



Learning to Study Texts: Innovative Activities to Enrich Textbook Reading Practices in Elementary Education

Aprender a estudiar textos en primaria: propuestas para innovar en las prácticas de lectura de textos escolares

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Abstract

Learning to Study Texts is an innovative program that seeks to improve teaching and learning of disciplinary content by using teaching proposals based on analyzing and commenting on the language used in texts. This paper presents the bases of the program and a pilot study conducted with two teachers working in the fourth grade of elementary school who implemented the program proposals in History classes for four months. This analysis included the comparison of teaching practices involved in reading History texts before and after following the *Learning to Study Texts* program. It also included the description of how they changed their practices throughout the intervention. The results indicate that, with the incorporation of the program proposals, the teachers began to provide more opportunities to the students to listen, retrieve, comment on and analyze the information content of the texts. The main contribution of this study is to offer inputs for the design of a continuous teacher training program.

Keywords: academic language; reading; elementary school; teaching practices

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Resumen

Aprender a estudiar textos es un programa de innovación educativa que busca mejorar la enseñanza y el aprendizaje de contenidos disciplinares a partir de propuestas didácticas basadas en el análisis y el comentario del lenguaje de los textos. Este artículo presenta las bases del programa y un estudio piloto realizado con dos profesoras de 4º año de primaria que implementaron durante cuatro meses las propuestas del programa en clases de Historia. Los análisis incluyeron la comparación de las prácticas docentes en torno de la lectura de textos escolares de historia antes y después de conocer *Aprender a estudiar textos* y también la descripción del modo en que fueron cambiando las prácticas a lo largo de la intervención. Los resultados indican que, con la incorporación de las propuestas del programa, las profesoras pasaron a ofrecer más oportunidades a los alumnos para atender, recuperar, comentar y analizar el contenido informativo de los textos. La principal contribución del estudio consistió en ofrecer insumos para el diseño de un programa de formación permanente de docentes.

Palabras clave: lenguaje académico; lectura; educación primaria; prácticas docentes

Introduction

The language used in academic texts has been described and analyzed by numerous systemic functional linguists (Halliday & Martin, 1993; Martin & Rose, 2008; Moss et al., 1998; Schleppegrell, 2001, 2004). Studies on the challenges involved in reading emphasize the high proportion of nouns and nominal groups (Fang, Schleppegrell, & Cox, 2006; Schleppegrell, 2001), in addition to technical terms, numerous abstract words, and grammatical metaphor, among other things.

It has been pointed out that while there is usually a balanced proportion between nouns and verbs in everyday use of language, in the language of academic texts there is greater concentration of nouns (Halliday & Martin, 1993), which increases information density. By condensing a large amount of information into few words, readers have to process and understand more ideas in each clause (Fang et al., 2006).

Another aspect related to the concentration of information in academic texts is reflected in the non-prototypical use of certain grammatical structures, such as the use of nouns to express processes or properties (*colonization* from *colonize*, *unpopularity* from *unpopular*), a phenomenon known as nominalization (Moss, Barletta, Chamorro, & Mizuno, 2013). Nominalizations involve using a single word (noun) to express something that, in everyday life, would require explaining the participants, processes, and circumstances. In these cases, readers need to retrieve the condensed information, restoring, for example, the actors responsible for the processes or properties explained (*who colonized what, who was unpopular where*).

These requirements start to exist in the final years of elementary education, when academic texts begin to display the characteristics of academic language (Biemiller, 1999; Fang et al., 2006). Those studying these phenomena point out that specific educational interventions are necessary, across subjects and school grades, in order to help students handle the language of the different disciplines and to carry out activities that promote the learning of curricular content and forms of academic communication (Fang & Schleppegrell, 2008; Moss, 2006, 2009; Moss, et al., 2013; Schleppegrell, 2001, 2004; Uccelli, Phillips Galloway, Aguilar, & Allen, 2020).

Educational research on learning based on reading academic texts demonstrates that students do not receive the necessary support to successfully address this type of challenge (Aisenberg, 2007; Bortoni-Ricardo, 2008; Chamorro, Barletta, & Mizuno, 2013; Moss, 2006, 2009; Moss, et al., 2013; Natale, 2009; Pereira, 2007). Throughout

schooling, the lack of comprehension and appropriation of the expository, informative, and scientific discourse that is typical of academic language creates barriers to access disciplinary knowledge (Halliday, 1998) and has been found to be a factor associated with performance levels in reading comprehension and written production tasks (Meneses et al., 2018; Phillips Galloway & Uccelli, 2019a, 2019b; Uccelli, Galloway, Barr, Meneses, & Dobbs, 2015).

The program *Learning to study texts* (*Aprender a estudiar textos* in Spanish, hereinafter LST) promotes changes in pedagogical practices in order to respond to the challenges of teaching disciplinary content based on reading texts. With this objective in mind, we developed model didactic sequences¹ based on attention to and annotation and manipulation of the graphic layout of the text. Through these models, we present and analyze the characteristics of the language of academic texts, and propose sequences of reading activities, analysis, and representation of their information content. The approach and the set of activities included in the program are applicable to different areas of the curriculum. In this study, we focus on the area of History². For this reason, before presenting the proposals for specific pedagogical practices under the program, we will first describe some of the challenges of reading academic texts in this area and the types of activities and educational materials that have been proposed for their study.

The characteristics of the language used in History texts

Texts written to tell the history of peoples and civilizations position past events in time and space. The readers of these texts have to be able to identify key information regarding the participants, events, and circumstances related to the place, time, cause, mode, and other aspects (Schleppegrell, Achugar, & Oteíza, 2004). That is, they must be able to explicitly identify in a text *who did what, to whom, and under what circumstances*. Therefore, for the area of History, LST proposes that, while studying texts, attention should be paid to the words that express this information.

The specialized literature has highlighted phenomena related to the words used in the texts to present the events and participants, and those that characterize the predominant type of informational organization. The words used to present the events described are verbs, usually in the past tense. Following the classification of Schleppegrell et al. (2004), the verbs most frequently used when writing about history are action verbs such as *struggle, leave, remove*; saying and thinking-feeling verbs such as *announce, believe, suffer*, and linking verbs such as *be, have*. The authors emphasize that this categorization makes it possible to differentiate between the narration of events, the expression of attitudes or opinions, and the description of contextual information. With respect to saying-thinking-feeling verbs, it has been stated that they are most frequently used in academic texts not to express the comments, analyses or opinions of the authors about the historical contents, but rather to express the feelings, thoughts, or statements of the participants (Moss, 2000).

The words used to refer to the participants are nouns and nominal groups that indicate who or what is the content recounted, described, or explained in each sentence of the text. These nouns vary within a continuum that shifts between specific terms with an objective reference in the physical world to other abstract ones that correspond to concepts, relationships, or processes (Martin & Rose, 2008; Schleppegrell, 2001). Thus, for example, proper nouns are used to refer to human participants, specific individuals such as *Pêro Vaz de Caminha*, groups such as *the workers, the colonizers*, specific non-human participants such as *oil*, or abstract ones such as *slavery, independence*. The latter type of participants expressed in nominalizations has received considerable attention from researchers (Moss et al., 2013). Nominalizations present phenomena as given states or circumstances, with no identifiable human agency. It has been stated that, although they play an important role in the organization

1. LST is not a curriculum. The educational sequences that comprise the program material are a model with which to introduce the characteristics of the language of History textbooks and the types of activities that can be carried out with students.
2. The perspective of the authors is to validate the LST approach in History in order to later resume the production of contents adapted to the characteristics of other areas of knowledge, such as Geography or Science.

and communication of scientific discourse (Schleppegrell, 2001), they are challenging for school-level readers who, in the case of history texts, have to retrieve the agents responsible for the events or processes recounted (Moss et al., 2013), to identify *who* acts with regard to what happened (Schleppegrell et al., 2004).

With respect to words that help identify the predominant type of organization of school History texts, we can identify those that indicate temporal and causal relationships between events. Coffin's (1997, 2006) analyses established that texts that communicate History shift from the linear narration of past events to the presentation of History as explanations or arguments with a focus on abstract theses that are organized rhetorically in the time of the text. Broadly speaking, students are expected to move from texts characterized by the recounting of events in sequence, organized by means of temporal expressions and connectors, to explanatory texts in which causal links predominate, and then to read rhetorically organized argumentative texts that discuss and debate events of the past.

Activities and educational materials to learn the language of texts

Those who study the characteristics of the language in academic texts underline the need for teachers and students to reflect on the comprehension challenges that are inherent to academic texts (Barletta & Mizuno, 2005; Fang & Schleppegrell, 2008, 2010; Moss, 2006, 2009; Schleppegrell & Achugar, 2003; Schleppegrell et al., 2004; Schleppegrell & Oliveira, 2006). In their studies in secondary education, these authors teach students to retrieve the information that the text omits and they model ways of helping students question the information presented by the text, particularly to inquire about the human participants of the events, their interests, roles, and motivations.

In elementary education, Teberosky's proposals (Ortega, Coromina, & Teberosky, 2013; Teberosky, 2011, 2020; Teberosky, Ortega, & Coromina, 2017; Teberosky & Sepúlveda, 2011) add to the functional analysis of text sequences of linked tasks that take advantage of diverse possibilities of visualization and manipulation of textual material. The linked tasks consist of sequences of interdependent activities, which include the teacher reading aloud to the children, the visualization, commentary, annotation, and labeling of the structure and informational content of the text, the manipulation of the lexicon of the text and the production of representations of various types.

With regard to the manipulation of textual material, with the intention of promoting and supporting processes of attention to, commentary on, and analysis of the language of texts, in these studies (Ortega et al., 2013; Teberosky et al., 2017; Teberosky & Sepúlveda, 2011) the proposal is to retrieve a type of visual presentation of the text based on an ancient text segmentation, known as *per cola et commata*. This type of segmentation matches the line with a unit of meaning (Blanche-Benveniste, 2008). The reformatted linear text *per cola et commata* comes to consist of short text sequences that match semantic units of reading and breathing units (as explained by Johannot, cited by Blanche-Benveniste, 2008). In the educational interventions mentioned, it is emphasized that this format of presentation is useful for activities to study text (see Figure 1).

Another proposal is to promote the manipulation of the lexicon of the text (Ortega et al., 2013). With the words of the content arranged in manipulable labels, the students are instructed to position them considering their relationships (see Figure 2). Depending on the hierarchy of information in the text, the students can establish coordination or categorization relationships between the labels. In the observations made of these studies (Ortega, 2013), the manipulation of the text lexicon provides students with opportunities to review their understanding and become familiar with a procedure for schematic representation of text information.

In the LST program, this type of interventions are proposed to teachers and students in the last years of primary education³ with the aim of increasing opportunities to learn disciplinary content by reading school texts, and promoting the knowledge and appropriation of language uses typical of the representation and communication of disciplinary knowledge.

Learning to study texts and promoting changes in teaching practices

The activities that make up the LST program are organized into four blocks that respond to different purposes and moments of interaction of the students with the texts studied (Laboratório de Educação, 2019). The first, *preparing students to study the text*, involves various actions that can be carried out to make the objectives of the reading clear, activate prior knowledge, stimulate the formation of expectations, and generally guide the reception of the text. The second, *reading and commenting on the text*, proposes expressive and deliberate reading aloud by the teacher to the students; it guides the retrieval of the dialogue started before reading the text, identifying the themes addressed and establishing the need to reread and study the text. The third block, *studying the text*, entails various activities that can be carried out to identify the information content of the text in detail (who did what to whom, under what circumstances) and to note its discursive structure (text sequences, referential chains, discursive markers) (see Figure 1). In this block, activities are also proposed to study the vocabulary of the text (see Figure 2). Finally, the fourth block, *communicating the comprehension of the text*, focuses on activities for oral and written communication of the understanding obtained through representations of different types.

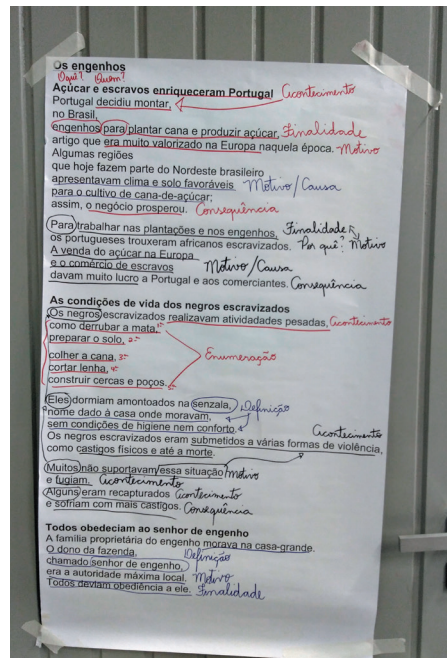


Figure 1. Example of the results of the activity to annotate the content and information structure of the reformatted text.

Source: Photographic documentation. Annotated text, teacher B, sequence 4.

3. The content of the program responds to challenges faced in fourth and fifth grade. However, starting in 2017, priority was given to the design of educational strategies to introduce the LST proposals to teachers working in fourth grade. Subsequent pilots thus allowed simultaneous progress in the understanding of the functioning of classroom activities, both from the perspective of the students and teachers.

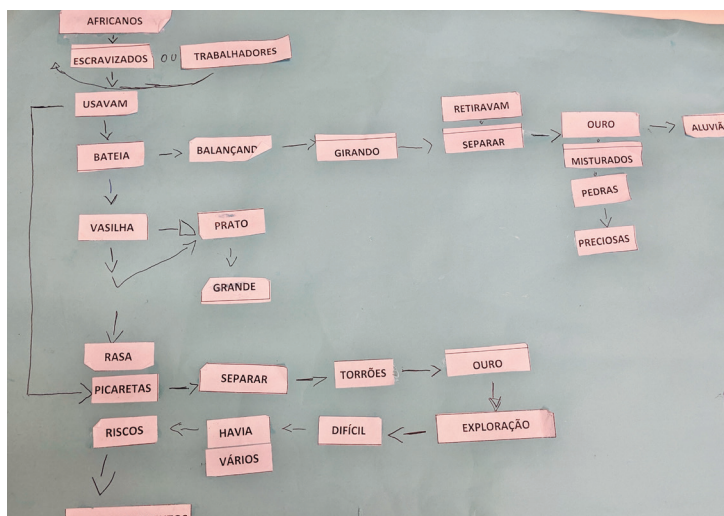


Figure 2. Example of activities to study vocabulary from the text.

Source: Photographic documentation. Diagrams carried out in groups, group C, sequence 3.

The professional training of teachers is a key element to promote new practices in the classroom. Research on teachers' beliefs about reading texts indicates that when they think about teaching the reading of disciplinary texts, they are not accustomed to address the text and discursive structures that are specific to each area of knowledge as an objective of learning (Maggioni, Fox, & Alexander, 2015). The ability to recognize and project new ways of teaching, in line with specific pedagogical principles, has been studied over the last 30 years, beginning with the conceptualization of pedagogical knowledge of content (Shulman, 1986, 1987) as an essential element to enable teachers to transform themselves into professionals who act in a critical and reflective manner. From this perspective, general knowledge of the content of a disciplinary field is differentiated from the content to be taught, considering structuring aspects and peripheral aspects of the discipline, anticipating work strategies with students, and possible responses and misunderstandings, among other things. The LST program proposes that the pedagogical knowledge of the content needed to teach History using written texts should also include an understanding of the characteristics of the language used in such texts.

Objective and research questions

This research adds to other pilot studies carried out with the aim of assessing the design of LST didactic proposals (Sepúlveda, 2015, 2017a; Sepúlveda, Bisognin, & Paulet, 2017) and developing a teacher training program (<https://aprenderaestudartextos.org.br/>). In this particular study, we set out to identify the way in which two female teachers working in the fourth grade of elementary education, who implemented the LST proposals for a period of four months, changed their practices of reading school texts in the area of History. We asked what changes were made and whether they modified their practices in the same way.

Methodology

Participants

The pilot study was conducted in two fourth-grade elementary school classes, in line with ethical standards in effect in Brazil during the data collection. It should be noted that, despite the school where the intervention was conducted being located in an upper-middle class district of the city, many of the students who attended the establishment live in an informal settlement located nearby. The students therefore have varying degrees of social vulnerability.

Each class consisted of one teacher and 21 students. The participating teachers, here labeled teacher A and teacher B, are educators with successful careers in the municipal network in the city of São Paulo, have university education up to postgraduate level⁴, and have seven and twelve years of experience working in classrooms, respectively. Both freely agreed to participate in the teaching intervention focused on educational practices of reading school texts in History classes.

Procedure

The data collection process was carried out in three stages. The objective of the first was to characterize the practice of the participating teachers and their pedagogical profile before using the LST proposals. For this purpose, we conducted an interview and, subsequently, carried out direct observation of a History class in which the two teachers worked on the same text.

The following stage consisted of promoting and documenting the use of the LST proposals over two bimesters⁵. For this purpose, we provided introductory training sessions and weekly planning meetings. In these meetings, the characteristics of the texts present in the textbook⁶ adopted by the school as part of the National Textbook Program⁷ were explored, and the sequences of teaching and learning activities to be put into practice with the students were discussed. Throughout the intervention, the teachers worked on the same texts and with the same planning of activities. The reading and analysis proposals were prepared using texts already included in the teachers' bimonthly program, taking into consideration the school's curricular provision.

All of the activities carried out during the intervention were observed directly by the researchers twice a week. A total of 18 sessions of 45-60 minutes were either audio or video recorded. The data were transcribed and coded with the data analysis program ATLAS.ti version 5.5. (Atlas.ti Scientific Software Development GMBH, 2002/2011). We also collected the educational materials produced by the students individually, in small groups and collectively with the teacher.

4. In Brazil, there is a wide range of low-quality private university courses, many of them provided with distance learning, which have a significant impact on the career progression and remuneration of teachers (Gatti, Barretto, Andre, & Almeida, 2019).

5. For more details on the program materials, check Laboratório de Educação (2021).

6. In this paper we use the term textbook to refer to the school textbooks or manuals distributed free of charge by the Brazilian Ministry of Education to support the teaching and learning processes of the different areas of the curriculum.

7. The National Textbook Program (PNLD by the Portuguese acronym) distributes textbooks each year to all students enrolled in public schools in Brazil. The principals and pedagogical coordinators of each school unit organize the process to select the books, based on a choice made previously by a technical commission of the Ministry of Education. In 2020 alone, 32 million students were the beneficiaries of this educational policy (Fundo Nacional de Desenvolvimento da Educação, 2020).

Analysis

In this study we focused on the data from the record of activities and educational discourse used in History classes regarding reading of texts from the textbook before and after learning about the LST proposals. On the one hand, the analyses were oriented towards characterizing the initial practice of the teachers and, on the other, towards identifying the changes made in their educational practices after the incorporation of the LST proposals.

With these objectives in mind, we carried out the following analysis:

- Content analysis of the initial interview. We identified the activities recounted by the teachers to describe their typical classes in History.
- Identification of the segments of activity and use of time. Based on Coll, Onrubia, and Mauri's (2008) proposal for the analysis of the forms of organization of educational activity between teachers and students around a task or learning content, we identified the actions carried out during the observed classes and the time devoted to each of them. We then segmented and coded the way in which the activity of the teacher and students changed regarding reading and commenting on a text during the class session. This coding process was not based on predetermined categories, but we differentiated and labeled the changes in the joint activity of the participants, for example: observation and comment on the images of the text, reading aloud, summary of previous knowledge, work in small groups.
- Comparison of the discursive activity focused on commenting on the information content of the texts before and during the intervention. In order to carry out this analysis, we proceeded as follows. First, we defined the unit of analysis, the utterances, "understood as the specific and tangible product of a process of utterance carried out by an enunciator and intended for an enunciate" (Calsamiglia & Tusón, 2007, p. 3); in our case, the acts of speech made by the teacher addressing her students and by the students addressing their teacher. Secondly, based on our previous experience with analysis of educational discourse regarding reading texts (Sepúlveda, 2012, 2017b; Teberosky et al., 2006), we coded the utterances made about the text read, excluding statements about teaching processes from the analysis (let's open the book on page 25) or about behavior management and participation in class (teacher, it's time for recess). The utterances made about the text read were coded according to the type of discursive act performed, for example: quoting, paraphrasing, explaining, defining, asking, answering, and in accordance with their information content, both conceptual (participants, events, place, time) and discursive (anaphoric reference, discursive connector, synonymous word). So, for example, we coded the teachers' discursive activity on the text as: paraphrasing of the events (So, you are saying that the lands were occupied by the Cariri Indians), question about the participants (Who lived in the quilombos?), question about the events (What happened?), definition of a term (a confederation is a group of people), explanation of an anaphoric reference ("they" Who? The colonizers), and the students' discursive activity as: answer by identifying the participants (the Cariri Indians), answer by identifying the causal relationship (the colonists wanted more land), answer by identifying the time of the events (before the arrival of the Portuguese), asking about the meaning of a term (What does "sesmaria" mean, Miss?), among others. Third, we grouped the codes that made reference to the information content of the texts, both for the teachers and for the students and we thus quantified the utterances made in the class with the intention of reproducing or commenting on the content of the text read, excluding those of a metadiscursive nature, such as those related to anaphoric references (this is a word that refers to another word mentioned previously), the type of connectors ("because", we have to be very attentive when we find a "because", as it means that they are going to explain to us the cause of what happened), or text sequences (in this paragraph they are giving examples). Finally, for comparison we selected the class recorded before the intervention and the one corresponding to an intermediate time, because they were classes of equivalent structure, content, and duration. That is to say, in the classes compared, the teachers read the same texts and performed the same study activities at approximately the same times. We coded the data from the compared classes independently; the degree of inter-observer agreement ranged from 84% to 99%.

Results

Taking into account the objectives of the study, we first describe the teachers' educational practice prior to the intervention. In this section, we identify to what extent the habitual practices used by the teachers during the initial interview and displayed in the class differ or resemble each other, as well as the way in which they interacted with the LST proposals. Secondly, we outline the changes identified in the teachers' practices throughout the intervention. In this second section we identify changes in the teachers' use of time and in their discursive activity while reading aloud and studying the texts. Finally, we present the changes observed in the frequency of discursive activity focused on commenting on the information content of the texts.

Initial characterization of the educational practice of the teachers

During the initial interview, the teachers described their usual teaching practices in History as being based on reading texts and the performance of activities proposed in the textbooks received free of charge from the Ministry of Education through the National Textbook Program. Teacher B pointed out: "The basic material is the textbook; planning is based on that content. We use the texts in class, the activities proposed in the textbook".

When providing details on what a typical sequence of activities consisted of in their History classes, both teachers stated:

- Reading aloud in turns among the students.
- Performance of the activities proposed in the textbook and individual recording of answers in notebooks.
- Correction of the activities on the blackboard guided by the teacher.
- Individual copying of the corrected answers in notebooks by the students.

The main differences mentioned were reading aloud by teacher A, and the explanation of and commentary on the contents of the text in the case of teacher B.

Direct observation made it possible to confirm this description and recognize signs of different teaching performance profiles of each of the participants. Table 1 lists the activities observed and the time devoted to each of them.

Table 1
Activities observed in a typical History class prior to the intervention.

	Teacher A	Teacher B
0'		Summary of previous knowledge (5').
5'	Observation and comment on image accompanying the presentation of the new unit (9').	Preparation of expectations on the content of the text (2').
10'	Reading aloud of the opening paragraphs of the text by the teacher, followed by reading aloud by the students in turns. The teacher explains unknown words and gives extratextual examples of the content (10').	Reading aloud of the text by the students in turns. The teacher asks questions that lead to the paraphrasing of the content of the text (13').
15'		
20'	Rereading aloud of the text by the students in turns (7').	Reading of infographics contained in the academic text, including a description of the images and joint attention to the captions accompanying them (11').
25'		
30'	Reading of infographics contained in the academic text, including explanations and questions answered by the teacher (10').	Individual performance of activities proposed by the textbook: finding answers in pairs and individual recording in notebooks (25').
35'		
40'		
45'		
50'	Individual performance of activities proposed by the textbook: finding answers in pairs and individual recording in notebooks (25').	
55'		
60'		

Source: Prepared by the authors.

We generally found that the teachers carried out the same types of activities for an equivalent amount of time: the students took turns to read the text aloud, then read and commented on an infographic contained in the textbook, and answered the questions that accompanied the text in their notebooks. Neither teacher read aloud the entire text.

However, we also saw some clear differences. Teacher B began the class with a moment dedicated to recalling previous knowledge and the formulation of expectations about the content that would be addressed in the new text based on its title. In addition, after the students read the text aloud, the teacher stimulated paraphrasing of its content through questions, as we can see in the following example:

Teacher: And why? Why didn't they plant [sugarcane] there?

Student: Because it was very cold there ...

Teacher: The climate wasn't good and neither was the soil ...

The differences between the participants were not limited to the inclusion of such activities at specific times before and during the reading, but were also displayed in the modes of interaction with the children: only in the case of teacher B were exchanges recorded in which the teacher expanded or commented on the students' answers, offering complementary explanations of the events recounted. In teacher A's classroom, the questions she asked the students were limited to inquiring about the meaning of unknown words, and we observed no instances of comment on or reformulation of the children's contributions. These observations revealed teacher A's more transmissive pedagogical profile and teacher B's more interactive profile.

Changes in educational interventions during the reading and study of the texts

Table 1 shows a comparison of the time devoted by each teacher to performing the activities proposed under LST for reading aloud and studying the text at three moments in the intervention. We use the data corresponding to the first sequence of activities planned with the researchers (S1), one carried out in the middle of the intervention (S4), and the final sequence of activities (S7). The time devoted to reading aloud denotes the time elapsed between reading the first and the last line of the text. In the case of studying the text, we measured the class time devoted to rereading and commenting on salient aspects of the information content and discursive structure of the texts.

Table 1
Comparison of time use, in minutes, at the start, middle, and end of the intervention.

Activity	Teacher A			Teacher B		
	S1	S4	S7	S1	S4	S7
Reading and commenting on the text	23'	30'	2'	6'	9'	3'
Studying the text	0'	30'	15'	17'	32'	33'

Source: Prepared by the authors.

The data on the use of time (see Table 1) show differences in the way in which changes in the pedagogical practices of each teacher were consolidated throughout the intervention. In the case of teacher A, we recorded that in S1 she read, commented on, and analyzed the text simultaneously, that is, she did not differentiate between the initial activity to read and study the text. For this reason, we did not count any time devoted exclusively to rereading and analyzing the text. In S4, although she still did not differentiate between an initial reading of the text and commentary in greater depth, she did devote specific time to rereading and examining the text. Finally, in S7, after successive reflections during the meetings to plan activities, the teacher opted for a first continuous expressive reading of the text, which resulted in her having an initial general conversation with the students about the themes in the text and justifying the rereading and analysis activity.

Unlike teacher A, the data representing teacher B's use of time show that from the beginning she incorporated reading aloud complete sentences or paragraphs, before asking questions that would lead students to identify the theme or main ideas in the text. This difference is demonstrated in the duration of the segments of activity devoted to reading aloud: 6' (S1), 9' (S4), and 3' (S7). With regard to the time devoted to rereading and analyzing the text, we observed that between S1 (17') and S7 (33'), twice as much time was dedicated to this activity.

The analysis of the educational discourse also allowed us to identify the changes made by the teachers throughout the intervention. In the case of teacher A, in S1, she went from first reading of the text, interrupted to ask questions aimed at the retrieval of the information read and the definition of unknown words, to including comments and questions in S4 and S7 that were aimed at analysis of the information content of the academic History texts: agents, causes, places, events, as in the examples below:

“Then they began to rebel. In what way? By burning what their owners sent them to plant and fleeing” (retrieval of information read, teacher A, S1).

“What is captivity? ... Here we’re talking about captivity as a situation, a way of life ...” (definition of captivity, teacher A, S1).

“Who was part of the municipal councils? Why?” (question aimed at the retrieval of agents and paraphrasing a case mentioned in the excerpt read, teacher A, S7).

We also note that she systematically began to specify the function of various reference mechanisms used in the texts, as can be observed in the following examples:

“In these places ‘in these places’. What places am I talking about?” (question aimed at the identification of the place referred to with the demonstrative these, teacher A, S1).

“They were able to distribute the use of the lands ... ‘they’. Who?” (question aimed at the retrieval of the agents referred to by the pronoun they, teacher A, S4).

In the case of teacher B, in the initial characterization we had noted that she promoted the activity of asking questions to retrieve and paraphrase the content of the text in her interactions with regard to the text. With LST, she managed to make a more intentional effort to retrieve and comment on the students’ participation. So teacher A went on to explicitly include attention to the information units specific to History texts, as well as to the resources used to check the comprehension of anaphoric references. For example, the teacher asked questions aimed at the temporal location of specific events cited in the text, as can be seen in the following dialogue that took place during S7:

Teacher: The struggle lasted a long time, until, in 1713, Paulista troops defeated the Cariri confederation ... what is this piece talking about?

Student: About the struggle.

Teacher: It’s talking about the struggle, the fight, isn’t it? So, this struggle ... lasted a long time. When did it end?

Student: 1713.

Teacher: So, this [pointing to 1713], what is it?

...

Teacher: It’s when, when.

It was also notable that, using the LST proposals, the teacher went on to adequately integrate the contrast between the ideas discussed in preparation for reading the text and the comprehension obtained afterwards. As seen in the following example, in S7 the teacher summarized the hypotheses recorded on the blackboard before reading the text and took advantage of the children’s doubts about which historical characters were involved in the conflicts over land possession to justify rereading it.

Teacher: What are we going to do now? Did what you say initially make sense or not? Let's see. Are we talking about the lands in Brazil? ... And between whom were the conflicts that the text talks about?

Student: Indigenous people and Portuguese.

Teacher: The indigenous people with the Portuguese, and the Cariri. Yes, right? And the Dutch with the Portuguese?

Student: No.

Teacher: Not in this episode, no. And the cowboys with the Indians? [...] Did the cowboys get involved in any conflict?

Student: Yes.

Student: No.

Teacher: Let's see again, then. I'm going to put the text on the board ... [for rereading].

These results show that the teachers gradually incorporated the activity of expressive reading aloud aimed at the students, differentiating it from the subsequent analytical readings. It also shows the gradual incorporation of the active participation of the students as the common thread between the two activities.

Changes in the frequency of discursive activity focused on reference to the information content of the text

One of the main changes that occurred in the educational practices carried out by the teachers with respect to reading and commenting on the academic texts consisted of increasing the children's opportunities to pay attention to, retrieve, comment on, and analyze the information content of the text. The exhaustive categorization of the educational discourse recorded in each of the sessions made this evident.

Figure 1 compares the discursive activity carried out by each teacher and her students to paraphrase the content of the text before beginning the intervention (S0) and at an intermediate moment (S4), in which the two teachers carried out the planned rereading and annotation procedures in the same session, on the same text, and at equivalent times: teacher A 30' and teacher B 32'.

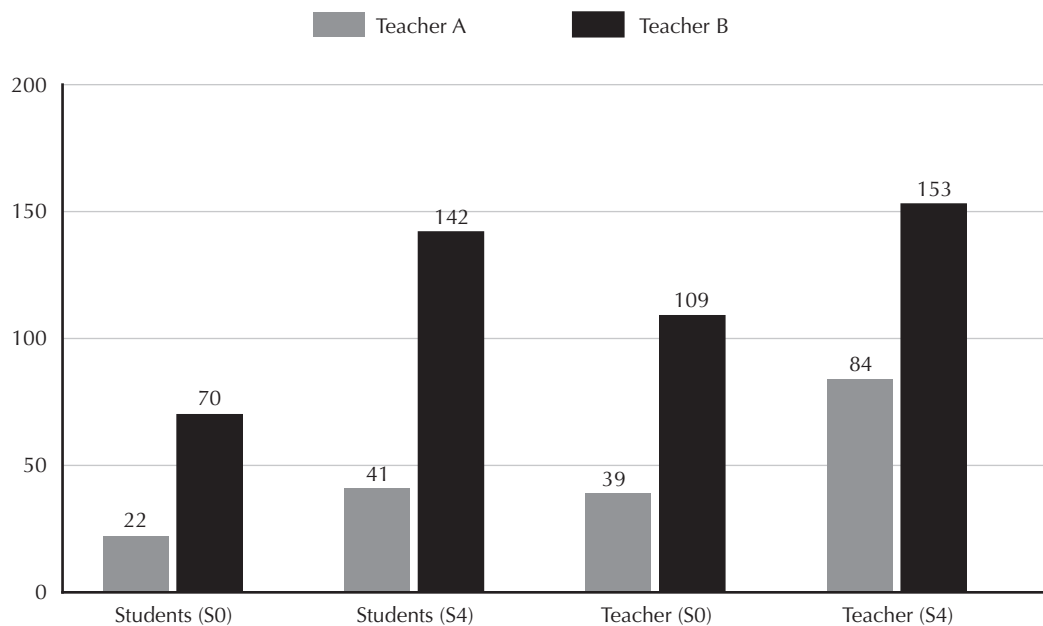


Figure 3. *Discursive activity devoted to commenting on the information content of the text, measured in number of utterances per class.*

Source: Prepared by the authors.

Figure 1 allows us to observe that, compared to the activity carried out before the LST program (S0), the two teachers increased the opportunities offered to their students to listen and comment on the content of the text. In the case of teacher A, the number of utterances focused on paraphrasing the content of the text doubled compared with the activity recorded before the intervention. However, the distance recorded between the teacher's discursive activity and that of the students remained the same. This result indicates that the LST proposals, despite not having changed teacher A's style of interaction, succeeded in changing her practice, giving greater prominence to the disciplinary content studied.

In the case of teacher B's class, the participation of the students increased significantly and almost equaled the number of interventions by the teacher. This data suggests that the more interactive pedagogical style recorded in the initial characterization of teacher B's practice was accentuated with the work carried out through the didactic sequences proposed by LST.

Discussion and Conclusions

In this study we considered the changes in the reading practices of academic texts made by two teachers working in the fourth grade of elementary education as a result of the use of the didactic proposals in the LST program. In the initial characterization of the participants' educational practice, we recorded that, before the introduction of the LST proposals, reading school texts in the subject of History had a mechanical and superficial character. The teachers' practices consisted of asking the students to read the text aloud in turn, listening to brief explanations from them, and carrying out individual work activities or copying in the notebook in a single class session of approximately one hour.

Based on the LST proposals and the reflective work done by the teachers through the intervention, the students had the opportunity to listen to the texts read aloud by their teachers in an expressive and deliberate way, emphasizing the information content of the text and its discursive resources. During several class sessions, they were able to observe the actions involved in analytically reading texts, participating in the identification of their main units of information, noting the mechanisms to maintain the reference and function of discursive markers, and thus advance in their knowledge of the language used in the texts and the comprehension of the contents addressed.

Previous research in secondary education has described the benefits of linguistic analysis of texts for learning curricular content. In the area of History, studies by Mary Schleppegrell (Schleppegrell & Achugar, 2003; Schleppegrell et al., 2004) and Gilian Moss (Moss, 2009) have highlighted the need to train teachers in strategies to analyze the language of texts as a means of improving their students' levels of comprehension and also as a teaching practice to promote the development of academic language skills. Some case studies (Moss, 2009; Schleppegrell & Oteiza, 2006) report that, during conversations on analysis of text language, teachers and students are able to go more deeply into the historical content studied and therefore achieve better learning outcomes.

In elementary education, the study by Teberosky et al. (2013) explored the didactic use of different strategies and materials to support the process of reading, studying, and multimodal representation of history texts. Their analyses of multimodal representations produced by sixth graders show that using strategies such as viewing the reformatted text *per cola et commata*, expressive reading aloud by the teacher aimed at the students, analysis and annotation of key language and information units in the text, and manipulation of the text lexicon are teaching practices that can benefit students' comprehension of specific disciplinary content. In this study, although we did not analyze each one of these types of practices, they did characterize the educational conditions of the results obtained.

On the other hand, in our study we observed that although directing teachers' and students' attention to the academic uses of language in texts increases the chances of students receiving help to understand the information they contain, the type and quality of educational help varies significantly depending on the interactive and pedagogical style of the teachers. This may be a contribution that adds nuance to previous studies.

Although it was not one of the conditions we sought to examine in this research, the teachers who participated in this study represented different pedagogical styles: teacher A, with a more directive educational style, and teacher B, with a more student-centered, interactive, and constructive educational style. So, although we recorded changes in the educational interventions of the two teachers, analysis of the discursive activity focused on commenting on the text's information content showed that, when carrying out the same activity and during an equivalent period of time, teacher B provided more opportunities for her students to pay attention to and refer to the text content. Studies focused on studying the relationships between educational discourse and teaching and learning processes in the classroom have already highlighted the role of teachers' interactive style as a key factor in the quality of learning opportunities provided to students (Mercer, 2003; Sepúlveda, 2017b).

These findings generally underline the challenges faced by programs that seek to contribute to ongoing education such as LST. Although the proposed material and methodology have an important role, the extent of the results depends on other variables, such as teachers' conceptions of the teaching and learning processes and their ability to organize the pedagogical management of the classroom. In addition to this is the need to articulate, in practice, knowledge about language as an objective of teaching with specific pedagogical knowledge of this type of content (Shulman & Shulman, 2016).

For this reason, the main contribution of this study is to provide a basis to design a training process that adopts a cyclical structure based on strategies of observation, modeling, joint planning, and analysis of records of implementation that promote the development of pedagogical knowledge in context (<https://aprenderaestudartextos>).

org.br/). The training cycles allow teachers to reflect on the learning opportunities made possible by different ways of implementing a set of proposals such as those of LST and to experience, with the support of a trainer, the incorporation of intentional changes over a longer period than that encompassed by this research.

In conclusion, teachers have the responsibility to promote the conditions for each of their students to develop the ability to read and understand texts, that is, to construct meanings from texts in order to access socially produced knowledge. The LST approach joins an extensive tradition of educational intervention proposals that promote teaching of academic disciplines that includes teaching the language of those disciplines. Recognizing and intentionally teaching what is common and specific to the academic language of the different disciplinary fields is a task that is worth continuing. Given the diversity of profiles and experiences represented among the teaching staff of public and private schools, the appropriation of these practices depends on their consistent inclusion in the training programs offered by educational systems.

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