

RESEARCH IN EDUCATION: METHODS AND EPISTEMOLOGIES

PESQUISA EM EDUCAÇÃO: MÉTODOS E EPISTEMOLOGIAS

INVESTIGACIÓN EN EDUCACIÓN: MÉTODOS Y EPISTEMOLOGÍAS

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ABSTRACT: The book **Research in education: methods and epistemologies**, by Professor Sílvio Ancisar Sánchez Gamboa, fits into the list of essential readings for those dedicated to educational research, the work brings a rich contribution to the process of analysis of academic productions on education in Brazil and points out important problems and suggestions about the methodological, epistemological and philosophical structure of research in education. It establishes a paradigmatic matrix that, in the reviewed edition, was expanded and becomes an epistemological matrix, able to identify the internal aspects that make up the construction of scientific texts resulting from research, as well as external factors that impact on research and scientific production. The work, divided into 10 chapters, leads the reader to a perception of the logical process necessary for scientific production, overcoming the technical bias of the research methodology manuals and raising discussions on epistemological, philosophical and ethical aspects relevant to a liberating Science.

KEYWORDS: Research epistemology. Education research. Epistemological matrix.

RESUMO: O livro *Pesquisa em educação: métodos e epistemologias*, de autoria do professor Sílvio Ancisar Sánchez Gamboa, se enquadra no rol das leituras essenciais para quem envereda na pesquisa educacional: a obra traz uma rica contribuição ao processo de análise das produções acadêmicas sobre educação no Brasil e aponta importantes problemas e sugestões sobre a estrutura metodológica, epistemológica e filosófica da pesquisa em educação. Estabelece uma matriz paradigmática que, na edição resenhada, foi ampliada e torna-se uma matriz epistemológica, capaz de identificar os aspectos internos que compõem a construção dos textos científicos resultantes das pesquisas, bem como os fatores externos que impactam na investigação e produção acadêmica. A obra, dividida em 10 capítulos, conduz o leitor a uma percepção do processo lógico necessário ao trabalho científico, superando o viés tecnicista dos manuais de metodologia de pesquisa e levantando discussões sobre aspectos epistemológicos, filosóficos e éticos relevantes para uma ciência libertadora.

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PALAVRAS-CHAVE: *Epistemologia da pesquisa. Pesquisa em educação. Matriz epistemológica.*

RESUMEN: *El libro **Investigación en educación: métodos y epistemologías**, del profesor Silvio Ancisar Sánchez Gamboa, se inscribe en la lista de lecturas esenciales para los dedicados a la investigación educativa, el trabajo trae una rica contribución al proceso de análisis de las producciones académicas sobre educación en Brasil y presenta importantes problemas y sugerencias sobre la estructura metodológica, epistemológica y filosófica de la investigación en educación. Establece una matriz paradigmática que, en la edición reseñada, se amplió y se convierte en una matriz epistemológica, capaz de identificar los aspectos internos que conforman la construcción de textos científicos resultantes de la investigación, así como factores externos que impactan la investigación y la producción científica. El trabajo, dividido en 10 capítulos, conduce al lector a una percepción del proceso lógico necesario para la producción científica, superando el sesgo técnico de los manuales de metodología de la investigación y planteando discusiones sobre aspectos epistemológicos, filosóficos y éticos relevantes para una ciencia liberadora.*

PALABRAS CLAVE: *Epistemologia de la investigación. Investigación en educación. Matriz epistemológica.*

Silvio Ancisar Sánchez Gamboa is a renowned Colombian professor, who have been living in Brazil for decades, and has contributed as a professor in the field of Philosophy and History of Education at Unicamp and as a visiting professor in several higher education institutions, in Brazil and in other South American countries.

The book *Research in Education: Methods and Epistemologies*, originates from reports of "research of research" experiences, carried out in the period between the beginning of the 1970s and 1984, in which Gamboa analyzes the existence and development of logical relations between the technical-methodological and epistemological-philosophical aspects present in educational research developed in the graduate programs he investigated.

The way the book is structured, divided into 10 chapters, demonstrates the author's concern with the logical process that he highlights throughout the text. The first chapters deal with a theoretical foundation necessary to understand the analysis carried out on the post-graduation production, presented in the following chapters. The author, besides basing the reader with essential concepts, points out the need to break with the classical paradigm of the established status of positive science, criticizes the publications on educational research for being technicist, for the lack of logical and epistemological foundations, for being little accessible to students and beginners in research, and for not articulating the technical-methodological aspects with the epistemological-philosophical aspects of research.

In the first chapter, he develops an explanation about the contribution of contemporary thinkers to the epistemology of scientific research and shows that the same concern has also developed in the field of education, from the 1970s on. The author leads the reader to the perception of how and why the paradigmatic matrix instrument was built to carry out his work of "research of research". He exposes a series of paradoxes implicit in the methods of the researched productions and proceeds to present them from the perceived conflicts in poles or pairs. Regarding the relationship between the subject and the object of research, he points to the breaking of the researcher-subject/object dichotomy. He stresses that in the Social Sciences everyone is a subject and the only plausible object to be known and transformed is reality.

Throughout the second chapter, Gamboa denounces the invasion of a technicist reduction of the practice of research in education and exalts scientific research as the creator of a theory of knowledge and a philosophy, and not only of a knowledge of the specific field of each area. He criticizes research manuals that only teach techniques and make research look like the mastery of ready-made and general recipes, without paying attention to the specificities of scientific work, such as the production of an implicit philosophy in the process of constructing organized answers to questions and establishing a worldview.

The author explains that an epistemological approach can clarify the relations between techniques, methods, paradigms, gnosiological and ontological assumptions, present in a more or less explicit way in each research. He states that the epistemological research on educational research aggregates the logical method to the historical method and can explain the paradigmatic transformations of scientific production. He says that the epistemological approach should not be seen as a model for project development, because it is an a posteriori analysis of work already done, in which one tries to see the paths and how the stages are related. He also states that the objective of the research project should not be to fix a priori a paradigmatic model, because besides creating false expectations, this choice limits the creativity and freedom of the researcher in contact with the reality to be researched.

In the third chapter, Gamboa presents the paradigmatic matrix, an instrument he elaborated and used to reconstruct the internal logic that drives the research and, from there, see the bases of the theoretical and methodological approach used. He states that realization is produced by the reciprocal movement in which facts and concepts correlate. It establishes different levels or groups of assumptions in which the elements of correlation are organized: the basic level refers to the logic in the relationship between Question and Answer, and the elaboration of the Answer integrates several levels of complexity (technical, methodological,

theoretical, epistemological assumptions, gnosiological assumptions, and ontological assumptions).

By deconstructing the concepts of purity and scientific neutrality, the author elucidates the interests behind each paradigm. He exposes the gnosiological presuppositions as a way of generalizing, an aspect that allows the recognition of common characters among objects that are also common. Each methodological approach has a way of conceiving the logical-gnosiological processes based on how the real, the abstract and the concrete are related, taking as ontological assumptions the conceptions of man, history and reality.

The fourth chapter, which has the collaboration of Professor Régis Henrique Reis da Silva and was added in this edition published in 2018, brings a requalification of the instrument developed by Gamboa, the paradigmatic matrix, which advanced, after absorbing the supervening criticisms, to an epistemological matrix that contemplates the sociopolitical and economic conditions of the environment in which the researcher is inserted. The association of external, historical-social aspects to internal, logical aspects in the analysis of action science research gives new nuances to the scientific production process, showing it to be more politicized and demanding more criticality. They place the world of need in the relation of problem composition, presenting the elements of context that influence the researcher's activity.

The fifth chapter reports the epistemological studies he did on post-graduate studies in education in the state of São Paulo from 1971 to 1984. The research sought the relationship between the logical and the historical, reconstituting the epistemological models of the research, characterizing them as to the level of explicit articulation and implicit assumptions, elucidating the trends and paradigms and the historical conditions that explain the trajectory of these trends. It identified three epistemological trends: empirical-analytical, phenomenological-hermeneutic, and critical-dialectical. From the results it was possible to confront the logics of the three trends on several levels: technical, methodological, theoretical, epistemological, conception of science, gnosiological and ontological; in each one the author lists the characteristics that differentiate them and discusses them.

Silvio Gamboa exposes the need for a better philosophical training for researchers throughout their formative process, so that they can understand aspects such as the theory of knowledge, scientific processes and epistemological foundations of research, to escape the reproduction of formulas or recipes such as those existing in traditional research manuals and escape from epistemological options as theoretical-methodological fads.

In the sixth chapter, the author identifies, from the theoretical-methodological approaches, the difficulties encountered in research projects to relate the research results to

educational practice and discuss the scientific status of education. He points out that a certain "utilitarian" tendency causes the meaning of research to be reversed, placing the use of its results as an objective, when the knowledge of the event/phenomenon should be prioritized. This aspect, by the way, causes an ethical problem that the author will address. He warns that problems are investigated. Projects that do not present problems/questions, but rather affirmations, are mistaken and run away from the logic of research. Understands that in the applicability of results, there is a relationship between the type of approach and the type of change proposed in a research, from the lowest level of change (homeostasis and incrementalism) to the highest level of change (neomovilism and metamorphosis). It deals with 'epistemological colonialism' or the invasion of theories or categories from other areas of knowledge into educational research due to the lack of an epistemological status proper to education.

It points to a new circuit of knowledge in which one starts from education, travels through other areas, and returns to education as the end point. The dialectic of praxis establishes the maxim that theory is valid to the extent that it transforms practice, and practice is also true to the extent that it transforms theory. The new epistemological field of education is built, with educational practice as the starting point and with a multidisciplinary character. There is a reinforcement in the defense of the theory of praxis as an essential element for the transformation of research into an effective instrument for the transformation of education.

In the seventh chapter, Gamboa starts from the epistemological matrix that organizes by complexity the elements that make up research, from the most concrete to the most abstract, to define the gnosiological aspects of epistemological approaches and educational theories used in educational research. The author deals with the analysis of the problem of the cognitive relationship between the subject and the object, a field of philosophy that is essential in research, in which the logical articulation between concepts of object, subject (gnosiological) and the theories of education takes place as an indicator of the quality of research production. He cites Tedesco and Saviani to conceptualize the trends and conceptions about education prevalent in Latin America, and within these frameworks he explains the diversity among critical theories, regarding the society-education relationship: being marked and reproductive (critical-reproductive theories) and seeing a dialectical relationship of determination and transformation of society and education (critical-dialectical).

Gamboa exposes that the biggest difference found in the approaches of the gnosiological assumptions regarding methodological unfoldings is not in the techniques of data collection and treatment, but in the conception of the object, how it is understood and comprehended by the

subject. There is an intrinsic relationship between method and the gnosiological assumptions. The method does not explain itself, it depends on the point of departure and arrival of the research, on the meanings attributed to the empirical data collected and on how the object is understood as something ready and given or as a phenomenon under construction and permanent transformation.

The eighth chapter is dedicated to the conception of man in educational research. In it, the author recalls the role of philosophical research as fundamental to the critical construction of scientific models. He emphasizes that the development of epistemological and philosophical research gives logical consistency to these tendencies. Making use of its "paradigmatic matrix" it was possible to recover the connections between data registration and analysis, methodological approaches, theories, epistemological conceptions, and philosophical assumptions. Each approach is identified with philosophical assumptions, and were divided into two dimensions: gnosiological (subject-object relationship) and ontological (conception of man, history and reality). He presents the different conceptions of man from each model: functional and quantifiable man, typical of the Cartesian rationalism of the empirical-analytical matrix; being of multiple roles, inserted in the system that conforms him, a transitory and unfinished being as presented by the phenomenological-hermeneutic matrix, or a being included in the set of social relations and capable of freeing himself from social determination through a revolutionary practice, as proposed by the critical-dialectic matrix.

Gamboa points out the growing interest of researchers for understanding and explaining the educational action, the relations of the school with the social whole and the social contradictions that manifest themselves in the struggles to eradicate marginality, exclusion and exploitation structures.

The ninth chapter states that educational phenomena, by their social nature, are also historical. It says that, depending on the theoretical-methodological approach, research in education does not always take into account the historicity of the educational phenomenon. The reflection on temporality and historicity of the educational phenomenon is divided into three stages: as a justification of a new field for historiography; as a presentation of how educational research approaches the temporality and historicity of the object, and as questions that will move the debate and new studies. Investigating the ways in which temporality and historicity are approached in educational research is a way to develop epistemological and ideological critique as a function of educational historiography. By identifying the theoretical-methodological approaches used in educational research and elucidating the epistemological and gnosiological assumptions that support them and that define the category of time and the

approach to the historicity of the phenomena studied, he found two conceptions about the ontological conception of reality: one synchronic (empirical-analytical and phenomenological/structuralist) and the other diachronic (phenomenological/existentialist-hermeneutic and dialectical). In the synchronic conception there is an idea of time that tends to the static apprehension of the moment taken as a background or as a replay of the historical context. In the diachronic conception time appears dynamic, either as living existence or as movement, evolution and dynamics of phenomena.

The tenth chapter answers the question: can cognitive interests, present in the epistemological approaches that underpin research in education, be addressed as an ethical issue? With the contribution of Habermas, it raises questions related to the ethical posture of researchers in the construction of knowledge about education; it inquires about the separation between science and values; the pretended objectivity of the method, and the axiological neutrality of the researcher. He criticizes the perception of ethics in science, limited to the methodological care of research and the application and use of research results.

Gamboa emphasizes the role of the investigator/researcher in the elaboration of scientific knowledge, which is a social and historical production, moving away from the vision of a mechanical production, with the application of ready-made elements. This process articulates several elements, including epistemological and philosophical assumptions, the most basic, because they elucidate and explain the others, technical and methodological. He explains that the three basic approaches of research: the empirical-analytical, the historical-hermeneutic, and the critical-dialectic, correspond, respectively, to the three types of human interest in the production of knowledge: the technical control, the dialogical consensus, and the critical-emancipating. Thinking cannot be dissociated from the three fundamental dimensions of human life: work, language, and power. The author states that the three approaches correspond to three logical sets: the work-technique-information set, underlying the empirical-analytical approach; the language-consensus-interpretation set, contained in the historical-hermeneutical approach; and the power-emancipation-criticism set, implicit in the dialectical approach.

In dealing with ethics in scientific research, the philosopher analyzes how the cognitive interests of each epistemological option are expressed in research through techniques, methods, and epistemological and philosophical aspects. Because it is conscious, the moral act happens by intimate conviction and not in a mechanical, external or impersonal way. However, there is a mechanicity in the actions of researchers who do not seek the implicit reasons originating from their philosophical convictions, from which we conclude that ethical action can be harmed.

Gamboa concludes by presenting the work as an essay that contributes to the deepening of the aspects related to the epistemological and philosophical foundations of educational research and not as a research manual. He refers to the importance of the starting point: the practice of scientific research, whose analysis takes place in the search for the logic that articulates the elements that compose the ready-made scientific production, being, therefore, an analysis a posteriori. It reaffirms that educational research must be perceived by its complexity, which goes from the adoption of instruments, techniques and procedures, to a method that is a theory of science in action stated in a theory of knowledge. It points to the fact that there is no theory of knowledge without an ontology, a conception of the world, a worldview, and therefore knowledge is also ideologically affected.

The work is not, in fact, a research manual; on the contrary, it is a manifesto for the use of philosophical, epistemological, and gnosiological assumptions in the construction of science, be it in education or in any other area of knowledge. The work is a call to philosophical appreciation, aimed at students, teachers, and researchers who seek an in-depth thought on issues related to research, which goes beyond the theoretical-methodological limits, going to the roots that sustain our way of understanding the world and intervening in it. Gamboa seeks to endow the researcher with awareness about the implicit forms that condition the construction of knowledge, from its ontological nature to the intricacies of the technical stages of research.

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