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PILLARS OF EDUCATIONAL RESEARCH: FEATURED AUTHORS AND SCIENTIFIC METHODOLOGIES

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ABSTRACT

This study analyzed the main authors in scientific methodologies applied to education, to identify their contributions and specificities. The research sought to answer the question: who are the main authors in scientific methodologies applied to education and what are the specificities of their contributions? The general objective was to present the main authors, highlighting their methodological contributions and their implications in the educational field. The methodology used was based on a bibliographic review of renowned works, addressing authors such as Antonio Carlos Gil, Lakatos, and Marconi, John Creswell, Laurence Bardin, Uwe Flick, and Maria Cecília Minayo, among others. The discussion compared the approaches, identifying convergences in the search for scientific rigor and divergences regarding the theoretical and methodological focus of each author. The final considerations showed that the methodologies presented offer a diversified basis for educational research, in addition to highlighting the need for future studies that integrate new technologies and innovative approaches.

Keywords: Scientific Methodology. Educational Research. Qualitative Methods. Quantitative Methods. Education.

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INTRODUCTION

Scientific methodologies play a fundamental role in the advancement of educational research, providing tools that allow systematic, well-founded investigation into phenomena related to learning, teaching, and educational management. These methods are essential for the construction of validated knowledge, enabling educators and researchers to develop evidence-based practices and policies. In the field of education, the main authors who contributed to the development of these methodologies have their works recognized, influencing not only academic practice but also educational policies. However, it is crucial to explore the specificities of each author to understand how their contributions have shaped and continue to shape the landscape of educational research.

This study is justified by the relevance of providing insight into the authors who established the foundations for scientific methodologies applied to education. Knowing the contributions of theorists such as Gil (2008), Lakatos (2017), Creswell (2010), Bardin (2011), and Minayo (2002), among others, is essential for academics and professionals seeking to deepen their understanding of scientific methods and their practical applications. Furthermore, the diversity of approaches – which ranges from quantitative analyses to qualitative and mixed methods – highlights the need to systematize such knowledge in a study that brings together the main contributions, their specificities, and their importance in the current context. The absence of an integrative approach that contemplates these perspectives justifies the relevance of this analysis.

The question that guides this research is: who are the main authors in scientific methodologies applied to education and what are the specificities of their contributions? Based on this inquiry, we seek to explore the theoretical and practical bases established by each author and reflect on how their methodologies impact academic production in the educational field.

The objective of this research is to present the main authors in scientific methodologies applied to education, highlighting the specificities of their contributions and their implications in the educational field. This text is structured in such a way as to ensure an organized understanding of the topic. Initially, the theoretical framework addresses the central concepts of scientific methodology and its relationship with educational research. Next, the main authors and their contributions are presented, highlighting the characteristics of their methodologies and their application in the field of education. Finally, the discussion brings together critical reflections on the authors and their approaches, and

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the final considerations summarize the main conclusions and point to the relevance of the topic in the contemporary educational context. 2 METHODOLOGY The methodology of this study was based on bibliographical research, characterized by the analysis of published works and texts that deal with scientific methodologies applied to education. This type of research was chosen because it is appropriate for the proposed objective, which consisted of identifying and discussing the contributions of renowned authors in the field, allowing a reflection on the specificities of the approaches presented. The approach adopted was qualitative, since the focus of the study lies in the interpretation and analysis of theoretical and conceptual content, aiming to understand the contributions of each author in the educational context.

The instruments used consisted of books, academic articles, and chapters of reference works, recognized for their relevance and impact in the area of scientific methodology. These materials were selected based on criteria such as the author's notoriety, the scope of the work, and its relevance to the topic in question. The works analyzed included authors such as Antonio Carlos Gil (2008), Lakatos and Marconi (2017), John Creswell (2010), Laurence Bardin (2011), Uwe Flick (2009), Maria Cecília Minayo (2002), Bogdan and Biklen (1994), among others. Data collection was carried out through a systematic review of these works, which were organized chronologically and thematically to facilitate the identification and analysis of each author's contributions.

The procedures followed involved reading the selected works in full and highlighting concepts, methodologies, and specific approaches presented by each author. The data analysis techniques employed included categorizing information based on central themes, such as types of methods (quantitative, qualitative, and mixed), applications in the educational field, and relevance of approaches to the contemporary context. This categorization allowed the information to be organized systematically, enabling comparison between the different authors and the identification of convergences and divergences in their methodologies.

The research used digital and physical resources to access the materials, including libraries and academic journals, online platforms for journals, and publishers recognized in the area of scientific methodology. The entire process was guided by ethical criteria, ensuring the appropriate citation of works and respect for the intellectual property of the authors consulted. The choice of bibliographic methodology proved to be appropriate to

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achieve the proposed objectives since it allowed a well-founded analysis of the main theoretical contributions in the field of scientific methodologies applied to education.

THEORETICAL FRAMEWORK

Scientific methodology constitutes the foundation for conducting systematic research, offering guidelines and tools that ensure rigor and validity in the production of knowledge. Its main objective is to provide methods that allow organized investigation, critical analysis, and the generation of reliable results, promoting advances in various areas of knowledge. In the educational field, scientific methodology plays a relevant role, since education is a complex phenomenon that demands diverse approaches to understand the multiple dimensions that constitute it. Thus, mastering the core concepts of scientific methodology is essential for formulating hypotheses, collecting data, and analyzing educational phenomena in a well-founded manner. Among the core concepts of scientific methodology, systematicity stands out, which refers to the need to organize all stages of research in a logical and interdependent manner. This principle ensures clarity in formulating the problem, defining objectives, and choosing data collection instruments. Another essential concept is objectivity, which seeks to minimize subjective interference by the researcher during the research process. Replicability is also a point, ensuring that other researchers can validate or refute the results achieved, expanding the knowledge base in the area investigated. Finally, ethics in research is an essential element in the educational field, where the relationship with vulnerable subjects, such as students, requires extra care. The relationship between scientific methodology and educational research is intrinsic since systematic research is the main tool for understanding and intervening in the challenges that permeate the teaching and learning process. Educational research seeks not only to produce theoretical knowledge but also to propose practical solutions that contribute to improving pedagogical practices and public policies. In this context, scientific methods become indispensable for analyzing issues such as the impact of teaching strategies, the effectiveness of educational programs, and the sociocultural dynamics that influence learning. Furthermore, the choice of the appropriate methodological approach – whether quantitative, qualitative, or mixed – depends on the problem being investigated and the research questions to be answered, reinforcing the need to understand the possibilities offered by each methodology.

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Quantitative methods are primarily characterized by measuring phenomena, seeking to identify patterns and causal relationships through numerical data. This type of approach is used in educational studies involving large samples, such as performance assessments, opinion polls, and longitudinal studies. Despite their statistical robustness, quantitative methodology can be limited when it comes to understanding subjective and contextual aspects of educational processes, which makes qualitative methods a complementary alternative. Qualitative methods, in turn, stand out for their in-depth data analysis, allowing the exploration of meanings, perceptions, and experiences of the subjects involved in the phenomenon studied. Techniques such as interviews, observations, and document analysis are used to access subjective and contextual dimensions.

The mixed approach emerges as an integrative possibility that seeks to combine the strengths of quantitative and qualitative methodologies, allowing an analysis of educational phenomena. This approach is relevant in research involving multiple variables and that requires a view of the problem being investigated. In the educational field, mixed methods have gained prominence in studies that seek to relate objective data, such as approval rates, with subjective data, such as teachers' and students' perceptions of the school environment. By combining techniques and perspectives, the mixed approach expands analytical possibilities, ensuring an understanding of educational phenomena and offering support for informed decision-making.

MAIN AUTHORS AND THEIR CONTRIBUTIONS

This section is structured to detail the main contributions of renowned authors in the field of scientific methodology. Each author is presented in terms of their relevant works, the specifics of their methodologies, and the impact of their ideas. is in the training of researchers and the development of scientific studies in the educational field. The approach seeks to provide an understanding of how these theorists have shaped and continue to influence the panorama of scientific investigations.

Antonio Carlos Gil is one of the influential authors in Brazil in the field of scientific methodology, known for his contributions that help systematize the academic research process. Among his notable works are ‘Methods and Techniques of Social Research and How to Develop Research Projects’, which are used by students, teachers, and researchers at different academic levels. Gil (2008) presents an objective view of the development of research projects, emphasizing the importance of well-structured planning,

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with delimited objectives and the appropriate choice of methods that correspond to the needs of the problem investigated. He addresses both quantitative methods, with their emphasis on numerical data and statistical analyses, and qualitative methods, which explore the depth of the participants' experiences and subjective meanings. The author also pays special attention to case studies, highlighting this methodology as a tool for understanding specific phenomena in social and educational contexts. His approach highlights the importance of integrating scientific rigor and flexibility, allowing the researcher to adapt research strategies to the particularities of the field of study. Antonio Carlos Gil (2008) also emphasizes the need to consider ethics at all stages of research, ensuring respect for the subjects involved and the integrity of the scientific process. His works have been adopted in scientific methodology disciplines, constituting an indispensable basis for the training of future researchers and contributing to the improvement of academic practice in Brazil. On the other hand, Lakatos and Marconi (2017) have established themselves as reference authors with the work 'Fundamentos da Metodologia Científica', an essential manual for understanding the principles that guide scientific research. Their approach combines theoretical and practical aspects, presenting in a didactic way the stages that make up the investigative process, from the formulation of the problem to the presentation of the results. One of the main contributions of these authors is the clarity with which they address the use of hypotheses as a tool to guide data collection and analysis, highlighting the importance of establishing a basis for the interpretation of the phenomena studied.

In addition, Lakatos and Marconi (2017) dedicate themselves to detailing data collection methods, such as interviews, questionnaires, and observations, as well as techniques for quantitative and qualitative analysis. This approach makes their works suitable for both beginners, who need guidance to conduct their first investigations, and for experienced researchers, who seek theoretical and methodological foundations for complex work. The impact of their contributions is relevant in the educational field, where the diversity of contexts and the complexity of phenomena demand an understanding of scientific methodologies. Thus, the works of Lakatos and Marconi (2017) remain an indispensable reference for those seeking to conduct significant research.

John Creswell is recognized as one of the main international references in the field of scientific methodology, for his work 'Research Design: Qualitative, Quantitative and Mixed Methods'. This work stands out for offering a systematic and accessible framework for planning and developing research in various areas of knowledge, including education.

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Creswell (2010) presents an integrated approach that encompasses qualitative, quantitative, and mixed methods, providing researchers with a basis for choosing the methodology appropriate to their object of study. The author discusses the characteristics of each approach, emphasizing their strengths and limitations, which contributes to an understanding of the possibilities and challenges involved in the investigative process. One of Creswell's (2010) main contributions is the emphasis on the complementarity between qualitative and quantitative methods, recognizing that, in many cases, the integrated use of both approaches can provide an analysis of the phenomena studied. This perspective has been adopted in educational research that seeks to explore both objective aspects, such as indicators of academic performance, and subjective dimensions, such as the perceptions and experiences of students and teachers. The author presents clear models for the integration of these approaches, highlighting the importance of aligning methodological strategies with the objectives and research questions. His work has had a significant influence on the training of researchers at a global level, being used in postgraduate programs and methodology courses. Scientific. Creswell (2010) makes an invaluable contribution to the construction of a research practice adapted to contemporary demands.

Laurence Bardin, in turn, is recognized for her methodological contribution to the field of qualitative data analysis, through her work ‘Content Analysis’. This work has become a fundamental reference for researchers seeking to investigate texts, documents, and other qualitative materials systematically. Bardin (2011) presents content analysis as a structured methodology, composed of stages that include pre-analysis, exploration of the material, and treatment of the results. This approach allows the organization and categorization of data, which facilitates the identification of patterns, trends, and underlying meanings in the materials analyzed.

One of the main strengths of the content analysis proposed by Bardin (2011) is its applicability in different contexts and types of research. In the educational field, this methodology has been used to investigate curricular documents, teacher and student discourses, as well as records of pedagogical practices. The systematic approach proposed by Bardin (2011) offers researchers a clear path to deal with large volumes of qualitative data, ensuring the consistency and reliability of the results. His work is relevant for studies that seek to understand subjective and symbolic aspects of phenomena, such as beliefs, values , and social practices. Bardin's contribution (2011) remains essential for

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researchers seeking an approach to analyzing qualitative data, consolidating itself as an indispensable reference in documentary and textual analyses.

Uwe Flick is recognized for his contribution to the field of scientific methodology, and qualitative research. His work 'Introduction to Qualitative Research' is a fundamental reference for researchers seeking to understand and apply qualitative methods in their investigations. Flick (2009) highlights the importance of this approach as an indispensable tool for exploring social and educational phenomena, emphasizing its ability to access subjective and contextual dimensions that are not captured by quantitative methods. His work offers a systematic introduction to the theoretical foundations of qualitative research, in addition to discussing its practical applications in different contexts.

One of Flick's (2009) central contributions is the discussion of ethnographic and narrative methods. He presents ethnography as an approach that allows the researcher to immerse himself in the context studied, capturing cultural, social, and behavioral nuances that shape the phenomena investigated. Narrative methods are explored as tools to understand the experiences and perspectives of subjects, providing insights into their trajectories and meanings attributed to events. In the educational field, these methodologies have been used to investigate pedagogical practices, interpersonal relationships, and school dynamics. Flick (2009) grounds the work of researchers interested in qualitative methods by offering guidelines and practical examples, making her work indispensable for the training and development of academics in different areas of knowledge. Maria Cecília Minayo also stands out as a central figure in the field of scientific methodology, for her work 'Social Research: Theory, Methods and Creativity'. Minayo (2002) innovates by introducing creative elements into social research, emphasizing that scientific rigor can and should be combined with flexible approaches that are adaptable to the particularities of the contexts studied. Her work proposes an integrated vision of social research, addressing everything from problem formulation to data analysis and interpretation, with a close eye on the specificities of each research situation.

One of the striking aspects of Minayo's (2002) work is her emphasis on the adaptability of methodologies. She argues that methods should be adjusted to the demands of the research, allowing the researcher to develop creative strategies to deal with unforeseen challenges. In the educational field, this perspective is highly relevant, since school contexts present complex and dynamic variables that require flexibility in the methodological approach. Minayo (2002) also highlights the importance of research as a

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process that goes beyond mere data collection, encompassing critical reflection and the production of knowledge that is useful for transforming the reality being investigated. Its influence is evident in approaches that value interdisciplinarity and innovation, consolidating itself as an essential reference for researchers seeking to align scientific rigor and creativity in their investigations.

Bogdan and Biklen (1994) are recognized for their contribution to the field of qualitative research, in the educational context. Their work 'Qualitative Research in Education' is a central reference for those seeking to understand and apply qualitative methods in studies that explore the complexities of pedagogical practices and school dynamics. The authors offer a discussion that combines theoretical foundations and practical guidelines, making their work accessible to both beginners and experienced researchers. Qualitative research, as presented by Bogdan and Biklen (1994), is characterized by flexibility and an emphasis on understanding phenomena, allowing the researcher to access the meanings, perceptions, and experiences of the subjects involved.

One of the strengths of this work is the presentation of specific techniques for collecting and analyzing data in the field. The authors explore methods such as in-depth interviews, participant observation, and document analysis, providing detailed guidance on how to plan and execute each step of the investigative process. In the educational field, these techniques have been used to study classroom interactions, pedagogical practices, and cultural contexts that influence learning. Furthermore, Bogdan and Biklen (1994) emphasize the importance of the researcher's ethical and reflective stance, highlighting the need to respect participants and consider the social implications of their findings. Their work is indispensable for researchers who wish to conduct rigorous qualitative research, consolidating itself as one of the relevant references in the educational field. Carlos Prodanov and Ernani Freitas also play a significant role in the field of scientific methodology, with emphasis on their work 'Methodology of Scientific Work: Methods and Techniques of Research'. This practical manual offers a systematic and detailed approach to the development of academic and scientific work, covering everything from the formulation of research problems to the organization and presentation of results. The work is useful for undergraduate and graduate students, who find it a guide to structuring their research projects and academic work. One of the main contributions of Prodanov and Freitas (2013) is the focus on organization and clarity in the presentation of results, fundamental elements for scientific communication. They offer practical guidance on how to

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write reports, articles, and monographs, emphasizing the importance of consistency and standardization according to academic norms. In addition, the authors address methodological issues related to the choice of qualitative and quantitative methods, highlighting how to integrate them in interdisciplinary research. This approach makes the manual relevant not only for the educational field but also for other fields of knowledge, consolidating it as an essential basis for scientific production. The work of (2013) and Freitas contributes to the training of researchers, promoting methodological rigor and academic organization. Bakhtin (1992) and Brandão (1993) stand out as fundamental references in the field of discourse analysis, offering theoretical and methodological contributions that have influenced qualitative research, that focused on language and communication. Bakhtin's work 'Discourse Genres' is a key piece in understanding the relationship between discourse and social context. The author introduces the idea that discourse is not just an individual expression, but is rooted in cultural and social practices. His theory is based on the interaction between the subject and the other, highlighting how meanings are constructed through this dialogical relationship. In the educational field, this perspective allows for analyses of pedagogical discourses, classroom interactions, and curricular documents.

Brandão (1993), in his work 'Introduction to Discourse Analysis', complements this approach by offering a detailed overview of the methods and applications of discourse analysis. He explores how texts and discourses reflect and, at the same time, shape social, political, and cultural structures. This approach is relevant to educational research, as it makes it possible to investigate the discursive practices that permeate teaching and learning processes, as well as the values and ideologies underlying educational policies. The theoretical and methodological foundation offered by Bakhtin (1992) and Brandão (1993) has become indispensable for researchers interested in understanding the relationships between language, society, and education, consolidating itself as a basis for qualitative investigations that prioritize textual and communicative analysis. Makilim Baptista and Daniel Campos (2010), in turn, offer a distinct but relevant contribution by emphasizing the complementarity between quantitative and qualitative approaches in scientific research. Their work 'Research Methodology in Sciences: Quantitative and Qualitative Analysis' highlights the importance of integrating these two perspectives to obtain an understanding of the phenomena studied. The authors argue that while quantitative analysis provides objective and generalizable data, qualitative analysis allows

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us to explore the meanings and contexts underlying the data. This complementarity is useful in the educational field, where research involves both measuring performance indicators and interpreting the experiences and perceptions of students and teachers.

In addition, Baptista and Campos (2010) offer practical guidance for the application of these methodologies, covering everything from the formulation of the research problem to the analysis and presentation of results. The work highlights the need to align the methodological choice with the research objectives, ensuring that the approaches adopted are consistent with the problem under investigation. In the context of education, this practical guidance is valuable for researchers seeking to develop interdisciplinary studies or who need to deal with the complexity of educational phenomena. The work of Baptista and Campos (2010) has become a significant reference for researchers who wish to explore the integration of different methodologies in their research, contributing to advances in the field of sciences applied to education.

DISCUSSION

The analysis of the contributions of the highlighted authors reveals a significant diversity of methodological approaches, each with its specificities, strengths, and limitations. When comparing the proposed methodologies, a complementarity between the different perspectives is observed, regarding the balance between quantitative and qualitative methods, as well as the flexibility to adapt these approaches to the specific contexts of educational research. Authors such as Antonio Carlos Gil (2008), and Lakatos and Marconi (2017) provide bases for the construction of research projects, standing out for the systematization and clarity of their proposals. Their works emphasize the importance of well-defined stages and scientific rigor, which makes them indispensable references for initial and advanced studies. On the other hand, authors such as John Creswell (2010) and Makilim Baptista and Daniel Campos (2010) stand out for the integration of methods, pointing out the complementarity between quantitative and qualitative approaches as a strategy to investigate complex phenomena, such as those that permeate the educational field. Among the main convergences, the concern shared by all authors in ensuring the validity and reliability of scientific investigations stands out. This concern is evident in the emphasis placed on the choice of methods, the alignment between research objectives and methodological tools, and the ethical relevance of the entire investigative process. However, there are divergences regarding the focus of each

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author. While Lakatos and Marconi (2017) adopt a generalist perspective, with an emphasis on theoretical foundations applicable to different areas of knowledge, authors such as Bogdan and Biklen (1994), Uwe Flick (2009), and Maria Cecília Minayo (2002) privilege the depth of qualitative approaches, directing their discussions towards the investigation of subjective, cultural and contextual aspects. Laurence Bardin (2011) and Bakhtin (1992) focus on the analysis of texts and discourses, offering tools that explore the meanings and social dynamics underlying communicative practices. These methodological differences reflect the diversity of demands and objectives of educational research, which involve multiple dimensions of analysis. In the Brazilian context, where education faces challenges related to equity, inclusion, and quality, the applicability of the methodologies discussed varies according to the specificities of the problems investigated. For example, quantitative approaches, such as those proposed by Antonio Carlos Gil (2008), are useful in studies involving samples and seeking to identify general patterns or trends, such as school performance assessments and educational policy analyses. On the other hand, qualitative methodologies, such as those discussed by Bogdan and Biklen (1994), Flick (2009), and Minayo (2002), are appropriate for understanding sociocultural dynamics, pedagogical practices, and individual experiences, which often escape numerical analyses. The integration of approaches, proposed by authors such as Creswell (2010) and Baptista and Campos (2010), seems promising in the Brazilian educational context. This strategy allows for an analysis of phenomena, combining objective data with subjective insights. Furthermore, the critical perspective of authors such as Bakhtin (1992) and Brandão (1993), which focused on the analysis of discourses and social contexts, offers a tool for investigating the ideologies and practices that shape the educational system. However, the application of these methodologies in Brazil requires not only technical mastery on the part of researchers but also sensitivity to the cultural and structural specificities of the country.

Therefore, the choice of methodology depends on the research objectives and questions. The contributions of the highlighted authors demonstrate that no approach is superior, but rather that each has potential that can be explored according to the nature of the problem investigated. This reflection reinforces the importance of methodological planning that considers not only the possibilities offered by the different methodologies but also the limitations and challenges imposed by the research context. In this way, the methodologies presented not only expand the possibilities of investigation but also offer

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fundamental subsidies for the construction of relevant and transformative scientific knowledge in the Brazilian educational field.

FINAL CONSIDERATIONS

The final considerations of this study sought to answer the central question: who are the main authors in scientific methodologies applied to education and what are the specificities of their contributions? The analysis carried out allowed us to identify that authors such as Antonio Carlos Gil (2008), Lakatos and Marconi (2017), John Creswell (2010), Laurence Bardin (2011), Uwe Flick (2009), Maria Cecília Minayo (2002), Bogdan and Biklen (1994), Carlos Prodanov and Ernani Freitas (2013), Bakhtin (1992), Brandão (1993), Makilim Baptista and Daniel Campos (2010), offer significant and diverse contributions that enrich the field of educational research. Each of them presents approaches and methodologies that, although distinct in their focuses, complement each other, providing theoretical and practical tools that meet the different demands of studies in education.

Antonio Carlos Gil (2008) stood out for systematizing stages of the research process, with an emphasis on well-structured projects and the use of quantitative and qualitative methods. Lakatos and Marconi (2017) offered theoretical foundations that combine practical and conceptual aspects, with special attention to hypothesis formulation and data analysis. John Creswell (2010) contributed to the integration of qualitative, quantitative, and mixed methods, proposing a complementary approach for complex investigations. Laurence Bardin (2011) presented content analysis as an essential tool for organizing and categorizing textual data. Uwe Flick (2009) emphasized the central role of qualitative research in understanding subjective phenomena, while Maria Cecília Minayo (2002) introduced adaptability and creativity as key elements in social research. Bogdan and Biklen (1994) addressed qualitative practices focused on the educational context, offering detailed techniques for collecting and analyzing data in the field. Prodanov and Freitas (2013) provided a practical manual for organizing and presenting scientific results, while Bakhtin (1992) and Brandão (1993) emphasized the importance of discourse analysis and its relationship with social contexts. Finally, Makilim Baptista and Daniel Campos (2010) highlighted the complementarity between quantitative and qualitative analyses, promoting an integrated approach for applied studies.

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These findings reveal that, although the methodologies presented have their characteristics, there is a convergence in the search for scientific rigor and the adaptation of approaches to research objectives. This methodological diversity reflects the complexity of educational phenomena and the need for approaches that contemplate both objective and subjective aspects. Thus, the contribution of this study is to summarize the specificities of each author, offering an overview that helps researchers identify appropriate methodologies for their investigations in the educational field.

Although the study fulfilled its objective of identifying the main authors and specifying their contributions, it is also recognized that the field of scientific methodology is dynamic and constantly evolving. Therefore, it is recommended that future studies be conducted to explore the impact of new technologies on educational research methodologies, as well as investigations that analyze the practical application of the highlighted approaches in different contexts. Such studies could complement the findings presented here, expanding the understanding of the potential and challenges of scientific methodologies applied to education.

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REFERENCES

1. BAKHTIN, M. Os gêneros do discurso (1952-1953). In: _____. Estética da criação verbal. Tradução de Maria Ermantina Galvão Gomes e Pereira. São Paulo: Martins Fontes, 1992. p. 277-326.

2. BAPTISTA, M. N.; CAMPOS, D. C. de. Metodologia de pesquisa em ciências: análises quantitativa e qualitativa. Rio de Janeiro: LTC, 2010.

3. BARDIN, L. Análise de conteúdo. São Paulo: Edições 70, 2011.

4. BOGDAN, R. C.; BIKLEN, S. K. Investigação qualitativa em educação: uma introdução à teoria e aos métodos. Porto: Porto Editora, 1994.

5. BRANDÃO, H. Introdução à análise do discurso. Campinas: Unicamp, 1993.

6. CRESWELL, J. W. Projeto de pesquisa: métodos qualitativo, quantitativo e misto. 3. ed. Porto Alegre: Artmed, 2010.

7. FLICK, U. Introdução à pesquisa qualitativa. 3. ed. Porto Alegre: Artmed, 2009.

8. GIL, A. C. Métodos e técnicas de pesquisa social. 6. ed. São Paulo: Atlas, 2008.

9. _____. Como elaborar projetos de pesquisa. 4. ed. São Paulo: Atlas, 2010.

10. _____. Estudo de caso: fundamentação científica: subsídios para coleta e análise de dados, como redigir o relatório. São Paulo: Atlas, 2009.

11. LAKATOS, E. M.; MARCONI, M. A. Fundamentos da metodologia científica. 8. ed. São Paulo: Atlas, 2017.

12. MINAYO, M. C. S. (Org.). Pesquisa social: teoria, métodos e criatividade. 21. ed. Petrópolis, RJ: Vozes, 2002.

13. PRODANOV, C.; FREITAS, E. C. Metodologia do trabalho científico: métodos e técnicas da pesquisa e do trabalho acadêmico. 2. ed. Novo Hamburgo, RS: FEEVALE, 2013.