The development of reading skills in the school library: information recovery and promotion of critical reading in the digital age

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ABSTRACT
Introduction: In addition to the user service that includes loaning books and other information support, the school library promotes skills development and reading practice services for the school community.

Objective: Thus, we analyzed aspects related to reader competence in the elementary school library, reflecting on the strengthening of processes of retrieval, selection and use of information through critical reading of informative content available in the face-to-face space and in cyberspace.

Methodology: We carried out research of an exploratory and descriptive nature and, regarding procedures, a bibliographical description and a case study. In order to support an investigation with a qualitative approach, data collection and analysis of information on the topic is carried out based on practices considered relevant by school librarians and other professionals who talk about the topic in the Network of Studies of Educational Skills. Federal University of Espirito Santo.

Results: We note that the reader’s competence is crossed by information competence, being essential in the basic education stage, especially in the final years, when the student needs to critically understand the information contained in literary, playful, technical and scientific modalities stored in formats multimodal.

Conclusion: This competence is relevant so that education can combat misinformation through the acquisition of knowledge, skills and attitudes required in the digital era since students are, for the most part, digital natives since school age, making it a condition to obtain the pleasure of reading.

KEYWORDS

O desenvolvimento da competência leitora na biblioteca da escola: recuperação da informação e promoção da leitura crítica na era digital

RESUMO
Introdução: Para além do serviço de atendimento ao usuário que compreende o empréstimo de livros e outros suportes informacionais, a biblioteca escolar promove serviços de desenvolvimento de competências e de prácticas de leituras para a comunidade escolar.

Objetivo: Assim, analisamos aspectos relacionados com a competência...
leitora na biblioteca da escola do ensino fundamental, refletindo sobre o fortalecimento de processos de recuperação, seleção e uso da informação por meio da leitura crítica de conteúdos informativos disponibilizados no espaço presencial e no ciberespaço. **Metodologia:** Realizamos uma pesquisa de natureza exploratória e descritiva e, quanto aos procedimentos, caracterizada como bibliográfica e um estudo de caso. Com a finalidade de fundamentar uma investigação com abordagem qualitativa, a coleta dos dados e a análise das informações sobre a temática é realizada com base nas práticas consideradas como relevantes pelos bibliotecários escolares e outros profissionais que dialogam sobre o tema na Rede de Estudos das Competências da Universidade Federal do Espírito Santo. **Resultados:** Referenciamos que a competência leitora é atravessada pela competência em informação sendo essencial na etapa da educação básica, principalmente nos anos finais, momento no qual o aluno necessita compreender criticamente a informação contida nas modalidades literárias, lúdicas, técnicas e científicas armazenadas em formatos multimodais. **Conclusão:** Essa competência é relevante para que o educando possa combater a desinformação por meio da aquisição de conhecimentos, habilidades e atitudes requeridas na era digital já que os alunos são, em sua maioria, nativos digitais desde a idade escolar, tornando-se uma condição para a obtenção do prazer de ler.

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1 INTRODUCTION

The school library is often the only connection space between the internal and external community of the educational institution in the Brazilian scenario, and is required to develop skills to access information inside and outside this space. Therefore, this research allows us to analyze and discuss issues about the use of this type of library, understanding it as a space for learning and developing reading competence.

The school library promotes learning support services and access to information resources for members of the school community, offering them the possibility of becoming critical thinkers and effective users of information. Therefore, it must develop and offer specific activities to guide research and encourage reading, observing the way in which its users “consume” information with the arrival of information and communication technologies. In this way, this spacetime for retrieving physical and virtual information becomes responsible, to a large extent, for the formation of critical readers.

This study focuses on elementary school libraries whose mission is to assist in the teaching and learning at schools (Macedo, 2005); an informational and educational space for training the enrolled students throughout their education. Thus, we must discuss the educational function of school libraries to show how they contribute to the development of reading competency. We also highlight the contribution librarians make in this environment while facing challenges expanded by current technologies.

The Information Sciences and Librarianship literature highlights how libraries contribute to teaching and learning in schools, benefitting students’ intellectual training and social background by offering them a privileged place to develop actions that contribute to the learning process beyond it.

The school library must have qualified personnel who can manage treatment and storage processes and offer recovery and search tools that assist face-to-face and/or virtual reference and information, being responsible for helping students and teachers’ research and mediating and disseminating its physical, electronic, and digital collection.

A critical reading of textual modalities and its dissemination in hybrid information, education, and culture spaces (face-to-face and virtual), such as libraries, schools, and cyberspace, must follow the access to information, training the skills necessary for literacy and for the fight against disinformation. For Campello (2009, p. 19, our translation) “Democratizing the access to information, empowering people for the critical use of information, providing conditions that allow the reflection, criticism, and construction of ideas through reading are actions constantly recommended for the librarian […]”.

Reading and information competencies stand out in recent research. Reading competency consists of skills, knowledge, and attitudes aimed at promoting learning via different languages and modalities (Cuevas-Cerveró, 2008), information acquisition, and knowledge production in face-to-face and virtual spaces.

Information competency comprises actions to enable strategies for searching and retrieving information, and accessing and evaluating textual modalities in hybrid information, education, and culture spacetimes (face-to-face and virtual), defined as a set of knowledge and attitudes, and a combination of cognitive and social skills to achieve individuals’ demands (Belluzzo, 2007).

Though treated as different, reading and information competencies are strongly correlated, as are literacy and initial reading instruction. Soares (2004) describes literacy as a technique enabling proficiency in alphabetic and orthographic systems, whereas initial reading instruction is “[…] understood as the development of a behavior and skills for the competent use of reading and writing in social practices” (Soares, 2004, p. 97, our translation).
Literacy and initial reading instruction are important for developing information competency, which will allow recovery processes and the critical evaluation of various texts and contexts in hybrid information, education, and culture spacetimes (face-to-face and virtual). Reading competency relates to literacy; defined as the acquisition of the technique provided by the process of cognitive and social literacy.

By articulating the skills and actions of these competencies, elementary school students, especially in their final years, learn to consume the information critically and ethically in books, newspapers, web pages, comic books, and digital animation; reading incentives containing texts, sounds, and imagery.

Literacy and initial reading instructions benefit these competencies, informing the search, access, and selection of information; the basis of reading competency, consisting of the knowledge (how to learn), skills (how to do), and attitudes (how to apply) necessary for the critical understanding of information available in its various formats, modalities, and languages in an era increasingly connected by autonomous and collaborative networks.

Studies on libraries developing this competency require the elaboration of projects to encourage reading in partnership with teachers, so students can develop information competency from their reading competency (Gasque; Silvestre, 2017). Information competency emerged as relevant so students “[…] know how to locate and access information competency and know what processes to perform to understand the information competency and use it” (Belluzzo, 2018, p. 34, our translation) since they need to reflect and critically think about information that arrives ever faster.

The model of reading competency stands out in the Brazilian and international scenario to work reading competency in the digital age (Cuevas-Cerveró, 2008; Gerlin, 2017). Connected to information competency, it contains six action and program guidelines:

(a) access and evaluation of information competency: management of skills and strategies for understanding hypertexts; (b) use of different reading modalities: interpretation and critical understanding of the (hyper)text on book pages and computer screens; (c) collaborative learning: production of socially relevant knowledge during the application (appropriating various modalities and languages); (d) critical reading of textual information in different media with different themes: communication in social media of (hyper)textual, oral, and imagery (multimodal) information; (e) construction of reading projects with different purposes: permeating historical, social, and cultural needs and interests; and (f) the ethical use of information: projects committed to reading and critical information competencies (Gerlin, 2017, p. 11-12).

To reflect on the development of reading competency in elementary schools, we must acquaint ourselves with practices influenced by an information competency based on the aforementioned guidelines. Thus, we aim to analyze aspects of reading competency in elementary school libraries, reflecting on the strengthening of information recovery, selection, and use via the critical reading of informative content available in face-to-face and virtual spaces.

Learn by learning and experimenting in cyberspace (Lévy, 2010) refers to the dialogue between skills and actions of reading and information competencies, leading to the theoretical and practical contexts experienced in libraries, schools, communities, and universities. This new space facilitates professional, cultural, and social connections, offering students diverse learning environments strengthened by collaborative connection and communications tools.
2 METHODS

Regarding the objectives, exploratory and descriptive research was carried out to expand knowledge in the proposed areas with a case study that allows to learn more about the group involved (Gil, 2008).

Furthermore, bibliographical research was carried out covering the period from 2001 to 2021 in the Information Science Database (BRAPCI), to substantiate the actions carried out within the scope of reading competence by focusing on critical reading thus allowing to analyze the need to develop skills in primary school libraries.

To strengthen the bibliographic research, nineteen articles with the term “school library” were selected, authored by: Araújo and Sales (2011); Cardoso, Muniz, and Vieira (2015); Castro Filho and Silva (2016); Furtado (2009, 2019); Gasque and Casarin (2016); Gasque and Silvestre (2017); Martins (2017); Mendes and Sousa (2016); Neves, Sampaio, and Rodrigues (2020); Nunes and Santos (2020); Paiva and Duarte (2017); Pajeú and Almeida (2002); Santana and Paiva (2017); Silva (2015; Silva and Cunha (2016); Souza (2008); Tavares and Silva (2013); Vidotti, Lanzi, and Ferneda (2014).

Three relevant studies on reading competency were retrieved: Gerlin (2020); Gerlin and Mata (2019); and Gerlin and Ribeiro (2020). The term “information competency” in conjunction with “reading competency” returned two articles: Gerlin, Matta, and Nunes (2019); and Lucca, Caldin, and Righi (2015).

The case study was carried out by collecting and analyzing structured data during the application of a questionnaire, using Google Forms, with 25 (twenty-five) respondents from the Skills Study Network (REC) of the Federal University of Espírito Santo (UFES), which mostly brings together school librarians and other participants who know the reality of acquiring skills in elementary education and other information, educational, and cultural environments in the Metropolitan Region of Greater Vitória (RMGV), located in the Brazilian territory, more specifically, in the state of Espírito Santo (ES).

With this strategy, the data made available by this network were analyzed in light of the theoretical survey, allowing us to question aspects of the promotion of critical reading among digital natives who know the importance of school libraries including in their mission strategies for recovering and critically using readings of the word and the world in hybrid spaces and times and, at the same time, appropriating new technologies that should assist in the process offering practices to encourage different forms of reading.

3 RESULTS

The development of a reading competency permeates information competency in school libraries; covering human, social, and cultural interactions of those connected or not to this space, with other library and university typologies and other school training environments, such as technical education. Thus, the educational and information competency needs of school users must culminate in strategies to develop learning skills from basic to tertiary education (Cuevas-Cerveró, 2008).

Since we are experiencing a transition to society in the digital era, more than ever the library and school must work with the development of skills that can help students learn throughout their school and, later, community, educational, professional, and social life.

According to Gasque (2013, p. 5, our translation), individuals with information knowledge and skills must be able to mobilize their own knowledge, developing “[...] competencies to identify the need for information, evaluate it, seek it, and use it effectively and efficiently.” In view of this, the student must not only be literate (acquisition of the reading and writing code) but also socially literate, requiring the library to promote specific and necessary actions so that
he can achieve skills and attitudinal actions within the scope of information that enable the access and critical evaluation necessary for the ethical use of information.

From the documents and studies analyzed, we understand that the information age (also called digital age) allows access to various technological tools. Thus, school libraries must have the skills and knowledge to insert themselves in a digital environment which allows network connections. Individuals must have access to information and communication technologies for libraries to be dynamic spaces that develop reading competency. There are models focused on different reading modalities that aim at interpreting and critically understanding the digital age (Cuevas-Cerveró, 2008; Gerlin, 2020).

A lack of proficiency in technologies and digital illiteracy coexist with this reality (Lanzi; Vidotti; Ferneda; 2014). Thus, we must understand the reading and research activities developed in libraries. In total, 68% of the group supervised school, academic, and/or scientific research, and the remaining 44% suggested the use of safe and reliable sources in physical or digital information media, and information recovery and search in shelves, catalogs, and repositories, among others. About 36% of the group recognized the importance of suggesting the use of reference works (wikis, dictionaries, printed, virtual and/or electronic encyclopedias).

We also observed that 32% of the group agree on the importance of offering training activities (such as courses, lectures, workshops, and other activities). About 7% guide the normalization of papers, research projects, and other modalities. We also observed reading and storytelling groups, coordination of reading groups, and the recovery of the cultural and social memory recorded by the press as textual sources. Our group claimed activities aimed at promoting critical reading were important; and the reading of several textual genres was the most marked option (48%), followed by debates (44%), text production (36%), reading on digital devices (32%), and reading on electronic devices (28%).

Data analysis shows us that various reading modalities (informative, literary, technical, etc.) are available quickly, playfully, and dynamically, and in various formats (videos, audios, images, GIFs, etc.). Since school libraries are online, users can also create, edit, organize, or classify this information (Furtado, 2009). Thus, we agree with the concern with forming critical readers, especially among digital natives or the Generation Alpha (Furtado, 2019, p. 423), born in the midst of information dissemination and technology advancement. Paiva and Duarte (2017, p. 655) show several types of denominations for this new generation and school librarians should be prepared to establish contact with these digital natives (term adopted in this study).

Technology marks all areas of digital natives’ lives and much of their time. Both in professional and social relations or in leisure, technology is so widespread that “differentiating the real from the digital” (Paiva; Duarte, 2017) may be difficult. We must understand these individuals, so that they not only disseminate but also ethically assimilate information in schools and outside them (Cardoso; Muniz; Vieira, 2015).

Our reports show digital natives mostly use printed and digital information support, such as books, videos, and online catalogs. Our group claimed reading in the digital era requires proficiency in several languages (textual, imagery, and oral) stored in various printed, electronic, and digital media. In the opposite direction, the most chosen practice was the strategy of dialogued and expressive collective reading in reading and storytelling circles (52%). Imagery reading by static and moving images had 44% of votes. A total of 28% of participants performed all strategies and modalities. Finally, sound reading via resources such as orality and music had 24% of votes.

For the reader’s competence to actually materialize, traditional reading practices carried out in school libraries are of immense importance. To achieve this, teachers and librarians need to have a good relationship, to reach more readers (Souza, 2008). The manifesto of the International Federation of Library Associations and Institutions (IFLA) for the school library (International Federation of Library Associations and Institutions, 2000), shows that students are capable of achieving higher levels of learning, as well as greater skills to solve problems.
and deal with information technology, from cooperation between librarians and teachers. In this sense, many authors portrayed the importance of including the library in the school’s pedagogical project (Nunes; Santos, 2020; Silva; Cunha, 2016; Cardoso; Muniz; Vieira, 2015; Martins, 2017; Gasque; Casarin, 2016).

This new student that collaborates with school librarians may impact education methods and the reading of information supports and of the world. As Freire (2011) inspires, reading the world precedes reading the word and the various languages available in the digital age. Thus, neither are schools the only way of educating nor do teachers and librarians hold all the knowledge any longer (if they ever did). They should be prepared to exchange skills (knowledge) and assume the “[…] role of learning consultants […]” (Furtado 2009, p. 134).

Training critical readers is one of the goals of the learning process which require “incentivizing agents,” such as librarians and family members who provide students with their first contact with books and storytelling (Araújo; Sales, 2011), and learning strategies elaborated by cooperative teachers and librarians that currently involves digital tools. Teachers should be responsible for literacy and librarians for the use, access, and other activities held in information units (Araújo; Sales, 2011; Castro Filho; Silva 2016; Nunes; Santos, 2020).

Exploring reading activities in libraries strengthens reading competency by enabling the set of skills and actions necessary for the use of (hyper)text in social, technological, and educational information. This reflects that, even with the technological reading tools digital natives use, disinformation strengthens the access to misrepresented information, favoring the sharing of false news, thus compromising the critical and ethical use of information.

Critical reading enables the subject to acquire (hyper)textual information from different contexts, this practice combats the sharing of false, manipulated, and/or biased information, in which the subject transmits without the slightest evaluation or verification of the truth (Brisola; Bezerra, 2018). Disinformation goes beyond the definition commonly woven around fake news since “[…] research on disinformation almost always begins by pointing out its prevalence in history. False reports, rumors, distortion, omission of facts relevant to the understanding of the event […]” (Baptista, 2019, p. 56-57, our translation).

Faced with this question, it was possible to verify that most research participants have mastery of technology, as a total of 50% answered yes to having it, whereas 40% answered that they have it, but very little, and 8% answered no. Regarding the existence of activities focused on the importance of ethics and copyright in the library in which the respondent works, the following graph shows that in most spaces, 52%, have activities on this topic. A large proportion, 24%, also say they do not work on this issue (Graph 1).

**Graph 1.** Activities on the importance of Ethics and copyright in libraries

- 52.0%: Yes
- 24.0%: No
- 8.0%: Very little
- 4.0%: I don’t currently work.
- 2.0%: I don’t work in a library
- 2.0%: I do not work at a library, but there are activities on the subject at our course
- 1.0%: Since I do not formally work at a unit, I can neither confirm nor deny

Source: The authors (2021)
Regarding the question related to “knowledge about misinformation and combat strategies during the pandemic” only one person answered no when the need to understand the influence of misinformation on social networks on the daily lives of school library users is perceived. In the question investigating whether the respondent realizes that there have been changes in the way of consuming information with the arrival of social networks (mainly during the pandemic period due to COVID-19 in which this research was carried out), it is reported that a lot of false information are circulating and being consumed, which makes it increasingly difficult to select information. A participant also points out that, with the greater usability of technological devices, users began to consume more information via social networks and internet news portals.

When asked if it was understandable that, even with prior knowledge about the information environment, it is possible to be affected by false information and news on social networks (WhatsApp, Instagram, Facebook, Youtube) and dubious portals and to report a personal case if possible, the answer was consensual yes. Some participants claimed to have been victims and also admitted to having shared out of distraction. Many identified WhatsApp and other social networks as the main carriers of fake news. In this segment, when questioning whether they had the habit of using tools such as fact checkers (Agência Lupa, Fake Check, Bot Sentinel, and E-Farsas) in the work environment, to help their users against sharing dubious news and information in social networks, the following graph shows most of them, 60%, use the tools (Graph 2).

Currently, understanding that critical reading of different textual modalities offers the individual a means of combating misinformation is necessary. This resource must be offered in hybrid training spaces (face-to-face and/or virtual), which can also favor the development of reader and information skills. Gerlin’s model (207; 2020) recognizes the need for practices leading to reading and information competencies that guide the ethical use of information.

Thus, we understand that reading and information skills relate to knowing how to use technological tools for searching, selecting, and understanding research (Gerlin; Mata; Nunes, 2019). Students need to be able to assimilate added information based on their own subjective knowledge so that they can learn how to learn, i.e., produce new knowledge (Gerlin, 2020), and be able to use the knowledge acquired to solve problems, learning how to do it (Lucca; Caldin; Righi, 2015, p. 193). Considering the current reading possibilities, for each technological support “there is a new way of reading and understanding the world” (Gerlin; Mata, 2019, p. 3), causing the urgent need for training in reading various modalities.
Our data analysis shows that the reality of Brazilian school libraries is far from perfect (Macedo, 2008), due to undervalued libraries lacking librarians (Pajéú; Almeida, 2002; Santana; Paiva, 2017; Mendes; Sousa, 2016; Tavares; Silva; Valério, 2013; Silva; Cunha, 2016; Silva, 2015). Vidotti, Lanzì, and Ferneda (2019, p. 119) find libraries are constantly deactivated for “[…] more relevant activities […].”

Insufficient investment in schools can significantly impact the development of students’ skills — who often only have schools as accesses to these resources. The reality of some Brazilian families is precarious, and they lack food, health, leisure, technological resources, etc. Owning a computer, internet, or telephone or knowing how to use them is not as common as desired (Neves; Sampaio; Rodrigues, 2020).

Within this school context, the librarian, who is a mediator of information and promoter of reading practices, becomes a fundamental subject to assist in the development of students, making them competent in information and reading, by being able to identify their information needs and offer solutions to fill them (Neves; Sampaio; Rodrigues, 2020).

**4 CONCLUSION**

Carrying out this study allowed us to analyze aspects related to reading competence in the elementary school library, reflecting on the strengthening of processes of retrieval, selection, and use of information from the critical reading of informative content available in the face-to-face space and in cyberspace. In view of the researched literature, which points out the importance of the library in the educational environment, we found that there is still much to be done in terms of research into librarian practices and information mediation with a view to observing the development of reading competence in the school environment. Therefore, with this study we intend to reinforce the educational function of the library and also reveal the reality of school libraries, explaining the actions that contribute to the development of reading competence.

We hope that research studies in the literature of Information Science and Library Science, which revolve around the development of reading competence in the library, will work together with the librarians’ practices and, when not, that those can serve as a parameter for structuring models such as the proposed competency-oriented guidelines. We hope that the librarians at REC at UFES, who participated in the research, can benefit from the results, as we hope that this analysis can be expanded throughout Brazil and on the international stage.

We conclude that the reading competency developed in the final years of elementary school needs not to be called “critical” since the knowledge, skills, and attitudes comprising it require the exercise of citizenship, critical decision-making, ethical appropriation of information, and promotion of debates that may lead to the production of texts with contexts contemplating a view of the world in hybrid spaces. Thus, critically reading physical, electronic, and digital media requires resources and investment from the agencies responsible for Brazilian education.

Promoting reading and developing the competencies identified in this study usually takes places via instituted practices, such as reading printed, digital, and electronic textual media, reading and storytelling groups, and debates on the local memory. Training takes place via courses, lectures, reading workshops, guidance on paper and research project normalization, among other practices planned within school libraries. In particular, practices aimed at promoting critical reading focus on reading textual genres and acquiring literacy without
intensifying the perception that digital natives should appropriate the multimodal and hypertextual language provided by information technologies and the media strengthening the cyberspace.

Developing students’ competencies coexists with the misuse of information via a reading often unable to differentiate false news from real ones, strengthening the disinformation phenomenon. Thus, librarians recognize their role as educators and mediators of information by guiding the search, retrieval, and analysis of the information recovered, and enabling students to recognize misrepresented and fragmented information, possessing strategies digital natives can easily recognize, such as “Agency Magnifying Glass, Fake Check, Bot Sentinel and E-Scams.”

When considering the disinformation scenario permeating the health, political, and human crises we are experiencing, both Information Sciences studies and the Librarianship and Education documents highlight the need to develop communication skills, digital and media collaboration, ethical attitudes and social responsibility, and the critical, meaningful, reflective, and ethical understanding and use of digital information and communication technologies in several social practices. Hence, the importance of school librarians appropriating knowledge and skills related to the mission of school libraries and the curriculum of elementary school, transforming individuals into critical thinkers who interfere in the social environment in which they live.

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