

# Creativity in Brazilian Education: Review of a Decade of Literature

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**How to cite this paper:** Berg, J., Vestena, C. L. B., & Costa-Lobo, C. (2020). Creativity in Brazilian Education: Review of a Decade of Literature. *Creative Education*, 11, 420-433  
<https://doi.org/10.4236/ce.2020.113030>

**Received:** January 29, 2020

**Accepted:** March 23, 2020

**Published:** March 26, 2020

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## Abstract

The present study resulted from the analysis of a large array of investigative products focused on creativity in higher education. A systematic review of studies between 2008 and 2018 found 27 theses published by doctoral programs in the specific field of education. Twenty-five Brazilian scientific databases were analyzed using a qualitative approach aimed at mapping creativity in higher education, demonstrating longitudinally how, when, who and with what purposes creativity has been the object of study. The most widely used approach was qualitative, with a predominance of case studies, the majority of which described creativity as a learning strategy or one that seeks learning solutions; a smaller number of doctoral theses viewed creativity as cognitively developed and intrinsic to the student. For this reason, the results suggest a possible lag in terms of understanding creativity as a way to significantly strengthen learning and a basic structure in the development of critical thinking and problem solving.

## Keywords

Creativity, Systematic Review, Higher Education, Brazil

## 1. Introduction

The current demand for education characterized by autonomy, purposefulness and critical thinking has galvanized international organizations such as UNESCO, whose Global Education 2030 Agenda supports initiatives that develop the human skills essential to meeting global objectives linked directly to solutions that

ensure overall quality of life, perceived by the populations of some countries as unsatisfactory (Lubart, 2007; Sternberg, 2000; UNESCO, 2017).

The global dynamic and synergy for change generates new life perspectives and has led to advances in a number of countries and their educational systems, which have presented innovative models and invested in creative thinking as a path to greater human development (Alencar & Fleith, 2003).

To this end, this study presents a systematic analysis by review that demonstrates the understanding of how scientists from postgraduate programs in Education in Brazil is researching the theme of creativity and what is its impact on current education. It also seeks to analyze whether such research is engaged with this global view, seeking to innovate the current educational system.

In Brazil, the education system displays worrisome deficiencies, caused primarily by the lack of investment in teacher training and school administrators, as well as the resistance of the professionals themselves to innovation, because they are unqualified, uncommitted, poorly motivated or use outdated teaching methods (Alencar & Fleith, 2003; OCDE, 2016).

According to the Anísio Teixeira National Institute for Educational Studies and Research (INEP) (2017), the Basic Education Development Index (IDEB) shows that only the first grades of elementary school achieved the goals established by the Ministry of Education (MEC). The index monitors basic reading and writing skills, as well as logical-mathematical reasoning for each stage of child development and learning. It is calculated based on data obtained from the school census and average performance in the Basic Education Assessment System (SAEB).

Brazil ranks among the worst in the Programme for International Student Assessment (PISA), created by the Organization for Economic Cooperation and Development (OECD), whose aim is to “produce indicators that contribute to the discussion of quality education” subsidizing policies to improve teaching through “compared assessment of 15-year-old students enrolled in grade 7” (OCDE, 2016).

Despite characterizing Brazilian education as inadequate, neither PISA nor IDEB surveys the entire country, thereby disregarding important analysis variables. In this respect, an education system is conceived to be dynamic and non-static, reflecting the cultures and societies to which it belongs.

Thus, by combining these assessment indices with variables such as the perceptions of teachers, students and professionals, in addition to analyzing scientific research and the current social phenomenon of accelerated communication, which is making the present increasingly fleeting and the future ever closer, we concluded that the Brazilian education system is causing significant social delays in learning, possibly condemning future Brazilian education to stagnation (Alencar & Fleith, 2003; Vergara & Vieira, 2005).

Simple, repetitive solutions can no longer be accepted; rather, complex thinking capable of analyzing problems and conflicts in different domains is required, in addition to the ability to anticipate, understand and assesses the near future,

negotiate guidelines and values, collectively develop innovative actions, collaborate, understand, respect, be aware of and deal with conflicts, as well as question and assume a position based on self-knowledge about the social role occupied (UNESCO, 2017). As such, assessing and understanding creativity is no longer a new issue; it is addressed globally in the socioeconomic, cognitive, socioemotional and behavioral fields (UNESCO, 2017).

In this respect, developing creative education involves work, dedication, engagement and assessment. However, its value, usefulness and acceptance cannot be restricted only to the utilitarian-reductionist logic of purpose and function for a product or idea, standardizing and establishing tensions that compromise the creative process. It is important to remember that creativity goes beyond this, and that the individual must also be taken into account (Costa-Lobo et al., 2017a).

Creating involves imaginative, inventive, innovative, intuitive, inspirational and original thought processes. It is a complex, multifaceted phenomenon with dynamic interaction between elements related to people, the environment, culture, society and the opportunity of self-expression (Costa-Lobo et al., 2017c; Csikszentmihayi, 1996).

The current concept of creativity in education calls for a multifaceted approach that combines “relevant elements such as intellectual capacity and personality traits, as well as the environmental context” (Lubart, 2007: p. 17). This complex approach involves both creative people and creative and cooperative groups, or cognitive, conative, emotional and environmental factors that interact and are often formed by the logic contained in feedback systems in the social and/or cultural field (Alencar & Fleith, 2003; Csikszentmihayi, 1996; Sternberg, 2000; Lubart, 2007).

Thus, when a creative moment occurs, the cognition of people open to creativity acts in information and knowledge analysis systems, locating, coding and observing evidence, regrouping data and phenomena, assessing various possibilities and making task decisions flexible (Alencar & Fleith, 2003; Costa-Lobo et al., 2017a; Lubart, 2007).

Conative factors related to habits and behavior associated with personality, cognition and motivation drive perseverance, tolerance, flexibility, cooperation and individuality. The ability to assume risks, intrinsic and extrinsic motivation and emotions act systematically in this complex network so that positive emotional states favor or inhibit creative performance (Alencar & Fleith, 2003; Amabile, 1996; Bahia, 2014; Costa-Lobo et al., 2017b; Csikszentmihayi, 1996; Lubart, 2007). This context joins these factors, interfering as a judge in decision making and/or as a regulator that standardizes acceptability of creative action. The family, school and community also have a direct influence, and in repressive or very liberal environments, creativity is compromised. By contrast, settings that establish limits while being flexible in terms of rules and habits are stimulating and supportive of ideas (Alencar & Fleith, 2003; Amabile, 1996; Csikszentmihayi, 1996; Gardner, 1995; Lubart, 2007; Sternberg, 2000). Thus, spaces that offer ex-

periences and objects that represent individual and/or collective realities, with the possibility of intentionally or spontaneously stimulating the imagination, illusion or fantasy, even with partially defined limits, are dialogical contexts or accessible symbolic fields where creative people are allowed to exchange ideas and create (Csikszentmihayi, 1996; Morin, 2000).

As new challenges arise, creativity generates benefits such as rethinking collaboration and recreating practices, prompting the demand for an educational context that provides even more instruction, autonomy and critical thinking, encouraging inquiry and improving quality (Costa-Lobo et al., 2016; Costa-Lobo & Cabrera, 2017c).

Whether society and the State are willing to invest in creative policies, measures and dialogue in Brazilian education, as has occurred in other countries, or encourage the development of skills that promote post-modern thinking, remains to be seen. However, countries that invested in such changes in their education system, perceiving how creativity alters the way of thinking, are at the forefront of education and social relations (UNESCO, 2017).

In this respect, the aim of this study was to determine a) how Brazil researches and views creativity in education, b) the main scientific problems, c) the methods used and theoretical lines adopted, d) which Brazilian regions investigated creativity in education and e) which creativity concept was established. To that end, a systematic review was conducted to assess a decade of Brazilian research into creativity.

## 2. Method

This study presents a summary of the scientific process related to creativity in education using a systematic review of the literature. This scientific method of surveying and analyzing studies is widely used in the fields of Education, Medicine and Social Sciences, since there are large amounts of data and sources of information available. Systematic reviews are considered the most suitable means of underscoring good practices in a number of areas, and the most comprehensive in making the sector diagnosis proposed here.

Cochrane (1972) reports the need to use systematic literature reviews and criticize medical practices, with a view to bridging gaps such as the lack of scientific evidence in treatments, interventions, tests and other medical procedures. Systematic reviews use a set of procedures and techniques with scientific rigor, in order to achieve better results, minimize errors and reduce the main researcher's bias, providing high-quality scientific evidence.

The definition of a scientific literature review followed here describes the process as collecting, knowing, understanding, analyzing, summarizing and assessing a set of scientific studies aimed at creating the state of the art in a particular research topic (Levy & Ellis, 2006).

Over the years, several institutions have created and consolidated suggestions to develop a systematic model for a literature review. There are two different, but

complementary theoretical publications: the *Cochrane Handbook* (1972) and CDR Report. Although other methods are applied, such as PRISMA, the first two are frequently used in studies. According to the *Cochrane Handbook* (1972), there are seven stages in a literature review: 1) formulation of the research question; 2) study location and selection in indexed databases; 3) critical assessment of studies; 4) data collection; 5) data analysis and presentation; 6) data interpretation; and 7) review improvement and up-date.

The CDR Review, in turn, presents a protocol for conducting a systematic literature review consisting of three phases and ten stages. In the first phase (review planning), there are three stages: identifying the need for the review, preparing a proposal for a systematic review and developing a review project. The second phase contains five stages: identification in the literature, study selection, assessment of study quality, data extraction, and monitoring data progress and synthesis. The third phase, involving the presentation and dissemination of a report, consists of two stages: report and recommendations and evidence of the practice.

Since both publications (the *Cochrane Handbook* and CDR Report) are similar, a number of authors decided to combine them into a third method, based on consensus among researchers. To better understand the scenario proposed in the present study, one must reflect critically on the different contributions of researchers to the models developed for systematic reviews.

Two theoretical models can be emphasized. The first describes the systematic review as consisting of three main phases. In the first phase, all preliminary information that will be analyzed is collected, such as classic studies in the field of research, books and texts that discuss the topic and reference documents indicated by specialists. The second phase contains six stages: knowing the literature; understanding the literature; applying the review; compiling the results; analyzing the results; and assessing the results. Finally, in the third phase, the results are summarized.

This model reinforces the need for the systematic literature review in cycles during the six stages, as follows: knowing the literature; understanding the literature; conducting the review; analyzing the results; preparing a summary of the results; and assessing the results obtained. Thus, when knowledge of the topic increases, the cycles are executed more efficiently. The cycle, in turn, will be repeated as many times as necessary, in order to reach the goals established for the bibliographic review.

The model proposed involves planning, execution and analysis of results. However, in contrast to *Levy and Ellis* (2006), it does not emphasize the need for interactive research, analysis and comprehension cycles. Rather, it monitors the learning and knowledge acquired by researchers during studies, reading and text comprehension.

In the planning phase, the objectives of the systematic review are established and the protocol developed, which describes the central research question, objectives, keywords, research sequences and execution method. If the protocol is

approved by all the researchers, the second phase (execution) initiates. During the execution phase, the primary studies are identified, selected and assessed, considering the inclusion and exclusion criteria established in the protocol. After the primary studies are selected, the data are extracted and compiled during the result analysis phase. It is important to underscore that the results should be evaluated during the first and second phases because the implementation phase is repeated in the event of negative outcomes.

In this review, we opted for a mixed approach, combining systematic review methods, as outlined above. The study lasted sixteen months (November 2017 to February 2019). In the first stage, we established the research question, objectives, primary sources, search strings, inclusion and exclusion criteria, qualification categories, method and schedule (Esteves, et al., 2017; Sampaio & Mancini, 2007).

Next, preliminary studies were selected consisting of defended theses, available in twenty-five Brazilian government and university databases, as follows: Pontifical Catholic University of Rio Grande do Sul (PUC-RS), São Paulo (PUC-SP) and Campinas (PUC-Campinas); Brazilian Digital Library of Theses and Dissertations (BDTD); Coordination for the Improvement of Higher Education Personnel/Ministry of Education (CaPes/MEC); Public Domain (DP); University of Brasilia (UNB); University of Campinas (UNICAMP); University of São Paulo (USP); State São Paulo State University (UNESP); Federal University of Bahia (UFBA); Federal University of Paraíba (UFPB); Federal University of Goiás (UFGO); Federal University of Minas Gerais (UFMG); Federal University of Pernambuco (UFPE); Federal University of Santa Catarina (UFSC); Federal University of São Carlos (UFSCAR); Federal University of São Paulo (UNIFESP); Federal University of Amazonas (UFAM); Federal University of Maranhão (UFMA); Federal University of Mato Grosso (UFMT); Federal University of Pará (UFPA); Federal University of Paraná (UFPR); Federal University of Rio de Janeiro (UFRJ); and Federal University of Rio Grande do Sul (UFRGS).

A primary data source and the search string “creativity” were used in the title, keywords or abstract. In the second phase, the results were surveyed, read and analyzed, in addition to documenting the studies (Esteves, et al., 2017; Sampaio & Mancini, 2007).

The first filter located what was being searched for in the title; next, the abstract, introduction and conclusion were read and when the second filter was inadequate, the third filter involved reading the entire thesis. Only after the studies were classified were they compared for frequency in order to quantify and determine the type of research conducted, mapping productivity in terms of creativity (Esteves, et al., 2017; Sampaio & Mancini, 2007).

Documenting the information obtained helped in the theoretical support of the topic, cataloging and the storing of texts. The third stage consisted of a bibliographic analysis and summary of results organized in an Excel spreadsheet, as well as conducting qualitative data analysis. Excel was selected due to the low

number of studies found in this stage.

Inclusion criteria were theses published in Portuguese between 2008 and 2018, indexed in the aforementioned databases, in the area of Education in Human Sciences. The following exclusion criteria were established: topics not related to the education field, not published within the time frame defined, or not part of the Graduate Program in Education. The theses were exported from the sources selected and the results refined and combined into a single list, excluding duplicates. Next, they were organized into titles, keywords and abstracts according to the categories created. The theses were read intensively and extensively relevant information extracted (Esteves et al., 2017; Nakano & Wechsler, 2007; Sampaio & Mancini, 2007; Santos, 1995; Silva & Nakano, 2012; Zanella & Titon, 2005).

### 3. Results

The initial study used Brazilian databases (25) and resulted in a significant number of theses (353), but 326 were excluded after being submitted to filters for not being related to the topic, publication period, area of knowledge or not belonging to Graduate Education Programs (301); not exhibiting the creativity concept and/or theoretical field developed (9); and being repeated in different databases (16). At the end of this process, few theses were considered eligible.

The low number of studies in these years (11) confirms earlier systematic reviews and shows little scientific advance toward creativity, despite ongoing global discussions for example, Silva et al. (2013) on theses and dissertations between 1990 and 2010; Silva & Nakano (2012) analyzed studies in the area of psychology between 1995 and 2009; Oliveira & Nakano (2011) scientific articles published from 2005 to 2008 on creativity and resilience; Nakano & Wechsler (2007) theses and dissertations between 1984 and 2006; Zanella & Titon (2005) theses and dissertations between 1994 and 2001 in Graduate Psychology Programs; and Santos (1995) dissertations and theses between 1970 and 1993 in the areas of psychology and education.

The largest number of articles were published between 2013 and 2018 (22), none in 2009 and 2012, and 2, 1 and 2 in 2011, 2010 and 2008, respectively. The Center-West (9) and Southeastern regions published the most theses, while the South (6) and Northeast (5) published few and the North none. Brasilia was the city with the largest number of researchers (33%), represented by the following universities.

Among the problems raised by the regions analyzed (Table 1), the Northeast focused on creativity as an element of popular education and how teachers' beliefs regarding creativity can impact learning. In the Center-West, the lack of knowledge about learning and creativity on the part of teachers, families and students was investigated. In the Southeast, creativity was a determining characteristic for inclusion, since it considered that the education system was in crisis



**Table 1.** Universities that researched creativity.

UNIVERSITY	QUANTITY OF STUDIES
Federal University of Paraná - UFPR	1
Pontifical Catholic University - PUC PR	1
Pontifical Catholic University - PUC RS	2
Catholic University of Brasilia - UCB	2
Federal University of Bahia - UFBA	1
Federal University of Ceará - UFCE	1
Federal University of Minas Gerais - UFMG	1
Federal University of Pernambuco - UFPB	1
Federal University of Rio Grande do Norte - UFRGN	2
Federal University of Rio Grande do Sul - UFRGS	2
Federal University of Rio De Janeiro - UFRJ	1
University of Brasilia - UNB	7
Paulist State University - UNESP	4
University of São Paulo - USP	1

and that there was a need to search for contemporary alternatives. In the South, the education models implemented as transformative for citizens and various levels of human development were the subject of research.

In this respect, the aforementioned objectives sought to explore, verify, understand, investigate, study, criticize, and describe creativity using a qualitative approach (19) in the vast majority of the studies, followed by mixed (4) and qualitative (4) studies.

In these approaches, the research instruments were varied and frequently combined. The following were used: Free-association questionnaire, PERA method; Test of Create Thinking-Divergent Production; Valuing the Degree of Creative Development (VADECRIE); Normative beliefs questionnaire; Mathematical test; Creativity test; Life history document and/or theories; Interview; Questionnaire; Report analysis; Observation; Written analysis; Conversational system; Workshops; Time tunnel; Sentence completion; Question solving.

There was a predominance of empirical studies (25) over theoretical perspectives (2) and the study subjects were students (10), teachers (6), professionals from different areas of knowledge (7), parents, children and teachers (2).

Studies on students were conducted at the elementary I (1), elementary II (1), secondary (4) and undergraduate Bachelor's (4) levels as well as with gifted children at a number of educational levels (1). The following professionals participated: carnival promoter, costume designer, sculptor, choreographer, composer, nail designer, architect, dressmaker, human and exact sciences researchers, and experts in different domains, including journalists and beauticians.

The evidence demonstrated empirical research conducted in informal educa-



tional environments (7), although formal school settings were more numerous (20).

The theoretical foundation used in most of the cases referenced authors of psychology, including Lubart; Sternberg; Csikszentmihalyi; Gardner; Mitjás; De La Torre; and Wechsler, among others. The Brazilian author most cited was Alencar. Complexity theory authors (Morin, de la Torre) were also mentioned, but in smaller numbers, and the theory of subjectivity authors referenced were Gonzalez Rey and Martínez. There was a predominance of the historical-critical and historical-cultural approaches, with Vigotsky as the primary author in child development, its complexity and subjectivity.

The results of the studies analyzed show that creativity is a liberator of thinking and reasoning, a human product comprising both democratic and authoritarian reason. With respect to teacher training, the results demonstrated that creativity recreates inclusive representations, capable of strengthening self-confidence and reflection on beliefs and actions that are not compatible, but rather conflicting.

The findings indicated that creative training methods were well received by teachers, despite involving distance learning. Tension in the teaching environment was recognized and in this respect, creative thinking presented new forms of purposefulness and analysis of the conflicts and challenges imposed, thereby minimizing stress.

Additionally, creativity in mathematics is a motivating variable and creative games and leisure are directly associated with teacher creativity in planning innovative educational measures, in addition to the construction of more significant and democratic relationships.

Some of the studies focused on creativity as a human, individual, autonomous and directed skill, and environmental aspects were considered promoters and/or inhibitors of creativity and sociocultural perspective (Csikszentmihalyi, 1996).

The concepts presented showed that the conditions required for people to be creative were non-conformity, reflection and purposefulness when dealing with problems and conflicts. Human subjectivity was discussed in studies where the concept was similar to the complexity of creative learning (Costa-Lobo et al., 2016; Costa-Lobo & Cabrera, 2017c; Martínez, 1997). These studies were concentrated in Brasilia, where universities regularly investigated creativity, promoting dialogues, experiences and research.

Few studies have investigated the systemic or complex concepts that simultaneously consider people, the environment, cognition, behavior and emotions. They treated creativity sporadically and not integratively (Amabile, 1996; Lubart, 2007; Sternberg, 2000).

In Brazil, the concept of creativity has remained linked to production-product-novelty, accepted as useful and original that which has provided an advantage, whether competitive or status-related (Alencar & Fleith, 2003).

According to the studies analyzed, creativity was shown to be beneficial to education and essential to the current educational complex, due to its innovation

and progress. However, its absence produces tension, submission, lack of motivation, low productivity, the inability to solve problems and criticize, and obsolescence.

This explains the poor PISA and IDEB performance in Brazil, as well as the small number of studies presented. These poor results may have been caused by problems long recognized by Brazilian teachers, such as the gap, abandonment and absence of intellectual, emotional and social skills needed in the current global environment (IDEB, 2017; PISA, 2017).

It also demonstrated important gaps in thinking and cognitive reflection, behavior, practices, policies, culture, subjectivity and educational development, indicating possibilities for new research that values education as the driving force of citizenship, critical thinking and change.

For future investigations, we recommend a semantic analysis of terms that define concepts and theoretical models. Perhaps statistical techniques that conduct a more thorough quantitative analysis of the results could be included.

Another limitation are the databases of Brazilian theses, which are not adequately integrated. Similar limitations were observed in the thesis databases of a number of Brazilian universities, because of their inaccessibility, which precluded analyzing research conducted in certain parts of the country. As such, the precariousness of these search mechanisms reported by Santos (1995) still persists.

Based on the data collected and analyzed, there is a difference in focus between universities and federal entities with respect to one of the most solicited human skills. Moreover, the notion of creativity as a tangible and visible product directly linked to educational practices and disregarded as an important part of human cognition capable of being developed continues to exist.

#### 4. Discussion

Given the volatility and dynamic of the information reported here and the global search for new human skills, this study has provoked reflection, possible dialogues and action, paving the way for future research (Vergara & Vieira, 2005; UNESCO, 2017).

We concluded that educational studies on creativity have made progress with respect to participants and objects of study, since the evaluative setting of schools created opportunities to view both teachers and students as subjective, reflect on their cognition, behavior, culture, history, and discuss new ways of perceiving education in the social and political fields.

However, these studies are scarce and discuss specific situations, cultures and locations. In this respect, there has been little investigation of the topic.

There are also few authors trained on the issue, with an emphasis on educational psychology. This is evidenced by the fact that only one thesis was based on education in the curriculum and education policy. No studies were found on school administration, financial management, structural setting or school fur-

nishings. Although culture appears in some of the studies, it was not the object of study in a school environment.

We observed the search for new paradigms, professional attitudes, contexts and practices that result in greater understanding of the current educational scenario and participants. Thus, there is a focus on optimizing the education system, which most studies referred to as in crisis, outdated, ill-informed and undemocratic.

The concepts of creativity discussed in the Center-West region of the country focused on teacher performance, broader learning, optimization of the talent and skills needed for successful outcomes and development of new ideas. In the Northeast, creativity has focused on art, the creative process and creativity as a liberating force. These studies demonstrate a lack of research on autonomous and critical thinking and how creativity can be used to achieve them.

As such, there is a need for future studies that broaden the scientific knowledge of creativity, territorially, methodologically, philosophically, politically and socially, in addition to better organization of theses, which mirror scientific production at universities as well as the regions of the country. Thus, there is a demand on the part of society and academia for creativity in education, indicating the need to expand studies to understand its role in other countries and cultures. It is also suggested that investment be made in research that broadens the educational theoretical foundation, via new procedures and methods.

The current social function of schools at all levels must spread beyond the walls that surround them or the community to which they belong, in addition to paying equal attention to individuals, their subjectivities and global role for humanity. This study raises questions for future research, such as the quantitative mapping of opinion and the main complaints and solutions expressed by parents, students, teachers and administrators regarding creativity in current education, in order to compare them with the experiences of other countries.

There is also a need for in-depth research on education policies that view creativity more critically, with an emphasis on a person's well-being and talent, respecting their individual characteristics. Thus, we may be able to construct a theoretical and scientific educational framework that will break paradigms and create a new pedagogical political system that promotes both skills and well-being.

Adopting a systematic review of scientific studies offered the possibility of developing new theories, procedures and significant educational products, and can be considered an efficient and safe research method.

This systematic review collected important evidence to guide future research projects and educational thinking. It is equally important for social, cultural and scientific diagnosis and is efficient in creating scenarios and policies, as well as identifying research gaps.

Its primary objective of reducing biases that occurred in a simple review was achieved, characterizing it as a method capable of demonstrating phenomena

over a wide range of knowledge. As such, systematic reviews are also a significant scientific resource, since they help select evidence in a systematized fashion, thereby increasing the “spectrum” of “relevant results, rather than limiting conclusions based on the reading of only some articles” (Sampaio & Mancini, 2006: p. 84).

Additionally, it is an important thermometer of scientific relevance in both academia and society as a whole, serving as a means of portraying temporal, geographic and cultural realities, among others.

The number of systematic reviews in the Human Sciences is considered low, and for this reason, understanding their development contributes to the growth and assessment of studies with these characteristics.

### Conflicts of Interest

The authors declare no conflicts of interest regarding the publication of this paper.

### References

- Alencar, E. S., & Fleith, D. (2003). *Criatividade: Múltiplas perspectivas*. Brasília: Editora Universidade de Brasília.
- Amabile, T. M. (1996). *Creativity in Contexto*. Boulder: Westview.
- Bahia, S. (2014). Criatividade, cooperação e pensamento crítico: Um exemplo em contexto de educação não formal. *Amazônica*, 14, 300-324.
- Cochrane, A. (1972). *Effectiveness and Efficiency: Random Reflections on Health Services*. London: Nuffield Provincial Hospitals Trust.
- Costa-Lobo, C., & Cabrera, J. C. (2017c). Teacher Training: The Relevance of Creativity in School. In P. S. Pereira, O. Titrek, & G. Sezen-Gultekin (Eds.), *Proceedings of 3rd International Conference on Lifelong Education and Leadership for All* (pp. 156-165). Porto, Portugal: ICEL Conferences.  
[https://www.researchgate.net/publication/322447759\\_Costa-Lobo\\_C\\_Cabrera\\_J\\_2017\\_Teach-er\\_training\\_the\\_relevance\\_of\\_creativity\\_in\\_school\\_In\\_Paulo\\_Alberto\\_da\\_Silva\\_Pereira\\_a\\_Osman\\_Titrek\\_Gozde\\_Sezen-Gultekin\\_Eds\\_Proceedings\\_of\\_3rd\\_International\\_Conference](https://www.researchgate.net/publication/322447759_Costa-Lobo_C_Cabrera_J_2017_Teach-er_training_the_relevance_of_creativity_in_school_In_Paulo_Alberto_da_Silva_Pereira_a_Osman_Titrek_Gozde_Sezen-Gultekin_Eds_Proceedings_of_3rd_International_Conference)
- Costa-Lobo, C., Campina, A., & Menezes, J. (2017b). Criatividade nas realidades educativas: Considerações teóricas. *Diálogos Possíveis*, 16, 2-23.  
<http://www.faculdadesocial.edu.br/revistas/index.php/dialogospossiveis/article/view/43>
- Costa-Lobo, C., Coimbra, D. C., & Almeida, L. S. (2017a). La pertinencia de la creatividad en la escuela: Evaluar el potencial creativo de los alumnos. In T. Ramiro-Sánchez, M. T. R. Y. Sánchez, & M. P. B. Sánchez (Eds.), *Libro de Actas del 5th International Congress of Educational Sciences and Development* (p. 606). Espanha.
- Costa-Lobo, C., Sousa, M., Campina, A., Vestena, C. L. B., & Cabrera, J. C. (2016). Potencial criativo e processos cognitivos em crianças: Da identificação precoce às intervenções futuras. *Diálogos Possíveis*, 15, 65-93.  
<http://www.faculdadesocial.edu.br/revistas/index.php/dialogospossiveis/article/view/39>
- Csikszentmihayi, M. (1996). *Creativity*. Nova York: Harper Collins.

- Esteves, T., Ricou, M., Franco, A., Campina, A., & Costa-Lobo, M. (2017). Identidade da psicologia: Revisão sistemática de uma década de literatura. *Revista de Estudios e Investigación en Psicología y Educación, No. 4*, 1-5.  
<https://doi.org/10.17979/reipe.2017.0.04.2146>  
<http://revistas.udc.es/index.php/reipe/article/view/2146>
- Gardner, H. (1995). *Inteligências Múltiplas: A Teoria na Prática*. Porto Alegre: Artmed.
- INEP Instituto Nacional de Estudos e Pesquisas Educacionais Anísio Teixeira (2017). *Índice de desenvolvimento da educação básica (IDEB): Metas intermediárias para a sua trajetória no Brasil, Estados, Municípios e Escolas*. Brasília: MEC.
- Levy, Y., & Ellis, T. J. (2006). A Systems Approach to Conduct an Effective Literature Review in Support of Information Systems Research. *International Journal of an Emerging Transdiscipline, 9*, 181-212. <https://doi.org/10.28945/479>  
<http://inform.nu/Articles/Vol9/V9p181-212Levy99.pdf>
- Lubart, T. (2007). *Psicologia da criatividade*. Porto Alegre: ArtMed.
- Martínez, A. M. (1997). *Criatividade, personalidade e educação*. Campinas: Papirus.
- Morin, E. (2000). *Os sete saberes necessários à educação do futuro*. São Paulo: Cortez.
- Nakano, T. C., & Wechsler, S. M. (2007). Criatividade: Características da produção científica brasileira. *Avaliação Psicológica, 6*, 261-270.  
[http://pepsic.bvsalud.org/scielo.php?script=sci\\_arttext&pid=S1677-04712007000200015&lng=pt&nrm=iso](http://pepsic.bvsalud.org/scielo.php?script=sci_arttext&pid=S1677-04712007000200015&lng=pt&nrm=iso)
- OCDE Organização para a Cooperação e Desenvolvimento Econômico (2016). *Brasil no PISA 2015: Análises e reflexões sobre o desempenho dos estudantes brasileiros*. São Paulo: Fundação Santillana.
- Oliveira, M. A., & Nakano, T. C. (2011). Revisão de pesquisas sobre criatividade e resiliência. *Temas em Psicologia, 19*, 467-479.  
[http://pepsic.bvsalud.org/scielo.php?script=sci\\_arttext&pid=S1413-389X2011000200010&lng=pt&nrm=iso](http://pepsic.bvsalud.org/scielo.php?script=sci_arttext&pid=S1413-389X2011000200010&lng=pt&nrm=iso)
- Sampaio, R. F., & Mancini, M. C. (2007). Estudos de revisão sistemática: Uma guia para síntese criteriosa da evidência científica. *Revista Brasileira de Fisioterapia, 11*, 89.  
[http://www.scielo.br/scielo.php?script=sci\\_arttext&pid=S1413-35552007000100013&lng=pt&nrm=iso](http://www.scielo.br/scielo.php?script=sci_arttext&pid=S1413-35552007000100013&lng=pt&nrm=iso)  
<https://doi.org/10.1590/S1413-35552007000100013>
- Santos, A. T. (1995). *Estudo da criatividade no Brasil: Análise das teses/dissertações em psicologia e educação (1970/1993)*. Tese de Doutorado, Campinas: UNICAMP.
- Silva, T. F., & Nakano, T. C. (2012). Criatividade no contexto educacional: Análise de publicações periódicas e trabalhos de pós-graduação na área da psicologia. *Educação e Pesquisa, 38*, 743-759.  
[http://www.scielo.br/scielo.php?pid=S1517-97022012000300014&script=sci\\_abstract&lng=pt](http://www.scielo.br/scielo.php?pid=S1517-97022012000300014&script=sci_abstract&lng=pt)  
<https://doi.org/10.1590/S1517-97022012005000013>
- Sternberg, R. J. (2000). *Psicologia cognitiva*. Porto Alegre: Artmed.
- UNESCO (2017). *Educação para os objetivos de desenvolvimento sustentável*. Paris.  
<http://unesdoc.UNESCO.org/images/0025/002521/252197POR.pdf>
- Vergara, S. C., & Vieira, M. M. F. (2005). Sobre a dimensão tempo-espaço na análise organizacional. *Revista de Administração Contemporânea, 9*, 103-119.  
[http://www.scielo.br/scielo.php?script=sci\\_arttext&pid=S1415-65552005000200006&lng=en&nrm=iso](http://www.scielo.br/scielo.php?script=sci_arttext&pid=S1415-65552005000200006&lng=en&nrm=iso)

<https://doi.org/10.1590/S1415-65552005000200006>

Zanella, A. V., & Titon, A. P. (2005). Análise da produção científica sobre criatividade em programas brasileiros de pós-graduação em psicologia (1994-2001). *Psicologia em Estudo, 10*, 305-316. <https://doi.org/10.1590/S1413-73722005000200018>  
[http://www.scielo.br/scielo.php?script=sci\\_arttext&pid=S1413-73722005000200018](http://www.scielo.br/scielo.php?script=sci_arttext&pid=S1413-73722005000200018)