# Pesquisas de revisão bibliográfica na área da educação: mapeando dificuldades de discentes da pós-graduação

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**Resumo**

Este artigo apresenta reflexões sobre as principais dificuldades dos estudantes dos cursos de pós-graduação da área da Educação sobre as pesquisas de revisão bibliográfica. Buscando contribuir com a produção do conhecimento desenvolveu-se um ensaio demonstrativo, no qual, indica-se as etapas desse tipo de investigação, a saber: i) levantamento, ii) organização e, iii) análise dos dados. Entre os resultados, destaca-se que as pesquisas de revisão bibliográfica possibilitam aos discentes a construção do conhecimento acerca de determinados temas de pesquisa e indicam lacunas para pesquisas futuras. Contudo, localiza-se confusões teórico-metodológicas sobre a organização, apresentação e análise dos dados.

**Palavras-chave**: Pós-Graduação. Revisão bibliográfica. Stricto Sensu.

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# Literature review research in the field of education: mapping difficulties of postgraduate students

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 **Abstract**

This article presents reflections on the main difficulties faced by students in Education postgraduate courses regarding literature review research. Seeking to contribute to knowledge production, a demonstrative essay was developed, in which the stages of this type of investigation are indicated, namely: i) survey, ii) organization, and iii) data analysis. Among the results, it is highlighted that literature review research enables students to build knowledge about specific research topics and identify gaps for future research. However, there are theoretical and methodological confusions regarding the organization, presentation, and analysis of data.

**Keywords:** Postgraduate. Literature review. Stricto Sensu.

# Investigaciones de revisión bibliográfica en el área de educación: mapeando dificultades de los estudiantes de posgrado

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**Resumen**

Este artículo presenta reflexiones sobre las principales dificultades de los estudiantes de los cursos de posgrado en el área de Educación en relación a las investigaciones de revisión bibliográfica. Buscando contribuir con la producción del conocimiento, se desarrolló un ensayo demostrativo en el cual se indican las etapas de este tipo de investigación, a saber: i) levantamiento, ii) organización y iii) análisis de datos. Entre los resultados, se destaca que las investigaciones de revisión bibliográfica permiten a los estudiantes construir conocimiento sobre temas específicos de investigación e identificar lagunas para investigaciones futuras. Sin embargo, se encuentran confusiones teórico-metodológicas en relación a la organización, presentación y análisis de los datos.

**Palabras clave:** Posgrado. Revisión bibliográfica. Stricto sensu.

## Introduction

This article originates from the component Seminário de Tese II, part of the Doctorate in Education program at a community university located in the midwestern region of Santa Catarina. According to Almeida (2019, s/p), "it is an exploratory, descriptive, and analytical course on scientific productions related to research in Education [...] aimed at reflecting on the role of research in teacher education and practice." It thus represents an educational opportunity provided to graduate students to understand the process of gathering and analyzing literature on their research topic. Therefore, I begin my reflections by situating the historical origins of research in education.

Research in the field of education in Brazil began in the 1930s with the establishment of the *Instituto Nacional de Pesquisas Educacionais* (INEP). The creation of INEP in 1937 provided a foundation for educational thought, establishing a productive interface, particularly with some universities, during the 1940s and 1950s (GATTI, 2001, p. 66). The initial phase of educational research in Brazil involved studies linking education to politics, with researchers tasked with providing practical insights for the formulation and evaluation of official educational policies (ANGELUCCI et al., 2004, p. 53).

In the first period of educational research (1950-1955), a notable characteristic was the influence of School Psychology studies (ANGELUCCI et al., 2004). The second period, spanning from 1956 to 1964, marked the creation of the *Centro Brasileiro de Pesquisa Educacional* and five Regional Research Centers linked to INEP, responsible for training researchers (ANDRÉ, 2006, p. 13). During this time, key research topics included the relationship between school conditions and students' socioeconomic status, and the analysis of socialization processes through the lens of social sciences.

Between 1965 and 1970, during Brazil's military dictatorship, educational studies were predominantly economic in nature, driven by government agencies and external funding institutions. Under the assumption of human capital theory, education was seen as a driver of economic development. Major research topics of that period included "education as investment, the costs of education, the school and the demand for professionals at different levels" (ANDRÉ, 2006, p. 13).

Starting in the 1970s, with the expansion of universities and the creation of graduate programs at the master's and doctoral levels, as well as increased support and incentives for research, there was a significant rise in published work in the field of education. During this time, previously absent

4

research topics began to emerge within the university context, including curriculum, family-school relationships, education and work, nutrition and learning, educational assessment, and teaching and learning strategies (GATTI, 2001; ANGELUCCI *et al*., 2004; ANDRÉ, 2006).

According to Ferreira (2009, p. 49), this variety of topics led to the emergence, by the end of the 1980s, of,

> [...] a debate about the conflict of methodological trends and differences in the epistemological assumptions of the approaches. Similarly, research spaces expanded within graduate programs and emerging institutions such as the National Association of Graduate Studies and Research in Education (ANPEd), the National Association of Education Policy and Administration (ANPAE), CNPQ, and many others.

To illustrate, in the current context, according to the quantitative information panel of the CAPES thesis and dissertation catalog, the year 2020 saw a total of 4,046 dissertations and 5,345 theses defended in the field of education in Brazil, totaling 9,391 works. Similarly, the number of articles published in scientific journals is increasing. Research data by Morosini, Kohls-Santos, and Bittencourt (2021, p. 19) indicate that "Brazil ranks 14th in terms of total article production. [...] In 2000, we were in 18th place, which compared to 2018 shows a 9.07% increase, identifying the fifth largest growth among the top 20 countries.

This quantitative growth in educational research creates a need for studies that allow for "[...] surveys, assessments, mappings, critical analyses, seeking to highlight the topics and issues focused on, methodological approaches, procedures and analyses, theoretical-methodological contributions, results that can be replicated or avoided." (VOSGERAU; ROMANOWSKI, 2014, p. 167).

In this regard, Bianchetti, Zuin, and Silva (2018) highlight the significant increase in bibliographic reviews, with the internet playing a crucial role in this advancement. The authors present both positive aspects and challenges associated with this trend. On the positive side, hypertext has enabled, since the mid-20th century, the establishment of connections between disciplines, facilitating new communicative practices and managing new information resulting from these studies. On the other hand, a challenge is academic productivity, where quantity can overshadow quality, the integration of knowledge, and the production of valid and novel scientific knowledge.

Indeed, bibliographic review research allows graduate students to understand a specific field of knowledge, its theoretical-methodological perspectives, trends, and recurring themes, as well as identifying research gaps. In light of these contributions, this article aims to analyze how

5

bibliographic review research is being produced in the context of higher education and to present suggestions for conducting such research, indicating methods for organizing and analyzing data.

## Types of Literature Review Research

In this section, I present three important distinctions for understanding by students and researchers in the field of education: i) bibliographic research; ii) literature review research; iii) bibliographic sources. The first refers to the research itself, fundamentally theoretical. "[...] among qualitative researchers in education, its use is sometimes limited to a set of systematic and testable assertions about the empirical world." (BOGDAN; BIKLEN, 1994, p. 52). The second is understood as a preliminary stage of research. In this line, Gil (2002, p. 59-60) lists nine steps of literature review research, namely: "a) choice of the topic; b) preliminary bibliographic survey; c) formulation of the problem; d) development of a provisional plan of the subject; e) search for sources; f) reading of the material; g) note-taking; h) logical organization of the subject; and i) writing of the text." Finally, bibliographic sources are the materials used in both bibliographic research and literature review research, including: books, publications attached to scientific journals which can be either magazines, newspapers, or conference proceedings.

That said, it is important to mention other terminologies that refer to different types of bibliographic review research. Batista and Kumada (2021) present 11 types of literature review research, which differ in their possibilities for organization and analysis. These are: i) systematic literature review; ii) integrative review; iii) narrative review; iv) bibliometric research; v) mixed methods review; vi) scoping review; vii) umbrella review; viii) mapping review; ix) meta-analysis; x) scientometrics; xi) state of the art.

> Despite this multiplicity and flexibility in the characterization of scientific investigations, all studies generally involve a review of the literature, seeking similar works to outline the context and/or justify the novelty and originality of the topic. For some, this may constitute a step in the study, while for others, it may be understood as the research itself (BATISTA; KUMADA, 2021, p. 3).

Immersed in this endeavor, students and researchers in education face the challenge of presenting and classifying the methodological procedures of bibliographic reviews according to the objectives of their studies. That is, just as field research has unique characteristics, such as ethnographic research, action research, participatory research, case studies, and action investigations,

bibliographic research also has differences in terms of strategies, resources used, and ways of organizing and analyzing the text that distinguish it from others.

Therefore, in this study, I chose to present contributions to the understanding of bibliographic review research, which is used to define and/or reorganize a research problem, present relationships and contradictions between the results of one's research and the results of other studies on the same topic, identify gaps, and suggest new lines of investigation (CAMILO; GARRIDO, 2019). It is important to note that the pioneering work in bibliographic review research originated primarily in the field of health, particularly in nursing. According to Mendes, Silveira, and Galvão (2008), one of the purposes of this type of research is to encourage healthcare professionals to incorporate new clinical practices for patient care.

From this perspective, the field of education has started to use bibliographic review research as a way to study what is being published on a particular topic, understand different theoretical and methodological contributions, make connections between previously published research, and identify gaps so that researchers can continue their investigative journey. In this sense, many of the techniques used in the educational field originate from the health sector. One example is the use of the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) protocol, which aims to assist researchers in presenting data from bibliographic review research. It is a checklist, presented in the form of a flowchart, available in Word format for researchers' use (GALVÃO; PANSANI; HARRAD, 2015).

In line with these observations, as the objective of this article is to specifically address bibliographic review research, the following describes the steps for its execution.

## Methodology of Literature Bibliographic Review

The methodological assumptions of bibliographic review research in the field of education are fundamentally qualitative. The primary goal is to identify, record, and categorize research within a specific area of knowledge (Morosini & Fernandes, 2014). According to Romanowski and Ens (2006, p. 39), such studies contribute to the "organization and analysis in defining a field or area, as well as indicating possible contributions of the research to social ruptures." In other words, this type of research enables the researcher to become familiar with the subject of interest, offering insights into

the existing body of knowledge and highlighting areas that may require further exploration. (TRIVIÑOS, 2008).

In line with the observations mentioned, the following are the eight steps for conducting a bibliographic review, based on the contributions of Gil (2002).

1) Definition of the Research Topic: This refers to the main subject of your research

2) Definition of Bibliographic Sources: Defining the databases to collect the research sample, which may include virtual sources and/or physical files.

3) Definition of Search Descriptors and Filters: According to Pizzani et al. (2012, p. 60-61-62), the search for works in the selected databases involves a set of words and/or phrases linked to Boolean operators that allow you to broaden or narrow the scope of the results. Among the main operators are: AND, OR, NOT. The operator AND "[...] is used to restrict the search by intersecting sets of works that contain the combined terms." The operator OR "[...] is used to group terms, that is, to broaden the search." Finally, the operator NOT "[...] is used to exclude a subject from the search expression [...]."

Search Filters: Search filters refer to resources available in databases that can facilitate the operation and characterization of the bibliographic review research. These may include: using a time frame for searching works, language, use of double quotation marks between Boolean operators, and the use of the slash.

4) Floating Reading of Titles, Abstracts, and Keywords: This involves validating the descriptors, meaning it's the testing phase aimed at answering the objective and/or research question. If the descriptors do not meet this goal, it is necessary to reconsider their definition.

5) Definition of Inclusion and Exclusion Criteria: Based on the use of descriptors and search filters, some of the filtered works may not align with the objective of your research. Therefore, defining inclusion and exclusion criteria is crucial for selecting works with potential to contribute to your study. It is necessary to list inclusion criteria that align with your research objective, and consequently, works that do not meet these criteria will be excluded.

8

6) Presentation and Organization of Selected Works: In this stage, the works selected during the literature review process are presented throughout the text. One option for organizing the data is through the PRISMA protocol.

7) Categorization of Data and Qualitative Analysis: This stage consists of three steps. Initially, it involves planning the writing of the text. Next, the actual writing is undertaken. Finally, the written text is reviewed. This process goes beyond mere description of the works; it involves creating connections between them, identifying gaps, and highlighting challenges for future research.

8) Final Synthesis: At the end of each category, it is suggested to present central ideas in bullet points or a concluding paragraph for that category. Consider the following questions: To what extent do the selected works contribute to your investigation? What directions do they suggest for future research?

Below, in Table 1, I show the step-by-step research of the bibliographic review carried out for the construction of this article.

**Table 1 -** Distribution of publications in the databases

| Database | Descriptors/Filters of the Research | Number of Identified Works |
|---|---|---|
| SciELO | Descriptor Pair 1 = Educational Research AND Literature Review; Descriptor Pair 2 = Educational Research AND Literature Review; Descriptor Pair 3 = Educational Research AND Bibliographic Survey. Search filters Time Frame: 2011 to 2021; Language: Portuguese, English, and Spanish; Peer-reviewed articles; Field of study: Education. | SciELO Pair of descriptors 1 = 08 Pair of descriptors 2 = 15 Pair of descriptors 3 = 04 Total= 27 |

| CAPES Journal Portal | Descriptor Pair 1: Educational Research AND Bibliographic Review; Descriptor Pair 2: Educational Research AND Literature Review; Descriptor Pair 3: Educational Research AND Bibliographic Survey. Search filters Time Frame: 2011 to 2021; Language: Portuguese, English, and Spanish; Peer-reviewed articles; Field of study: Education.;. | Descriptor Pair 1= 145 Descriptor Pair 2= 276 Descriptor Pair 3= 79 Total=500 |
|---|---|---|
| Total | | 527 |

**Source: Data from the bibliographic review research.**

Based on the definition of the theme of this article: bibliographic review research in the field of education, I delimited the field of scientific knowledge using two bibliographic sources, namely: SciELO and the CAPES Periodicals Portal, with the use of three pairs of descriptors: Descriptor Pair 1 = Educational Research AND Bibliographic Review; Descriptor Pair 2 = Educational Research AND Literature Review; Descriptor Pair 3 = Educational Research AND Bibliographic Survey. The search filters included a time frame from 2011 to 2021, languages: Portuguese, English, and Spanish; peer-reviewed articles. Concentration area: Education.

I chose to work with expressions that are commonly understood as synonyms for bibliographic review research in the educational field: literature review and bibliographic survey. This step was carried out on April 5, 2022. After this date, the number of publications found using the same filters and descriptors in each database may change.

Next (Figure 1), I present, in detail, the information for each stage of the bibliographic data collection according to the PRISMA protocol recommendations.

**Figure 1 – PRISMA flowchart**
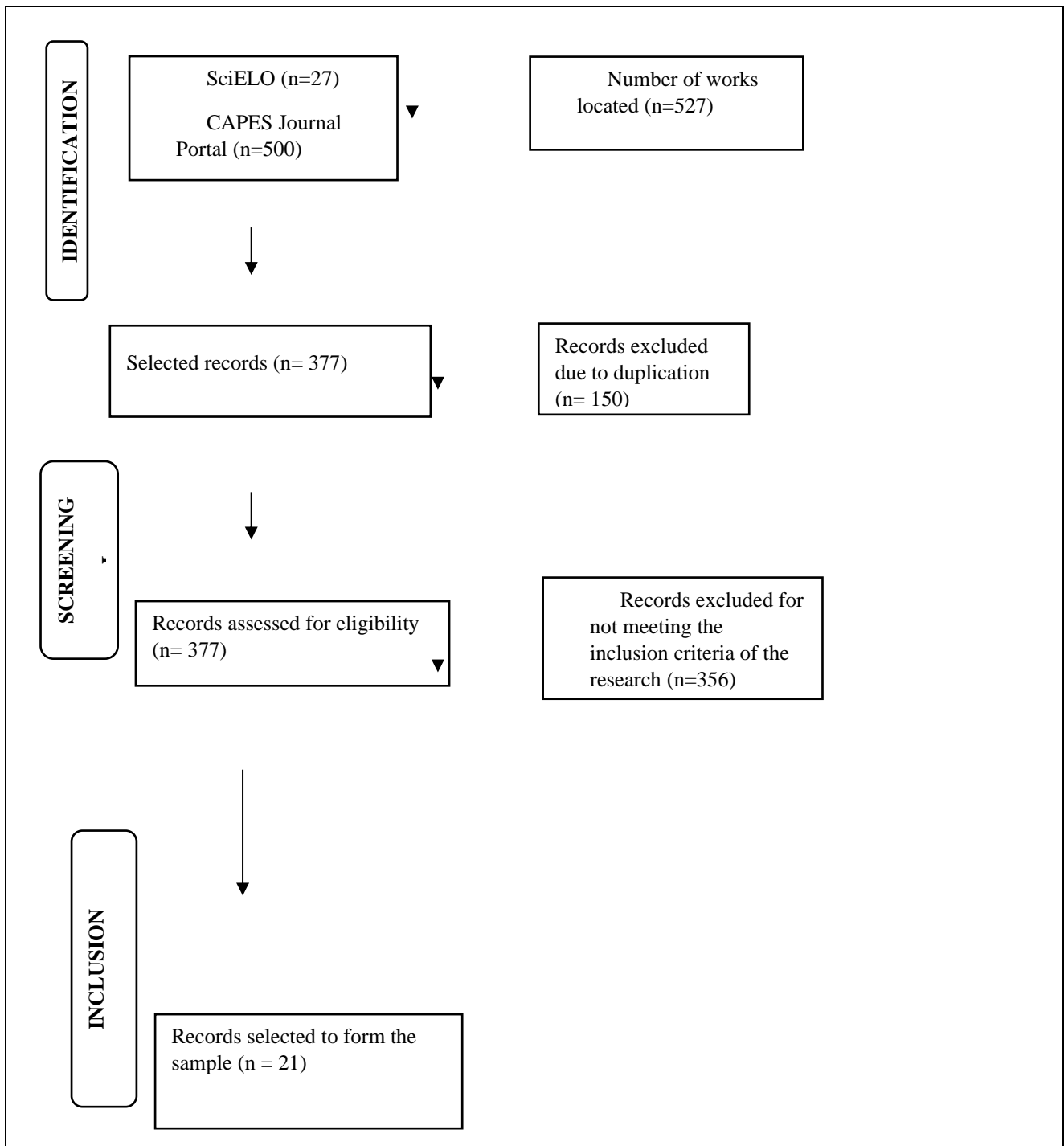
11

Based on the definition of descriptors and search filters, as well as the choice of bibliographic sources, 527 works were located, which underwent the screening process. During this process, I identified 150 duplicates between the databases, which were therefore excluded. Thus, 377 works remained for the research eligibility process, which involved floating reading of titles, abstracts, and keywords, with the application of inclusion criteria.

In selecting the works, I defined the following inclusion criteria: i) works that primarily dealt with bibliographic review research in the educational field; ii) works that presented different modes of conducting bibliographic review research; and iii) works that were available online and in full. Consequently, 21 studies met these criteria and were included in this sample. Tables 2 and 3 provide a summary of the selected works in each of the databases.

**Table 2 -** Selected Publications in the SciELO Database

| Author(s) | Title | Place and year of publication |
|---|---|---|
| Maria Amélia Ingles; Samuel Antoszczyszen; Silvia Iris Afonso Lopes Semkiv; Jáima Pinheiro de Oliveira | Systematic Review on Inclusive Education Policies for Teacher Training | Revista Brasileira de Educação Especial, Marília, 2014. |
| José da Silva Santos Junior; Giselle Cristina Martins Real | Higher Education Dropout: The State of the Art of Research in Brazil Since 1990 | Revista da Avaliação da Educação Superior, Campinas, 2017. |
| Larissa Vendramini da Silva; Amadeu Moura Bego | Bibliographic Survey on Special Education and Science Teaching in Brazil | Revista Brasileira de Educação Especial, Marília, 2018. |
| Lorena Brito Góes Vieira; Geraldo Wellington Rocha Fernandes; Otavio Aloisio Maldaner; Elisa Prestes Massena | Study Situation: What Has Been Published in Science Education Conferences and Journals? | Ensaio Pesquisa em Educação em Ciências, Belo Horizonte, 2018. |
| Priscila da Silva Neves Lima; Ana Paula Laboissière Ambrósio; | Analysis of Enade and Enem Data: A Systematic Literature Review | Revista da Avaliação da Educação Superior, Campinas, 2019. |

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|---|---|---|
| Deller James Ferreira; Jacques Duílio Brancher | | |
| Nathalia de Assis Silva; Maria José da Silva Fernandes | Teaching Work in the State Network of São Paulo: Mapping and Analysis of Theses and Dissertations (1996 to 2018) | Educação em Revista, Minas Gerais, 2020. |
| Maicris Fernandes; Percy Nohama | Digital Games for Individuals with Autism Spectrum Disorder (ASD): A Systematic Review | Revista Iberoamericana de Tecnología en Educación y Educación en Tecnología, La Plata, 2020. |

**Source: data from the bibliographic review research.**

**Tabela 3 -** Publicações selecionadas na base de dados Portal de Periódicos CAPES

| Author(s) | Title | Place and year of publication |
|---|---|---|
| Flávia da Silva Ferreira Asbahr | Personal Meaning, Social Significance, and Study Activity: A Theoretical Review | Revista Psicologia Escolar e Educacional, São Paulo, 2014. |
| Roberto Tadeu Iaochite; Roraima Alves da Costa Filho; Mayara da Mota Matos; Keila Michelly Canhina Sachimbombo | Self-Efficacy in the Educational Field: A Review of Publications in Brazilian Journals | Psicologia Escolar e Educacional, São Paulo, 2016. |
| João Paulo Zerbinati; Maria Alves de Toledo Bruns | Sexuality and Education: Systematic Review of National Scientific Literature | Revista Travessias, Cascavel, 2017. |
| Fernando Xavier Silva; Marcia Aparecida Jacomini | Public-Private Relationship in Education: Academic Production on the Ayrton Senna Institute (2002-2015) | Revista Diálogo Educacional, Curitiba, 2018. |

| Ricardo Luiz Aoki; Patricia Jantsch Fiuza; Robson Rodrigues Lemos | Use of Digital Narratives in Learning Environments Based on Digital Games: A Systematic Literature Review | Revista educação Temática Digital, Campinas, 2018. |
|---|---|---|
| Paulo Wichnoski | Mathematics Education Research in Early Childhood and the Initial Years of Elementary Education: Considerations Based on the Abstracts of VI SIPEM | Revista educação Temática Digital, Campinas, 2018. |
| Lucas Rodrigo Santos de Almeida; Eugênia de Paula Benício Cordeiro; Josebede Angélica Guilherme da Silva | Propositions on Teaching Entrepreneurship in Brazilian Higher Education Institutions: A Bibliographic Review | Revista de Ciências da Aministração, Florianópolis, 2018. |
| Dagna Adelina Silva; Paulo Vitor Teodoro de Souza; Rosângela Lopes Borges; Marcos Fernandes Sobrinho | Science Education and Inclusive Mathematics: Survey of Relevant Publications in Specialized Journals between 2012 and 2017 | Revista Multi-Science, Urutaí, 2018. |
| Mariana Cristina Silva Santos; Lucas Rocha Delatorre; Maria das Graças Braga Ceccato; Palmira de Fátima Bonolo | Bolsa Família Program and Educational Indicators in Children, Adolescents, and Schools in Brazil: Systematic Review | Revista Ciência & Saúde Coletiva, Rio de Janeiro, 2019. |
| Roberto Patrus; Vinícius Tolentino Oliveira e Silva | The Organization of a Literature Review Using the Tree of Science: An Example on Graduate Evaluation | Revista da Avaliação da Educação Superior, Campinas, 2019. |
| Bruno Cortegoso Prezenszky; Roseli Rodrigues de Mello | Bibliographic Research in Education: Content Analysis in Critical Reviews of Scientific Production in Education | Revista Diálogo Educacional, Curitiba, 2019. |
| Marcia Aparecida Alferes; Jefferson Mainardes | The National Pact for Literacy at the Right Age in Action: A Literature Review | Ensaio: Avaliação e Políticas Públicas em Educação, Rio de Janeiro, 2019. |

| Jiani Cardoso da Roza; Adriana Moreira da Rocha Veiga; Marcelo Pedroso da Roza | Blended Learning: An Analysis of the Concept, Current Scenario, and Research Trends in Brazilian Theses and Dissertations | Educação Matemática Digital, Campinas, 2019. |
| Elisangela Aparecida Bulla Ikeshoji; Adriana Aparecida de Lima Terçariol | Learning Styles: Evidence from a Systematic Review of the Literature | Revista Diálogo Educacional, Curitiba, 2020. |

**Source: data from the bibliographic review research.**

To assist in the data analysis process and the writing of the final text, it is possible to select a data analysis method. In this case, I used Bardin's Content Analysis (2011, p. 135), which "consists of discovering the core meanings that make up communication and whose presence, or frequency of appearance, can signify something for the chosen analytical objective." Following these guidelines, the analyses were organized based on the categories presented in Table 4.

**Table 4 –** Summary of analysis categories

| Category | Papers selected for analysis |
|---|---|
| i) Systematic review | Ingles et al. (2014); Zerbinati, Bruns (2017); Silva, Jacomini (2018); Aoki, Fiuza, Lemos (2018); Lima et al. (2019); Santos *et al*. (2019); Roza, Veiga, Roza (2019); Fernandes, Nohama (2020); Ikeshoji, Terçariol (2020). |
| ii) State of the art | Santos Junir, Real (2017); Wichnoski (2018). |
| iii) Bibliographic survey | Silva, Bego (2018); Vieira *et al*. (2018); Silva *et al*. (2018). |
| iv) Literature review | Prezenszky, Mello (2019); Silva, Fernandes (2020). |
| v) Theoretical Review | Asbahr (2014). |
| vi) Revisão teórica | Iaochite *et al*. (2016). |
| vii) Literature review | Almeida, Cordeiro, Silva (2018); Patrus, Silva (2019); Alferes, Mainardes (2019). |

**Source: data from the bibliographic review research.**

Below, I present the analyses for each of the respective categories contained in Table 4. The focus of the analyses was on defining the types of bibliographic research used in the educational field, as well as analyzing the coherence between the research methodology announced by the authors and its characterization. It is worth noting that these categories represent different types of bibliographic research, and therefore, should not be understood as synonyms of bibliographic research, as each has specific features that must be followed, especially regarding the selection, organization, and analysis of data, as explained by Batista and Kumada (2021).

**i) Systematic Review**: The works gathered in this category self-declare as systematic reviews. According to Ingles et al. (2014, p. 462), this type of research "[...] allows for the identification and systematization of previously studied topics, providing the implications of these studies for new scientific needs [...] methodological viewpoints, so that new theoretical aspects emerge [...]." In the same vein, Zerbinati and Bruns (2017) present eight stages for the development of this type of research: i) formulation of a question; ii) definition of inclusion and exclusion criteria; iii) location of studies; iv) selection process; v) data extraction; vi) evaluation; vii) interpretation; and viii) final considerations. These stages are also cited in the study developed by Aoki, Fiuza, and Lemos (2018), the article by Ikeshoji and Terçariol (2020), and the research by Fernandes and Nohama (2020). Additionally, Santos et al. (2019) also indicate the use of the PRISMA protocol for organizing the data of the systematic review.

According to Silva and Jacomini (2018) and Lima et al. (2019), systematic reviews are responsible for evaluating and systematizing data from studies already published in a specific field of knowledge. On the other hand, the study by Roza, Veiga, and Roza (2019) declares in the title and abstract that it is a systematic review of the literature. However, in the methodology of the study, it is classified as a state-of-the-art review, meaning it lacks the theoretical-methodological elements that characterize the latter type of research.

**ii) State of the Art**: The study conducted by Santos Junior and Real (2017) announces in the title that it is a state-of-the-art review on the topic of dropout in higher education. The authors used a temporal scope of works published on this topic from 1990 to the present day and limited their sample selection to three databases, which allowed them to select 72 studies. The reflections enabled by this type of research provided the authors with the opportunity to identify the focuses of research in the context of the expansion of access to higher education over the years.

On the other hand, the study by Wichnoski (2018, p. 3) is named as a state-of-the-art review and characterized as a qualitative research that allows for "tracing an overview of the situation and the level of research in a specific field of knowledge at a given time." However, the sample of the research is composed solely of works from GT 01 – Mathematics Education in Early Childhood and the Early Years of Elementary Education published in VI SIPEM, totaling 15 selected works for the research sample.

I highlight that state-of-the-art research is closer to the study by Santos Junior and Real (2017), as it involves a significant temporal scope, a broad range of databases used for research, and a larger number of selected works. In contrast, Wichnoski's (2018) research should not be classified as a state-of-the-art review, as it does not meet the theoretical-methodological elements required for such classification.

**iii) Bibliographic Survey**: The studies conducted by Silva et al. (2018) and Silva and Bego (2018) are described in the abstract as bibliographic surveys; however, in the research characterization, they are referred to as literary analysis and bibliographic review, respectively. Both studies provide a description of the methodological steps that enabled sample delimitation. However, there is a theoretical confusion regarding the different types of bibliographic review research.

In the work developed by Vieira et al. (2018), the description and presentation of the data are consistent with bibliographic survey research. That is, they demonstrated the methodological steps clearly, and there was no theoretical confusion with other types of bibliographic review research.

**iv) Literature review**: Prezenszky and Mello (2019) present a bibliographic review aimed at understanding the central points of content analysis from Bardin's (2011) perspective in the educational field. However, in the description of their study, they use various terminologies to characterize bibliographic review research, such as literature review, systematic review, critical review, and review studies. In other words, they cite different forms of bibliographic research as synonyms, which in fact, they are not.

In contrast, Silva and Fernandes (2020) present a bibliographic review research, characterizing it as a quali-quantitative study that considered the time frame from 1996 to 2018 to map theses and dissertations on the topic of teaching work. The authors argue that bibliographic review research "[...]

allows for understanding the production in a particular field, providing advancements for new studies." (SILVA; FERNANDES, 2020, p. 6).

In this category, the studies present different concepts to characterize it. However, the synonyms used to represent bibliographic review research do not contribute to understanding this type of investigation, as the majority force a non-existent relationship.

**v) Theoretical Review**: Asbahr (2014) conducted a theoretical review of the works of Vygotsky and Leontiev with the aim of uncovering two concepts: sense and meaning. However, despite this announcement in the title and abstract of the article, the author does not describe which works were selected to compose her text, nor does she provide readers with the criteria that supported her choice for defining the theoretical review. Similarly, I did not find the author's understanding of this type of research in the body of the text. The challenge of this type of study is to reveal how the author arrived at the data, what criteria were chosen for the analysis, and why a particular conclusion was reached rather than another.

**vi) Review of Publications**: Iaochite et al. (2016) address the topic of self-efficacy in the educational field through a review of publications. The authors do not present their understanding of this type of research, and when describing the research method, they refer to it as a literature review. It is typical to find studies that announce a particular method for data collection and analysis, only to discover during the reading of the text that a different method was used.

**vii) Literature Review**: According to Alferes and Mainardes (2019, p. 49), a literature review aims to "synthesize the conclusions of a set of studies on a specific topic." Similarly, Almeida, Cordeiro, and Silva (2018, p. 111) sought to find theoretical support through a literature review on the topic of entrepreneurship in Brazilian higher education institutions. The authors believe that a literature review provides researchers with "an analytical tool for any type of research".

Research by Patrus and Silva (2019), also characterized as a literature review, presents a tool that assists other researchers in organizing data collected through this type of research: The Tree of Science (ToS). It is a web-based resource supported by network algorithms to optimize research. According to the authors,

> Despite this multiplicity and flexibility in the characterization of scientific investigations, generally all studies involve a review of the literature to outline the

18

context and/or justify the novelty and originality of the topic. For some, this may be considered a step in the study, while for others, it can be understood as the research itself (BATISTA; KUMADA, 2021, p. 3).

The classification of data using the ToS tool aligns with bibliometric techniques. It is worth noting that the research by Patrus and Silva (2019) provides a valuable learning opportunity for developing literature review research, as it not only details this type of investigation but also demonstrates a tool that can be useful for other researchers the ToS.

## Final considerations

I believe that every graduate-level research project requires a thorough literature review. In the field of education, it is essential to conduct a literature review before developing any research, as all production needs bibliographic support whether for formulating the research objective and/or problem, introducing the significance of the study, analyzing data, or defining its theoretical-methodological foundations.

Research that considers the elements discussed in this article such as methods of data collection, organization, and analysis will certainly assist researchers, both beginners and more experienced, in establishing a starting point for knowledge construction in a particular field of study. Furthermore, as noted by Morosini, Kohls-Santos, and Bittencourt (2021, p. 16), "[...] it can support government managers [...] in the decision-making process for broader policies and actions or within various institutions [...], including finding alternative and innovative paths."

In the realm of educational research, bibliographic reviews offer students the opportunity to exercise authorship, expand knowledge, and promote both intellectual and social development for the researchers and those benefiting from these investigations. Despite their significance, Alves (1992) noted in his study that bibliographic reviews are often criticized in the educational context as weak and of poor quality. More than a decade later, Alves-Mazzotti (2006, p. 25) contends that "the problems remain the same," highlighting ongoing theoretical and conceptual confusions regarding the types of bibliographic research.

I highlight that in the current context, there are numerous models of bibliographic review research that students can follow. However, it is crucial to note that every bibliographic review must serve a specific theme or research problem, making it impossible to establish a single model for conducting this type of investigation. As observed from the description and analysis of the categories

19

that emerged from the sample of works selected for this article, many studies lack detailed methodological descriptions of the research announced in their titles and/or abstracts.

These findings reflect a lack of theoretical-methodological understanding among graduate students regarding bibliographic research types, resulting in limited interpretive depth of research results. Therefore, I believe that the structure of this article, along with the reflections presented on bibliographic review research, can guide master's students and set a standard that should be met by doctoral students. The latter are expected to have a higher level of mastery in theoretical-methodological techniques for organizing and analyzing data.

# References

ALFERES, Marcia Aparecida; MAINARDES, Jefferson. O Pacto Nacional pela Alfabetização na Idade Certa em ação: revisão de literatura. **Ensaio**: Avaliação e Políticas Públicas em Educação, Rio de Janeiro, v. 27, n. 102, Jan./Mar. 2019.

ALMEIDA, Maria de Lourdes Pinto de. **Plano de ensino e aprendizagem**: Seminário de Tese II. Joaçaba: UNOESC, 2019.

ALMEIDA, Lucas Rodrigo Santos de; CORDEIRO, Eugênia de Paula Benício; SILVA, Josebede Angélica Guilherme da. Proposições acerca do Ensino de Empreendedorismo nas Instituições de Ensino Superior Brasileiras: uma Revisão Bibliográfica. **Revista de Ciências da Administração**, Florianópolis, v. 20, n. 52, 2018.

ALVES, Alda Judith. Revisões bibliográficas em teses e dissertações: meus tipos

inesquecíveis. **Cadernos de Pesquisa-Fundação Carlos Chagas**, São Paulo, p. 53-61, 1992.

ALVES-MAZZOTTI, Alda Judith. A "revisão da bibliografia" em teses e dissertações: meus tipos inesquecíveis - o retorno. *In*: BIANCHETTI, Lucídio; MACHADO, Ana Maria Netto (org.). **A bússola do escrever**: desafios e estratégias na orientação e escrita de teses e dissertações. Florianópolis: Editora da UFSC; São Paulo: Cortez, 2006. p. 408. ISBN 13-9788524918810

ANDRÉ, Marli. A jovem pesquisa educacional brasileira. **Diálogo Educacional**, Curitiba, v. 6, n. 19, p. 11-24, set./dez. 2006.

ANGELUCCI, Carla Biancha *et al*. O estado da arte da pesquisa sobre o fracasso escolar (1991-2002): um estudo introdutório. **Educação e Pesquisa**, São Paulo, v. 30, n.1, p. 51-72, jan./abr. 2004.

AOKI, Ricardo Luiz; FIUZA, Patricia Jantsch; LEMOS, Robson Rodrigues. Utilização de narrativas digitais em ambientes de aprendizagem baseada em jogos digitais: uma revisão sistemática da literatura. **ETD - Educação Temática Digital**, Campinas, v. 20, n. 4, p. 1138–1160, 2018.

ASBAHR, Flávia da Silva Ferreira. Sentido pessoal, significado social e atividade de estudo: uma revisão teórica. **Psicologia Escolar e Educacional**, São Paulo, v. 18, n. 2, p. 265-272, maio/ago. 2014.

BARDIN, Laurence. **Análise de Conteúdo**. São Paulo: Edições 70, 2011. ISBN 139788562938047.

BATISTA, Leonardo dos Santos; KUMADA, Kate Mamhy Oliveira. Análises metodológicas sobre as diferentes configurações de pesquisa bibliográfica. **Revista brasileira de iniciação científica**, Itapetininga, v. 8, e021029, p. 1-17, 2021.

BIANCHETTI, Lucídio; ZUIN, Antônio Álvaro Soares; SILVA, Obdália Santana Ferraz. Do texto ao hipertexto: decorrências da produção e veiculação do conhecimento. *In*: BIANCHETTI, Lucídio; ZUIN, Antônio Álvaro Soares; SILVA, Obdália Santana Ferraz. **Publique, apareça ou pereça**: produtivismo acadêmico, pesquisa administrada e plágio nos tempos da cultura digital. Bahia: EDUFBA, 2018, p. 206. ISBN 9788523216474.

BOGDAN, Robert; BIKLEN, Sari. **Investigação qualitativa em educação**: uma introdução à teoria e aos métodos. Porto: Porto Editora, 1994. ISBN0205132669.

CAMILO, Cláudia; GARRIDO, Margarida Vaz. A revisão sistemática de literatura em psicologia: Desafios e orientações. **Análise Psicológica**, Lisboa, v. 37, n. 4, p. 535-552, dez. 2019.

FERNANDES, Maicris; NOHAMA, Percy. Jogos Digitais para Pessoas com Transtornos do Espectro do Autismo (TEA): Uma Revisão Sistemática. **Revista Iberoamericana de Tecnología en Educación y Educación en Tecnología**, Buenos Aires, n. 26, p. 72-80, set. 2020.

FERREIRA, Liliana Soares. A pesquisa educacional no Brasil: tendências e perspectivas. **Contrapontos**, Itajaí, v. 9, n. 1, p. 43-54, jan./abr. 2009.


GALVÃO, Taís Freire; PANSANI, Thais de Souza Andrade; HARRAD, David. Pricipais itens para relatar revisões sistemáticas e meta-análises: a recomendação PRISMA. **Epidemiologia e Serviços de Saúde**, São Paulo, v. 24, n. 2, p. 335-342, jun. 2015.


GATTI, Bernardete. Implicações e perspectivas da pesquisa educacional no Brasil contemporâneo. **Cadernos de Pesquisa**, São Paulo, n. 113, p. 65081, jul. 2001.


GIL, Antonio Carlos. **Como elaborar projetos de pesquisa**. 4 ed. São Paulo: Atlas, 2002. ISBN 8522431698


IAOCHITE, Roberto Tadeu *et al*. Autoeficácia no campo educacional: revisão das publicações em periódicos brasileiros. **Revista Psicologia Escolar e Educacional**, São Paulo, v. 20, n. 1, p. 45-54, jan./abr. 2016.


IKESHOJI, Elisangela Aparecida Bulla; TERÇARIOL, Adriana Aparecida de Lima. Estilos de Aprendizagem: evidências a partir de uma revisão sistemática da literatura. **Revista Diálogo Educacional**, Curitiba, v. 20, n. 64, p. 23-49, jan./mar. 2020.


INGLES, Maria Amélia *et al*. Revisão sistemática acerca das políticas de educação inclusiva para a formação de professores. **Revista Brasileira de Educação Especial**, Marília, v. 20, n. 3, p. 461-478, jul./set. 2014.


LIMA, Priscila Neves *et al*. Análise de dados do Enade e Enem: uma revisão sistemática da literatura. **Revista da Avaliação da educação Superior**, Campinas, v. 24, n. 1, p. 89-107, mar./maio. 2019.


MENDES, Karina Dal Sasso; SILVEIRA, Renata Cristina de Campos Pereira; GALVÃO, Cristina Maria. Revisão integrativa: método de pesquisa para a incorporação de evidências na saúde e na enfermagem. **Texto Contexto Enfermagem**, Florianópolise, v.17, n. 4, p. 758-64, out./dez. 2008.

MOROSINI, Marília Costa; FERNANDES, Cleoni Maria Barboza. Estado do Conhecimento: conceitos, finalidades e interlocuções. **Educação Por Escrito**, Porto Alegre, v. 5, n. 2, p. 154-164, jul/dez. 2014.

MOROSINI, Marília; KOHLS-SANTOS, Pricila; BITTENCOURT, Zoraia. **Estado do conhecimento**. Curitiba: CRV, 2021. ISBN 10655868991X

PATRUS, Roberto; SILVA, Vinícius Tolentino Oliveira e. A organização de uma revisão de literatura por meio da Tree of Science (Árvore da Ciência): um exemplo sobre a avaliação da pós-graduação. **Revista da Avaliação da Educação Superior**, Campinas, v. 24, n. 1, p. 68-88, mar. 2019.

PIZZANI, Luciana et al. A arte da pesquisa bibliográfica na busca do conhecimento. **Revista Digital de Biblioteconomia e Ciência da Informação**, Campinas, v.10, n.1, p. 53-66, jul./dez. 2012.

PREZENSZKY, Bruno Cortegoso; MELLO, Roseli Rodrigues de. Pesquisa bibliográfica em educação: análise de conteúdo em revisões críticas da produção científica em educação. **Revista Diálogo Educacional**, Curitiba, v. 19, n. 63, p. 1569–1595, 2019.

ROMANOWSKI, Joana Paulin; ENS, Romilda Teodora. As pesquisas denominadas do tipo "Estado da Arte". **Revista Diálogo Educacional**, Curitiba, v. 6, n. 6, p. 37–50, 2006.

ROZA, Jiani Cardoso da; VEIGA, Adriana Moreira da Rocha; ROZA, Marcelo Pedroso da. Blended learning: uma análise do conceito, cenário atual e tendências de pesquisa em teses e dissertações brasileiras. **ETD - Educação Temática Digital**, Campinas, v. 21, n. 1, p. 202–221, 2019.

SANTOS JUNIOR, José da Silva; REAL, Giselle Cristina Martins. A evasão na educação superior: o estado da arte das pesquisas no Brasil a partir de 1990. **Revista da Avaliação da Educação Superior**, Campinas, v. 22, n. 2, p. 385-402, jul. 2017.

SANTOS, Mariana Cristina Silva *et al*. Programa Bolsa Família e indicadores educacionais em crianças, adolescentes e escolas no Brasil: revisão sistemática. **Ciência & Saúde Coletiva**, Rio de Janeiro, v. 24, n. 6, p. 2233-2247, jun. 2019.

SILVA, Dagna Adelina *et al*. Educação em Ciências e Matemática Inclusiva: levantamento de publicações pertinentes ao tema em periódico especializado entre 2012 e 2017. **Multi-Science Journal**, Urutaí, v. 1, n. 12, p. 36–40, 2018.

SILVA, Fernando Xavier; JACOMINI, Marcia Aparecida. Relação público-privado na educação: produção acadêmica sobre o Instituto Ayrton Senna (2002-2015). **Revista Diálogo Educacional**, Curitiba, v. 18, n. 58, p. 922–948, 2018.

SILVA, Larissa Vendramini da; BEGO, Amadeu Moura. Levantamento bibliográfico sobre educação especial e ensino de ciências no Brasil. **Revista Brasileira de Educação Especial**, Bauru, v.24, n.3, p.343-358, jul./set. 2018.

SILVA, Nathalia de Assis; FERNANDES, Maria José da Silva. O trabalho docente na rede estadual de São Paulo: Mapeamento e análise das teses e dissertações (1996 a 2018). **Educação em Revista**, Belo Horizonte, v.36, e235608, 2020.

TRIVIÑOS, Augusto Nibaldo Silva. **Introdução à pesquisa em ciências socias**: a pesquisa qualitativa em educação. 1 ed., 17 reimp. São Paulo: Atlas, 2008. ISBN 9788522402731

VIEIRA, Lorena Brito Góes *et al*. Situação de estudo: o que vem sendo publicado em eventos e periódicos da área de ensino de ciências? **Ensaio Pesquisa em Educação em Ciências**, Belo Horizonte, v. 20, e2914, 2018.

VOSGERAU, Dilmeire Sant'Anna Ramos; ROMANOWSKI, Joana Paulin. Estudos de revisão: implicações conceituais e metodológicas. **Diálogo Educacional**, Curitiba, v. 14, n. 41, p. 165-189, jan./abr. 2014.

WICHNOSKI, Paulo. A pesquisa em educação matemática na educação infantil e nos anos iniciais do ensino fundamental: considerações a partir dos resumos do VI SIPEM. **ETD - Educação Temática Digital**, Campinas, v. 20, n. 3, p. 700–717, 2018.

ZERBINATI, João Paulo; BRUNS, Maria Alves de Toledo. Sexualidade e educação: revisão sistemática da Literatura Científica Nacional. **Travessias**, Cascavel, v. 11, n. 1, p. 76–92, 2017.

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