

## States of the Art Studies: A Contribution to Research Training. Analysis of Scientific Production Published in the Americas.

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### Abstract

This article aims to examine scientific production on *States of the Art Studies* as a contribution to research training in higher education, focusing on works published in the Americas between 1993 and 2021. The 64 scientific articles analyzed were retrieved from databases such as Dialnet, Redalyc, SciELO, EBSCOhost, and institutional repositories of universities including the Pontificia Universidad Católica de Chile, the Universidad Pedagógica y Tecnológica de Colombia, the Universidad de Caldas, the Universidad Santo Tomás, the Universidad de Antioquia, the Universidad Tecnológica de Pereira, the Universidad de los Andes, the Universidad Pedagógica Nacional, and the Pontificia Universidad Javeriana.

The qualitative analysis was conducted using a matrix entitled *Theoretical and Methodological Trends in States of the Art: A Contribution to Research Practices in Education*. This matrix was developed through the design of state-of-the-art research projects within the Research Group for Cultural Animation–Muisuata at the Universidad Pedagógica y Tecnológica de Colombia.

The findings focus on defining the historical context, characterization, purpose, and methodological structure of states of the art. This overview concludes with the identification of trends that constitute a contribution to the training of researchers.

**Keywords:** State-of-the-Art Studies; research training; scientific production

### 1. INTRODUCTION

Researching what has already been researched is a process that makes it possible to validate advances and positions generated within a given field of knowledge, based on a rigorous procedure aimed at achieving its consolidation. In this regard, Messina (2008) argues: Researching research itself makes it possible to account for the rules of the game within the field by redirecting questions toward the institutions and subjects who conduct research. When adopting the traditional model of science, researchers often interrogate reality as something external to themselves, without turning the questions back upon themselves or asking how, from where, and for what purpose they conduct research. Researching research, therefore, becomes a way of reaffirming critical paradigms, both in pedagogy and in research itself, by redirecting inquiry toward the position of the researcher. (p. 2)

This perspective promotes the creation of spaces that enable “training for research through research activities” (Restrepo, 2002, p. 3) and “requires being assumed as a transversal component present in the curricular structure, not limited to the research methodology

component but incorporated into the other components of academic formation” (Rojas & Aguirre, 2015, p. 212).

In light of the above, it is important to consider that the development of State-of-the-Art Studies “provides elements for the consolidation of a new vision of education” (Alfonso, 2017, p. 11), since their construction seeks not only the production of a written report but also the formation of the researcher. This process contributes to learning and to the development of skills that enable researchers to adopt a critical and propositional stance toward the object of study, and subsequently to formulate new research initiatives aimed at addressing emerging problems.

A key input in the construction of State-of-the-Art Studies is scientific production, understood as “the materialized portion of generated knowledge; it is more than a collection of documents stored in an information institution. It also encompasses all the academic and scientific activities of a researcher” (Piedra & Martínez, 2007, p. 33). Likewise, it “involves the publication of articles in indexed journals, peer-reviewed books, published proceedings, approved conference papers, among others” (Barros & Turpo, 2020, p. 171).

## 2. METHODOLOGY

This study adopted a qualitative approach, as it enabled an in-depth interpretive analysis aimed at understanding the meanings, orientations, and conceptual developments surrounding State-of-the-Art Studies. The research is documentary in nature, insofar as its purpose is “to obtain relevant data regarding the theoretical and disciplinary approaches to the object of study, as well as the trends and methodological perspectives” (Londoño et al., 2014, p. 11). Documentary research, in this sense, facilitates systematic examination, categorization, and interpretation of existing scientific production.

The analytical process was organized into three stages.

First, a characterization of electronic scientific production was conducted in order to identify and describe its fundamental elements: unit of analysis, types of documents, years of publication, countries of publication, language of dissemination, and institutional affiliation. This stage enabled the contextual and bibliometric mapping of the corpus.

Second, conceptual categories were defined and interpreted in relation to the theoretical and methodological trends identified in the literature. This phase involved qualitative coding and comparative analysis of the documents, guided by the matrix entitled *Theoretical and Methodological Trends in State-of-the-Art Studies: A Contribution to Research Practices in Education*. The matrix functioned as an analytical instrument for organizing information, identifying recurring patterns, and systematizing epistemological and methodological orientations.

Third, an interpretive synthesis was developed to construct meaning regarding State-of-the-Art Studies, focusing on the identification of conceptual gaps, emerging tendencies, and significant findings within the field. This stage allowed for the articulation of broader analytical conclusions concerning their contribution to research training.

The corpus of this study consists of 64 documents on State-of-the-Art Studies published between 1993 and 2021 in the Americas, written in English, Spanish, and Portuguese. The documents were retrieved from Google Scholar; databases such as Dialnet, Redalyc, SciELO, and EBSCOhost; and institutional repositories of universities including the Pontificia Universidad Católica de Chile, the Universidad Pedagógica y Tecnológica de Colombia, the Universidad de Caldas, the Universidad Santo Tomás, the Universidad de Antioquia, the Universidad Tecnológica de Pereira, the Universidad de los Andes, the Universidad Pedagógica Nacional, and the Pontificia Universidad Javeriana.

The search strategy was guided by the following descriptors: *What is a state of the art?*, *state of the art*, *research on state of the art*, and *publications on state of the art*. These terms were applied in Spanish, English, and Portuguese, and the selection criteria included publication within the specified time frame, relevance to the conceptualization or methodology of State-of-the-Art Studies, and availability of full-text access.

### 3. RESULTS

#### 3.1. Historical Context of Scientific Production on State-of-the-Art Studies

According to Valdés et al. (2005), studies on State-of-the-Art Studies originated in the United States at the end of the nineteenth century. Initially, the term *status of the art* was used, a concept also discussed by Henao (2020), who notes that “in the twentieth century, it became known as *state of the art*, without altering the definition of the term used in the previous century” (p. 11). Likewise, González et al. (2016) indicate that the first article to specify the realization of a state of the art dates back to 1823 and was titled *A Comparative View of the State of Medical Science Among the Ancients and Moderns, Its Revolutions in Different Periods of the World, and an Enumeration of Some of the Errors Which Check Its Progress*.

Although the concept originated in an English-speaking country, “in Spanish-speaking countries, the use of the term *estado del arte* has become widespread in the field of research, referring to the current and most advanced state of research on a topic” (Henderson, 2014, p. 4). This demonstrates a tendency toward its implementation and consolidation across the rest of the continent. Evidence of this development can be seen in the creation in 1977 of the Education Documentation and Information Network (REDUC), which provided a “favorable framework for the development of State-of-the-Art Studies in Latin America and became its principal driving force” (Valdés et al., 2005, p. 223). Its consolidation occurred when the Center for Research and Development in Education (CIDE) presented, for the first time, a cooperative development model for a Latin American information network composed of ten countries, including Mexico. Its production included Analytical Abstracts in Education (RAEs) and full texts in microfiche format (Jiménez, 2009, pp. 127–128).

It is considered that “this modality of studies reached Latin America later, perhaps at the end of the 1970s or the beginning of the 1980s” (Valdés et al., 2005). From the social sciences perspective, Calvo and Castro (1995) share this view and note that the 1980s “were directed toward clarifying the distinction between the theoretical framework, documentary review, and the body of evidence available on a given problem” (p. 14).

In the field of education, the first work adopting the State-of-the-Art Studies perspective was conducted in 1981 in Mexico for the First National Congress of Research (Jiménez, 2009). The second half of the 1980s marked the beginning of studies on State-of-the-Art Studies related to teacher education in Latin America (Gama & Alves, 2018; Valdés et al., 2005).

By the 1990s, State-of-the-Art Studies were conceived as an “attempt to produce a balance of research in the region, unlike documentary reviews of research experiences aimed at intervening in phenomena” (Guevara, 2016, p. 170). In 1996, during the Mexican Council for Educational Research (COMIE), nine volumes compiling studies conducted between 1982 and 1992 were published under the title *Educational Research in the 1980s: Perspectives for the 1990s*. In 2002, this same Council called upon academics to prepare “states of knowledge” to account for the situation of educational research in Mexico. The completion of studies such as *Comparative Educational Reforms: Bolivia, Mexico, Chile, Spain. State of the Art* (CEBIAE) and *Electronic Scientific Journals: State of the Art* further demonstrated to the scientific community the importance of creating and providing access to this type of publication (Posada, 2017).

Parallel developments occurred in Colombia, strengthening and formalizing State-of-the-Art Studies. Some of the most significant events are summarized in Table 1.

Decade	Event
1960s	The first historiographical research balances were established.
1970s	Gloria Calvo notes that the demand for State-of-the-Art Studies entered through social policy initiatives (implementation of educational and health policies).
	Primary interest centered on historiographical and economic research, promoted by governmental and cooperative agencies and national NGOs to support political and social development initiatives.
	Qualitative research proposals increased in academic representation, making it necessary to apply strategies to make learned knowledge visible.
1980s	State-of-the-Art Studies began consolidating through the use of tools for compiling and systematizing information, particularly in the social sciences.
	They became established as studies of production within a defined area, aiming to position research proposals and products as a field of inquiry (research on research).
	The historical discipline promoted their introduction in Colombia as a research trend rather than merely as a balance. Evidence includes <i>La historiografía colonial</i> by Bernardo Tovar (1982).
	With the opening of the Master's in History at the National University of Colombia (Bogotá campus) in 1984, faculty and students conducted research balances and State-of-the-Art..
	They were also used in economics and political studies to consolidate and organize available information.
1990s	Documentary studies (research on research) began to develop systematically.

Tomado de Gómez et al. (2015), Jiménez (2006), Molina (2005) y Saldarriaga (2017).

**Table 1.** Historical Context of State of Art in Colombia.

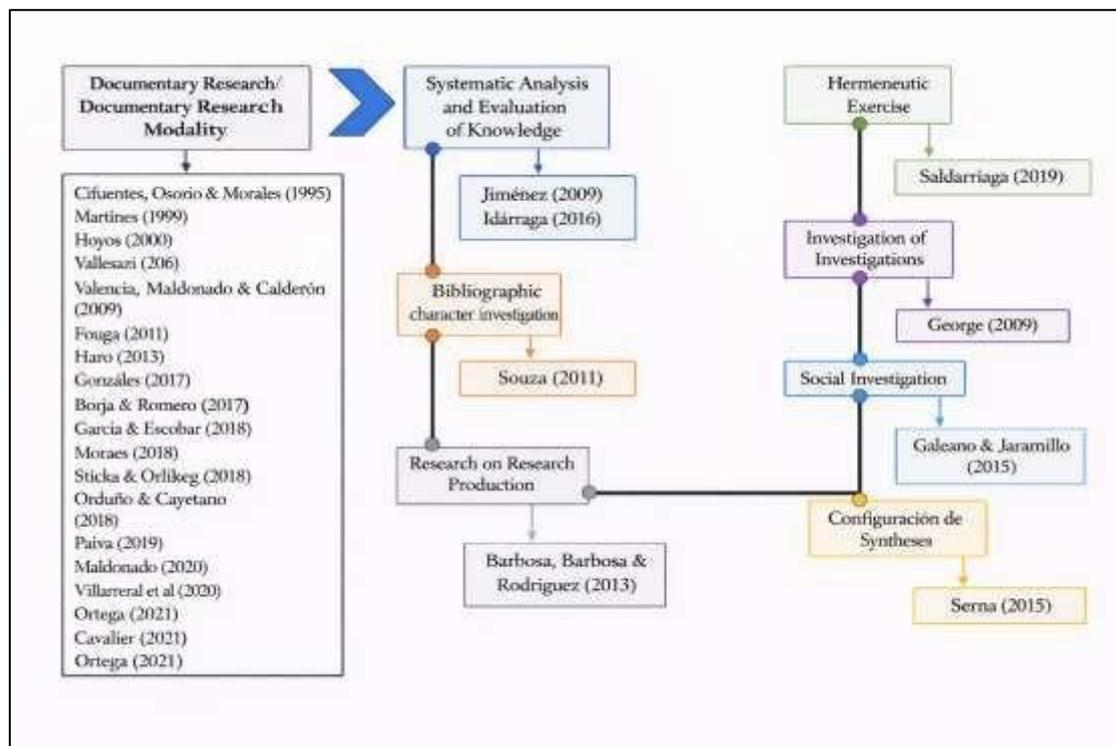
Until 1990, State-of-the-Art Studies were considered an initial investigative and formative activity derived from historiographical studies. Subsequently, they consolidated as a modality of documentary research in Colombia, largely through the work of Gloria Calvo, a pioneer in the field, who presented the first studies of this type at the Research Center of the Universidad Pedagógica Nacional (CIUP).

Thus, the emergence and development of State-of-the-Art Studies in Colombia is relatively recent and arose as a response to the need to support social and educational policies, as well as a qualitative research strategy for making visible the knowledge produced on specific topics.

The most prominent authors considered precursors based on publications from the 1980s and 1990s include Calvo and Castro (1995), Cifuentes et al. (1993), and Martínez (1999). From 2000 onward, notable publications include Hoyos (2000), Jiménez (2009), and Molina (2005).

### 3.2. Definitions of State-of-the-Art Studies Based on Scientific Production

Based on their definitions, leading authors have conceptualized State-of-the-Art Studies as a modality of documentary research considered highly significant in the training of researchers. Understanding their conceptual evolution entails identifying how definitions relate to authors across time, as illustrated in Figure 1.



**Figure 1.** Definitions of State-of-the-Art Studies.

Across the definitions examined, the designation of State-of-the-Art Studies as documentary research or as a documentary research modality predominates, appearing in 24 publications between 1993 and 2021. Additionally, four alternative conceptions stand out: as research on research, bibliographic research, research on scientific production, and social research (2009–2019).

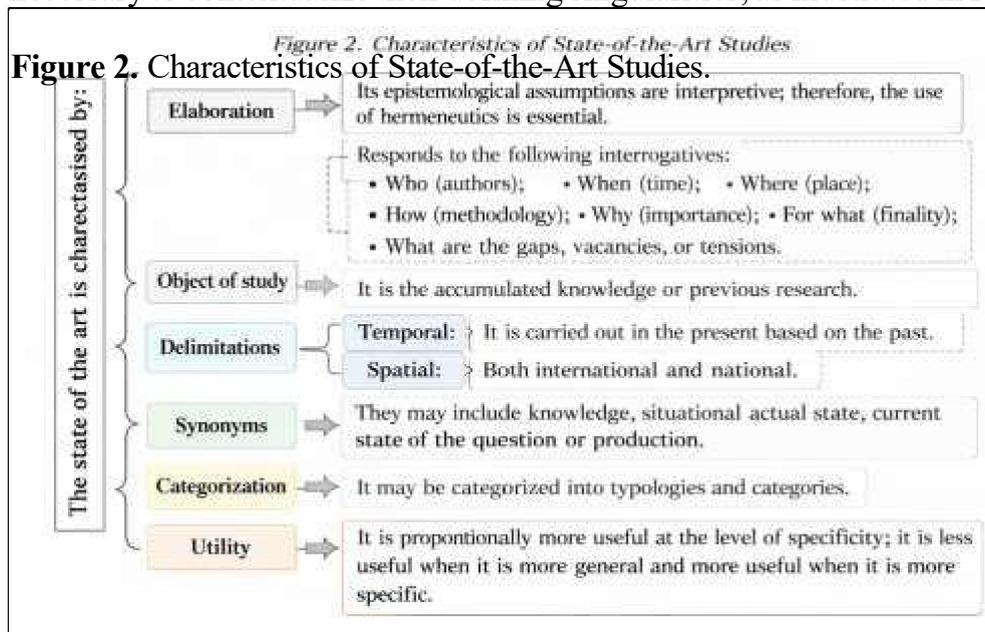
In 2015 and 2019, two definitions emphasized specific characteristics, including their bibliographic nature (configuration of reviews) and their direct association with hermeneutic practice as an interpretive approach to scientific production.

### 3.3. Characteristics of State-of-the-Art Studies

Cifuentes et al. (1993) indicated that State-of-the-Art Studies display knowledge at a specific historical moment; however, they must always be enriched to remain current. Baumeister and Leary (1997) describe them as valuable reviews aimed at compiling data on a particular phenomenon. They have also been conceived “as a tool for the recognition and interpretation of reality, as a documentary methodological proposal” (Molina, 2005, p. 74), which allows two relevant aspects to be distinguished: the understanding of an object of study and the methodological application as a determining factor in decision-making. State-of-the-Art Studies may achieve a representation of knowledge and its own structure through “the use of concept maps as tools that allow us to understand the nature of the processes and relationships that others are investigating, particularly those central processes and relationships” (Sánchez & Santoyo, 2012, p. 802). Therefore, the use of schematic elements becomes important when interpreting a research problem, as does the quality of the literature review, whose purpose is to identify gaps within a specific field and provide information that strengthens existing knowledge.

Galeano and Jaramillo (2015) argue that the State-of-the-Art Study “differs from bibliometrics, even though bibliometrics seeks to measure and analyze scientific production, since statistical representativeness is not usually sufficient for qualitative research such as State-of-the-Art Studies” (p. 43). Nonetheless, bibliometrics contributes “indicators that can serve to evaluate the quality of publications and determine those references that have had the greatest impact within the scientific community” (González et al., 2016, p. 85). These aspects are particularly relevant considering that State-of-the-Art Studies “draw upon existing literature and bibliography on a topic, connecting and organizing it according to specific criteria in order to reconstruct a panorama” (Duque, 2021, p. 123).

Given the various characteristics attributed to State-of-the-Art Studies over time, it is necessary to contextualize their defining singularities, as illustrated in Figure 2.



Regarding their elaboration, the use of hermeneutics is primarily emphasized as a fundamental component, as indicated by Calvo and Castro (1995), Cifuentes et al. (1993), Gaviria et al. (2016), Gómez et al. (2015), Hoyos (2000), Jiménez (2006), Martínez (1999), Pantoja (2006), and Saldarriaga (2017). This characteristic both identifies and confirms their definition as research in itself, whose guiding questions respond to “a structure for organizing compiled ideas” (Huergo, 2015, p. 21).

Their object of study is accumulated knowledge, as noted by Cifuentes et al. (1993), Martínez (1999), and Jiménez (2006). Their delimitations emerge from the understanding that “it is necessary to establish parameters for exclusion and inclusion of the texts identified, in order to make the search process systematic and replicable” (Espitia & Romero, 2021, p. 33).

In terms of structure and utility, these may vary depending on the perspectives from which they are constructed. Some State-of-the-Art Studies address definitions, historical context, characteristics of the object of study, novelty, quantity, various classifications, and the relationship between the location of the research and the broader context inferred from it. They may also address trends and prospective vision, characteristics related to the production of the material under study, its various languages, and the causes and relationships among them (Posada, 2017).

Based on the considerations of relevant authors, as summarized in Table 2, the following content characteristics of State-of-the-Art Studies are highlighted.

Characteristic	Description
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<b>Calvo y Castro (1995)</b>	
<b>Interpretation</b>	Procedural essence.
<b>Compilation of evidence</b>	Implies systematicity aimed at making a phenomenon visible through what is evident.
<b>Re-understanding of phenomena</b>	New facets are “discovered”.
<b>Reflection for critical and practical action</b>	Establishes the limits and possibilities of explanation.
<b>Naturalization of objects of study</b>	Object restricted and delimited for modification.
<b>Hoyos (2000)</b>	
<b>Scientific positioning</b>	Documentary research accounting for constructions of meaning.
<b>Methodological consideration</b>	Inductive and deductive methods.
<b>Theoretical foundation</b>	Inventory of works; hermeneutics as principal source.
<b>Methodological construction</b>	Breakdown into thematic cores (subtopics).
<b>Jiménez (2006)</b>	
<b>Technical dimension</b>	Includes a hermeneutic proposal.
<b>Methodological dimension</b>	Texts, prior approaches (analysis, concepts, categories, hypotheses, theories).
<b>Temporal dimension</b>	Conducted from the present time.
<b>Valdés et al. (2015)</b>	
<b>1. Bibliographic carácter</b> <b>2. Systematization of knowledge</b> <b>3. Dominant and emerging themes and approaches</b>	

*Note.* Adapted from Calvo and Castro (1995), Hoyos (2000), Jiménez (2006), and Valdés et al. (2015).

**Table 2.** Characteristics of State-of-the-Art Studies.

State-of-the-Art Studies also “provide information on methodology, commonly used research designs, and data collection techniques, facilitating the identification and understanding of research strategies and procedures” (Souza, 2011, p. 1). Through this modality, methodology for obtaining results is understood as requiring direction, focus, and a search scenario. “The usefulness of the result is directly proportional to its level of specificity. This means that the more general the State-of-the-Art Study, the less useful it will be” (Londoño et al., 2014, p. 14).

Among their characteristics is also a comparative description of principles, as presented by two authors in Table 3, although those proposed by Hoyos (2000) are most frequently referenced.

<b>Hoyos (2000)</b>	<b>González et al. (2007)</b>
<i>Purpose:</i> Linked to previously defined research objectives	<i>Principle of comprehension:</i> Enables theoretical construction from a global perspective.
<i>Coherence:</i> Coherence: Ensures internal unity among phases, activities, and data	

<p>Fidelity: Faithful collection and transcription of data  <i>Integration</i>: Embedded in qualitative evaluation of analysis units and thematic cores  <i>Comprehension</i>: Enables global theoretical construction.</p>	<p><i>Principle of coherence</i>: Provides unity to phases, activities, and data, thus, this phase is different from other phases of the research.  <i>Principle of integration</i>: Allows qualitative and quantitative evaluation of categories in each one of the analytical categories and then to be showed as a unity.</p>
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**Table 3.** Principles of State-of-the-Art Studies

Although no author explicitly proposes a typology, Gómez et al. (2015) describe State-of-the-Art Studies from three perspectives: as an approach, through discourse analysis and hermeneutics, and by phases. Similarly, Jiménez (2006) conceptualizes them in three senses: as appropriation of knowledge, as a research proposal, and as a starting point for the unprecedented. Regarding classification, Guevara (2019) suggests three forms: documentary research, review of research proposals, and research aimed at constructing meaning (p. 168). Finally, Saldarriaga (2017) distinguishes between State-of-the-Art Studies understood as “research on research” and those that function as antecedents of the research object (p. 1).

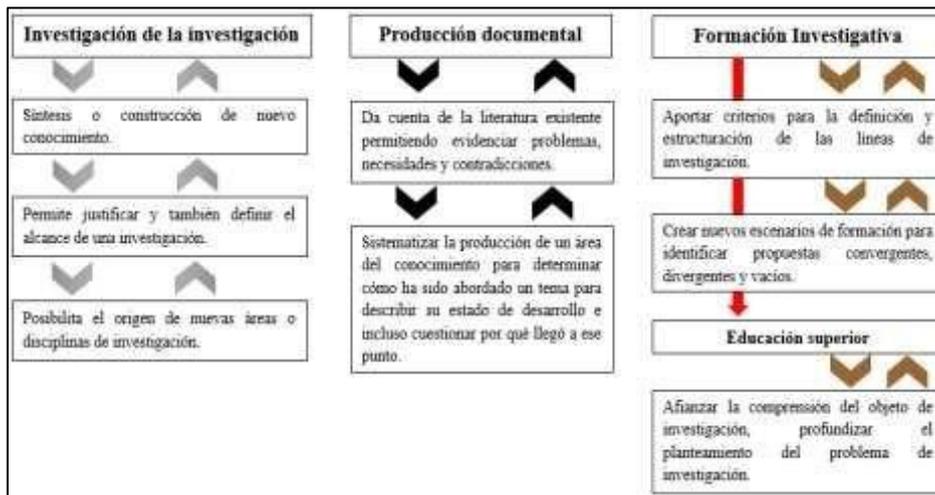
**3.4. Purpose and Importance of State-of-the-Art Studies Based on Scientific Production.**

The purpose of State-of-the-Art Studies may be structured around three perspectives: (a) research on research, (b) documentary production, and (c) research training, as illustrated in Figure 3.

From the first perspective, the aim is to understand that “the fundamental purpose of a State-of-the-Art Study is not only to position research but to highlight which aspects of research are relevant in relation to others being conducted, seeking originality” (Sánchez & Santoyo, 2012, p. 802), as well as “to expand knowledge about what has been studied in order to provide arguments that justify and define the scope of a research project” (Jaramillo, 2015, p. 1).

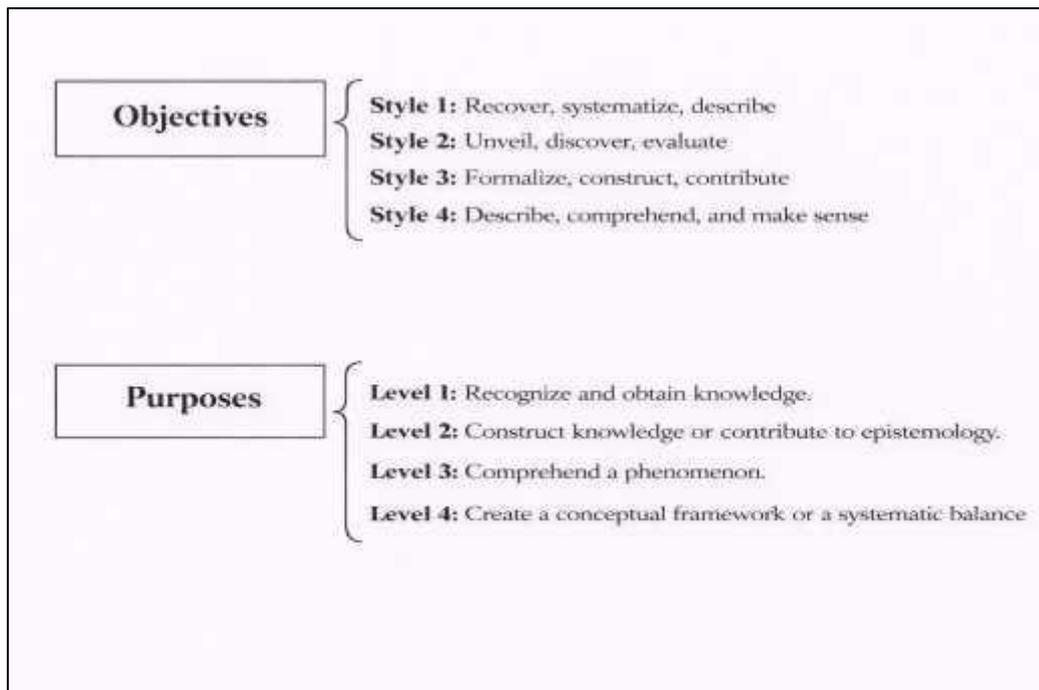
From the second perspective, the “ultimate objective is knowledge and the appropriation of social reality in order to later discuss and problematize it” (Jiménez, 2006, p. 32), which makes it possible “to account for the research that has been conducted on a central topic” (Hoyos, 2000, p. 62).

The third perspective is oriented toward recognizing “diverse theoretical propositions, methodologies employed, the degree of advancement in addressing the phenomenon, the rigor and evidence in research, gaps or contradictions, and ultimately the set of convergences and tensions” (Baena et al., 2020, p. 179). This perspective has also become a “strategy used by universities to assess their research at undergraduate and graduate levels in order to reorient research lines and identify real needs for the development of scientific production” (Guevara, 2016, p. 177).



**Figure 3.** Purpose of State-of-the-Art Studies.

According to Cifuentes et al. (1993) and Galeano and Jaramillo (2015), State-of-the-Art Studies encompass four styles of objectives and four levels of purpose, as shown in Figure 4.

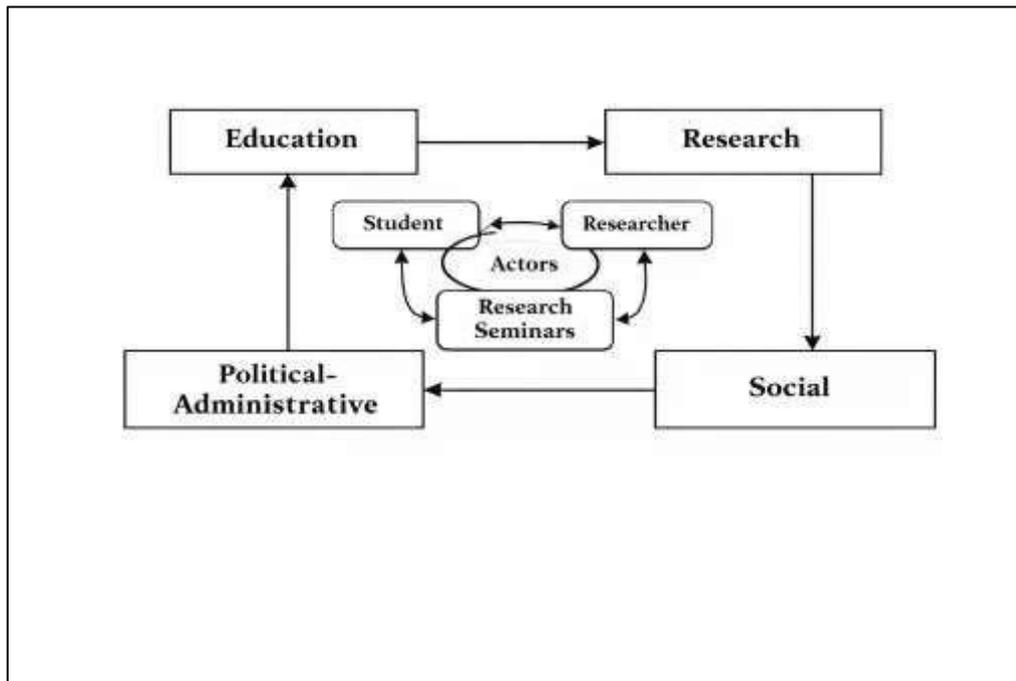


Adapted from Cifuentes et al. (1993), y Galeano y Jaramillo (2015)

**Figure 4.** Objectives and Purposes of State-of-the-Art Studies.

The importance of conducting State-of-the-Art Studies lies in their capacity to guide research training and achieve comprehensive knowledge that facilitates the definition of research topics and problems capable of generating new investigative paths, explanations, objects, methodologies, and theoretical frameworks. They contribute to conceptualizing studied phenomena and provide elements for consolidating a renewed vision of education. Their relevance also lies in the formation of research lines derived from understanding prior advances, contrasting statements, and exploring unprecedented perspectives (Alfonso, 2017; Cifuentes et al., 1993; Guevara, 2016; Hoyos, 2000; Jiménez, 2006; Londoño et al., 2014; Souza, 2011).

Based on these purposes and their importance, several actors and domains of application can be identified, as illustrated in Figure 5.



**Figure 5.** Domains of State-of-the-Art Studies.

In education, State-of-the-Art Studies facilitate the circulation of information and the demand for knowledge, while evidencing changes and evolution in academic research processes. They also guide the formulation of research proposals and serve as a reference for future research through “knowledge networks, communication processes, and theoretical and methodological languages ... practices and modes of research” (Llano, 2020, p. 10).

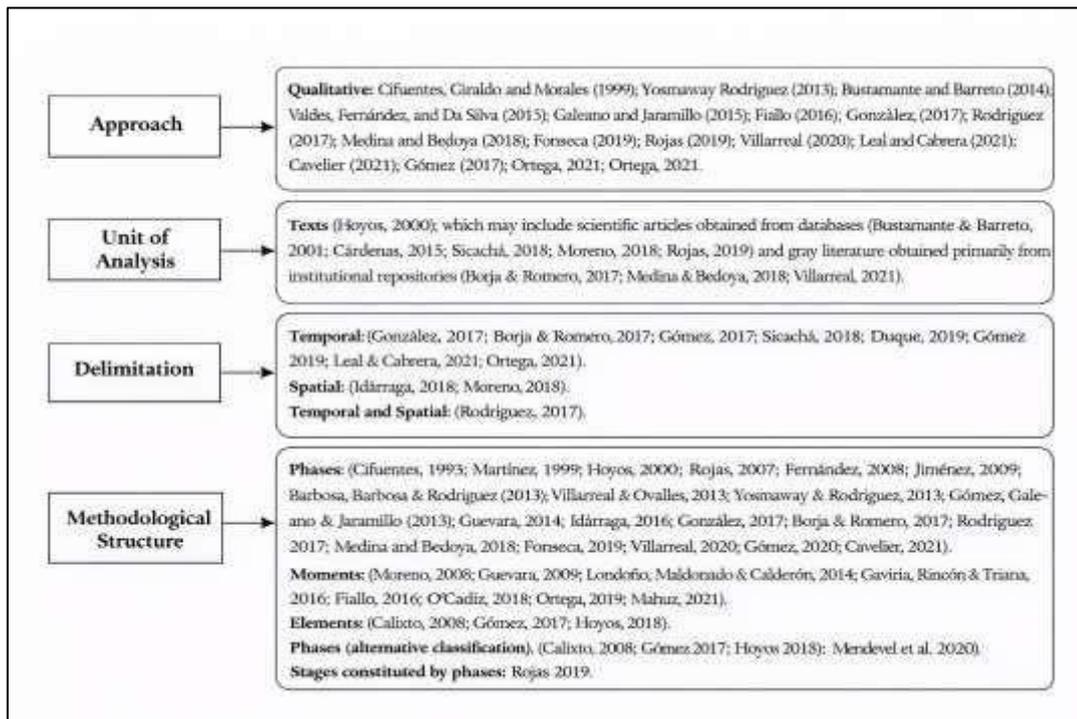
In research more broadly, they contribute to establishing different objects of study and methodologies, while fostering a prospective vision of emerging research fields (Souza, 2011). They also enrich the social dimension of research, which cannot originate solely from novelty in formulating proposals but must be grounded in accumulated knowledge (Jiménez, 2006).

In the political and administrative sphere, “information obtained through the realization of a State-of-the-Art Study can be used by governmental organizations and NGOs to determine the operability of public policies” (Henao et al., 2016, p. 186).

Finally, regarding actors, State-of-the-Art Studies strengthen cognitive abilities—particularly theoretical appropriation—that enable students, research seedbeds, and researchers to critically orient their approach to a topic and to “understand and value accumulated knowledge in the educational field in order to structure a new fabric of meanings and interpretations around an object of study” (Mendevil et al., 2020, p. 6).

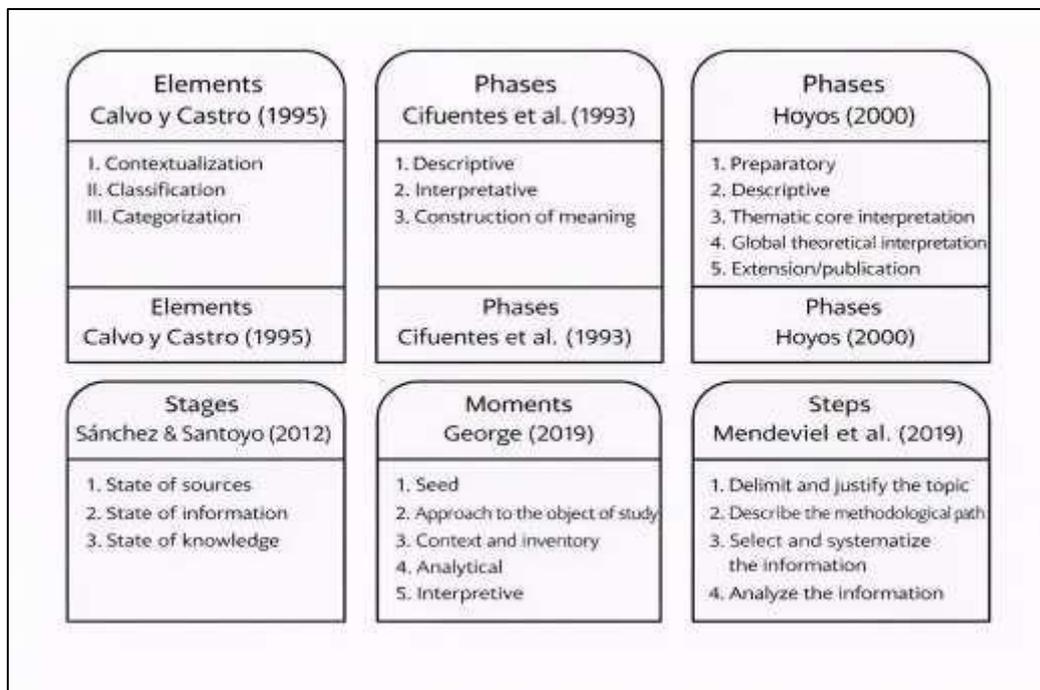
### ***3.5. Methodological Orientations of State-of-the-Art Studies Based on Scientific Publications.***

From a methodological standpoint, State-of-the-Art Studies are operationalized in diverse ways, the most representative of which are illustrated in Figure 6.



**Figure 6.** Methodological Orientations of State-of-the-Art Studies.

It is worth noting that some authors, such as Llano (2020) and Duque (2021), propose methodological structures without explicitly associating them with the previously mentioned conceptual categories, while Leal and Cabrera (2021) incorporate bibliometrics as part of the methodological design. These differences reveal variation in the number of phases, stages, elements, or steps proposed—ranging from three to eight or more—primarily depending on whether prior models are grouped or subdivided. Figure 7 presents some of the most frequently replicated methodological schemes.



**Figure 7.** Methodological Structure of State-of-the-Art Studie.

Among the instruments mentioned in the literature are the Specialized/Educational Analytical Abstract (RAE) (Bustamante, 2014; Borja & Romero, 2017; Rodríguez, 2017; Rojas, 2019; Gómez, 2020), bibliographic records, and matrices of categories and

subcategories (Saldarriaga, 2017). Other tools include bibliographic matrices and documentary matrices (Rojas, 2019), technical data collection forms and information systematization matrices (Villarroel, 2020), as well as content analysis matrices (Muñoz, 2021).

Additionally, some studies report the construction of Excel databases to organize analytical categories (Urbina & Ovalles, 2018), and categorical matrices described as “an instrument developed in Excel that specifies the article title, authors, purpose or relevance ... the categories to which it contributes ... the most relevant citations, an analytical commentary ... a summary, and the database” (Baena et al., 2020, p. 182).

### ***3.6. Additional Considerations on State-of-the-Art Studies Based on Scientific Production.***

As previously mentioned, State-of-the-Art Studies require constant updating. It is therefore necessary to clarify “what has been investigated so far in relation to our specific topic of study, while also attempting to distinguish how our research may enrich existing knowledge rather than merely reiterate previous studies” (Souza, 2007, p. 28).

Likewise, “in addition to consulting books and printed journals in the selected field of knowledge, it is essential to use search engines and databases available on the web, as these provide relevant and up-to-date information” (Huergo, 2015, p. 21), considering that the “theoretical reference base is what allows for understanding the problem and its principal aspects in full scope” (Muñoz & Eraso, 2019, p. 62).

It is also important to recognize that “strategies for participation, reflection, self-criticism, and deliberation are fundamental for promoting this type of research” (Mendevil et al., 2020, p. 5), which should lead to the establishment of criteria enabling coherent compilation of information—a fundamental requirement of a State-of-the-Art Study (Henaio, 2020).

## **4. CONCLUSIONS**

State-of-the-Art Studies originated in the United States and have undergone significant development in Latin America, where they have been adopted and appropriated as a modality of research across various disciplines within the social sciences, particularly history and education. Within universities, this modality has consolidated through research training spaces that have reinforced its functionality as a key element in the appropriation and positioning of a research object.

Regarding the definition of State-of-the-Art Studies, the most widely accepted conceptualization identifies them as documentary research or as a category within it. Nevertheless, it remains important to recognize the diversity of definitions that, although varied, contribute to understanding their role within the research process and distinguishing them from related procedures such as theoretical frameworks or documentary inventories.

Hermeneutics emerges as an essential component in both the comprehension and positioning of State-of-the-Art Studies as research in their own right. Equally significant are temporal and spatial delimitations, which must be established according to the object and purpose of the investigation. At the same time, certain limitations may arise, including the specificity of the topic, scarcity of publications, and restricted access to documentary production.

It is crucial to conduct future research aimed at clearly identifying and systematizing possible typologies of State-of-the-Art Studies. The diversity of methodological models identified demonstrates both flexibility and adaptability across fields of knowledge, facilitating the identification of advances and gaps related to specific topics and problems.

In this regard, the development of a comprehensive methodological guide for constructing State-of-the-Art Studies would be a valuable contribution to research practice. The purpose and importance of this research modality are directly linked to its capacity to strengthen research training. It enhances the skills of students, research seedbeds, and researchers; supports the structuring of research groups; consolidates undergraduate and graduate research lines; and ultimately contributes to the production of new knowledge. Finally, State-of-the-Art Studies are configured as a transversal documentary research modality applicable to all fields of knowledge. They allow for the evaluation of accumulated knowledge from multiple perspectives depending on how the object of study is structured. Consequently, their development and dissemination constitute a strategic mechanism for strengthening research training in higher education and represent a meaningful opportunity for incorporation within secondary education frameworks.

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