


INTERACTIVE PRACTICES AMONG PEERS AND THE CONSTRUCTION OF ORTHOGRAPHIC KNOWLEDGE

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ABSTRACT

The article reports one of the axes of a research developed by the author at the doctoral level, entitled "The learning of spelling under the bias of interactive practices". Considering that the learning of written language, in addition to discursive reflection, depends on the elaboration of notational aspects, and that interaction in the classroom affects this process, this article has as its object of study the learning of orthography, contemplating the progression of this acquisition by students, from the perspective of interaction between peers. Using the theoretical framework of psychogenetic and historical-cultural studies (the conception of children as active subjects and protagonists of learning; language as a social practice; and learning as the construction of the individual in relation to lived experiences), the article aims to analyze how interactive practices among peers can generate different possibilities for reflection, especially with regard to learning spelling. To this end, the longitudinal case study, carried out with students from a private school in Santos/SP, contemplated five stages between the 2nd and 4th year of Elementary School, a period in which the learning of conventional writing becomes one of the main focuses of reflection of the children. Data collection was carried out based on the writing of word dictations and the rewriting of texts, considering both the process and the product of these activities. The data showed that, in the interactions between the students, different degrees of reflection were verified, based on situations of conflict, situations of centralization of referrals by a student, and situations of agreements based on linguistic criteria or social agreements. From the understanding of the learning of spelling and the potential of interactive situations in this process, it was possible to glimpse pedagogical implications that suggest the revision of teaching practices.

Keywords: Spelling. Interactive Practices. Written Language. Learning Processes.

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INTRODUCTION

Although the interactionist conception of learning already permeates the practice of many teachers (with a greater or lesser level of appropriation), when it comes to the teaching of orthography, this conception is still little or insufficiently assimilated. Most of the time, contrary to theoretically assumed innovative principles, the exercises of training, memorization and repetition show the empiricist conception of learning underlying pedagogical practices.

Hence the interest in understanding the way interactions are configured in the educational process. To this end, this article seeks to describe how children's interactions in the process of learning spelling effectively occur in the classroom.

The article is based on a constructivist perspective, conceiving learning as a process of mental elaboration in which the subject starts from previous knowledge to construct hypotheses, test them in the light of problem-situations and, based on cognitive conflicts - effective possibilities for reflection - elaborate new conceptions.

Incorporating the Piagetian conception of the dialogue between adult and child (between teacher and student, in the case of the school) as a true "intellectual interlocution" (PIAGET 1973; 1979; 1998a; 1998b) capable of influencing the process of cognitive construction, adapting teaching to the learning process means considering the conditioning factors of this process, that is, according to what the student considers possible or impossible, as necessary or contingent at each moment of learning. Studied by Piaget (1985; 1987), these four vectors, operating together, mark the dynamics of cognitive construction.

When dealing with a knowable object, those possibilities admitted and glimpsed at a given moment by the subject represent the "possible". Situations that bring contradictions that he observes at that moment are attributed to the condition of "impossible". The "necessary" refers to those indispensable elements, essential to justify their ideas or to avoid contradictions in their conception. Finally, the "contingent" refers to the possibilities compatible with certain conditions of occurrence.

With regard to the object of teaching, the conception assumed in this article is that of language as interaction. Based on Bakhtin's work, the discursive conception of language considers that, whether communication is promoted by orality or by writing, the participants of a linguistic event are not "senders" or "receivers", but interlocutors and producers of the language itself. In other words, everyone has an active role in it and, from the moment of its

constitution, interferes in the linguistic construction with a responsive and dialogical posture. Language is thus necessarily impregnated with multiple voices and values proper to a given context.

In the context of a classroom, considering language as interaction implies changes in the teacher's didactics and in his relationship with the students. After all, from this perspective, all verbal exchanges that occur at school gain greater relevance. The student comes to be seen as an active interlocutor, whose voice is part of the "great universal current" of which Bakhtin (2002) speaks. The empiricist paradigm of teacher as transmitter of information and student as receiver is broken; learning is conceived as the result of interaction and every class as an interlocutive event. By acting as a mediator, the teacher begins to recognize the dialogical nature of the relationship with his students and, in this way, imprints another educational connotation in the classroom.

Based on these postulates, an interactionist conception of learning and language is assumed in this work, which is why interactive practices constitute the bias chosen to analyze the construction of orthographic knowledge. When studying the interaction of children with their peers, the Vygotskian principle that the "social" drives development is considered.

Based on this postulate of Vygotsky's work, it is reasonable to suppose that, before internalizing orthographic norms, the child finds, in his social interactions (in this case, focusing particularly on the exchange of ideas with peers), bases for the construction of this knowledge. Hence the importance of understanding how interactive practice among peers can impact the construction of orthographic knowledge.

Considering the interactions between students that occur in a classroom, those planned with pedagogical intentionality are the result, in general, of "productive groups". According to the Literacy Teacher Training Program (BRASIL, 2001), this is the name given to the groupings that teachers make of their students, following criteria to optimize the potential for interaction and learning. In other words, it is when the teacher, taking into account different aspects, brings together children whose work together can favor the learning of all.

As for the criteria for this grouping to be considered productive, according to the program (BRASIL, 2001, p. 2),

Grouping students should be an intentional and carefully planned action by the teacher. Such action should be based on three aspects: the students' knowledge of what is intended to be taught, the students' personal characteristics and the clarity of the objective of the activity that is intended to be proposed. Failure to consider these aspects often results in unproductive groupings, based on improvisation.

From the three aspects to be considered for the planning of the groups, it is possible to infer two types of interaction that occur between children in learning situations at school.

The first type of interaction is that which is based on partnerships for the execution of pedagogical proposals. By relying on the knowledge of their students to plan with which colleague(s) to group them, the teacher is, in fact, predicting an interaction between children that makes them mobilize their previous knowledge, creating cognitive conflicts and, in this way, promoting advances in their learning. In addition to considering the knowledge of each child to decide the grouping, the teacher also takes into account the objective of the activity in question. After all, talking about "knowledge" is something very broad: the teacher needs to be clear about the knowledge necessary for the proposed activities (and from this stems the third criterion, the need for clarity in this objective).

The second type of interaction, on the other hand, is not so focused on formal learning, it is the most common to occur in free time, of play, and in which affective relationships have great preponderance. By taking into account the personal characteristics of the students, the teacher is favoring partnerships in which the personal profiles of the members generate harmonious work, avoiding bringing together children who, together, develop a lot of personal conflict or lose focus on the activity. With this, it is possible to conclude that, in addition to interacting through their knowledge, establishing more or less productive partnerships for the execution of tasks, students also interact personally and affectively – playing, fighting, experiencing the various nuances that mark social relationships and human coexistence in general.

In the research portrayed in this article, the methodology and perspectives of data treatment and analysis intend to highlight the ways in which the learning of spelling occurs in each of these interactions.

2 METHODOLOGY

Aiming at the understanding of the learning processes and, more specifically, at the understanding of the construction of orthographic knowledge, the research that gave rise to this article is situated in the field of an epistemological investigation.

For this investigation, the following question was asked: "How can the learning of spelling in Elementary School I be affected and constituted by interactive practices?"

The central objective of the research was, therefore, to analyze the way in which the learning of spelling is constituted between the 2nd and 4th year of Elementary School and how, at different moments of this path, interactive practices can generate possibilities for reflection. To this end, some specific objectives were defined, and in this article, only one of them will be addressed: to analyze the interaction between peers in the construction of orthography, based on the process and product of writing.

Based on the hypothesis that the conditions of interaction (with the teacher or among colleagues), varying over time (different stages of schooling between 2nd and 4th grade) and in different contexts of production (dictation or rewriting of text), could generate different impacts on the process of learning spelling, the collection focused on different interactive situations.

The research had a longitudinal character and the group of subjects involved was a class of Initial Years of Elementary School that, in the first stage of data collection, was in the 2nd year and, in the last stage, was in the first semester of the 4th year. Thus, a good part of the path of learning spelling during the Early Years of Elementary School was covered.

Five stages of data collection were planned, carried out in May and November, maintaining an interval of 6 months between them. Each stage was composed of four sessions, which, repeating the same procedures, varied by combining two instances of collection (writing of words and rewriting of texts) and two axes of investigation (interactions with the adult and in pairs of colleagues). In this article, in a manner consistent with the established objective, the data of the second axis (interactions between pairs of children) will be presented.

In the follow-up of the interactions in pairs, the role of the researcher was that of a non-participant observer: the conversations of the pairs were analyzed – the situations of hesitation, agreements, doubts, corrections and decisions of the children -, correlating these data to the textual production carried out by them, both in the dictation of words and in the production of texts. The writings of each pair were analyzed from a perspective of

comparison between the students' interlocutive process during the data collection sessions and their final production.

In all data collection sessions, the children (individually or in pairs) were taken out of the classroom and made the proposals alone with the researcher. At each stage, everyone went through four sessions, with an interval of 2 to 3 days between them.

The situations of interactions in pairs were concentrated in the third and fourth sessions.

In the third session, related to the second axis and the first instance, the researcher read to two children a fable, "The two mice", and dictated a list of words extracted from this context. The children wrote them together, deciding, at the very moment of writing, the best way to write them.

The fourth session, also in pairs, was related to the second axis and the second instance. After the researcher read the same fable, the same pair of children from the previous task rewrote it so that it could be "read to another class, which had never heard it". It was up to each pair to decide how to elaborate the rewrite. In the analysis of the dialogue between the children, given the objective of this study, only the discussions about the notational aspects were considered, without considering those related to the discursive plane (except in cases where these could influence, in some way, the decision about the spelling of the words).

At each stage of data collection (stages distributed over successive years), the same sessions were repeated.

The grouping of pairs was decided jointly between the researcher and the children's teachers. The criterion for this was the level of spelling performance measured in the classroom, seeking to group children with similar levels of development. The initial intention was to keep the same pairs in the three years, however, with the entry and exit of students from the school, some groups had to be relocated, which did not affect data collection. Even in these changing situations, the criterion of a level of close development was maintained.

The words selected for the dictations followed the criteria of the categories of spelling difficulties. Although different authors have established different classifications for these difficulties, for the purposes of this work, the classification proposed by Nóbrega (2013) was chosen: direct regularities (subdivided into: interference of speech in writing; opposition between voiceless and voiced consonants; and representation of non-canonical syllables); contextual regularities and irregularities. For each of these categories, three different

spelling difficulties were selected, and one word from each text was chosen for each of them.

Data collection was carried out in Santos/SP, in a private school, which serves students of Early Childhood Education (from 1 year and a half of age) and Elementary Education (from 1st to 9th grade). In total, the institution had, at the time of the research, about 200 students, and the classes were small in size, usually between 15 and 20 students. According to the management team, the small size of the school and the limit on the number of students served are intentional, in order to promote a "more personalized" service, in favor of training and learning.

Considering the oscillation in the number of students in the class and the interest in dealing with the heterogeneity among them, it was decided to carry out data collection with all the students who were attending the class each year. In the treatment of the data, they were divided into two groups: to analyze the progress in the children's spelling performance, which required a comparison between the five stages of data collection, only the 12 students who were present in all stages were considered. To evaluate the interactive practices themselves, all sessions were compiled, in order to identify and categorize patterns of procedures and responses to the proposed situations.

RESULTS AND DISCUSSION

In this article, the central focus of analysis falls on the last two sessions of each stage, when the children, in pairs, dictated words extracted from a fable (3rd session) and rewrote it (4th session).

The study of peer interaction followed two strands: quantitative and qualitative analyses. In order to have gauged how much the work with a colleague impacted the performance of each student, the first compared the individual performance of the children between the 1st and 3rd sessions (dictation of individual and pair words) and the total rate of correct answers due to spelling difficulties. The second dealt with the description of the types of interactions observed between the pairs, categorizing them and proposing reflections on them.

In this way, it was sought to fulfill one of the objectives proposed in the research, namely, to analyze the interaction between peers based on the process and the product of writing. While the quantitative analysis focused on the product, the qualitative analysis dealt with the process.

3.1 QUANTITATIVE ANALYSIS OF THE PRODUCT: IMPACT OF WORK IN PAIRS ON INDIVIDUAL PERFORMANCE

For the quantitative analysis, the rates of correct answers between the 1st and 3rd sessions were compared from two perspectives: that of each child's performance and each spelling difficulty. It was decided to take only the sayings as a reference because, for a statistical comparison, there needs to be a pattern in the number of words written.

It is noteworthy that the rewritings, although they could not have been compared because they varied both in the quantity and in the choice of words to be used, visibly presented greater length, cohesion and coherence in the 4th session, thus resulting in much better texts than those of the 2nd. Because the discursive aspects are not the object of the present work, this qualitative difference was not analyzed, but given its relevance, this result could not fail to be mentioned, possibly configuring itself as *corpus* for future studies.

Analyzing the performance of the students in the 1st and 3rd sessions, a predominant trend was observed: in all stages, most of them did better in pairs than individually.

The detailed examination of the difference in performance between the first and third sessions showed some results, namely:

- The growing trend of correct answers between individual and pair production was the one that appeared the most. In the 1st stage, this movement occurred with 10 of the 12 students; in the 2nd stage, it expanded, appearing in 11 out of a total of 12; in the 3rd stage, in 14 of the 18 students; In the 4th and 5th stages, this was the pattern of 13 out of 18 students. This trend reveals the unequivocal fact that children did better when they did dictation in pairs than when they did it individually.
- The stable trend (balance in the number of correct answers in the two productions) appeared a few times, on a much smaller scale than the growing one. In the 1st stage, in only one student. In the 2nd stage, this trend did not appear. In the 3rd and 4th stages, 4 students maintained the amount of conventional writings and, in the 5th, this index rose to 5 children.
- The downward trend appeared only in one student (here named "Ricardo") in the 1st and 2nd stages. The qualitative analysis of the type of interaction that the

student established with his or her partner in these initial stages (to be presented below) seemed to justify the result.

A closer look reveals not only the fact that students got it right more when they were in pairs, but also explains how much better they did. To highlight this data, the following Table shows the differences in the conventional writing index of each child, between the 3rd and 1st sessions, by stage:

Difference between dictation hits in pairs and singles

Students	1st stage	2nd stage	3rd stage	4th stage	Stage 5
Aline	2	3	3	0	0
Adriana	NP ²	NP	3	4	0
André	4	2	5	6	3
Denis	1	1	2	0	0
Elijah	0	1	NP	NP	6
Emanuel	2	3	4	4	4
Erick	2	1	1	2	4
Flávio	NP	NP	0	2	1
William	NP	NP	6	6	3
John	NP	NP	3	0	5
Livia	4	7	1	2	0
Maitê	2	2	5	3	2
Mary	NP	NP	6	1	1
Melissa	5	5	NP	NP	NP
Milena	NP	NP	5	1	4
Ricardo	-3	-2	0	3	4
Sarah	1	4	7	7	7
Thiago	1	1	0	0	0
Vitor	NP	NP	0	1	1
Yasmin	NP	NP	3	3	NP
Average	1,75	2,33	3	2,5	2,5

The table reveals that, on average, the children got approximately 2 to 3 words more right in the 3rd session (dictation in pairs) than in the 1st (individual dictation). The biggest difference occurred exactly in the middle of the research, in the 3rd stage (when the children were in the second semester of the 3rd year of Elementary School), which may indicate that, at this stage, the interaction with the colleague was especially powerful for the students' results.

As already described, the pairs were defined by the researcher, together with the teachers of the class each year, always seeking to group children with spelling performance close to each other. Even so, it is known that, as the learning process is unique, it would be impossible to bring together students who had exactly the same level of knowledge in pairs.

² He did not participate.

Considering this heterogeneity of human development, it could be assumed that, in pairs, the children with better performance were determining the increase in the number of correct answers of their peers, and hence this difference in results. The empiricist conception of learning, in fact, when establishing the bases for the so-called "traditional model" of teaching, advocates the predominance of individual activities, precisely so that the products of the activities are not "masked" by the transmission of knowledge from those who "know more" to those who "know less" (MATUI, 1996).

To verify this hypothesis, another statistical analysis was performed. From the calculation of the median of the individual correct answers, the class was divided, at each stage, into two groups: the students who got the least correct answers (Group 1) and the one who got the most words right (Group 2) in the 1st session. Thus, it became possible to compare to what extent the work in pairs favored – or not – the children who had presented better or worse development in individual dictation.

The next table gathers the data obtained from this calculation:

Comparison of the difference in hits according to individual performances

	1st stage	2nd stage	3rd stage	4th stage	Stage 5
Median of individual correct answers	4	4,5	7	8,5	10
Mean of the difference from Group 1	2,83	3,5	4,22	3,88	2,66
Average of the difference from Group 2	0,66	1,16	1,77	1,11	1,66

The first line of this table shows the median of the 1st session of each stage: for example, considering the correct answers of all students, in the 1st stage, those who got up to 4 words right were in group 1, while those who got it right from 5 were in group 2, and so on. After dividing all the sessions into these two groups of students, the difference between the 3rd and 1st sessions was calculated separately and comparatively.

It is possible to verify, through the reading of the Table, that both groups progressed when it came to writing in pairs. This data was repeated at all stages. It is also verified that the increase in correct answers was constant and significantly greater among those students classified, in the 1st session, as Group 1, however, Group 2 also presented an increase in its index of conventional writings.

This result proves that, in the present study, the hypothesis based on the empiricist conception that the better performance of children in pairs would come from the

"transmission" of information from those who "know more" to those who "know less" was not confirmed. On the contrary, the opportunity to interact with peers who had similar performances brought better results to the two groups of students (although in different proportions).

Two possible explanations for this improvement in both groups deserve to be highlighted. The first is that the children did not get exactly the same words right in the 1st session. Therefore, even those who had a lower number of correct answers could contribute to the work of the pair with knowledge that the colleague did not have. The second refers to studies carried out (CARRAHER, 1986; CHIAROTTINO, 1988; MACEDO, 2002), which prove that the metacognitive processes involved in the process of explaining to the other the way in which one thought tended to lead the subjects to a higher level of performance.

QUALITATIVE ANALYSIS OF THE PROCESS: TYPES OF INTERACTION

At first glance, the plurality and complexity of children's responses in interactive situations seem to configure a chaotic picture of behaviors and possibilities of contribution to learning. Hence the need to discriminate the different meanings of these interlocutions and their respective roles in the construction of knowledge. To this end, Colello (2015, 2017) outlined five categories, which, in practice, mark trends in children's focus of reflection on the production of writing:

- Functional interactions;
- Thematic interactions;
- Notational interactions;
- Discursive interactions;
- Aesthetic interactions.

Without disregarding the set and interdependence between these categories, the present work, due to its specific object of analysis, focused on notational interactions, with an exclusive focus on orthography. This means that only the excerpts from the debates that addressed (or tangentialized) orthographic issues were selected, and interactions on the appropriation of the alphabetic system or of an interpersonal nature were also excluded, which sometimes even required the intervention of the researcher to ensure the focus on the proposed activity.

Considering this cut, the dictation (3rd session) offered more situations for analysis, since the rewriting (4th session), although with more debates among the children, prioritized discussions about discursive aspects, to the detriment of reflections on spelling.

Among the interactions focused on spelling issues, the existence of three distinct patterns was found: the predominance of the argumentation of one of the children of the pair; social agreements as the resolution of orthographic conflicts and linguistic agreements as the resolution of orthographic conflicts.

Despite the categorization of the interaction patterns, it was not possible to establish a quantitative analysis of their occurrence, because many times, within the same session, the pairs oscillated between more than one of these patterns. Therefore, the study of the categories of peer interaction was limited to the qualitative analysis that follows.

3.2.1 Category 1: Predominance of the arguments of one of the children of the pair

In some cases, the absence of discussion about the spelling of the words to be written could bring a false appearance of absence of interaction. However, a more attentive observation showed that, in these situations, there was a predominance of one of the children in the decision about how to spell the words. Whether due to the more active or passive personality of the members of the pair, or due to the legitimacy of the knowledge of one student before the other, the fact is that, in some sessions, these decisions seemed to be taken unilaterally, as seen in the following example:

[João and Yasmin rewrite the fable "The two mice"]
J: You can start by writing *Once upon a time there were two mice*
[Yasmin writes "once"].
J: No, that's wrong! You can delete it, I'll dictate it more slowly to you: It was... one... [waits for her colleague to write to dictate the next word.
Yasmin writes as directed].

3rd stage of data collection – Rewriting in pairs

During the process of interlocution of this duo, they agreed, right at the beginning, that João would dictate the text and Yasmin would write it - a suggestion from João, promptly accepted by Yasmin. When the researcher questioned the reason for the decision, the boy replied that it was because he was "good at having ideas" and the girl agreed. Throughout the session, in addition to being responsible for textualization (Yasmin brought only 2 suggestions in this regard), João controlled the spelling: every time he thought that a

word was spelled wrong, he asked his colleague to delete it. In none of these situations did Yasmin question him.

This predominance of one of the children did not always occur so peacefully. In some situations, there was a dispute, as was the case with Adriana and Milena in the 4th stage:

[Adriana and Milena need to write "resolved"].
 A: Resolved... I think it's with Z... [writes prayouveu].
 M: No, it's no, it's with S. [Adriana continues writing]. And then in the middle it's not with a U either, it's with L.
 A: I don't agree, I think I wrote it right!
 M: Adriana, you yourself said that you thought... You said "I think it's with Z". I don't think so, I'm sure it's with S!
 A: I'm sure too!
 M: But you said "I think, remember?" You can ask her (referring to the researcher, who was watching).
 A [Without the researcher intervening]: Oh, okay, I said I thought so. But are you really sure?
 M: I do! You can believe me!
 A: Okay, go! So tell me how it is!

4th stage of data collection – Dictation in pairs

In this situation, Adriana expressed doubt in the decision for S or Z. The sentence in which she said that she thought it was with Z was preceded by a slight hesitation when writing the letter. Milena, upon hearing her, already protested, answering that it was with Z, but Adriana wrote the entire word in her own way, even preventing her colleague from reading it. Only when she finished, she showed her writing to her partner, who also identified the error in the use of the U in the coda of the 1st syllable. Initially, Adriana tried to refute her duo partner's argument, claiming that she was as sure as she was, but it seemed evident to both of them that this was not true. Not only did Milena, to argue, use the doubt she perceived in Adriana, but Adriana herself seemed to be convinced, in the face of her colleague's conviction, that her certainty was not so solid after all.

Unlike the two, when the greater or lesser certainty as to the way of spelling appeared during the session itself, there were pairs in which the "knowing more" of one of the children seemed to be already established between them. This is what happened to Aline and Lívia, in the 1st stage:

[Aline and Livia need to write "curd"].
L: Do you know what curds are?
A: I don't. What is it? [Asks the researcher, who answers the meaning of the word].
L: I don't know how to write that... [looks at Aline and laughs].
A: Well, I don't know either, but let's try, right?
L: Then tell me the lyrics, because you know how to write better than I do.
A: All right, I'll tell you and you write [Aline spells the word correctly and Livia writes according to her spelling, without question].

1st stage of data collection – Dictation in pairs

Before starting this dialogue, Livia even put the letter Q, probably with the intention of using it as the initial letter. She herself, however, as soon as she wrote the lyrics, erased them, starting the conversation. Her posture, throughout the session, seemed to be one of a certain submission to her colleague (only in the decisions regarding spelling, because on the interpersonal level, both seemed to get along very well). This tacit consensus made it evident that both seemed to trust Aline's knowledge more.

Category 2: Social agreements as resolution of orthographic conflicts

In some sessions, the decision on the spelling generated conflicts among the children. With greater or lesser intensity, the arguments of both parties explained not only the position of each student, but also the reasoning that guided their way of writing.

In the present category, the cases in which the agreements were based more on social norms of coexistence than on linguistic reflection were grouped. With a wide diversity of strategies adopted to solve the conflict, what these examples have in common is the fact that they do not present a solution that is the result of the linguistic discussion – either because this discussion did not take place, or because it was raised only by one of the children and disregarded by the other.

Several sessions demonstrated this pattern of use, by the pairs, of conflicts resolved by the social agreement, with greater or lesser intensity. In all of them, it was possible to identify the difference in the children's justifications, which anchored the spelling decision in different strategies. This data seemed to indicate that, in the case of orthography, the continuous evolution of children's thinking in the elaboration of justifications made the range of "possible", "impossible", "necessary" and "contingent" varied.

This type of interaction was frequent in the sessions that involved the duo Ricardo and Erick during the first two stages, as illustrated by the following passage:

[Ricardo e Erick precisam escrever “empanturraram”. Erick escreve “enpanturaram”].

R: Está errado. Aqui [mostrando a segunda letra] é M, não é N. E é com dois R.

E: Você acha que é assim, eu não acho. Esse é o meu melhor jeito.

R: Mas não é o jeito certo, está errado!

E: A professora já me falou que é com um R só. E ela sempre diz que cada um pode fazer do seu melhor jeito. Esse é o meu!

R: Então eu vou escrever do meu jeito também!

R [dirigindo-se à pesquisadora]: Pode fazer assim? Ele escreve do melhor jeito dele, e eu escrevo do meu?

P: Não pode, vocês são uma dupla. Vocês precisam conversar e decidir, juntos, como vão escrever. Como vocês vão resolver isso?

E: Eu tive uma ideia! Você dá uma opinião, e eu dou outra. E aí a palavra fica com um pedaço do seu jeito, e um pedaço do meu. Eu vou fazer como a professora falou.

R [Suspira]: Bom, acho que não vai dar muito certo, mas pode ser. Eu quero que você ponha o M ali, porque vem antes do P. Lembra que quando é antes do P e do B, a gente põe o M?

E: Lembro. Então eu vou trocar, mas no R, vou deixar um R só, porque eu lembro da professora falar que é um R só.

R: Vai ficar “empantu[r]aram” [ressaltando o r brando]. Para ficar /R/, tem que por dois R. E eu duvido que a professora falou isso!

E: É porque você não lembra, mas ela falou. E ah, Ricardo, já foi a sua opinião no M, agora vai ser a minha no R! A gente combinou!

R: Tá bom, pode deixar, mas vai ficar errado.

E: Para você; para mim e para a professora, está certo.

R: Tá, não vou discutir.

1ª etapa de coleta de dados – Ditado em duplas

It can be seen, in the pair's interaction, that both anchored their justifications in different information: while Ricardo resorted to the spelling norm to explain his choices, Erick used the teacher's reference as an authorized interlocutor. Evidently, the teacher did not give the information alleged by Erick, but the boy seemed to see this as the only legitimate justification. Thus, in the impossibility of reaching a consensual linguistic agreement, both made use of a social agreement of equal distribution of decision-making.

The difference in the arguments revealed that each student was centered on his or her way of thinking about spelling. This made Erick not conceive of Ricardo's explanations as "possible" (Piaget, 1985; 1987). No matter how clear the explanations were, they had no effect, as they were probably not observable to him. On the other hand, for Ricardo, respect

for the orthographic norm was "necessary". This meant that, even giving in to the agreement proposed by the pair partner, the student remained, until the end, pointing out the writing error.

Ricardo and Erick seemed so focused on these justifications that they appeared again in the text rewriting, still in the 1st stage:

[Ricardo and Erick decide to write "The bowl was full of a lot of milk"].
 A: Oh, now I don't know if the bowl is with G or with J.
 E: I think it's with G. My mother has already said it's with G.
 A: But it can be with J too, because it has the same sound.
 E: You can't, because my mother said it's with G. It's true!
 A: So it is! [Ricardo writes bowl with G and completes the whole sentence, in a conventional way].
 E: Doesn't a lot have an N after the I? Pay attention to the sound. [Slowly pronounces the word, emphasizing the nasalization of the I].
 A: yes, the sound sounds like that, but I've read the word "very" in many books, and I know it doesn't have an N.
 E: Well, I'm in doubt, because I listen differently, but since you wrote bowl my way, let's leave a lot of yours.

1st stage of data collection – Dictation in pairs

Once again, the justifications maintained different patterns, in the two words that generated discussion among the students. In "bowl", Erick, once again, resorted to an explanation based on an authorized interlocutor – this time, instead of the teacher, he resorted to his mother's reference.

Ricardo seemed to be aware of the irregularity, as he said that the word "could be with J" and, perhaps because he was not sure of the correct answer, he accepted his colleague's suggestion without further questioning. Up to that point, the situation seemed to be classified as a linguistic agreement. However, the continuity of the dialogue showed that, in fact, this agreement was only part of the equal division of decision-making, which regulated their action as a whole, as had occurred in the previous situation.

In "many", while Erick used the sound pattern to suggest the insertion of the N, Ricardo countered with the visual image of the word, claiming to have read it many times. Once again, his justification seemed not to be among the "possibles" seen by Erick, who reaffirmed the sound of the word, but went again for a socially negotiated solution, repeating the pattern of sometimes his suggestion, sometimes one of his colleague's; a pattern that was sometimes maintained, to the detriment of conventional writing. In this

case, the fact that Ricardo is the only one to show a decreasing trend in the comparison between his individual and double writing in the first two stages is justified.

Other pairs also used social agreements when they could not reach a consensus, such as luck-based decision-making. This was the case of Emanuel and Thiago in the 3rd stage:

[Emanuel and Thiago need to write "chorizo". Thiago writes "xouriço"].

E: Are you sure that word is right?

T: Oh, do you think it's with CH? [Without waiting for his colleague's response, he deletes the X and replaces it with CH].

E: yes, it could be... But I think it's with two S. Why did you put Ç?

T: It's just that I remembered the word "hedgehog". Remember when we studied the "sea urchins"? On the poster that was in the room, it was with Ç.

E: Yes, but the teacher said that when there is a strong sound, you have to put SS. Like R, which needs to put two when it is strong.

T: You can also put Ç, Emanuel! And don't you remember the hedgehog?

E: But it's not a hedgehog, it's a chorizo! It's not even an animal, it's food! And what counts is how the teacher teaches. And she says that, whenever she is strong, she has to put two.

T: I know it's something else, but sometimes, when we remember another word, it helps.

E: I think it's better to follow the teacher.

T: Shall we draw on odd or even?

[They play the odd or even game and Emanuel wins].

T: Okay, then I'll put it with SS. [Erases and writes "chourisso"].

3rd stage of data collection – Dictation in pairs

In this case, once again, the justifications for the writings were diverse: while Thiago used the visual image of the word (using a similar word), Emanuel was convinced that the best thing was to be guided by an authorized interlocutor. The orientation given by the teacher, that "you have to put SS when there is a strong sound" seemed to her the only one to be followed, even closing her perception to the possibilities alleged by her colleague. Thiago's strategy, in this case, seemed "impossible" to Emanuel and the impasse generated by the difficulty in decentralization was solved with the resource of luck, in the dispute for even or odd.

Other social agreements were found by the children when they were unable to reach a consensus, as was the case of Flávio and Maria, who, not reaching a linguistic agreement, opted for what seemed most convenient to them at that moment:

[Flávio and Maria want to write "The mice tried to swim". Flávio writes "teitaram"].
M: It's not "they teitated", it's "they tried". With N here [indicates the 3rd letter], just like when we say "tried".
F: No, it's not, listen to how we talk [repeats the word "tried", emphasizing an I after the 1st syllable].
M: But if we were to write "tried", it would be with N. And when the word is similar like that, it's like it's family, it's the same way, you know?
F: No, Mary, listen [repeats the word, in the same way].
M: But you're wrong, it's with N!
F: Maria, aren't you listening?
M: It's wrong, we don't write "teitou".
F: That's right, because we talk like that!
[They stand still, both with an expression of annoyance, and the researcher asks them to try to reach an agreement].
M: Look, as there is little space left in the line, leave it with I, because the N is bigger. I know it's wrong, but at least that's how it fits.
F: You don't seem to even hear the word!

4th stage of data collection – Rewriting texts

Visibly, in this situation, both were dissatisfied. Flávio could not envision a justification that was not anchored in the sound score. The criterion presented by Maria was "impossible" for him and, thus, the allegations did not seem to be heard. It, in turn, relied on the consequent regularity of the derivation of words (even though the application of this criterion did not guarantee the explanation of its foundation), creating an impasse between its "necessity" and its "impossibility". To reach an agreement, both used an artifice that had no relation to the discussion: the physical space occupied by the word, as a socialized way of presenting the task.

Considering the set of occurrences in this category, it is possible to affirm that the settlements through social agreements – a solution found for the impasses in which the justifications differed – seem less powerful (for the immediate purposes of defining how to write)³, unlike situations in which students had similar or similar justifications, as will be described in the following topic.

³ As it is not possible to measure the impact that the interaction has on the learning process of each child, it cannot be said that there are more or less powerful interactions in the medium or long term, but only for the immediate task that was the focus of observation at that moment.

3.2.3 Category 3: Language agreements as resolution of orthographic conflicts

Although there were cases in which the children were unable to reach a consensus, going for solutions through social agreement, in others – more frequent – the interaction proved to be very productive at the time and the discussion about spelling generated linguistic agreements, as in the case of André and Melissa:

[André and Melissa need to write "tanta". Melissa writes "tãnta"].
 A: Why did you put the snake in A? Have you ever seen this word spelled like this?
 M: No, I've never seen it, but I think there is, because otherwise it gets t[a]nta [pronounces the open "a"]. I wrote it as we say.
 A: But I've never seen "so much" written with snake on top.
 M: But have you ever seen the word "no"? Remember how to write? It's the same!
 A: It's true, "no" the snake has. So you can leave it like that.

2nd stage of data collection – Dictation in pairs

In this situation, André was clearly relying on the visual image of the words. This was visible from his initial questioning. Melissa, in turn, seemed to be focused on the sound score. In his argument, he began by justifying the phonetic difference between the open and the nasal A, but, when he realized that André was not convinced, he used the same strategy as him, referring to the visual image of another word, well known, so that his colleague would understand his choice. The use of a criterion similar to that used by his duo guaranteed the agreement, because they began to be guided by the same logic of justification of writing.

In this case, it seems that Melissa managed to turn the "impossible" for André into "contingent". Initially, the boy did not accept the use of the tilde, because he had never seen the word in that way. The colleague's allegation, based on the sound score, was not enough to dissuade him from his position. Upon hearing the comparison with another word, he seemed to accept the spelling under certain conditions: he had already seen another word, with a close sound, written with a tilde, so it seems that, in that contingency, the use of the tilde became acceptable.

It is interesting to note that, apparently, by the set of sessions, at that stage, André seemed to have a greater orthographic awareness. In the 1st session of the same stage, his performance was superior: despite having only one more conventional writing – 4 correct answers, while she had 3 -, he had more viable writings in the alphabetic system, and more correct answers to the spelling difficulty analyzed, with errors in other parts of the

word; During the interactions, he was more attentive to the need to meet the spelling standards. Despite this, it was Melissa who managed to convince him, precisely because she adapted her justification - initially different - to that defended by her colleague.

Unlike André and Melissa, who started from different justifications and reached a linguistic agreement, there were situations in which the children seemed to justify their arguments in the same way from the beginning and, thus, sought together the best strategy to decide the spelling, as was the case of Adriana and Milena:

[Adriana and Milena need to write "excellent" and, before writing, they discuss how to do it].

A: How do you write "excellent", remember? With S I know it's not...

M: Yes, it's not, because otherwise it would be e[z]elente.

A: yes, just like home! So, is it with SS?

M: Maybe. But it can also be with C...

A: With Ç can't! Can it with X?

M: yes... Can you look it up in the dictionary? [Addressing the researcher]. It's just that this word can't be known. And when we can't know, we look in the dictionary!

[The researcher replies that, that time, they cannot look in the dictionary, although this is the appropriate strategy for other situations].

A: I know, I remembered! I think the teacher writes like this [writes conventionally]. Do you remember, Milena, when she puts "excellent" in our lesson?

M: That's true, that's how it is! You were smart, Adriana, I'm glad you remembered!

5th stage of data collection – Dictation in pairs

The students, already in the last stage of the research, seemed to understand (without naming) the irregularities. They explained the possibilities offered by the alphabetic system, discarded writings that would violate known norms and concluded that, in cases in which "it is not possible to know", consulting the dictionary is the best strategy. They seemed to guide their own writing, predominantly, by orthographic norms (their answers in the 1st session of the same stage corroborated this position). Not being able to use this strategy, Milena used the visual image, a procedure promptly ratified by her colleague.

Another situation that sometimes occurred was when the justifications differed and, based on the interaction, one of the children seemed to change his argument, not only to the word in question, but also to other terms. This is what happened in the 3rd stage, with Aline and Lívia:

[Aline and Livia need to write "solved". Livia writes "resouveu"].
 A: Livia, here it's not with U, it's with L [indicates the 5th letter].
 L: But it's the same sound as the ending, reso[u]ve[u] [emphasizes the U sound in the two syllables].
 A: But my mother has already told me that it's with L in the middle.
 L: But the sound is the same.
 A: Yes, but don't you think it's better to follow an adult?
 [Livia stands still for a few seconds, seeming to make up her mind].
 L: yes, it's better to follow an adult. Because sometimes they write differently from us, but theirs is the right one.
 [Replaces U with L].
 (...)
 [In the same session, Livia writes "eselente" for excellent.]
 L: I think it's wrong, right, Aline? Because the teacher has already said that the S like this, in the middle, is the same as the Z, isn't it?
 A: yes, I tell you that it's better to follow the adults!
 L: E[S]e... I know, it's with C! [Writes "eceleente"].
 A: Yes, Livia, you have to remember what the teacher says!

3rd stage of data collection – Dictation in pairs

In this dialogue, it seems that Livia, despite still being focused on the sound score, already had an opening for the authorized interlocutors as a "possibility". Thus, when Aline confronted her, questioning whether listening to an adult would not be a better strategy than hers, the girl thought for a few moments and, glimpsing her colleague's suggestion as "possible", managed not only to accept it, but also to incorporate it into the writing of another word. This is an example in which the interaction between peers made the child envision other referencing strategies for spelling.

The qualitative analysis of the interactions between the children allowed some conclusions:

- The fact that the pairs were defined based on the proximity of the orthographic performance did not guarantee that they were operating according to the same criteria, which proves the plurality of cognitive paths and the uniqueness of the individual paths.
- In cases where the justifications for the spelling were very distant, the children did not reach a consensus and went either for a solution by social agreement, or for the predominance of one of them.
- The situations that generated consensus were those in which the students anchored their writings in similar or similar justifications, or when one realized the criterion used by the other and adapted his argumentation, thus making it "observable" for the colleague.

CONCLUSION

Whether with regard to the interactive processes or with regard to their results, the observations made in these situations suggest important pedagogical implications. Some findings about adult-child interaction can favor reflection on teacher-student interaction in the classroom. On the other hand, the findings regarding peer interaction allow us to understand the role of debates, conflicts, confrontations of ideas and points of view in the construction of knowledge.

The first conclusion regarding the interaction centered on spelling attests to the efficiency of this practice, resulting in a decrease in spelling errors. Both with regard to reflective questioning or information brought by the adult or by a colleague, as well as with regard to the gain promoted by the metalinguistic awareness generated by the need to explain how one thought, the fact is that children tend to make fewer mistakes in interactive contexts. From this observation arises a question for the school: if the interactions are so favorable to the learning of spelling, how harmful are schools that prioritize individual work, with reduced possibilities of exchange with teachers or colleagues?

The second conclusion relates the interactive situations to the learning moments in which each child found himself. Although with different levels of competence, the results of the research showed that everyone can learn and benefit from interaction, as long as it is planned and directed to specific objectives, respecting the uniqueness of each individual's learning. Therefore, one can question the most of the school interventions, still timid to meet diversity, especially to benefit those who are above or below the average. Considering the school culture, generally based on the logic of homogenization and the resulting difficulty in dealing with the heterogeneity of knowledge and processes, it can be stated that, in many cases, if the child learns thanks to school, he also learns in spite of school.

The third conclusion indicates that, at the beginning and at the end of the process of appropriation of conventional writing, children are more "convinced" of their writings, less open to change. In turn, the situations in the middle of the process seem to be propitious moments for interventions in favor of reflections and changes in previous knowledge.

As a pedagogical implication of this, it is possible to suggest a more favorable moment for the teaching of spelling. Although this is a continuous learning process with no end date – since any literate subject, no matter how proficient in writing, can always find himself grappling with a spelling issue – the initial grades following the acquisition of

alphabetic writing seem to be a particularly propitious moment for interactive reflection on spelling.

The fourth conclusion refers to the interaction between children. In these cases, the productive groupings are opportune for the advancement in the learning of orthography. Despite the many variables in the grouping criteria (by affinity, personality traits or student attitude), a productive grouping is understood to be one that brings together children who are, in the learning process, in close stages. Applied to orthography, this reflection considers that, when children have similar orthographic performances and similar anchorages to justify them, the interaction between them tends to present better results for immediate purposes of how to write, since the possibility of their openings being congruent to the possible and necessary is expanded.

Transposed to the school context, this conclusion allows us to infer that the groupings promoted by the teacher must be constantly reviewed (taking into account both aspects of the children's personality, as well as their spelling performances and the anchorages they use to define and justify their spellings). In addition, it is important to consider that productive interactive behavior among equals is not necessarily a condition that is set *a priori*; it is also something to be built by the students, taught and mediated by the teacher.

The fifth conclusion focuses specifically on interactions between children with referrals through the social agreement. These are cases that show how much the interpersonal posture of the subjects can be related to teaching and learning processes. These are situations that, in their minutiae and particularities, concern the integral education of the subject, occurring in different ways: as a result of social practices, values, ways of coexistence and tacit agreements, the student learns what is explicitly taught and also what is not. In these situations, at the same time that children learn spelling, they may be learning strategies for coexistence, social conventions, principles of tolerance and negotiation of differences, which is not a learning of less validity. However, it is worth remembering that the rules of coexistence and negotiation of ideas in school are not a presupposition, but goals to be achieved, which is why they depend on teacher mediation.

Based on all the aspects mentioned, it is evident that, in the context of the classroom, from the perspective of the subjects - their strategies of search and validation of the orthographic base, their efforts to expand reflexive alternatives, their interaction strategies and their paths of progression towards more autonomous behaviors of writing - a

school capable of dealing with the complexity inherent to the language is justified. aiming not only at the acquisition and appropriation of writing and its orthographic norms, but, above all, at the understanding of its social function. As Lerner (2004, p.23) states,

Escribir pensando em el lector es una condición para descubrir que las normas ortográficas tienen un papel en la comunicación, que tomarlas en cuenta al escribir favorece una quick comprehension del mensaje y contribuye a generar en el recipient una imagem positiva del emissor.

Thus, four principles seem fundamental for the learning of the language and, particularly, of orthography: to propose a teaching capable of i) exploring the multiple situations of interaction, in order to favor approximations with conventional writing; ii) to privilege the articulation between didactic and communicative purposes; iii) to favor the understanding of the interdependence between forms and contents in the ways of speaking; iv) challenge students to use writing in the diversity of their social practices.

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