EXPLORING SILENT, SMALL-GROUP, AND ADULT-MEDIATED READING WITH NONFICTION PICTUREBOOKS: CHILDREN'S RESPONSES AND EDUCATIONAL POTENTIAL IN ELEMENTARY SCHOOL

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Abstract

Following the editorial rise of the nonfiction picturebook, a growing line of research has been initiated to analyze its educational potential and its place in children's reading. However, the number of empirical studies on children's responses to nonfiction picturebook reading remains limited. Therefore, this study focuses -from a qualitative analysis based on participant observation, involving 97 elementary school participants between 8 and 9 years old and covering 48 hours of recording- on the reading of nonfiction picturebooks from three different reading conditions: silent, shared in small groups, and adult-mediated. The results reveal differences among the three reading approaches, evidencing a greater positive response to nonfiction picturebooks during individual and adult-mediated silent reading, a greater ability to foster critical and personal responses when mediated, as well as the fundamental role of illustrations and visual composition in fostering curiosity and critical reflection. However, small-group reading generated a greater number of negative responses, indicating the need to investigate it independently to more effectively harness its formative potential for children's readers, given that it is questioned in this study. Therefore, this paper provides a detailed analysis of these different reading conditions with nonfiction picturebooks and their implications for educational practice.

Keywords: reading, nonfiction, picturebooks, primary education

1.   INTRODUCTION

1.1 The importance of nonfiction picturebooks in contemporary reading and education

The term "nonfiction book" encompasses a versatile genre of literary works intentionally crafted to deliver factual information, explanations, and knowledge to young readers. Especially in recent decades, this genre strives to present accurate and didactic content in a visually appealing and accessible manner (Cappiello & Hadjioannou, 2022). In today's educational landscape, there is a growing recognition of the crucial role played by children's nonfiction in fostering critical thinking, curiosity, and the comprehension of expository texts (Kiefer & Wilson, 2010). The early integration of nonfiction into the curriculum provides students with a broader spectrum of texts, fostering the exploration of research and learning strategies that complement those honed through fictional reading (Möller, 2015).

The editorial growth of nonfiction picturebooks has led to an increase in academic publications that attempt to define the construct of children's "nonfiction" and analyze its textual and compositional discourse (Von Merveldt, 2018; Grilli, 2020; Goga, 2021; Tabernero *et al.*, 2022). This trend has initiated an exploration into the reading responses these books elicit in preschool and primary education, along with investigating various formal and informal educational approaches to their reading. While the globalization of studies on nonfiction picturebooks is underway, it's crucial to acknowledge regional variations in the theoretical understanding of these works. Although this article starts from the Anglo-Saxon perspective that dominates the term, it also incorporates insights from European sources, particularly Nordic and Spanish studies. These perspectives contribute theoretical justifications for the contextual nuances inherent in empirical research across diverse geographical areas.

This rise of nonfiction picturebooks, fueled by their integration into the U.S. Common Core State Standards (CCSS) and their wide dissemination among readers, has catalyzed a transformative shift. Once perceived solely as tools for conveying factual knowledge, they have become multimodal works that not only spark curiosity, but also expand reading possibilities (Duke, 2007; Gill, 2009; Feldt, 2011; Cristini, 2014). This change significantly alters "the way knowledge is constituted, understood and communicated" (Von Merveldt, 2018: 231). Consequently, these books contribute to nurturing children's critical thinking, as Sanders (2018) emphasizes, and facilitate access to reading and information seeking (Colman, 2007; Kiefer & Wilson, 2010; Hervouët & Vidal-Naquet, 2015). This transformative process is underscored by an epistemic shift in the relationship between text and image, highlighted by both Von Merveldt (2018) and Tabernero *et al.* (2022). The current nonfiction picturebook no longer adheres to a rigid dichotomy between fiction and nonfiction; rather, as Sanders (2018) posits, its growth stems from the potential for multimodal reading extensions, raising questions, evoking emotions (Von Merveldt, 2018), and blurring the

boundaries between genres (Von Merveldt, 2018; Narančić Kovač, 2021). Elements such as language, design, and reading accessibility (Ladd, 2012) enable these books to align with children's interests and realities, granting them agency as readers (Garralón, 2013) and fostering the development of informational competence crucial for navigating the challenges of the information society (Tabernero & Colón, 2023).

In this sense, the image holds a significant role (Dresang, 2008) in experimenting with more participatory forms of communication (Von Merveldt, 2018), allowing exploration of how readers construct meanings within these spaces. Embracing a transactional view of reading (Rosenblatt, 1978), Graff & Shimek (2020) assert that current nonfiction picturebooks exemplify the interplay and transformation of genres resulting from social changes, influencing diverse transactions and responses. The meaning of information emerges as readers apply their prior knowledge and experiences to engage with the text. Nonfiction picturebooks are thus perceived as catalysts, enabling children not only to consume literature but also to actively construct and share it. These reader-centered spaces, coupled with the increasingly intricate visual development of nonfiction picturebooks, appear to enhance reading motivation, even for reluctant or struggling readers (Duke, 2003; Muela & Palomar, 2021). Consequently, semiotic analysis of nonfiction picturebooks proves crucial in guiding mediators to select appropriate content and explore reading possibilities in both formal and non-formal education (Tabernero & Colón, 2023).

The first models focused on content analysis (Pappas, 2006) and textual elements, evaluating accuracy, language and ways of communicating with the reader (Hatzinikita & Hristidou, 2002). Attention was also paid to verifying the presence of reliable sources and visual accessibility elements adapted to the reader's needs and age (Young, Moss & Cornwell, 2007). This approach evolved to include paratexts and compositional elements such as illustrations, graphs and diagrams (Colman, 2007; Kiefer & Wilson, 2010), use of color, word-picture relationships and emotional connections being established (Daly, 2021), along with the manipulative aspects of nonfiction picturebooks as objects (Romero et al., 2022).

Recently, Goga (2020) posed three key questions when analyzing nonfiction picturebooks:

> How do picturebooks convey the messages of science? (How do wordsand images represent ideas, concepts, information?), How do picturebooks produce certain effects and affects? (What techniques encournge aesthetic and efferent responses?), How do picturehooks enhance readers' ethical understanding and social critique? (How do the texts communicate ideas ahout attitudes towards social and ethical issues?) How do picturebooks position children? (Goga, 2020: 54).

These three questions facilitate not only the selection of the corpus, but also make it possible to establish the categorical framework for the thematic analyses of children's reading responses, as will be seen below. In this sense, it is necessary to acknowledge Tabernero & Colón's (2023) recent analysis model, which incorporates well-established elements from existing literature -such as reality analysis,

questioning, and reliability- and introduces less-explored aspects like documentary polyphony and hybridization.

Precisely, the issue of hybridity within the children's fiction/nonfiction dichotomy has aroused controversy in recent decades, which underscores the importance of taking it into account in the design of empirical studies. Von Merveldt (2018) highlighted the "trap" inherent in framing the analysis solely in terms of counterposing factual information and fiction, as nonfiction picturebooks adeptly blend fantasy, nonfiction, and even metafiction (Von Merveldt, 2018: 236). This blending occasionally involves conveying information through invented characters or situations, blurring genre boundaries (Bamford & Kristo, 2000) and generating diverse terminology. Colman (2007) picks up the term "faction" used by a teacher and her students, although she prefers to use "hybrid" for her analysis; Combet (2019) echoes the "docufictions" published by Hachette Enfants in France and Defourny (2009) coins the term "documentaires sans le savoir," where the line between documentary and fiction becomes indistinct. However, other authors defend that, among the existing corpus of nonfiction picturebooks, a difference can be appreciated between those that seek the factual transmission of knowledge and those who give way to these proposals of generic hybridization (Narančić Kovač, 2021). This author advocates differentiating based on whether nonfiction books appropriate semiotic strategies from narrative picturebooks, framing the discussion in terms of narrative/non-narrative rather than fiction/nonfiction:

> Both nonfiction and fiction picturebooks may be narrative or nonnarrative, and border cases are always possible […] Generally, if a narrative text refers to a storyworld which exists at the same level as the real author and the real reader, it is nonfiction, just like nonnarrative texts which refer to objects, persons, events or other elements of the real world (Narančić Kovač, 2020, p. 70). A large number of nonfiction picturebooks are nonnarrative as well. However, there are also many narrative nonfiction picturebooks (Narančić Kovač, 2021: 37-38).

1.2 Empirical studies on the reading of children's nonfiction picturebooks

From this semiotic framework, which guides the selection of children's nonfiction picturebooks, some empirical studies have been carried out in different contexts arising from the need to analyze their educational potential, as well as the place they occupy in the mediators' beliefs. However, these studies are still scarce, despite the fact that the need to address qualitative research that evaluates the semiotic interaction of the books (Von Merveldt, 2018), as well as the reading responses they generate, has been highlighted. Again, we take into account the curricular differences found in different geographical contexts, as well as their possible influence on the finding of results. However, since there is no settled tradition of these studies in a single cultural context, but rather they respond to a globalizing vision, we take them into account regardless of their geographical location.

Decades ago, studies such as Pappas (1993) began to compare the effect of reading nonfiction and fiction picturebooks in preschoolers, concluding that children

were equally successful in recreating both. Sipsas-Herrmann (1996) continued this comparative line, applying a pretest/posttest experimental design to elementary school children with disabilities, which allowed her to conclude that there was no difference in the effectiveness of both genres in promoting positive attitudes and emotions toward reading, but there was a difference in acceptability; significantly enhanced by nonfiction books. Likewise, Duke (2000) focused her efforts on demonstrating, with a descriptive observational study of twenty classrooms in ten Boston school districts, the scarcity of informational texts in Elementary Education, versus that of fiction readings. For her part, Ghiso (2011) insisted not only on the reading of nonfiction books, but also on writing, through an ethnographic study with which she demonstrated that the interactions of first graders with nonfiction through play reflected that children felt increasingly comfortable with this genre, among other reasons, because of the opportunity it offered to combine social and academic activities. Regarding the forms of reading appropriation, Kuhn *et al*. (2017) concluded that children applied better reading comprehension strategies and vocabulary acquisition through specific training with nonfiction books, as opposed to fiction books; in addition to feeling more motivated by them. These same results have been confirmed by Muela & Palomar (2021) in students with dyslexia, which points to the potential of non-fiction books, thanks to their access characteristics, in children with specific literacy difficulties.

On the other hand, studies such as that of Hartsfield (2021) and Romero, Trigo & Heredia (2021) focus on the place of the mediator in the reading of children's nonfiction books, analyzing their beliefs and attitudes with practicing teachers (Hartsfield, 2021; Romero, Trigo & Heredia, 2021) and teachers in training (Romero, Trigo & Heredia, 2021). As the main finding of these qualitative studies, the participants found numerous advantages derived from reading nonfiction books in the classroom: positive opinions on the part of teachers about the new nonfiction books, the possibility of shared teacher-student reading, and their usefulness in both linguistic and non-linguistic areas.

Very recently, Muela & Laborda (2023) studied the different reading responses to narrative and non-narrative nonfiction books, with 34 participating students. In their study, they concluded that the visual aspect was the component that most conditioned the reading experience, through reactions of interest, admiration and surprise; in addition to promoting the active and critical participation of the students. Nonfiction narrative picturebooks promoted empathic reading, while nonfiction nonnarrative picturebooks generated greater partial and exploratory reading responses, conditioned by the transmission of knowledge. Delving deeper into the emotional processes of reading, Sanjuán & Cristóbal (2023) compared the reading responses generated when reading a nonfiction picturebook on Ancient Egypt and a textbook unit on the same topic. Their results reflected that the organization and visual composition of the nonfiction book stimulated inquiry, creativity, and play, broadening reading horizons beyond the content learning promoted by the textbook.

In short, these studies show the growing interest in analyzing the potential of nonfiction picturebooks in children's classrooms, both from the emotional and attitudinal reading responses and from the forms of reading appropriation, strategies and reading comprehension, as well as from the place of the teacher in their mediation. It has not been studied, however, how the methodology used by the mediator affects the different reading responses, and to what extent nonfiction picturebooks can be introduced in classrooms under different groupings. We therefore focus on these latter aspects in order to offer guidance to mediators on how to bring nonfiction picturebooks into their classrooms.

2.   METHOD

2.1 Research questions and objectives

Based on the theoretical framework discussed above, we formulate the following research questions in response to the scarcity of studies that comprehensively explore how different groupings or reading situations influence children's responses to nonfiction picturebooks: what are children's emotional reactions, forms of reading appropriation, and relationships to them during individual silent reading? How do they react to, appropriate, and relate to books when reading in small groups? What responses and attitudes emerge during large-group readings mediated by an enabling adult? The goal is to draw valuable conclusions from these results and share them with the educational community. In this way, we aim to provide practical guidance for teachers to effectively integrate nonfiction picturebooks into their classrooms, under a multimodal reading approach.

2.2 Context and participants

This research was carried out with ninety-seven students (n=97) in 3rd grade of primary education in a school in Saragossa (Spain), during the months of May and June 2023. The students were divided into 4 groups, and all were between 8 and 9 years old. They received 24 reading sessions in three different reading conditions: individual silent, small groups and large group mediated by an adult. All groups worked with the same picturebooks. The reading spaces were the library, the center's multipurpose room and the children's regular classroom.

2.3 Design and data collection instruments

The research design was structured in three phases: first, two weeks of non-participant observation in the school, to analyze the characteristics of each group through an on-site field notebook and a subsequent field diary (Angrosino, 2012). Secondly, the design phase, in which the relevant decisions were made about the research plan and about the selected books, as well as the preparation of the different reading

conditions and the appropriate environment for them. Individual silent reading was organized following the guidelines of Chambers (1996b), while for small groups reading the reflections of Long (1992), as opposed to individual readings, were taken into account. In the case of the large group reading sessions mediated by an enabling adult, they were conducted under the Tell Me method of Chambers (1996a).

As data collection instruments and to achieve a triangulation that would ensure the relevance of the results, the field notes and field diary described above were used and all sessions were recorded: 8 videotaped hours of individual silent reading, 8 audiotaped hours of reading mediated by an adult trainer and 32 hours (8 for each group) of audiotaped small group reading. Thus, 48 hours of recording were analyzed. In order to carry out such recordings, we proceeded to comply with the Spanish code of ethics, guided by the center's protocol and with the prior informed consent of the students' parents or legal guardians.

The corpus selected for this research pursues to form readers who actively participate in the texts, through a reflective, critical and dialogic engagement with the proposed information (Sanders, 2018). According to Goga (2021), works were selected that invited the reader to participate in a process that would give meaning and help him/her to better explain the world he/she finds around. Moreover, they should open the reader's way to new questions, instead of closing answers (Sanders, 2018 and Tabernero, 2022); so that, from small doses of information and a great visual potential they would encourage a participation between the "I" reader and his/her environment. Thus, the corpus is composed of 10 nature-related exemplars, both nonnarrative and narrative nonfiction. All the students read the same books:

Table 1. Characterization of the selected corpus

Francis & D'Hipólito, *El río Amazonas* (2022). SM.	Nonnarrative nonfiction picturebook about the Amazon ecosystem organized in double pages using elements of accessibility to the content. The illustrations take center stage and aim to inform and raise awareness about the river's natural environment and its conservation problems.
Nogués & Asiain, *Un millón de ostras en lo alto de la montaña* (2019). Flamboyant.	Narrative nonfiction picturebook that combines a narration with scientific information in the field of Geology, the result of an outreach work that is articulated around the narratee and makes the reader a co-constructor participant in the historical journey of the fossil.
Jordahl & Mathismoen, *Cosas verdes. Conoce y defiende la naturaleza* (2022). Errata Naturae.	Narrative nonfiction book that combines narration with scientific information about nature from an ecocentric perspective and from numerous discursive and graphic accessibility elements.
Rossi & Canepa, *Pescadores de plásticos y otros oficios del futuro* (2021). Algar.	Narrative nonfiction picturebook that combines stories to introduce the reader to natural issues, followed by a series of factual data related to the subject matter (sea level rise due to pollution, short- and long-term effects of different types of clouds, etc.).
Francis & Feng, *Everest* (2019).	Nonnarrative nonfiction picturebook about Everest that invites the reader to read it as an ascent, from base to summit. It presents information and data through a varied typography in style and color,

	a large presence of illustrations and other accessibility elements, such as highlighted terms, short sections that order the informative content and shaded parts to highlight relevant information.
Riera & Tite, *Extintos* (2019).	Nonnarrative nonfiction picturebook of large size, supported by its illustrations on double pages that include data on extinct or endangered animals from a simple lexicon and a reliability of the data guaranteed by a specialized authorship.
Romero & Martín, *África. El continente de los colores*.	Nonnarrative nonfiction picturebook of large size that connects cover and back cover about the African continent: its culture, its gastronomy and its landscape. The information is organized in double pages and is subordinated to the illustration and the use of color, which tries to be coherent with the natural and cultural identity of the continent analyzed.
Zommer, *El gran libro de las aves* (2019).	Nonnarrative nonfiction picturebook, also in large format, very popular internationally, which is supported by illustrations and where the text is brief and involves, through direct allusions, the reader in its reading: questions that encourage curiosity, challenges and search for infiltrated animals enhance active participation and learning of data on the different species of birds.
Collete, *En el bosque* (2022). MTM.	Narrative nonfiction book composed of twelve independent chapters whose purpose is to invite the reader to discover life in this natural space through various anecdotes, some problematizing and others celebrating nature. From the beginning, there is an important presence of the narrator and an appeal to the reader to accompany the different characters through the informative background.
Medvedeva & Vyshinskaya, *Explora la Antártida en 360º* (2022). Zahorí Books.	Nonnarrative nonfiction picturebook in circular sector format with a manipulative and informative purpose. It contains large circular foldouts that include maps and illustrations to visually surprise the reader. It provides scientific data, in a simple way, that aims to encourage children's curiosity.

2.4 Data analysis

To analyze the data, the sessions were transcribed (both linguistic and paralinguistic code, in order to see the attitudes in all their complexity) and inserted as files in the qualitative analysis software NVivo (v.14). A categorical framework was designed for the thematic analysis (Gibbs, 2012) of the students' reading responses, which started from the previous theoretical framework, but was reformulated *ad hoc* to fit the responses emerging from the sessions themselves. Thus, we were interested in analyzing what types of emotional reactions were generated by the different reading conditions of the selected nonfiction picturebooks, both positive and negative. These responses emerged from the sessions themselves and will be related in the Discussion section to the theoretical framework previously presented. Likewise, the macrocategory "Relationship with the book during reading" was added, in order to analyze whether the children chose the books from a conception of the book as an object or of the book as a source of content, as will be explained in the results of this macrocategory.

Finally, a macrocategory –Forms of reading approach– designed *a priori* was added, unlike the previous ones, since the aim was to assess the extent to which Sipe's (2000) categorization of reading responses could be valid for non-fictional reading, having been used preferentially in fictional children's reading responses. The final node system is shown below:

Table 2. Coding system for data analysis

Macrocategory	Category	Subcategory
Positive emotional reactions	Enthusiasm	Smile Laughter Need to create humor from content
	Surprise	Astonishment at the content of the book Astonishment at the format of the book Astonishment at comments from peers
	Curiosity	Curiosity for the activity Curiosity about the format of the book Curiosity about the subject matter of the book Curiosity about the content of the book
	Need to share	Mutual aid Need to share empathetic reactions to the content or characters in the book Need to discuss the content with the partner Need to show an illustration to a partner Adult care seeking
	Concentration	Constant maintenance of attention Extensive reading over time
Negative emotional reactions	Boredom	Disinterest prior to the activity Disinterest during the activity Constant distraction
	Nervousness	Nervous attitude Postural change Movements in the classroom
	Lack of respect	Lack of respect for colleagues Lack of respect for the content of the book Lack of respect for the book as an object
	Critical reading of the content	Reflection on data accuracy Reflection on thematic aspects of the book Critical reflection on the theoretical framework of nonfiction picturebooks Connection with artistic content Intertextuality with previous readings Intertextuality in the framework of the activity
	Critical reading on the visual composition of the book	Reflection on narrative and compositional processes

Forms of reading appropriation (based on Sipe, 2000)		Analysis of the illustrations and other visual elements of the book
	Personal Reading	Connection with own experiences Connecting with peers' experiences
	Transparent reading	Confluence between history and one's own life
	Performative reading	Creation of games after reading Dramatization of the content of the book
Relationship with the book during reading	Book as an object	Manipulation Visual exploration
	Book as a source of content	Reading of excerpts chosen by the child
		Choice in line with personal tastes and interests
		Questions about content
		Search for information

3. FINDINGS

The data were analyzed by means of coding matrices, category saturation diagrams and percentage load of cross-references. From these, each of the students' interventions was further elaborated on to nuance the quantitative data by analyzing their discourse. Finally, the results were organized according to the previous categorical framework, from which the most relevant aspects will be highlighted.

3.1 Positive emotional reactions

The results reveal that, in the sessions conducted, children's emotional reactions were mostly positive in adult-mediated reading (90.4%) and silent reading (86.1%), with the opposite effect (higher saturation of negative emotional reactions) in small group reading (35.3%) (Figure 1). We analyze below the breakdown by categories and subcategories, in order to explain what positive and negative reactions occurred and for what reasons.

Figure 1. Saturation of the macrocategories positive emotional reactions vs. negative emotional reactions

	A: Adult-mediated reading	B: Silent reading	C: Small group reading
1. Positive emotional reactions	85	261	294
2. Negative emotional reactions	9	41	618

The following heat map (Figure 2) shows that adult-mediated reading and reading in small groups elicited, above all, curiosity; while silent reading generated in children a greater need to share. In any case, the category with the highest saturation was "Need to share", followed by "Curiosity" and "Surprise" (the latter, with a balance among the three types of reading). "Concentration" and "Enthusiasm" were recorded to a lesser extent, the latter especially during silent reading.

Figure 2. Breakdown heat map of the macrocategory Positive emotional reactions

	A: Adult-mediated reading	B: Silent reading	C: Small group reading	**Total**
Concentration	14,12%	15,71%	11,9%	**13,75%**
Curiosity	38,82%	3,07%	29,59%	**20%**
Enthusiasm	7,06%	24,14%	15,65%	**17,97%**
Need to share	22,35%	41,38%	19,73%	**28,91%**
Surprise	17,65%	15,71%	23,13%	**19,38%**

This need (Figure 3) produced during silent reading showed that the children wanted to share the illustrations with their classmates: "D13 joins in, touches D14's arm and shows him with admiration the illustration of the map that appears in his book. They both start pointing to different places on it" (D13 and D14); "L., come to this side, so you see the illustrations" (B14). These instances underscore the substantial role illustrations play in the reading experience of the new nonfiction picturebooks, serving as both a source of enjoyment and a means of learning.

To a lesser extent, children expressed a distinct inclination to share the content with their peers rather than with adults, from an informative and learning perspective: "he taps A5 lightly to get her attention, who was looking away and they start talking about five different flavors that appear in the book" (A6), "he looks at his classmate's book (without her having previously drawn his attention) and points to one of its pages. A11 looks, smiles, and they discuss the contents of the double page" (A10).

Figure 3. Breakdown heat map of the category Need to share

	B: Silent reading	**Total**
Adult care seeking	8,33%	**8,33%**
Need to share empathetic reactions to the content or characters in the book	0%	**0%**
Mutual aid	8,33%	**8,33%**
Need to discuss the content with the partner	29,33%	**29,33%**
Need to show an illustration to a partner	53,7%	**53,7%**

Regarding "Curiosity" as the dominant category in adult-mediated reading, 94% of the coded references were inserted in the subcategory "Curiosity for the content of the book" as a source of learning, in line with the previous analysis. In the case of small group reading, the percentage was similar (95%), which shows that the informative content generated, in these reading conditions, greater curiosity than its format or composition; unlike what happened during silent reading: "Look, Everest, it has been on Earth for quite a few years and it keeps growing every year between five and ten millimeters, more or less" (B17), "This one is really cool because it talks about extinct animals that do not appear in any other book and you learn a lot of things, it's cool" (A11).

Likewise, the category "Surprise" continued in this line, since 87.1% of the coded reactions corresponded to surprise at the content of the book, and not at its format (Figure 4), which was only appreciated during silent reading: "Wow, what a thing!" (Student C8); "Wow, what is this, my God! What a blast!" (Student B16).

Figure 4. Breakdown heat map of the category Surprise

|	A: Adult-mediated reading	B: Silent reading	C: Small group reading	Total
Astonishment at comments from peers	0%	4,88%	1,47%	**2,42%**
Astonishment at the content of the book	100%	63,41%	98,53%	**87,1%**
Astonishment at the format of the book	0%	31,71%	0%	**10,48%**

In contrast, there were no differences in children's concentration during the three nonfiction book reading conditions, although slightly in the category "Enthusiasm" (Figure 2), experienced to a greater extent during silent reading: "laughs and seems to imitate something with his face while pointing to a flag that appears in the book" (A6), "lies face down, following the reading in this way, showing a wide smile while looking at the page" (D3), "laughs, reads aloud to B6 the vignette he laughed at and B6 laughs with it" (B5). However, when comparing the different sessions, it is observed that, both in silent reading and in small group reading, the children showed a reduction in concentration levels in the second session compared to the first: in the first silent reading session, 23 concentration references were recorded (26.14%), compared to 18 in the second session (20.45%). In the first small group reading session, 19 concentration references were recorded (21.6%), compared to 16 on the second day (18.18%). This could reveal a certain exhaustion or loss of interest on the part of the participants as the sessions progressed, and a greater concentration when they found them novel.

3.2 Negative emotional reactions

In the case of small-group reading, as noted above, there is a predominance of negative emotional reactions as opposed to positive ones, contrary to the situation

observed in mediated and silent reading. These data reveal the efficacy of mediated and silent reading of nonfiction picturebooks in primary school and suggest a questioning of reading in small groups (Figure 5):

Figure 5. Saturation of the macrocategory Negative emotional reactions
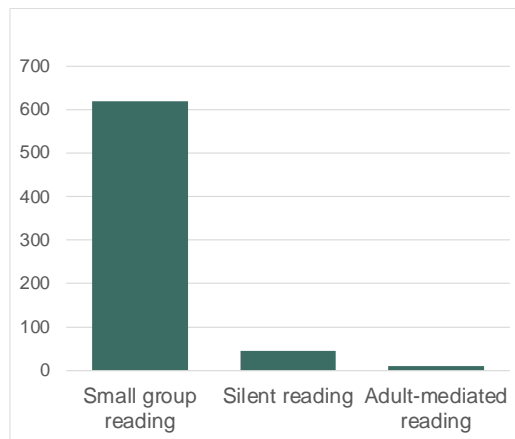
When delving deeper into these negative reactions to explain their presence, it is observed that 86.7% correspond to Boredom, compared to only 6% of Lack of respect and 7.3% of Nervousness (Figure 6):

Figure 6. Breakdown heat map of the macrocategory Negative emotional reactions

	C: Small group reading	Total
Boredom	86,73%	86,73%
Lack of respect	5,99%	5,99%
Nervousness	7,28%	7,28%

Boredom manifested itself in three different ways (Figure 7): Disinterest prior to the activity (1.12%), Disinterest during the activity (56.53%) and Constant distraction (42.35%):

Figure 7. Breakdown heat map of the category Boredom

	C: Small group reading	Total
Constant distraction	42,35%	42,35%
Disinterest during the activity	56,53%	56,53%
Disinterest prior to the activity	1,12%	1,12%

These percentages reflect that the participants lost interest during the reading, with little prior prejudice. Reading in small groups led them to be distracted on numerous occasions, without achieving sufficient motivation to stay hooked on reading: "I feel lazy" (Student A3), "I don't want to read" (Student A20); "Let's go to sleep" (Student D7). The former positive responses were notably less numerous than the latter and were seen in individual students (A6, A1, B17); versus a majority who allowed themselves to be drawn in by peers who were not attracted to reading. Such peers (A3, D7, for example), on the other hand, did show interest during silent reading and during adult mediation: "sitting down, she turns her back to A2 and places the book carefully on the cushion to read it calmly" (A3), "she smiles while reading the book alone. She shows interest in a marine animal that she finds in a double-page illustration, captures the attention of D8, who looks at the animal and then looks at his partner" (D7).

In addition, the Nervousness category was also more evident in this reading condition (68.2%), compared to 22.7% and 9.1% in the silent and mediated reading sessions, respectively (Figure 8): "he starts hitting the floor with his hands without taking his eyes off the book" (B8), "after having snatched the book from A13, he lies down and, restless, sits back down and looks at the illustrations" (A12), "Please! I want to finish now [lengthening of the last vowel that shows restlessness]" (D8), "He shows that he is disconnected, crawling and turning over on himself on the mat" (D20).

Figure 8. Saturation of the category Nervousness
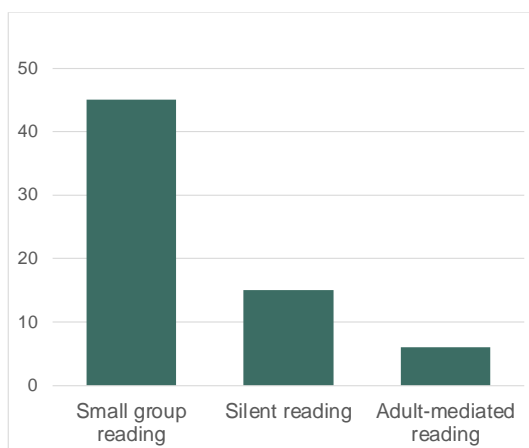
Thus, reading in small groups, while at times arousing curiosity about the informational content of the nonfiction picturebooks, generated mostly boredom, and at times nervousness and disrespect. On the contrary, the reading environment created for silent reading, the individual grouping and the role of the enabling adult seem to

favor a better reading experience of nonfiction picturebooks and to take better advantage of their multimodal reading possibilities.

3.3 Forms of reading appropriation (based on Sipe, 2000)

With respect to this macrocategory -which was the only one created a priori and did not emerge from the data itself after its transcription-, we were interested in knowing to what extent Sipe's (2000) categorization could be applied to the reading of nonfiction picturebooks under these three reading conditions. Although it was designed for fictional reading, we considered it appropriate to assess how the selected students generated critical reading, personal reading, transparent reading and performative reading responses; in order to complement the previous results. As can be seen in the subsequent heat map (Figure 9), Sipe's categorization is perfectly valid for the reading of nonfiction picturebooks, since responses were found for all categories, although with a greater or lesser presence of each one depending on the reading condition.

Among the categories that construct Forms of reading appropriation (Figure 9), Critical reading of content (38.28% of the total) and Critical reading about the visual composition of the book (30.86%) predominated, followed by Personal reading (25.52%) and, with a much lower percentage, Performative reading (3.25%) and Transparent reading (2.09%):

Figure 9. Breakdown heat map of the macrocategory Forms of reading appropiation

	A: Adult-mediated reading	B: Silent reading	C: Small group reading
Critical reading of the content	98	10	57
Critical reading on the visual composition of the book	88	4	41
Performative reading	0	8	6
Personal Reading	58	7	45
Transparent reading	0	4	5
Total	**244**	**33**	**154**

Critical responses appeared, above all, during adult-mediated reading, insofar as they require a motor that leads to reflection, although they were also appreciated in small group reading and during silent reading (the latter with a much lower count). These critical responses were mainly due to an analysis of the illustrations and their visual elements (45.5%), although they also generated intertextual connections with previous readings, critical reflections on the theme of each book and connections with previous knowledge about art (Figure 10): "This book is very cool because the colors are very cool and express many things" (D8), "There is no color, all the trees are like destroyed, it is gray, it has no one" (A8), "I liked that the illustrations are a bit abstract and are not realistic but are like fantasy, because a human being does

not have a head like that every day" (D5), "He has given the mountains a strong stroke and then he has given them a soft stroke with the pencil, to contrast" (B20), "This book of the planet is about that mass, Pangea, that we saw in English" (D7), "Look, Paleolithic and Neolithic, like what we are studying now" (C5).

Of special interest are some contributions (not because of their count, but because of their complexity) about the theoretical discussion fiction/nonfiction, analyzed in the theoretical framework of this research: "I think it is real because of the drawings and I also think it is both fiction and nonfiction because we already know that in The Jungle Book that child also communicates with the animals, which reminds me of Mowgli, but you learn from nature" (A10), "This book is more nonfiction than fiction. Because a part of the animals is true that it is fiction, but most of the story, like the beginning, is nonfiction" (C19), "The one about the fishermen I think it serves to learn how to recycle and learn the facts, and that one serves as entertainment and to know a new story and it teaches you almost nothing" (C23). All these contributions are located in mediated reading sessions, so that this reading guided by an enabling adult allows the child to lead to theoretical reflections that he/she does not reach in other situations of individual reading or reading with peers.

Figure 10. Breakdown heat map of the category Critical reading of the content

	A: Adult-mediated reading	Total
Connection with artistic content	10,39%	10,39%
Critical reflection on the theoretical framework of nonfiction picturebooks	12,34%	12,34%
Intertextuality in the framework of the activity	11,69%	11,69%
Intertextuality with previous readings	5,19%	5,19%
Reflection on data accuracy	3,25%	3,25%
Analysis of the illustrations and other visual elements of the book	45,45%	45,45%
Reflection on narrative and compositional processes	11,69%	11,69%

Likewise, the type of reading that managed to awaken more personal connections was mediated reading (52.7%): "We found two threads in the sand on the beach and my aunt pulled them out and we threw them away" (B7); "I saw this one in Tierra Rapaz" (A2); "It reminds me of the drawings that Simon made when he was three years old" (A4), since the large group literary conversation gave participants the opportunity to intervene and share their answers with other classmates, based on mutual feedback.

Finally, during silent reading and in small groups, some performative reading responses were appreciated, although with a minimum percentage, compared to the critical ones: "C16 makes up a little story: number 7, 2 and 1 are winning against 7 and 8 [...]" (C16); "Let's see who finds more snakes [pause, they start counting], now butterflies [pauses], now sheep... now... fishes [pause], moth [pause], gazelle. We

are teams" (B14). With respect to transparent reading responses, some emerged during small group reading and during silent reading, although also scarce: "They turn a page and begin to match the characters to names: This is M., this is M....ah well J. is this one, you are this one" (D9). Therefore, mediated reading seems to be the best option to generate critical reading responses, in which the mediator seeks to reach more complex reflections on the content or theorize about the construct and its format. In the case of transparent and performative, nonfiction books do not generate too many, so these two categories should be analyzed, under other reading circumstances, in subsequent studies.

3.4 Relationship with the book during reading

As explained above, all the groups had the same books at their disposal during the sessions, although during silent reading and in small groups they were able to select the order in which they read them. Thus, we were able to see to what extent they were interested in the book as an object or whether their main criterion was the conception of the book as a source of information.

Regarding the book as an object, practically all references were coded during silent reading (Figure 11): "he passes his hand over the first page, experiments with its texture" (A10), "he goes around the circle that shapes the fold-out with his hand, manipulating it and taking it to his mat" (C6), "he approaches En el bosque, looks at the cover and leafs through the pages. He picks up The Antarctic again, plays with the foldouts and says, "Better this one" (B10), "C16 turns the book over, looks and says "Turn it upside down." A second later, C13 asks "Can it be opened?" and without waiting for an answer proceeds to open the fold-out and takes it away." Mediated reading did not provide opportunities for the students to manipulate the book, so this category was not present, which does not mean that in it the manipulation of the books was less because the children experienced it that way. In the case of reading in small groups, they did have these opportunities but, nevertheless, hardly any references were coded in this sense:

Figure 11. Saturation of the category Book as an object
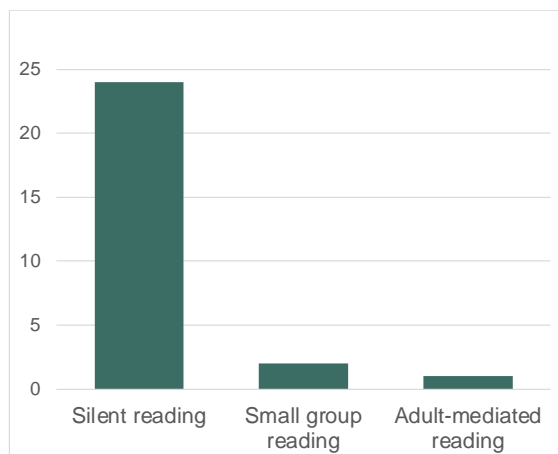
However, as the count shows, the manipulative aspects of the books were barely present in the overall count of the sessions (26 in total), compared to other types of critical, emotional responses in relation to the content and type of reading, etc. It would be necessary, therefore, to go deeper into this aspect, with a specific analysis of the relationship between the selection of the books, their materiality and the reading responses to nonfiction picturebooks conceived as objects and from the manipulative point of view.

4.   DISCUSSION

The results of the present study reveal different children's reading responses to nonfiction picturebooks in different conditions, from a qualitative approach already suggested by Von Merveldt (2018). First, the results show a large percentage of positive emotional reactions (Von Merveldt, 2018; Daly, 2021) during individual silent reading, versus a minimal count of negative responses, in line with the records of Kuhn *et al*. (2017). In this sense, children mostly experienced the need to share reading with their peers (Graff & Shimek, 2020) and hardly with an adult. Illustrations constituted the epicenter of these shared readings, which highlights the power of the visual impact of the new nonfiction picturebooks, with a great artistic potential already studied on a theoretical level (Grilli, 2021). The content of books was also the subject of this need for sharing, as a source of learning and information (Cristini, 2014; Boudreau & Beaudoin, 2015; Hervouët & Vidal-Naquet, 2015; Courchesne, 2017) capable of promoting interactions between the book and its readers (Tabernero, 2022 and Tabernero & Colón, 2023).

In addition, the individual silent reading was the only condition in which surprise at the format was observed, which was probably due to the fact that these were the first sessions carried out in which they worked with materials different from the usual ones, as evidenced by the non-participant observation period, in line with Duke

(2000). Thus, a worse concentration was observed in the second sessions, which shows a possible elevation of the reading responses of surprise and concentration in the face of novelty in the classrooms, whereas, with habitual reading, variations in this sense could be experienced.

Second, small-group reading yielded very different results, with significantly more negative versus positive emotional responses. This result questions the appropriateness of reading nonfiction picturebooks in small groups, as opposed to individual silent reading or adult-mediated reading. In this sense, many boredom responses were found, even in children who showed interest in the other two reading conditions. Regarding the positive ones, although minor, they focused mainly on fostering children's curiosity about the content and as a source of learning, as conceived by Sanders (2018) and Tabernero (2022).

Third, the reading mediated by an enabling adult showed, practically in its totality, positive reactions, especially of curiosity for the informative content of the book and as a source of learning about the environment, making them a very powerful alternative to traditional textbooks (Pappas, 2006). This reading condition was the one that presented the highest count of critical responses, especially of analysis of the illustrations and other visual elements of the books; demonstrating that they function as aesthetic reading strategies (Martins & Abicail, 2021) in interdisciplinary contexts (Yopp & Yopp, 2012). Likewise, under this reading condition, Shimek's (2018) approach seems to be confirmed, for whom the curiosity aroused by the multimodal combination of the nonfiction picturebook can generate complex responses.

Thus, the mediation of an enabling adult (Chambers, 1996a) favored more complex readings, so that the Tell me method, thought a priori for fiction readings, can also be adapted to nonfiction picturebooks. Likewise, this methodology generated more personal readings, allowing students to give feedback to each other's previous experiences. In this way, Sipe's (2000) categorization of reading responses, called in our study "Forms of reading appropriation" seems adequate for reading nonfiction picturebooks, although more studies are needed on performative and transparent readings, which are very scarce in our research.

Finally, we open the way towards further empirical studies that delve into the nonfiction picturebook as an object and from a manipulative perspective, which has hardly been present under the three reading conditions we proposed in our sessions.

5.   CONCLUSIONS

Our study suggests that the nonfiction picturebook can be a good complement to the textbook and other regular classroom materials, insofar as it generates, when read individually and in silence, responses of reading curiosity, surprise and encouragement of the need to share the act of reading and, mediated by an adult facilitator, capacity to make complex reflections, establish intertextual connections with other previous learning and analyze compositional and theoretical aspects that, autonomously, are more difficult for the child to reach.

Nevertheless, based on this exploratory study, it would be necessary to analyze, with a varied corpus and under different book selection conditions (guided by manipulative aspects, accessibility elements, type of illustrations, narrative frameworks, etc.) in greater depth the reading responses of the students, in order to offer mediators solid paths for a satisfactory introduction in their classrooms that favors positive reading experiences and thus fosters the reading habit of children.

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