

WHAT DO TEACHERS EXPECT FROM TEXTBOOKS? THE STUDY OF THE PROCESS OF CHOICE OF TEXTBOOKS IN BRAZILIAN PUBLIC SCHOOLS

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Abstract

Two studies were carried out in order to investigate the process of choice of textbooks in Brazilian public schools. One of these studies focused on teachers who teach science in primary school (06-10 years old), while the other one focused on teachers who are effectively teaching general science to young students in junior high school (11-15 years old). These studies aimed at understanding the relevant variables in the teachers' choice of science textbooks. Brazilian Federal Government provides textbooks for all public schools, subsequently to an assessment process of the books produced by commercial publishers within the National Textbook Program (PNLD). In the process, the teachers have to choose a set of books for four different grades, and are expected to decide together which book set will be used by all of them, for all the students in the same school. We asked what the rationale for their choices was, and we received different responses from teachers, sometimes working in the same school. On one side, teachers who teach Science in primary school explained that their choice was based on their students' needs; on the other side, teachers who teach Science in junior high school referred to the textbook content as their primary object of concern. We found a great variety of reasons for the books choice, and most of the teachers think that this decision should be an individual prerogative. It was also found, in both studies, that teachers do not use the official materials produced by the Ministry of Education for this purpose.

Key-words: science textbook, teacher training, textbook assessment, rationale of choice

“1. Introduction.”

The education in Brazil, which is compulsory for all children aged 6 to 14 and free at all public institutions, is divided into two levels:

- Primary School (hereinafter called “SI”): children from 6 to 10 years-old;
- Junior High School (hereinafter called “SF”): children between 11 and 14 years-old.

In Brazil, the didactic book is considered by many authors as the main reference for the curricular development, both in SI and SF. These books are produced by private publishing houses, which dedicate part of their enormous production to governmental purchases. Only in the last decade, the Ministry of Education (MEC) bought and distributed more than one billion of didactic books and dictionaries, moving amounts over US\$ 2 billion (MEC/FNDE, 2007). The publishers submit their books to an assessment carried out by MEC, which, on its turn, publishes reviews of the approved books in the *Guide of Didactic Books* (Guia dos Livros Didáticos), important part of the PNLD. This *Guide* is sent to Brazilian public schools with the intention of representing a tool to help teachers make their decision on which books they want to receive to use with their students. Choosing the Textbook in Brazil is not a straightforward process and the teachers' decisions can be influenced by various factors.

Several studies have already been conducted considering the image of the Science that is portrayed in didactic books (EL-HANI, 1999) or emphasizing the number of mistakes found in these books, and also highlighting the importance of the teachers' role, both in the detection of these mistakes and in the choice of the didactic book. (PIMENTEL, 1998) and (BIZZ0, 2002). The impact and the reactions caused by the program (PNLD) on teachers and students are still to be determined (TOLENTINO-NETO, 2003).

This paper investigates the teachers' criteria for choosing Science textbooks, taking into account all the complexity involved in the process. We carried out two pieces of research aimed at understanding all the possibly relevant variables in the process of textbook choice in two different school levels.

“ 2. Methodology.”

STUDY A

The study of the process of choice of didactic books for Fundamental Education 1 occurred in 2001, in cities of different regions of Brazil. Twelve schools were visited, 2 in each of the cities shown in Figure 1, being interviewed 12 teachers, one of each school.

The cities were selected with the objective of avoiding regionalisms, seeking for a diverse sample. Considering the large number of municipalities in Brazil (more than 5 thousand), we based our choice in cities with distinct profiles.



“Figure 1: Locations visited during the STUDY A (city/State).”

Two schools in each location were previously contacted and from after receiving their consent in participating of the research, a visit was scheduled. At this visit, we conducted the interview, which had the purpose of understanding how the recent process of choosing the didactic book had been performed.

STUDY B

In this study, conducted with SF teachers, 16 Science teachers of Fundamental Education II of 8 public schools in the city of São Caetano do Sul (SP) received our questionnaires. This city was chosen for being one of the richest municipalities of Brazil, with an average income amongst the highest in the country, and for its high economic, social and educational indexes. São Caetano had already been the target of another study, developed by these researchers, about the teachers' academic background (GARCIA et alli, 2006).

The 8 schools were selected based on the fact that in 2005, its teachers chose the same didactic book, from the same publisher, what, in this case, made possible for us to eliminate the variable “Publishing House”. The analysis of data would identify similarities among the rationales presented by the teachers for their choice of the didactic book. Six recurrent responses were found and are summarized in Table 1.

“Table 1: Summary of rationales presented by the teachers.”

Similarities in rationales presented by STUDY B teachers	
1	Teachers who said that the books were in the school at the moment of the choice
2	Teachers who said they knew the <i>Guide</i> for choosing the books
3	Teachers who said they used the <i>Guide</i> for choosing the books
4	Teachers who said they read the <i>Guide</i> for choosing the books
5	Teachers who said they received some “help” from the publishers that sent books for the teachers’ analysis
6	Directly related to the book itself

The responses of items “1 to 5” were quantified and the responses of item “6” were identified and grouped, to check whether there were similarities between the rationales of teachers from the same school and from different schools.

“3. Results.”

STUDY A

We learned significant stories, which displayed the diversity of criteria and conditions for the choices. We noted that the teachers made little use of the *Guide*, not basing their choice on its reviews mainly because they prefer to physically touch the textbooks, browse through them and verify by themselves the exercises, pictures and other features. Therefore, they commonly end up choosing books they have at hand, of which they have a personal knowledge.

One of the most significant criteria at the moment of choosing the textbooks is the quality of images. In teachers’ opinions, the images are extremely important to help the students in the Science learning process. That is the reason why they prefer textbooks with good-quality images, right colors and scales and correct subtitles. Books with complex answers to the exercises, which subsidizes the teachers in their activities, are also welcome. The teachers complained about the lack of regional information. Themes such as climate, seasons, fauna and flora are restricted to the Southwestern region – where most part of the authors and publishers are established. Books with a wider approach, regional and contextualized examples would be appreciated. The teachers from the Southwestern region who were interviewed did not refer to lack of contextualization as a problem in the books, fact that may confirm that the books contents really favor the teachers of this region of the country.

There is a clear preference for books with simple and easy-to-do experiments (using common and non-expensive materials).

We could also note that this is, almost always, a lonely process: the teacher chooses his/her books with not much dialogue with colleagues, coordinators, or the school director. At the most, two or three teachers exchange information and analyze the books together. Hierarchy is also a present element and normally, the most experienced teachers lead the process of choice. These teachers, in general, are more loyal to the authors and titles, and less flexible and receptive to changes and challenges.

In schools with a solid pedagogical project (usually where active teachers actually contributed in its preparation) the books choice is determined by the lines of this project. The teachers choose books that meet the existing pedagogical proposals. Another determinant influence for the teacher's choice is the infrastructure and the place where the school is located. A book containing a great deal of research - both from teachers and students - would not be chosen in a school with a poor library or without internet connection, for instance.

We heard many suggestions about the *Guide*. One *Guide* per school is not enough and the period scheduled for reading it and making the decision is too short. Based on these comments, suggestions were sent to MEC in 2002 (SANO, BIZZO e TOLENTINO-NETO, 2002), and the PNLD 2004 *Guide* was published in separated volumes, with the intention of helping the teachers in their choices.

STUDY B

Data from teachers of last grades are presented in Table 2.

Rationales presented by teachers of STUDY B		(n=16) %
1	Teachers who said that the books were in the school at the moment of choosing the books	14 (87.5)
2	Teachers who said they knew the <i>Guide</i> for choosing the books	13 (81.2)
3	Teachers who said not they used the <i>Guide</i> for choosing the books	14 (87.5)
4	Teachers who said they did not read the reviews of the <i>Guide</i> for choosing the books	16 (100)
5	Teachers who said they received books from the publishers	14 (87.5)
6	Directly related to the book itself	--

“Table 2: Results of the teachers’ rationale”

The data show 14 (87.5%) teachers of the last grades stating that the reason for having chosen a determined book to be used during the year among the books approved by the Ministry of Education (MEC) was the presence of the book in the school at the moment of the choice. However, much probably other books were also available in the school at that moment. Moreover, as the book chosen was not new and therefore was probably known by most of teachers, this answer is even more unreasonable. Although almost all the teachers, 13 (81.25%) assured that they knew the MEC's *Guide*, it was of no or little use since 14 (87.5%) teachers said that they did not use it in the process of choice. In relation to the *Guide*'s review, all the teachers (100%) said they did not read it. Finally, 14 teachers (87.5%) said they received books from the

publishers to help them know and choose the didactic book, and that is to say that there were several books available in the school at the moment of selecting one.

In the rationales that related directly to the book (item 6), the teachers considered the following aspects: the content of the book, the connection between the content and the teacher's annual planning, the exercises and activities proposed in the book, the illustrations, the easiness in the material use, the reference to up-to-date issues and the correspondence between the book and the students' reality. The data related to this item showed no significant distinctions among the rationale of teachers of the same school, or even of different schools. They are all quite similar and relating to the academic culture (content, exercises, etc).

“ 4. Discussion.”

We could note what is taken into consideration by a primary school at choosing a Science textbook. According to the interviewed teachers, the possibility of leafing and browsing through the books makes the task easier and is conclusive at that moment. This possibility, most of times, reduces the options to the books to which the teachers have direct access. This important variable, that may define the choice, does not depend on the Ministry of Education and therefore, runs out of its control.

The quality of illustrations, experiments and exercises in the books are also extremely relevant in the teacher's choice. Most of answers pointed out that one of the first characteristic evaluated by the teachers in a Science textbook is how it approaches and matches their own dynamics in the classroom. The teachers look for a book that is adaptable to their teaching style rather than for a book to which they would have to adapt the classes. Works with new proposals are welcome as long as they meet the teacher's experiences and expectations.

The fact that most teachers of both groups declared to know the *Guide* and yet, did not use it to help their choice can be seen as a regrettable situation. The access to the *Guide* was referred to as one of the reasons for not using its reviews. The *Guide* should be timely available at the schools to permit the proper reading and analysis of the reviews. Also, more information should be available to the teachers as for the existence of the *Guide* in the schools and the possibilities it offers (TOLENTINO-NETO, 2003).

In STUDY A, the teachers' concerns at the moment of choosing a textbook are more connected to the students' needs, while in STUDY B, the teachers' rationales are much more related to the academic contents. KRASILCHIK (2005), states that the Science classes in Primary School are very different from these classes from the 5th year on, when the concerns relating to the learning process and the importance given to the contents start to grow.

It is most likely that teachers choose books that arrange their contents in a sequence, in order to standardize certain pedagogical procedures, such as classes planning, classes preparation, use of audio-visual resources, etc. This reasoning would explain the importance of browsing through the books, paying special attention to the table of contents in detriment to the reading of a review, where a collection of four volumes. Is described in general terms even after reading the review, the teacher may have doubts about the extension of work that the material would involve.

Such concern, specifically related to the books content or to the academic culture could be explained by the teachers' academic background. BIZZO (2005), showed that the simplification of the initial education of these teachers, mainly focused on contents, has generated consequences in the Science teaching and, accordingly, in the students' learning process. Indeed, data from Brazilian literature on the subject confirm this situation, since most of Science teachers who are actively teaching "Science" today in Brazil majored in two-year (short-term) courses - "*Licenciatura Curta*" - which contemplate very few subjects (GARCIA et alli, 2006). The impoverished reality of Science classes and the focus on the contents have long since been related to the issue of the teachers' education (MOREIRA & AXT, 1986).

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