Bibliometric study of Brazilian theses and dissertations (1996-2018) on specific and differentiated teaching materials for indigenous populations

Maria Cristina Piumbato Innocentini Hayashi¹, Alexandre Masson Maroldi², Carlos Roberto Massao Hayashi³

¹,²Universidade Federal de São Carlos - UFSCar. Departamento de Ciências da Informação. Programas de Pós-Graduação em Educação, Educação e Ciência, Tecnologia e Sociedade. Rodovia Washington Luis, km 235. São Carlos - SP. Brasil.
²Universidade Federal de Rondônia - UNIR.
Author for correspondence: dmch@ufscar.br

ABSTRACT. In the academic sphere, the debate on the elaboration of specific and differentiated teaching materials for indigenous peoples has been frequent in order to break their invisibility in the context of school education. In order to investigate how this debate permeates the works defended in graduate programs in Brazil, and seeking answers on how this scientific production is configured, an exploratory and descriptive research was carried out, with bibliometric and content approaches. Data were collected at the Brazilian Digital Library of Theses and Dissertations (BDTD/IBICT) using the expressions “indigenous teaching materials” and “indigenous teaching books”, which resulted in dissertations (n=29) and theses (n=3). The bibliometric analysis of the works revealed the temporal evolution (1996-2018), the institutions (n=17), geographic regions (n=5) and areas of the graduate programs (n=11). The content analysis exposed the objectives (n=4); the typology of teaching materials (n=8); the levels of education (n=2); the disciplines (n=5) and the ethnic groups (n=42) to which these teaching materials are destined. It was concluded that although important, there are still few graduate studies that have accepted the challenges and complexity inherent in the elaboration and analysis of specific didactic materials in the context of indigenous school education. This requires a more critical look at the representation and participation of indigenous peoples in the preparation of these materials.

Keywords: Instructional Materials, Indigenous Textbooks, Indigenous School Education, Bibliometric Analysis.
Estudo bibliométrico de teses e dissertações brasileiras (1996-2018) sobre materiais didáticos específicos e diferenciados para populações indígenas

RESUMO. No âmbito acadêmico o debate sobre a elaboração de materiais didáticos específicos e diferenciados para os povos indígenas tem sido frequente visando romper com sua invisibilidade no contexto da educação escolar. Com o objetivo investigar como esse debate permeia os trabalhos defendidos em programas de pós-graduação no Brasil, e buscando respostas sobre como se configura essa produção científica foi realizada uma pesquisa exploratória e descritiva, conduzida com abordagens bibliométrica e de conteúdo. Os dados foram coletados na Biblioteca Digital Brasileira de Teses e Dissertações (BDTD/IBICT) utilizando as expressões “materiais didáticos indígenas” e “livros didáticos indígenas”, que resultaram em dissertações (n=29) e teses (n=3). A análise bibliométrica dos trabalhos revelou a evolução temporal (1996-2018), as instituições (n=17), regiões geográficas (n=5) e áreas dos programas de pós-graduação(n=11). A análise de conteúdo expôs os objetivos (n=4); a tipologia dos materiais didáticos (n=8); os níveis de ensino (n=2), as disciplinas (n=5) e as etnias (n=42) às quais se destinam esses materiais didáticos. Concluiu-se que apesar de importantes, ainda são poucos os trabalhos de pós-graduação que aceitaram os desafios e complexidade inerentes à elaboração e análise de materiais didáticos específicos no contexto da educação escolar indígena. Isto requer um olhar mais crítico sobre a representação e participação dos povos indígenas na preparação desses materiais.

Materiales didácticos específicos y diferenciados para poblaciones indígenas: estudio bibliométrico de tesis y disertaciones brasileñas (1996-2018)

RESUMEN. En el ámbito académico, el debate sobre el desarrollo de materiales didácticos específicos y diferenciados para los pueblos indígenas ha sido frecuente para romper con su invisibilidad en el contexto de la educación escolar. Para investigar cómo este debate impregna los trabajos defendidos en los programas de posgrado en Brasil, y para buscar respuestas sobre cómo se configura esta producción científica, se realizó una investigación exploratoria y descriptiva, realizada con enfoques bibliométricos y de contenido. Los datos se recopilaron en la Biblioteca Digital Brasileña de Tesis y Disertaciones (BDTD/IBICT) utilizando las expresiones “materiales de enseñanza indígena” y “libros de enseñanza indígena”, que dieron como resultado disertaciones (n=29) y tesis (n=3). El análisis bibliométrico de los trabajos reveló la evolución temporal (1996-2018), las instituciones (n=17), las regiones geográficas (n=5) y las áreas de los programas de posgrado (n=11). El análisis de contenido expuso los objetivos (n=8); la tipología de materiales didácticos (n=4); los niveles educativos (n=2), las asignaturas (n=5) y los grupos étnicos (n=42) a los que se destinan estos materiales didácticos. Se concluyó que en el ámbito de los estudios de posgrado todavía hay pocos trabajos que acepten los desafíos y la complejidad inherentes a la elaboración y análisis de materiales didácticos específicos en el contexto de la educación escolar indígena, que requieren una mirada más crítica de la representación y participación de pueblos indígenas en la preparación de estos materiales.

Palabras clave: Materiales Didácticos Específicos, Libros Didácticos Indígenas, Educación Escolar Indígena, Análisis Bibliométrico.
Introduction

In Brazil, as in other societies, the long historical process of indigenous education as a product of colonization, the development of industrial society and globalization was permeated by struggles, confrontations, transformations and solidarity (Mello, Sousa & Palomino, 2018, p. 1). The authors point out that at the center of the debate on and among indigenous peoples about indigenous school education are issues such as self-determination, acculturation, preservation of their territories and traditions and the negotiation of customs aimed at national cultures. In addition, they emphasize that the legal frameworks of indigenous education in the country have suffered international influences since “the papal bull and treaties between colonizing kingdoms, to the Declaration of Human Rights, to the Convention 169 of the International Labor Organization”

According to data from the Indigenous Demographic Census conducted in 2010 by the Brazilian Institute of Geography and Statistics (IBGE), the indigenous population of Brazil was estimated at 896,917 individuals, representing 0.4% of the country's total population. Of this group 57.7% (517,383) lived on indigenous lands and 42.3% (379,534) outside them. In terms of the regional distribution of this total population, the North region, with 342,836 indigenous people, reveals its importance as the most populous in the country, followed by the Northeast (232,739), Midwest (143,432), Southeast (99,137) and South (78,773). In turn, the set of recognized indigenous lands totaled 2,830, considering those that are in a delimited land situation, declared, ratified, regularized and in the process of acquisition as indigenous reserves. In indigenous lands, 274 indigenous languages spoken by indigenous people aged five or over were declared. Regarding the number of peoples or ethnicities - thus considered as the community defined by linguistic, cultural and social affinities - 305 were accounted for, however 16.4% declared they did not know the name of the ethnicity or people to which they belonged, and most of these indigenous people were concentrated outside the land, and 6% did not make any kind of declaration of ethnicity, thus leaving the question without declaration (IBGE, 2012).

With regard to education, the results of the 2010 Census confirmed that the indigenous resident in Brazil has a lower educational level than that of the non-indigenous population, however, as highlighted by IBGE (2012, p. 70), the information contained in these statistics
“does not allow for nuance, with emphasis on differentiated curricula, mainly the traditions knowledge, the use of indigenous languages, among others”.

This observation refers to the difference between the concepts of indigenous education and indigenous school education, as highlighted by Meliá (1979) when pointed out that the first would be characterized as the specific ways used by indigenous people to socialize young people in their communities, according to the traditional patterns of these societies, while the second would be marked by the imposition of non-indigenous culture through school. In short, the focal point of this vision is the distinction that must be made between “education of the indigenous”, based on its own educational system to which school education should overlap and not replace, and “education for the indigenous”, that is imposed on indigenous peoples in the context of the use of writing in non-traditional societies as a form of domination.

This debate continued in the 1980s, when the Brazilian Constitution (Brazil, 1988) was enacted, which called for the provision of bilingual and intercultural school education to strengthen the sociocultural practices and the mother tongue of each indigenous community as a state duty. For Grupioni (2001, p. 131), “the greatest balance of the CF [Federal Constitution] was the abandonment of the integrationist stance, which ‘broke with a tradition of Brazilian legislation that always sought to integrate the Indigenous into the ‘national community’ seeing them as a transient ethnic and social category, doomed to disappear”.

Since then, several guidelines, rules and legislation have been enacted aiming at the development of an indigenous school education based on the assumptions of interculturality, specificity and differentiation. Although these legal frameworks have been widely disseminated in most works on the indigenous theme, and even at the risk of repetition, it is still valid to synthesize this set of precepts (Chart 1) considering the importance of neophytes on the theme to reflect on the long trajectory of institutionalization of indigenous school education in the country from 1991 to 2017.
Chart 1 - Legal frameworks and guidelines for indigenous school education in Brazil after the 1988 FC

<table>
<thead>
<tr>
<th>Legislation/Year</th>
<th>Synthesis</th>
</tr>
</thead>
<tbody>
<tr>
<td>1991 - Decree n° 26, February</td>
<td>Provides for indigenous education in Brazil, giving the Ministry of Education (MEC) the competence to coordinate actions at all levels and modalities of education, after hearing the National Indian Foundation (FUNAI), which becomes the executing agency for indigenous education policies.</td>
</tr>
<tr>
<td>1993 - Guidelines for the National Policy on Indigenous School Education</td>
<td>Based on the constitutional rights of the Indians, it establishes the organizing principles of pedagogical practice that aims to constitute an essential instrument in the implementation of a policy that simultaneously guarantees respect for the specificity of indigenous peoples vis-à-vis non-Indians and their linguistic, cultural, historical diversity.</td>
</tr>
<tr>
<td>1996 - Law n° 9394/96 – Law of guidelines and bases of national education (LDBEN)</td>
<td>It institutes, as a duty of the State, the right of indigenous peoples to a school education that contemplates their cultures and guarantees access to knowledge of national society and other indigenous and non-Indian societies.</td>
</tr>
<tr>
<td>1998 – National Curriculum Reference for Indigenous Schools</td>
<td>Prepared in compliance with the LDBEN regulations, it establishes general guidelines for educational work with indigenous communities based on the plurality and diversity of the multiple curricular programs of specific historical and ethnic projects.</td>
</tr>
<tr>
<td>1999 - Opinion n°. 14/1999 and Resolution n°. 3 /1999</td>
<td>It presents the rationale of the indigenous school, determining its structure and functioning, in addition to defining skills for the training of indigenous teachers, the school curriculum and its flexibility, and proposing actions aimed at indigenous school education.</td>
</tr>
<tr>
<td>2002 - Curriculum References for the Training of Indigenous Teachers</td>
<td>The discussion supported the implementation of initial training programs for indigenous teachers, aiming at their qualification in intercultural teaching.</td>
</tr>
<tr>
<td>2004 - Presidential Decree n°. 5.051, of April 19</td>
<td>Promulgates ILO Convention 169 concerning Indigenous and Tribal Peoples in Independent Countries ensuring that each ethnic group can take charge of designing their own educational project.</td>
</tr>
<tr>
<td>2008 - Law n°. 11.645, of March 10</td>
<td>It includes in the official curriculum of the education network the mandatory theme &quot;History and Afro-Brazilian and Indigenous Culture&quot;.</td>
</tr>
<tr>
<td>2009 - Decree n°. 6.861/2009, of May 27</td>
<td>It creates the Ethnoeducational Territories, structured according to the criteria of interethnic relations, linguistic affiliations and the territoriality of indigenous peoples, presenting itself as a strategy for organizing and managing indigenous school education.</td>
</tr>
<tr>
<td>2010 - Ordinance n°. 734, of June 7</td>
<td>Creates the National Commission for Indigenous School Education (CNEEI) composed of government representatives, civil society and indigenous peoples, with the task of advising MEC in the formulation of policies for indigenous education.</td>
</tr>
<tr>
<td>2011 - Law 12.416, of June 9</td>
<td>Changes the LDBEN to provide for the provision of higher education for indigenous peoples.</td>
</tr>
<tr>
<td>2012 - Resolution n°. 5, of June 22</td>
<td>Defines National Curriculum Guidelines for Indigenous School Education in Basic Education, and its organization in all stages and modalities according to the principles of social equality, difference, bilingualism and interculturality.</td>
</tr>
<tr>
<td>2013 - Ordinance n°. 1.062, of October 30</td>
<td>Institutes the National Program for Ethnoeducational Territories, announcing the expansion and qualification of the offer of indigenous school education at all levels</td>
</tr>
<tr>
<td>2017 – Law n°. 13.415, of February 16.</td>
<td>It changes the LDBEN, making the teaching of the Portuguese language and mathematics in secondary education compulsory, ensuring indigenous communities, also, the use of the respective mother tongues.</td>
</tr>
</tbody>
</table>

Source: Adapted from Maroldi (2017).
Despite the advances shown in Chart 1, it is worth noting that the achievement of pedagogical autonomy by indigenous peoples in educational processes has been arduous and not always free from obstacles, often dictated by educational practices and policies that dismantle the full realization of an indigenous school education based on the paradigm of ethnic-cultural and linguistic diversity. As Mello, Sousa and Palomino (2018, p. 13) refer, the indigenous school “must be shaped in its territory, to be a community school, and not just a school in the community”

In view of this situation, the academic debate on the elaboration of specific and diversified teaching materials to break with the invisibility of indigenous peoples in the context of school education is of significant importance. It is from this perspective that this article aims to investigate how such a debate has permeated the works defended in graduate programs in the country, through a study guided by the search for answers to the following question: how is this scientific production configured?

The steps of the procedures adopted for the composition of the research corpus, the methodology adopted and the analysis of the results are described in detail in the next sections.

Method

Based on the proposed objective and research question, the study is characterized as exploratory and descriptive, guided by the methodological approach of bibliometric analysis combined with content analysis (Silva, Hayashi & Hayashi, 2011), methods that have been adopted in several fields of knowledge as they allow to accomplish a state of the art of the investigated scientific literature., among them that of education (Esen, Bellibas & Gumus, 2018; Redondo, Sánchez-García & Etura, 2017), and even in studies on indigenous education (Maroldi, 2017; Maroldi, Lima, Hayashi & Hayashi, 2017a; Maroldi, Lima, Hayashi & Hayashi 2017b; Maroldi, Lima & Hayashi, 2018a; Maroldi, Lima & Hayashi, 2018b) that the authors of this article have developed.

The data source was the Brazilian Digital Library of Theses and Dissertations (BDTD) which is maintained by the Brazilian Institute of Information in Science and Technology (IBICT) and integrates in a single portal access to full texts of academic works of master degrees (n = 395,905) and doctorate (n = 143,037) that are available in the libraries and repositories of higher education and research institutions (n = 114) in which

Data collection took place in May 2019, using the search terms: “indigenous teaching materials” and “indigenous teaching books”. The inclusion criteria of the records were defined as the availability of the complete texts, without temporal delimitation, aiming to recover the evolution of scientific production on the researched theme over the years. The exclusion of papers took into account the following aspects: repeated records and those without adherence to the scope of the research, that is, although they presented the search terms in the title, abstract or keyword, the reading of the full text revealed the absence of an approach on the production and elaboration of specific and differentiated teaching materials in the context of indigenous school education. After applying these criteria, the master's dissertations (n = 29) and doctoral theses (n = 3) that constituted the research corpus were identified. The flowchart shown in Figure 1 shows the constitution of the investigated corpus and the stages of research development.

The collected data were recorded in an Excel spreadsheet containing the variables necessary to carry out the bibliometric and content analyzes and which allowed to trace:

---

![Flowchart](image)

Source: Elaborated by the authors (2019).
a) the bibliometric panorama: temporality of documents, the level of degree obtained (academic master's, professional master's or doctorate), the areas of knowledge of graduate programs, institutions, and regions of the country.

b) the profile of the studies: research objectives; typology of teaching materials; ethnicities, level of education and disciplines to which specific and differentiated teaching materials are intended.

Then, data modeling was performed to eliminate possible inconsistencies, such as: divergences in the defense date registered with BDTD/IBICT and in the full text of the paper; the full name of the authors and advisors, among others. In the subsequent stage, some variables were crossed in order to establish comparisons between the research findings. The quantitative results were described in graphs and tables for better visualization, and the analyzes and interpretations of the researched corpus were based on the scientific literature on indigenous school education.

Next, the results obtained are presented and discussed, organized into two topics according to the bibliometric and content analyses performed.

**Results and Discussion: Bibliometric overview**

The scientific production analyzed covers the period between 1996 and 2018 (Figure 2) and consists of master's academic dissertations (n = 26), professional master's works (n = 3) and doctoral theses (n = 3).
According to Ferreira, Tavares and Kebian (2012, p. 764), professional master's dissertations, a Brazilian postgraduate modality, “have the possibility of bringing research closer to professional practice, generating innovations that meet the advances of profession, this being the main difference in relation to the academic master's degree”.

It is observed in Figure 2, which presents the time evolution of the works, a constant pattern of distribution of this scientific production in the period from 1996 to 2008, with an average of one dissertation per year, except for the year 2008 that presents the first thesis defended. This same pattern is repeated in the period between 2016 and 2018, with the addition of three theses in the period. In turn, most works (n = 16) representing 50% of the total of the initial and final periods, are concentrated in the period between 2009 and 2015.

The results of Figure 2 when confronted with the legal milestones of indigenous education in Brazil (Chart 1) suggest that the enactment of LDBEN in 1996 was a turning point to mobilize the graduate academic community to reflect and discuss in their works the organizing principles of pedagogical practice aimed at guaranteeing and respecting the specificity of indigenous peoples vis-à-vis non-Indians, and their linguistic, sociocultural and historical diversity and the impacts that these guidelines would have on the production and elaboration of specific and differentiated teaching materials in the context of indigenous education.

For example, in that year, Vencio’s dissertation (1996) presents an account of an experience of the Jarawara people with writing. Although being a society of oral tradition, the author reports that these indigenous people took control of the schooling process, adapting it to the spontaneity of their culture, replacing the constantly updated textbook and creating the Jawarara Charter, having as its main characteristic the fact that it is written for a particular person, but read by everyone.

It can be observed that in the period between 2009 and 2015 the scientific production on the elaboration and production of specific and differentiated teaching materials reaches its peak. During this period, it is worth remembering that the creation and institution of Educational Territories occurred (Decree No. 6.861, 2009; Ordinance No. 1.062, 2013) and the definition of the National Curriculum Guidelines for Indigenous School Education in Basic Education, which became guide your organization in all stages and modalities according to the principles of social equality, difference,
bilingualism and interculturality (Resolution n. 5, 2012). This legislation may have sparked the academic debate that is reflected in the theses and dissertations analyzed, since they made it mandatory to observe these aspects in the development of curricula and in the production of specific and differentiated teaching materials for indigenous peoples.

Even observing a growth of this literature in the period between 2009 and 2015, covering 50% of the works, the total of theses and dissertations that made up the research corpus (n = 32) on specific and differentiated teaching materials is still very small compared to the long period since the promulgation of LDBEN (1996) that guaranteed the right to indigenous peoples an education that contemplates their socio-cultural and linguistic diversity, until the present day.

The areas of knowledge of graduate programs in which the theses and dissertations were defended were also researched (Figure 3). The results showed that the majority, represented by 31.3% (n = 10) came from the Education area, followed by works in the Linguistics area, with 18.8% (n = 6), from History, with 9.4% (n = 3) and Anthropology, with 9.4% (n = 3). The areas of Social Sciences, Letters, and History Teaching represented 18.8% (n = 6) of the total, each with 6.4% (n = 2). The other theses and dissertations, representing 12.5% (n = 4) of the total, are from the areas of Geography, Sustainable Development, Society and Culture in the Amazon and Management and Evaluation of Public Policies, with only one work each.

Figure 3 - Knowledge areas according to graduate programs

Source: Elaborated by the authors (2019).
When revealing that the areas of Education, Linguistics and Anthropology are the majority in research on specific and differentiated teaching materials in the context of indigenous education, it appears that these results are in line with the study by Maroldi, Lima, Hayashi and Hayashi (2017a), who analyzed the scientific production of theses and dissertations on indigenous education in Brazil.

In the Education area, the theses and dissertations (n = 10) focused on the study of the impacts of didactic materials on educational practices developed in the context of indigenous school education. Studies in the field of Linguistics (n = 6) carried out analyzes of language reading and writing in indigenous societies, focusing on aspects such as literacy, bilingualism, and texts as a linguistic discourse of the non-Indian teacher and the indigenous student. In turn, studies in the area of Anthropology (n = 3) used the ethnographic approach to investigate aspects such as values, beliefs, ideology, and ethnic identity, among others, and that permeate traditional cultures, seeking to articulate the presence of these concepts in production and elaboration of specific and differentiated teaching materials.

Figure 4 shows the distribution of theses and dissertations according to the institutions in which they were defended and their distribution in the five regions of the country.

It is possible to observe the concentration of studies in graduate programs in the Southeast region (n = 15) representing 46.9% of the total. Then came the North region, with 18.8% (n = 6) of the works that together with those in the

![Figure 4. Institutions x Country Regions.](source: Elaborated by the authors (2019).)
Northeast (n = 4) reached 31.3% (n = 10) of the total. The South regions, with 12.5% (n = 4) and the Midwest, with 9.4% (n = 3) had the lowest indexes. A possible explanation for this distribution goes in two directions. The first is related to the geographical distribution of graduate programs in Brazil, as according to data from the geo-referenced information system Geocapes of the Coordination for the Improvement of Higher Education Personnel (CAPES, 2018a), a foundation linked to the Ministry of Education of Brazil. This database shows that the most graduate programs are concentrated in institutions in the Southeast and South regions of the country.

The second explanation for the distribution of theses and dissertations is concentrated in the Southeastern region of the country, in institutions such as the University of São Paulo (USP) and the State University of Campinas (Unicamp) may be related to the fact that the lines of research postgraduate programs of these institutions are focused on teaching subjects such as History and Geography applied to indigenous populations, studying historical-cultural aspects and indigenous literature and languages, as well as educational processes and practices in the context of school education of these societies, favoring and attracting graduate students who want to dedicate themselves to the study of these themes, as is the case of the authors of the analyzed theses and dissertations.

**Study profile**

Through the full reading of the theses and dissertations that made up the investigated corpus (n = 32), the content analysis of the works was carried out, which allowed to explore the various aspects addressed in these works. For example, the types of approach to teaching materials were extracted from the analysis of the objectives of theses and dissertations, as shown in Table 1.

<table>
<thead>
<tr>
<th>Objectives</th>
<th>Authors/Year</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Analysis and representation of indigenous people in teaching materials</td>
<td>Barros (2001); Gobbi (2006); Santiago (2007); Cruz (2009); Macêdo (2009); Costa (2012); Monteiro (2012); Palhares (2012); Santos (2012); Valenti (2018); Silva (2014); Sanchez (2015); Lima (2016); Nobre (2017); Biazetto (2017); Sánchez (2018)</td>
<td>16</td>
</tr>
<tr>
<td>Elaboration of teaching materials by indigenous people</td>
<td>Vencio (1996); Borges (1998); Carvalho (2006); Nincao (2008); Duarte (2009); Deluci (2013); Silva (2016); Rubim (2016)</td>
<td>8</td>
</tr>
<tr>
<td>Analysis of teaching materials prepared by indigenous people</td>
<td>Moraes (2009); Quaresma (2012); Sousa (2013); Lira (2015)</td>
<td>4</td>
</tr>
<tr>
<td>Analysis of teaching materials prepared for indigenous people</td>
<td>Scaramuzzi (2008); Ives (2014); Silva (2015); Santos (2017)</td>
<td>4</td>
</tr>
</tbody>
</table>

Source: Elaborated by the authors (2019).
It is valid to clarify that the theoretical perspective of Meliá (1979) was adopted for the categorization of the indigenous didactic materials addressed in the works: those that were elaborated "by" indigenous people, and those produced "for" the indigenous people. In other words, the former are based on the indigenous educational system itself, which understands school education as one that overlaps but does not replace existing education, while the latter can be characterized as a form of domination that occurs through the imposition of non-indigenous culture by use of writing in unwritten societies.

The problem of ethnic diversity in teaching materials had also been pointed out by Lima (1995, p. 407) when he emphasized that “the image of the Indians, populations native to the territory that we now define as Brazilian, has been constructed in a simplified and stereotyped manner, both for the more traditional historiography and for the textbooks that reproduce it.”

The results in Table 1 show that half (n = 16) of the theses and dissertations were dedicated to analyzing the representation of the indigenous people in didactic materials, with works that took as their object of study the textbook distributed to elementary and high school, mainly after the mandatory inclusion of the theme “Afro-Brazilian and Indigenous History and Culture” in the official curriculum of the education network (Law No. 11,645, 2008). Among these works, two stand out for having analyzed indigenous representation in other types of teaching materials, cinematographic productions (Sanchez, 2015) and Youtube videos (Valentini, 2018).

The elaboration of specific and differentiated didactic materials by indigenous people was the concern of a quarter of the studies analyzed (n = 8) including those that dedicated themselves to studying the production of literacy books prepared in the mother tongue of the indigenous people (Vencio, 1996; Nincao, 2008; Duarte, 2009) while the others addressed other types of materials. The analysis of teaching materials prepared “by” (n = 4) and destined “for” (n = 4) included teachers and indigenous people of various ethnicities.

When deepening the analysis of the theses and dissertations, the types of teaching materials (n = 8) that were taken as an object of study in these works were identified. It was found that the following typologies prevailed: didactic (n = 19) and paradidactic (n = 1) books, represented by 62.5% (n = 20) of the total of works followed by literacy primers with 14.3% (n
The other types of teaching materials investigated (n = 6) with one study each, namely: cinematographic productions, videos on Youtube, educational games, comic books, cartographic materials and a phone app, as shown in the data in Figure 5.

![Figure 5 - Types of indigenous teaching materials investigated in dissertations and theses.](image)

Source: Elaborated by the authors (2019).

In this typology, didactic (n = 20) and paradidactic (n = 1) books, represented by 65.6% (n = 21) of the total of works followed by literacy primers, with 15.6% (n = 5), prevail.

The textbook has already been the subject of critical reflections by numerous authors (Bonazzi & Eco, 1972; Freitag, Motta & Costa, 1987; Schäffer, 1988; Choppin, 2004; Luca, 2009; Silva, 2012) who, among other aspects, addressed the various functions and uses of this type of teaching material. In the context of indigenous school education, the critical analysis of the indigenous textbook carried out by Grupioni (1995) is noteworthy, when addressing the prejudice and discrimination that affects indigenous societies and their reflexes in didactic materials, especially the textbook. For example, among other important issues, the author addresses the ways in which indigenous societies are portrayed in this material, “generally by denying cultural traits considered significant: lack of writing, lack of government, lack of technology to deal with metals, nomadism, etc.”, as well as didactic manuals that “operate with the notion of generic Indian [emphasis added], ignoring the diversity that has always existed between these societies” (Grupioni, p. 488-489).

In Figure 5, it is observed that the other didactic materials analyzed in the theses and dissertations totaled 18.8% (n = 6) showing their diversity, such as...
cinematographic productions (Sanchez, 2015) and Youtube videos (Valentini, 2018) previously commented, as well as educational games (Ives, 2014), cartographic materials, such as maps and global positioning systems (Carvalho, 2006), comics and an indigenous language translator application for mobile phones (Rubim, 2016).

It was also investigated which levels of education - elementary or high school - and grades these teaching materials are intended for, and Figure 6 shows the results obtained.

Figure 6 - Teaching levels and grades covered by teaching materials.

![Graph showing teaching levels and grades covered by teaching materials.](image)

Source: Elaborated by the authors (2019).

It can be seen in Figure 6 that a quarter of the works (n = 8) did not specify the level or series for which the indigenous teaching materials analyzed or elaborated are intended. However, primary education in general prevailed if all the grades included in this level are added, that is, from the 1st to the 8th, with less expressiveness for the didactic materials for high school, denoting the need for more studies that focus on this level of education.

Allied to the levels and grades of education, the analysis of theses and dissertations also turned to the disciplines covered by indigenous teaching materials.

The results obtained showed that the majority of works (n = 16) covered the disciplines of History and Geography, including History of Brazil and History of the Americas. The disciplines Indigenous Languages (Kokama, Apurinã, Jarawara, Maxakali & Terena) and Portuguese Indigenous Languages (Bakairi & Mebengokre) were focused on 21.8% (n =
7) of the works. The Portuguese discipline covered 12.5% of the works. The same score was obtained by studies (n = 4) that did not specify the disciplines covered, and only one study covered several disciplines.

Figure 7, below, shows the disciplines by didactic materials according to the analyzed theses and dissertations.

![Figure 7 - Disciplines covered by teaching materials.](image)

Source: Elaborated by the authors (2019).

Among the various disciplines covered in a single study, the master's thesis of Santos, 2018 stood out. The author carried out a longitudinal research covering the period between 1944 and 2015 investigating not only the various disciplines covered by these materials, but also the institutions involved in the production of the material - among them the mission teams of the Salesians, the Summer Institute of Linguistics, the Indian Missionary Council, and non-governmental organizations, such as the Center for Indian Work, the Acre Pro-Indian Commission, the Instituto Socioambiental, as well as by agencies associated with government and indigenous school education. The author carried out a survey on several collections of libraries, research institutions and non-governmental organizations, resulting in the identification of 566 teaching materials of various types, such as exercise books, literacy primers, catechisms, textbooks, teacher’s book, reading book, consultation book. The ethnicities to which these materials were destined were also identified. It is a wide and relevant study of mandatory reading for those who are interested in the theme of indigenous school education.
Last, but not least, the various ethnic groups (n = 42) that are represented or for which didactic materials covered in theses and dissertations (n = 32) were also investigated. In Figure 8, below, the ethnicities that are represented in the analyzed theses and dissertations can be observed.

![Figure 8 - Ethnicities represented in teaching materials.](image)

Source: Elaborated by the authors (2019).

It is worth noting that a single work may have covered more than one ethnicity, as for example, the study by Lima (2016) that included the Apinajé, Javaé, Karajá, Kraho, Pankararu, Xamboá and Monteiro’s research (2012) that focused on the Apiacá; Ticuna, Kaiowá, Pataxó, Guarani; Yanomami; Kamayurá; and the master's thesis by Nobre (2017) that focused on the Kalapalo, Kamayurá; Kayapó, Xavante, Yanomami, Yawalapiti, Waurá.
In addition, a few studies (n = 4) did not declare for which ethnic group the teaching materials were prepared or analyzed.

In this wide diversity of ethnicities (n=42) listed in Figure 8, there is a predominance of Guarani (n=5), Kayapó (n=4), Kamayurá (n=4), Yanomami (n=4), Pataxo (n=4), Kayowá (n=3) and Xavante (n=3). A second group of ethnicities (n=8) was also represented in the teaching materials, namely: Apurinã, Sateré-Mawé, Ticuna, Pankaru, Xambioá, Karajá, Baniwa, Panará.

With a lower incidence in the analyzed theses and dissertations, other indigenous peoples were also considered when it came to the elaboration and analysis of specific and differentiated teaching materials: Apiacá; Apinajé; Bakairi; Village Court; Enawenê-Nawê; Jarawara; Javaés; Kaingang; Kalapalo; Kaxinawá; Kokama; Krahô; Kuikuro; Manchineri; Maxakali; Munduruku; Nukini; Potiguara; Shawãdawa; Try; Terena; Waimiri-Atroari; Waura; Xacribiá; Xerente; Yawalapiti; Yawanawá.

Despite the wide universe of indigenous ethnic groups in the country (n=305) according to IBGE data (2012), only 13.7% (n=42) were focused on the analyzed theses and dissertations.

Conclusions

When returning to the initial research question - how is configured the scientific production that addresses the elaboration and analysis of specific and differentiated teaching materials in the context of indigenous school education? The results obtained revealed that there is a small but relevant contingent of theses and dissertations that are concerned with the preparation and analysis of teaching materials for indigenous populations.

Among other aspects, the analysis of theses and dissertations revealed the typology of didactic materials, the level of education, the disciplines and the ethnic groups to which they are destined. The concern with breaking with the challenges and complexity inherent to the discussion on teaching materials, characterized by Meliá (1979) as being “to” and “for” the indigenous, was reflected in the scientific production analyzed, demonstrating that in the context of indigenous school education it is essential to guarantee the participation of this population in its elaboration, as well as the need for a critical look at the representation of indigenous peoples in textbooks and other types of materials. As Siekmann, Webster, Samson and Moses (2017, p. 2) refer, “children learn best when they see themselves and their culture
represented in materials used in school instruction.”

Another aspect that drew attention is related to the distribution of works advocated in graduate programs, when identifying that the majority \( n=10 \) are linked to the area of Education. When compared with the total number of existing programs in this area in the country \( n=176 \), according to data from Geocapes (CAPES, 2018b), these findings represent only 5.7% of this total. In other words, the theme of indigenous school education is still underrepresented both in postgraduate programs in the area of Education and in other areas.

It was observed that the temporal distribution of the analyzed works covered the period from 1996 to 2018, however there are gaps in the scientific production for the years 1997, and between 2002 to 2005 and between 2010 to 2011. The gaps in scientific production in that year and periods, although they coincide with the enactment of legislation and specific guidelines for indigenous school education, they may signal that researchers need the minimum time necessary for a phenomenon to be studied and that ideas about it are matured before becoming an object of study and research.

For example, despite the National Education Guidelines and Bases Law (LDBEN, 1996) having guaranteed the right of indigenous peoples to an education that contemplates their sociocultural and linguistic diversity, in the years 1996, 1998, 2001, and in the period between 2006 and 2008, only a few works were defended \( n=8 \). This may denote that the researchers were not moved by an immediate impulse in the search for themes related to indigenous school education. However, the reflection of laws and guidelines established in the period between 2009 and 2018 seems to have more rapidly boosted the researches \( n=24 \) carried out subsequently.

The research also revealed that the didactic material most investigated in the analyzed theses and dissertations was the textbook, present in 62.5% of the works. However, it should be noted that in all these works, various aspects of the National Textbook Program (PNLD) created in 1983, at the end of the Brazilian military dictatorship, were present. However, due to the complexity of the aspects that surround this Program, and which would require more space for the treatment of this theme, this discussion was not carried out in this article, thus constituting possibilities to be explored in future research.

Despite the diversity of ethnicities that were addressed in the teaching
materials in the analyzed theses and dissertations, there is still a long way to go, either to identify and analyze the uniqueness of these materials, or to contemplate other indigenous peoples who were excluded from the school education process. Research with this focus can greatly contribute to the development of specific and differentiated teaching material for indigenous school education.

Also as suggestions for future studies, it is recommended to expand the research corpus, as well as to consult other databases. Finally, it should be mentioned that the research findings must be put in perspective in view of the size of the analyzed sample. However, instead of being limitations, the results obtained signal the need for other related studies, having as source of data, for example, other document types, such as articles published in journals, which will allow comparisons with theses and dissertations, as well as make it possible to identify other issues that permeate the academic debate on such a relevant theme, which is the elaboration of specific and different didactic materials for indigenous school education.

References


Universidade Estadual de Campinas, Campinas.


Universidade Estadual de Campinas, Campinas.


educação escolar indígena (pp. 130-136). Brasília: MEC/SEF.


Maroldi, A. M. (2017). Estudos bibliométricos sobre educação indígena:
frente de pesquisa, vida média e obsolescência da literatura citada em teses e dissertações (Tese de Doutorado). Universidade Federal de São Carlos, São Carlos.


Moraes, M. B. (2009). *Discurso(s) do(ou) outro(s) na imagem de si: um estudo discursivo dos textos didáticos destinados à formação de formadores indígenas* (Dissertação de Mestrado). Universidade Federal de São Carlos, São Carlos.


Portaria nº 1.062, de 30 de outubro de 2013. Institui o Programa Nacional dos Territórios Etnoeducacionais. Recuperado de


