

Possibilities for implementation of information literacy programs in Brazilian school libraries: information skills in the National Curricular Standards

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An analysis was made of the Brazilian National Curricular Standards for basic education in order to identify skills related to information literacy, using AASL Information Power as basis. The objective of this analysis was to investigate the extent to which these skills are represented in the Brazilian educational policy document and if they are viewed as integral part of students' comprehensive literacy. The analysis showed that NCS include the basic information literacy skills (to access, evaluate and use information). Emphasis on independent learning by means of a variety of information resources is present in the document as well as issues regarding social responsibility. So, there is a positive perspective for information literacy programs to be developed in Brazilian schools in the context of the official curricular guidelines.

The National Curricular Standards (NCS) issued by the Brazilian Ministry of Education in the second half of the 1990's are a set of documents that consolidate curricular guidelines for basic education in the country, being a reference for curriculum design and aiming to improve the quality of education in schools in the following levels: fundamental, formed by elementary (ages 7-10) and middle levels (ages 11-14) and high school (ages 15-17). Based in constructivist theories, the NCS are intended as a means for students to be educated as independent, critical and participant citizens, capable to act with competence, dignity and responsibility in society. In the document, curricular contents are kept as traditional disciplines called areas. At the fundamental level, the proposed areas are: Portuguese, Mathematics, Geography, History, Science, Physical Education and Arts, plus a Foreign Language for the middle level. At the high school level, the areas are: Portuguese, Mathematics, Geography, History, Biology, Physics, Chemistry, Physical Education, Foreign Language, Arts, Computer Science, Philosophy and Sociology. Transversal themes were introduced constituting a set of subjects characterized as "problematic issues" which permeate the different areas supposing integration across the curriculum. The transversal themes proposed are: Ethics, Health, Environment, Multiculturalism and Sexual Education, plus Work and Consumerism.

The contents, however, are not seen as an end in themselves but as a way so that students develop skills, therefore the importance is given to learning strategies. Also the notion of curricular contents is extended beyond the learning of facts and concepts to include procedures, values and attitudes.

Information and reading in the NCS

According to the NCS, the education of critical and responsible citizens demands that students have access to what is called “socially elaborated knowledge”¹ (v. 1, p. 44). Schools must stimulate the “cultivation of social and cultural assets” (Brasil, 1997, v. 1, p. 47), allowing for the development of “the capacity to appreciate universal and national cultural manifestations” (Brasil, 1997, v. 1, p. 45) mainly represented by written records. So, these skills are directly connected to reading capacity and thus:

“... if the objective is to educate citizens capable of understanding different texts, it is necessary to promote learning strategies for students to experience and learn that in school ... it is necessary to offer them real texts. Competent readers are not shaped by reading just during activities in classroom or just in textbooks or just to meet teachers’ requests: the first and perhaps the most important learning strategy for reading practice is to work with textual diversity” (Brasil, 1997, v. 2, p. 55).

The NCS state that:

“... learning is not possible without information, in the same way communication without information does not exist. In school, effective learning depends on students interactions with new articulated information, constituting networks of meanings together with students’ previous knowledge” (Brasil, 1998, v. 5, p. 141).

So, being consistent with the NCS, there is a set of information, knowledge and cultural assets - mainly represented by written texts - to which students must have access and which they need to learn to use, appreciate and produce. According to the document, it is the responsibility of the school to teach abilities for this, meaning that it has to provide a learning environment for the development of information literacy.

Objectives and methodology

The concept of information literacy has been discussed extensively in developed countries during the last twenty years (Arp & Woodard, 2002, Bawder, 2001, Campbell, 2005, Owusu-Ansah, 2005, Pawley, 2003). However, in less developed countries the concept is just starting to appear in the literature of library and information science. It is important that researchers and librarians in these countries fully understand the implications of the concept and find out the best way to implement information literacy programs in accordance to their own realities.

Considering that the document containing curricular guidelines for basic education in Brazil assigns to the school the responsibility to provide students with opportunities to learn how to access, use, appreciate and produce cultural assets, implying they need to be information literates, the present study had as objective to investigate which skills were suggested by the NCS for that purpose. We sought to examine the extent to which skills associated with information literacy are represented in educational policy documents and if they are viewed as integral part of students’ comprehensive literacy, being this

consequently the responsibility of schools. By doing so, we intended to find out whether there would be suitable conditions within that frame of reference for librarians to develop their pedagogical role thus bringing school libraries to collaborate in the implementation of information literacy programs in harmony with Brazilian cultural and educational reality.

The identification of information skills in the NCS was carried out by examining the volumes of the NCS related to the three levels of basic education in Brazil: elementary (ages 7-10) (Brasil, 1997), middle (ages 11-14) (Brasil, 1998) and high school (ages 15-17) (Brasil, 1999), having as basis the standards presented in the *AASL Information Power: building partnerships for learning* (AASL/AECT, 1998). Skills were identified and analyzed on the basis of the information literacy concept, allowing the perception of possibilities for the development of information literacy programs in Brazilian schools.

Findings

Accessing information

Elements of Information Power Standard 1 are clearly present in the NCS. One of the goals of learning Portuguese is that students start to value reading as a source of information, understanding its importance in achieving several objectives. In that sense, students must be aware of what they need to know and how to independently search for information (Brasil, 1997, v. 1, p. 95). So, it is the mediators' task to introduce students to the use of several information sources for them to gradually attain intellectual autonomy. From that perspective the teachers' work begins by helping students to identify specificities of different kinds of documents (written texts, images, films etc.) by showing symbols and formats that characterize those messages (Brasil, 1997, v. 5, p. 49).

Students are stimulated to find information beyond their personal knowledge. Although teachers must value firstly the knowledge students already possess about the topic, propitiating exchange of information and opinions, later on they have to question new issues, discuss with students unknown data and stimulate the search for new information from different sources (Brasil, 1997, v. 5, p. 75). In Science, students must perceive that knowledge based on common sense is not enough to explain a given phenomenon so that they feel the need to search for information to rebuild or expand their previous knowledge. The teacher helps raising new problems whose solution demands students to search for new information (Brasil, 1997, v. 4, p. 117).

The ability to find information to satisfy one's needs is present in the NCS, in the sense that it is assumed that a competent reader is someone who on his/her own initiative is capable to select from diverse texts those which can attend his/her needs (Brasil, 1997, v. 2, p. 54).

The pursuit of information to solve a problem is also stimulated: according to NCS "searching for information, collecting and dealing with concepts are more meaningful and enticing to students when they ground the elaboration of one or more answers to arguments raised at the beginning of the activity" (Brasil, 1998, v. 6, p. 83).

By pointing out the importance of teaching procedures and not just contents, the NCS strengthen the skills to find and use information. It is intended that students be capable of locating information from a diversity of sources, of selecting relevant information, of interpreting scientific news and information related to the problem in hand (Brasil, 1999, v. 3, p. 61, 79 and 93).

The NCS recommend students to learn how to master the search process and text production, learning to observe and collect information from different sources in different formats (photographs, maps, news, films, interviews, literary works, music, etc.) (Brasil, 1998, v. 5, p. 43). In themes related to multiculturalism, searching in different types of sources allows students to recognize the several forms of expression related to cultural traditions (Brasil, 1997, v. 8, p. 49).

Another situation in which abilities to locate information are mentioned is when the NCS suggest students to be familiar with and value cultural and learning organizations such as libraries, bookstores, publisher houses, bookstands, archives, and cultural events such as book releases, book fairs, lectures, debates, book talks, emphasizing that those are values and attitudes underlying language practices. Thus, it is necessary for students to learn to find out their way within the distinct features of those spaces, being able to find out the needed texts and information (Brasil, 1998, v. 2, p. 64).

Evaluating information

The ability to evaluate information, to understand the meaning of the text critically, as it is suggested in Information Power Standard 2, appears all the way throughout the volumes of the NCS. Students must understand what they read and develop skills to critically analyze different speeches. We hope that students learn to understand the written and oral texts they face in diverse situations of social interaction, interpreting them correctly and inferring authors' intentions. The NCS propose the education of a competent reader and that "implies educating someone who understands what he/she reads, in order he/she can learn also what is not written, identifying implicit elements, establishing relations between the text at hand and others texts they already read: students must justify and validate their reading from finding out the discursive elements of the text" (Brasil, 1997, v. 2, p. 53).

Reading activities should be organized so that the students are able to analyze different speeches critically, including their own; as well as to evaluate texts, to recognize the authors' intentions, by being capable of adhering or refusing the enunciators' ideological propositions (Brasil, 1998, v. 2, p. 33 and 49).

The NCS explicitly recommend a critical analysis of mass media. It is perceivable that they "display abundant and varied information in a very attractive way", transmitting an enormous range of information and different points of view, values and conceptions that students are familiar with outside the school. So, it is important, according to the NCS, "to consider and use in learning activities the knowledge acquired outside school since it is fundamental for students to relate to that information diversity" (Brasil, 1998, v. 1, p. 139).

There is a concern with the development of students' procedural and critical capacity to deal with the variety and huge quantity of information in technological resources. Students should "learn to locate, select and judge the pertinence, origin and usefulness of electronic information as well as to create and communicate information through this media" (Brasil, 1998, v. 1, p. 139), connecting themselves critically and selectively with the information universe to which they have daily access.

In the NCS for high school level, there is an emphasis on the need for students to develop skills to deal with the problems related to the amount of information electronically available today. "The enormous amount and the variety of information requires for the citizens to develop the capacity to select information considering their goals, what implies the learning of skills to analyze, to establish interrelations, to synthesize and to evaluate information" (Brasil, 1999, v. 2, p. 117).

Using information

The ability to use information is frequently dealt with in the NCS. Emphasis on interpretation skills and on different reading aims result from the NCS proposals related to reading, which is considered instrumental for learning. Students should then "use texts ... to understand a concept, to present new information, to describe a problem, to compare different points of view, to argue in favor or against a given hypothesis or theory" (Brasil, 1997, v. 2, p. 30). The document stresses the need for students:

"... to use language as a learning instrument, to know how to do to have access to, to understand and to make use of information contained in texts to identify relevant aspects, to organize notes, to elaborate logbooks, to produce coherent texts from texts originated from different sources, to elaborate abstracts, indices, schemes, etc." (Brasil, 1997, v. 2, p. 42).

"... to deal with the diversity of aims and modalities which characterizes reading, that is the different purposes of reading (to solve a practical problem, to inform themselves, to have fun, to study, to write or to review their own texts) and with different forms of reading (to meet different goals and styles, to find out relevant information or implicit meanings or to locate data to solve a problem)" (Brasil, 1997, v. 2, p. 54).

The capacity to use information is included in the introductory volume of NCS as one of the goals of basic education: "to know how to use different sources of information and technological resources to get and produce knowledge" (Brasil, 1997, v. 1, p. 108). In History, to know how to use information implies

"the choice of approach, reflection on and organization of information, questioning, interpretation, analyses, spatial localization and temporal ordering of a series of incidents of collective life, which were somehow recorded by means of written texts, drawings, collective and individual memoirs, photographs, instruments of work, fragments of day to day utensils and architectonical styles, among other possibilities" (Brasil, 1997, v. 5, p. 78).

In Geography, it is intended for students to perform “reading of images, of data and documents from different information sources, in a way to interpret, analyze and relate information about geographic space and different landscapes” (Brasil, 1997, v. 5, p. 122), besides “knowing and using written and imagery sources of information ...” (Brasil, 1997, v. 5, p. 131). In Science, it is expected that students know how to combine readings, observations, experiments, records, etc. for gathering, organizing, communicating and discussing facts and information” (Brasil, 1997, v. 4, p. 39).

In relation to Arts, students should

“... know how to locate and organize information about Arts getting in touch with artists, document collections within and outside school (books, periodicals, newspapers, illustrations, slides, videotapes, music records, posters) and public collections (museums, galleries, cultural centers, libraries, collection of music records, videotapes and motion pictures), recognizing and understanding the variety of artistic products and aesthetic conceptions presented in the history of different cultures and ethnic groups” (Brasil, 1997, v. 6, p. 54).

Emphasizing a constructivist approach for learning the NCS consider that students need to learn how to build

“... instruments to analyze by themselves obtained results and procedures they place in action to attain proposed goals. For example, in order to carry out a task students may copy parts from an encyclopedia although this is not the most adequate procedure. It is necessary to help them by teaching them the most appropriate procedures to carry out successfully the proposed task. It is necessary for students to learn how to search in more than one source, to record what is relevant, to organize obtained information in order to produce a text. Depending on the topic to be searched it is necessary to advice them to make interviews and to organize data, to search for information in different periodicals, in films, to compare and organize the information they gathered to present it as a seminar or a written text. They have to learn to use non-linear strategies during the reading process, for instance, to check other sources for complementary information they may need (dictionaries, encyclopedias, a colleague)” (Brasil, 1997, v. 1, p. 52).

In Multiculturalism (a transversal theme in NCS), it is suggested that students learn to deal with “... oral texts and graphic representations (narrative reports, research, objects, photos, illustrations, models, drawings, etc...) in order to locate information (gathering, selection, observation, comparison, interpretation) as well as for data recording and communicating (to take notes, to paraphrase, to discuss, to reinterpret)” (Brasil, 1997, v. 10, p. 89).

Independent learning

Information Power Standard 4 relates to the search, evaluation, use and communication of information to meet personal goals. In that sense, the NCS emphasize that an education engaged with citizenship “has to create conditions for the development of

the capacity to the effective use of the language which allows students to meet their personal needs – which may be related to actions of day to day life, to the transmission of and search for information or in exercising reflective thought” (Brasil, 1997, v. 2, p. 30).

The NCS propose that students should develop skills related to lifelong learning, that is “to their autonomy in building and rebuilding knowledge, which means the capacity to analyze, to reflect, to be conscious of what they already know, to have the disposition to transform their knowledge by processing new information and by producing new knowledge” (Brasil, 1997, v. 2, p. 30).

Information Power Standard 5 suggests the need to teach students to value and appreciate literature and other creative forms of expression. NCS, in turn, recommend that students be taught to value reading “as a source of aesthetic appreciation and entertainment” (Brasil, 1997, v. 2, p. 127) besides “to interest themselves in literature considering it as a form of expression of the culture” (Brasil, 1998, v. 2, p. 64). The NCS emphasize the use of literary texts, showing their influence in students’ formation.

“Without denying the importance of texts which meet practical requirements of daily life, the literary texts are the ones that favor imaginative and critical reflection, that allow the exercise of more elaborate and abstract forms of thought, being the most vital for the full participation in a literate society” (Brasil, 1997, v. 2, p. 30).

The document also shows how those texts can “... propitiate students emotional experiences, the exercise of fantasy and imagination” (Brasil, 1997, v. 2, p. 64) and recommends adequate strategies to deal with literary texts, as for example “... the shared reading of books in chapters, what allows students to have access to rather long and sometimes difficult texts ... which by their quality and beauty may enchant students even though not always are they capable of reading them by themselves” (Brasil, 1997, v. 2, p. 64).

Information Power Standard 6 emphasizes students’ independence in creating information products. NCS, in turn, consider that students should progressively develop abilities to interpret different texts, to take hold upon the language and, as citizens, to produce effective texts in the most varied situations. In that sense, NCS consider that

“... a competent writer is someone who, when producing a text, is aware of the existing cultural possibilities and knows to select the genre in which his speech will be produced by choosing the appropriate style which will depend on the circumstances and the objective of the enunciation” (Brasil, 1997, v. 2, p. 65).

In History, it is recommended that learning tasks originate cultural products such as books, murals, exhibitions, plays, models, chronological lines, maps etc. (Brasil, 1997, v. 5, p. 75).

Social responsibility

Information Power Standards 7 to 9 relate to social responsibility in information usage. They point out the need for students to develop the capacity to recognize the importance of equitable access to information as a basic component in a democratic society, of respecting the principles of intellectual freedom and property rights, as well as of participating in groups to pursue, to generate and to communicate information. Although they do not explicitly state issues of intellectual freedom and property rights, the NCS present proposals concerning information usage in contexts of social participation which lead to the development of the capacity of acting in a transforming and constructive way (Brasil, 1997, v. 2, p. 46).

Skills to communicate information appear in Science where the object of study and the learning activities should be organized for students to gain progressively the capacity to value the diffusion in the community of the knowledge produced in school (Brasil, 1997, v. 4, p. 111). In Geography students should use computers to socialize information and knowledge (Brasil, 1998, v. 5, p. 143).

The concern with technology and the amount of information available today, integrating the notion of information literacy, are also dealt with in the NCS, which include information technology at all levels of education considering it as “a vehicle of information which propitiates new ways of ordering human experiences with multiple reflexes, particularly in cognition, in human action upon the environment and upon oneself” (Brasil, 1998, v. 1, p. 135). According to the NCS, the abundance of information does not mean information quality and so they propose the development of skills to analyze and relate information and the development of a critical attitude towards information producers (Brasil, 1998, v. 1, p. 136).

Another aspect that is a part of the information literacy concept regards the characteristics of information society, which will influence students’ learning: the large amount of available information and the rapid changes in knowledge. The NCS identify that situation and recommend that schools should contemplate “the development of skills that make possible students adaptation to complex conditions and job options existing today, as well as skills to deal quickly with the production and circulation of new knowledge and information which has been increasing and overwhelming” (Brasil, 1997, v. 1, p. 47).

Conclusion

The analysis demonstrated that the NCS include a great deal of information skills contained in Information Power. The basic information literacy skills (to access, to evaluate and to use information) are in place in the NCS. Emphasis on independent learning by means of a variety of information resources appears often in the document: textual diversity is considered fundamental to significant learning pointing out the need to give students conditions to deal with a diversity of texts available in society. Issues regarding social responsibility relating to information use are displayed mainly in the proposals of sharing obtained and organized information.

Nevertheless, expectation of librarians' participation is totally absent in the NCS. These professionals are not mentioned – even being the library considered in the document the first of a series of favorable conditions for developing competent readers. The NCS places the responsibility of dealing with the school library in the hands of teachers, by regarding the school library as a fundamental resource for language learning and even considering that the library roles outlined by the NCS have long been approached by the library profession in Brazil. The NCS do not even mention the qualified professional needed to play those roles. The following citation summarizes the NCS's position towards school libraries:

“The role of the school (and mainly that of the teacher) is fundamental regarding the school library as well as the classroom collection for defining selection criteria for quality printed material and for advising students in a way to stimulate independent reading, learning of library procedures (lending procedures, selection of library material, utilization of indexes and of different information sources, selection of texts adequate to their needs, etc.) and developing attitudes of care and conservation of library material. Besides that, the organization of physical space – illumination, stacks and books disposition, furniture, etc. they must ensure for all students to have access to the available collection. More than that it should develop the taste to use the library and the taste for reading” (Brasil, 1997, v. 2, p. 92).

There is a clear understanding that the library is necessary in developing information skills but since librarians are never mentioned it is their responsibility to claim their place in the education scene. The first step would be to deepen issues concerning information literacy, showing how librarians could help in the development of reading abilities that is an important issue in the NCS.

If the enlargement of the pedagogical role of school libraries occurs through the concept of information literacy, we should essentially take into account the concept of literacy in general, which relates to the condition or state which an individual or a social group attains as a result of having appropriated of writing for social use. Being it understood therefore that “those who learn how to read and write and who involve themselves in writing and reading practices became different persons, attain another state, another condition” (Soares, 1998, p. 36). So, the effective use of writing skills triggers linguistic, cognitive, economic, political, cultural and social consequences for the individual or group. It has to be noticed that in the literature about literacy in Brazil, there is already the perception that several types of literacy exist. “Specific dimensions of that phenomenon are being built up, producing new types of literacy, concerning new kinds of printed texts, languages, records and their impacts and consequences” (Batista, 2000, p. 185). So, we perceive that there is a positive perspective for information literacy programs to be developed in Brazilian schools in the context of the official curricular guidelines. However, it is necessary more than just terminological discussion or knowledge about foreign realities of information literacy. It is urgent to set a research agenda for problems to be addressed in our social context, taking into consideration the knowledge of literacy in general developed in the country.

Effective research which allows a better understanding of the issue as far as the Brazilian reality is concerned will help to establish information literacy programs bringing together librarians and researchers. This will open way for the desired enlargement of the educative role of school libraries propitiating conditions for librarians to contribute effectively to learning.

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