy work and student activity, a theme that reappeared a few weeks later, in simple self-confrontation.

Discursive sequence 2 – Simple self-confrontation session with T2 (3<sup>rd</sup> year ES):

RE: Now... children who are not writing... who are beginning to write... How do you help them?

T2: The ones that are starting to write... Well... because now there's only two... Right?

[...]

RE: How do you help? For example... *BRANCA DE NEVE* is...

T2: She's at that stage, you know... when she puts the "b"... Then the "a"... For her she wrote the name *branca de neve*... Right?

RE: Understood... And when do you... How do you help?

T2: So... I'm rewriting below... I ask her to read and say: "Is it the same? How are you writing here?" She: "this is *Branca*... teacher"... "is it missing letters?"... "it is... But I don't remember what is the letter!"

[...]

T2: She's got the blackboard... the blackboard and...

RE: On the blackboard she has what?

T2: The alphabet... she has the letters... What's the letter that comes after...

RE: Does she know any words? The names of all her friends... Something you can say to her: "look... Does Beatriz's name start the same?"

T2: She's got... She knows her name... Right? She has the letters on her name... Everything... And she's got...

In the initial interview and the simple self-confrontation, T2 reported the use of some teaching strategies during writing activities with the illiterate students in her ES 3<sup>rd</sup> grade class: ask the student to "think about the letter", "look at the alphabet" (exposed above in the blackboard), "identify the letter" or make the correction "writing what's right below." When mentioning the correction, the teacher is concerned with teaching the correct spelling of the words, saying that she "writes what's right below" the text of the students.

The topic of correcting the written production of the child is also addressed by T6 in the initial interview.

Discursive sequence 3 – Initial meeting with T6 (3<sup>rd</sup> year ES):

T6: Then I do, like... text correction, you know? Collective... I put it on the projector... There's a little text that they wrote and then they... I type... For example I typed... a well-written little text even appeared from Davi, without any punctuation, and we worked on punctuation a whole lot... Right? Comma... comma usage... And he put it there... We worked the lives in the countryside... Uh... There's this in the country... This... this... This and this... Gee, an opportunity to work on the comma, and this kid doesn't put a single comma... Then I asked him... I typed... the text... I give one to each child and they will put the punctuation.

[...]

T6: This is a way... Uh... Even his text... He wrote a few wrong words... "*poico*" instead of "*porco*"... "*plantação*"... The "*an*" a lot of children still use the "*e*"...

[...]

T6: So... I do it like this... Sometimes he reads in front of the class... While he's reading I'm typing... Projecting on the computer... Then see... "Clara will read her text... We're going to uh... Correct...", then... Then she reads... First paragraph I'm already typing simultaneously

[...]

RE: Because... I mean... A lot of things are being taught there, right?

T6: What do you think?

RE: OH I THINK IT'S SUPER COOL... What do you think the kids are working on then?

T6: What do I think that... That pops up is the question... about spelling... The sequence... uh... the sequence of ideas... the paragraphing... Because there's always one who says, "oh, but she's putting up another idea... Don't you have to go to the new line?", there is a jargon that I create that is "new idea... new line"... there is a jargon

[...]

RE: What can they learn?

T6: UH... I DON'T KNOW... ((laughs)).

RE: UH... LET'S THINK TOGETHER... I think that there's...

T6: Let me see... Let me think/

[...]

T6: Because we have to correct... Right?

RE: Do they help you with this writing? You ask, like: "and this word how do I write"?

T6: I ask... I ask... I ask... Sometimes I write wrong on purpose... Then they correct me.

When commenting on how they intervene in the written production of students, T2 says "write what is correct below the child's text"; T6 reports writing/typing the text that is projected as the child reads. What are the differences between the teaching gestures of the teachers? How is the process of developing knowledge about writing mediated by them?

Although T2's actions refer to part of the prescriptions and ways of acting relevant to the *métier* of the literacy teacher, such as spelling and indicating the letters, her descriptions have few semiotic resources and strategies to mediate the teaching process. The teaching procedures reported by T2 indicate only the letters of the alphabet exposed above the blackboard and the copy of the correctly written word "below the child's text" as sources of consultation.

When the researcher asks if everyone already knew the name and sound of the letters of the alphabet, the teacher clarifies that she had presented the letters of the alphabet, establishing relationships with the initial letters of words. In addition to the alphabet above the blackboard and some drawings and small texts from the students, displayed on another wall of the classroom, there were no posters with texts, lists of words or other productions that could serve as a source of consultation and comparison for students in the process of literacy. The teacher's actions seem to be circumscribed by the notion that children learn to write by thinking alone based on the exposed alphabet or copying words. In this sense, the correction of writing can overlap and occupy the place of other forms of teaching.

In contrast, T6's report on the writing situation and the collective correction of the text allows us to see other procedures of teaching and clarifying characteristics of the written form of language. The situation described is configured as a teaching moment for the whole class, the teacher assumes the role of scribe of the text that is projected, she writes for her students and together with them (Vygotsky, 2000). The teacher's teaching gesture establishes very peculiar teaching relationships, she (re)organizes the resources and means of work, articulating correction and teaching, which become complementary and interdependent activities. She teaches by using countless gestures – to point, ask, draw attention to details of the writing: "I ask... I ask... I ask... sometimes I write wrong on purpose." Also, as part of the resources available to students in the process of literacy, there were several posters displayed on the walls of the classroom, such as lists of names and date of birth of the students, list of words according to spelling regularities, wall newspaper, panel of curiosities and new knowledge. Thus, behind T6's actions, it seems to be the notion of her role to organize resources and promote the development of her students, that is, the teacher's approach as "ac-

tivity of conception and organization of a means of work is certainly oriented to the student's activity, but also to the teacher, who will be the executor of his own conception" (Amigues, 2004, p. 45, own translation).

## Teaching gestures, resources and tools in literacy practices

To broaden the understanding of the teaching gestures articulated to the resources and instruments in the *métier* of the literacy teacher, let us move on to T1's comments during the simple self-confrontation interview.

Discursive sequence 4 – Simple self-confrontation session with T1 (3<sup>rd</sup> year ES):

((T1 was talking about the preparation of a poster with fruit names))  
RE: Back to the fruit list idea... The one you said you were... If you make this list and then they have to write...  
T1: Yes... today, do you want to see it? There was a word... *ANTENA*.  
RE: *antena*... You have to write... You say "see... Isn't it similar?"  
[...]  
T1: Yes... and they go take a look... Search a little on what is already exposed...  
RE: Yes... that's it.  
T1: And we can even put... add... some fruits randomly...  
[  
RE: You can.  
T1: To illustrate the poster.  
RE: Or you might even... But why don't we make it easy?  
T1: Put the pictures?  
RE: Why don't you put them on? ((laughs))  
T1: But won't it... won't it refer only to the ((picture)) fruit? Not to the letters?  
RE: Just to the picture?  
T1: JUST TO THE PICTURE? Do you know why I say that?  
RE: I understand.  
T1: When we made badges in early childhood education in the mini-group, we used to put the drawing... Right?  
RE: Then you wanted to take the drawing away to...  
T1: Yes... why did we have to take the drawing away? Because they have to use and no longer the drawing...  
RE: But there's a moment... when... (the poster should be good for everyone)... I understand your concern... For some... if there's no support... They wouldn't know (how to use that)... It could be that... Let's think about it...  
T1: Yes... We start with the fruits... Then we take them away...  
RE: You can even make the poster in a way that... Later you cut it out... And take it away "hey guys... does everyone already know? Can we read?"... I don't know... Once a week... Twice a week...  
T1: To memorize even... Right?  
RE: Let's read... play... copy...  
T1: Then I give them loose syllables and they organize...  
RE: YES... How are we doing? Does everybody already know?... You don't have to have support anymore... Can we take the pictures away now?

T1's classroom also had several posters with written texts exposed on the walls, with students' names, birthdays list, daily and weekly routine, calendar. The teacher's comment about the use of images on the poster – "we can even put some fruits randomly" – led to the discussion about the function that the drawing could have for children to memorize a list of words, which would serve as a source of consultation, comparison and reflection about writing. In this sense, when she seeks to deliberately organize semiotic resources to teach those "who are having most difficulty", T1 articulates and adjusts her own teaching activity to the activity and development of students.

The teacher's attitude bespeaks the need to consider the multiple addressing of the teaching activity, which "is not only about knowing how a teacher manages classroom interactions, but how he organizes the means of work that mobilizes the whole group/class" (Souza-e-Silva, 2004, p. 93, own translation), considering the different rhythms and processes of the students' development.

Note that T1's concern, when proposing the elaboration of a poster, is based on her observations on the student's development process. "Thus, defining the work of the teacher in class establishes the contour of the profession's practice and its difficulties and also stresses the non-coincidence between teaching time and learning time. Teaching is not to *make someone learn* immediately and instantly" (Souza-e-Silva, 2004, p. 93, own translation, italics in the original). Therefore, the need to adapt to the different moments of development of the students, which requires subtle and refined adjustments according to the child and the activity, guides their form of intervention: What and how to teach? What is important to point out and highlight to the student? Which resources to use?

These same questions about the organization of teaching strategies and resources permeate T6's comments, as follows.

Discursive sequence 5 – Initial meeting with T6 (3rd year ES):

RE: Go back a little bit... When you tell me they can't read... without mediation... without help... How do you... when you have to help... what do you do?

T6: Yes... So... For the children who are in... I've got a group of kids who didn't know the alphabet yet, you know?... Even though they're in the third grade... We were at the beginning of the year so I started working... I used to work like this... I took a familiar text... Usually a memory text... nursery rhymes... music... And then I'd read with them and they'd recite... Sing... And such... They looked for words... Then I'd give them the text cut... They put it together... Then they go to the front... Present it to the rest of the class. I had a... we had here an adjunct teacher who came into my class two times a week... I took advantage of her presence [...]

RE: When you have to help, how is that help?

T6: I do it like this... I... usually put them in a group because I believe in this method, even if it is a little tumultuous... I STILL believe in this method... Because I'm a little worn out of it... BUT I still believe in this, so I put them in a group and then... They read together as they can... "look you'll try to read and such;" then I ask them to identify words and then I

read with them too... Understand? I do this reading with them and then I try to give activities that they will be able to do mediating... One mediating the other... So like... "look... Let's look for words with the letters of your name"... And then "little words with your partner's name"... But the reading itself... Because it is a third year like this, with this characteristic... The children who need mediation who are in group three... That would be a syllabic-alphabetic now... I verify the reading... a lot... they have to read to me... Look "this piece you're going to read to me"... Put your finger on it and then read it to me.

[...]

RE: So let's go back... When you're saying that then you help... How do you help when the child gets stuck in a word in the reading?

T6: I say things like... For example in reading I say... Look, it's... "let's see" since/ those that are more advanced I'll go piece by piece... So let's read here see... What sound this forms... I take it apart to get him to focus, you know?... If I need I take it apart... Like... "what letter is the first letter?"... "t"... "what is the sound of t?"... Then he's going to say... They already know that much just from us talking... Then "with an e"... "te"... "okay then here, see, let's go on"... I make them oralize... I keep telling them "tell me what you're seeing," you know?... Those who are like MORE advanced... Now the ones that are syllabic now then it's more complicated... It's more... I'm telling/ I'll tell you... I really go on telling the sound they have... Look... Here it's written whatever... *PAL*... "look this letter is the / what letter it is? It's the *p*; then look at the a next one... it becomes *pa*"... "if it's the *p* alone what sound does it have?"... "draw the *p* in the air"... they draw the *p* in the air...

[...]

RE: At that point what do you use for example as resource... What's in the classroom? What do we have in hand? Just for us to imagine... For me to imagine how you do

T6: Understood... Yes... I have in the classroom... They have a bag with the free letters... This... this group a little more... They have the free letters... They have the alphabet up there on the blackboard...

RE: Understood... So at the time you're reading to them for example you remind them of the alphabet...

T6: I remind them of the alphabet... In the notebook on the cover of the notebook I also glued the alphabet also associating to a picture... There's...

RE: So talk about it a little bit.

[...]

T6: In the notebook they have the alphabet and some children have the alphabet... With a picture indicating... that in fact the idea we started to make an alphabet to... They have the one on the blackboard but we started putting together a... We actually built... We put it there and they had the letter and they drew on the side the... A word that had that initial sound... But the afternoon kids tore it... So I put here one ready *ALREADY PREPARED* on the cover of the notebook.

RE: And not all children have this alphabet? Because some don't need it

[...]

T6: *EVERYONE* has the alphabet but this one with the picture not all of them

[...]

RE: Do they use it?

T6: They *USE* [...] at the time of reading... the alphabet is right *NEXT* to it.



When the researcher asks the teacher what forms of *mediation* (term used by T6) are present in the activities, she enumerates a set of actions focused on the child's activity: alphabet for consultation related to images, use of texts to memorize words, aid for reading and to compare words with the same sound or letters. Among the resources indicated, T6 highlights the presence of pieces of spare letters for writing activities and the letters of the alphabet with picture and reiterates that she always provides copies for the students and that "at the time of reading, the alphabet is on the side."

It is interesting to resume the simple self-confrontation interview when T6 explains the use of another resource for the literacy process.

Discursive sequence 6 – Simple self-confrontation session with T6 (3rd year ES):

RE: And there are still children who are agglutinating the words?

T6: There are children who do not segment properly [...]

T6: There's no way... So like... I'm working with these on the text issue plus this segmentation thing also, you know?... Of dividing... Let's see where it ends... But then that's an individually well-mediated job, you know?... They worked with those little texts cut to arrange... To find out what it's like?

RE: No... No... Why do you call it cut?

T6: Cut LITERALLY... I get a familiar text... A nursery rhyme... A text of orality that they already know and that has orality... I do everything for them... The words all separate and they have to put this together... To arrange the text by gluing it together.

RE: Cut?

T6: Sometimes I give it to the already cut... And they glue it... So they did this... They're still doing this... Sometimes I ask them to write the text on the computer because there's the question of space...

Considering the difficulty of some students to delimit the words in the texts, T6 proposes that they reassemble a known text from the words isolated on strips of paper. This situation can be taken as a typical example of the need of the teacher to adjust the activity from the observations of the development indicators of her students. Regarding the analysis of the activity, therefore, it is necessary to emphasize the "importance of tools in the interaction between a subject and his task, not only to increase the efficiency of the gestures, but also as a means of reorganizing his own activity" (Amigues, 2004, p. 44, own translation). The teacher's comments on the organization of literacy work bespeak the complexity of the teacher's task to effectively adjust the student's activity and her own, by choosing certain means to teach, resources that can be converted into technical-semiotic instruments to mediate the students' activity.

As previously stated, the teaching gesture constitutes a mediated and mediating activity, given the double addressing of the activity, oriented to the teacher's own activity and to the students' activity (Clot, 2010). Regarding the reported situation, we can say that T6's activity is mediatized by the selection of a resource and a strategy for pedagogi-



cal mediation. And, because it also addressed the students' activity, the gesture of teaching is simultaneously a mediating activity. In this situation, the pedagogical resource selected by the teacher – words on strips of paper – mediates the teaching activity and, since the pedagogical resource shows the limit of the words of a text, it can become “a means subjects have of influencing themselves” (Friedrich, 2014, p. 50) as a mediating tool of the students' activity.

T1's and T6's comments on the selection and presentation of resources and the constant adjustments in their teaching task also refer us to the question of instrumental genesis, previously discussed (Amigues, 2004; 2009; Clot, 2006; Rabardel, 1995; 2005). In his studies on work, Rabardel presents the notion of instrumental genesis, analyzing that, due to the specificity of the task to be performed, workers recreate and select certain artifacts – and appropriates them – which may constitute instruments to enable their activity.

An artifact gains the status of an instrument during the activity (Clot, 2006; Rabardel, 2005). When preparing a poster or using the words written on strips of paper, therefore, the teachers use and make available to the students certain resources that instrumentalize the teaching gesture and provide the (re)organization of their own activity, which, in turn, aims to organize the students' activity. These situations lead us to reaffirm Vygotsky's argument about the relevance of the construction of instrumental acts, for the emergence and transformation of new psychic processes. Although the teacher selects a generic resource that integrates the collective memory of the literacy teacher's *métier*, only she knows the students' development process and can recognize the objectives and adjustments necessary for the teaching gestures. In this sense, the appropriation and recreation of teaching gestures and technical-semiotic instruments are affected by the process of instrumental genesis (Rabardel, 1995) oriented to the teacher and to the artifacts that mediate the students' activity. “The appropriation of artifacts as instruments in use situations is conceptualized as an ‘instrumental genesis’, which transforms the organization of the subject's activity, the tasks they self-attribute, and the artifact's characteristics” (Folcher, 2003, p. 648).

And also regarding the process of instrumental genesis, in view of the mediating role of artifacts and resources, it is essential to analyze the “process by which the subject gives them the status of means to achieve the objectives of their action [...] productive dimension of the activity, the subjects develop activities of elaboration of psychological and material instruments for a constructive purpose” (Folcher, 2003, p. 648, own translation). This is the process of instrumentalization (Folcher, 2003; Hila, 2019; Rabardel, 1995), in which the external resources developed to transmit the content of a discipline begin to regulate and effectively transform the students' activity (Dolz; Moro; Pollo, 2000; Schneuwly, 2000). Instrumentalization process that converts resources and means of teaching into technical-semiotic instruments that, once appropriated, guide and mediate the psychological activity.

## **Final considerations: The complexity of the work of literacy teachers**

How do teachers organize their literacy practices? How and with what resources do they teach their students during writing activities? What defines and how is constituted the *métier* of the literacy teacher? Based on these questions, we seek to understand the details and complexity of teaching gestures (Smolka, 2010) and their implications to the organization of literacy practices and the process of appropriation of writing by the students.

In a historical-cultural perspective, the analyses presented suggest the relevance, for organizing the teaching activity, of semiotic instruments as auxiliary psychological means for the child in reading and writing activities – mediatized and mediatizing instruments.

When problematizing the appearance of a series of artificial devices aimed at mastering the psychic processes themselves during the historical development of man, Vygotsky (1997b, p. 85) states: “Psychological tools are artificial formations. By their nature they are social and not organic or individual devices. They are directed toward the mastery of [mental] processes – one’s own or someone else’s – just as technical devices are directed toward the mastery of processes of nature.”

From this point of view, therefore, the teaching activity would be totally related to instrumental genesis, (re)elaboration and use of semiotic instruments that allow the teachers to organize their activity and means of work that, in turn, will organize the students’ activity. In teaching, psychological tools would be the means for transforming the way of acting, whose use radically restructures all functions of behavior (Schneuwly, 2008).

In the situations described the teachers explore and teach the various semiotic aspects and the functioning of the written language (Geraldi, 2014; Goulart, 2013; 2014; Smolka, 1989). The observations and comments of the teachers bring a small overview of the variety of teaching gestures, pedagogical resources and technical-semiotic instruments, elements interwoven in teaching relationships during the literacy process.

The attention and care of teachers in the interaction of these elements lead us to reaffirm Amigues’s position on the complexity of the teaching work.

The activities of conception, organization, and regulation of different situations make the teacher an actor, a producer of meaning of situations of completion of his own action that does not correspond absolutely to the image of executor or profession of medium importance that is usually attributed to him (Amigues, 2004, p. 52, own translation).

The pedagogical practices described by the teachers bring subtleties related to the teaching gesture, to the smallest details and pecu-

liarities of the teacher's action, to the adjustments caused by observing the students, to the personal ways of acting from combining different ways of doing, the usual and/or prescribed gestures, inspired by colleagues, by didactic instructions, among other instances (Roger; Rueland, 2009).

The *métier* is not sedentary; on the contrary, it migrates between different records – impersonal, transpersonal, interpersonal and personal (Clot, 2007, 2017). The development of professional gestures is related to the fact that any work activity has social and cultural origins, even the teaching activity, commonly considered individual and isolated.

The *métier*, as a structured and structuring totality, is constituted at the same time that the work is carried out. It is all in the sense that it is a set of components built by circumstances that are updated in situation, which can be translated into rules, tastes, values, techniques, standards [...] The *métier* is both the conservation of practices and the source for the activity to face the prescription. (Durand, 2015, p. 250, own translation).

As our analyses seek to explain, the complexity of the work of literacy teachers is precisely in the possibility of (re)creation and constant adjustment of teaching gestures, in the process of instrumental genesis contingent on the different records and multiple dimensions of the activity.

Among these dimensions, in addition to the concrete historical conditions and the knowledge of the *métier* itself, we highlight the daily observation of the indicators of the progression of the students' development as one of the primary references for the process of instrumental genesis. The definition of the contours of teaching relationships and teaching gestures in the literacy process requires accompanying the students to know how they perform writing activities, what are the difficulties they present, what they consult in search of what information for writing, among other aspects.

In contemporary times, in the face of fierce debates about home schooling, remote education, curriculum standardization, handout didactic material, standardized evaluations, disqualification and intensification of teaching work, among other forms of attack on the (principle of) public education, problematizing who gains with the increase of the inequalities that these movements have produced is essential (Laval, 2019). In this sense, evidencing the centrality and complexity of the work of literacy teachers is a defense of public education.

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## Notes

- 1 This paper is dedicated to the literacy teachers and my mother, with whom I met the intricacies of the craft and the first teaching gestures.

- 2 Grants #2014/07038-6, #2021/08708-9, São Paulo Research Foundation (FAPESP).
- 3 See in Nonnon (2000) the analysis of the daily professional gesture of writing – specific mode of public writing – on the chalkboard, understood as a material and symbolic object that mediates the work of the teacher and that of the students.
- 4 Given the limits and focus of this article, we suggest consulting the theoretical-methodological basis and the detailed description of the procedures of the research in Nogueira (2021).
- 5 Research approved by the Research Ethics Committee of UNICAMP, Approval #1,875,566.
- 6 In the transcriptions, the occurrences are flagged as follows (Castilho and Preti, 1987): Misunderstanding of words or segments ( ); Hypothesis of what was heard or what was omitted in speech (hypothesis); Truncation /; Pause ...; Emphatic intonation - capital letters; Superposition and concurrency of voices; Indication that speech has been taken or interrupted (...); Literal quotations or text readings “ ”; Clipping or interruption of transcription [...]; Descriptive comments of the transcriber (( )).

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