

## LANGUAGE AND DISCOURSE IN ENVIRONMENTAL EDUCATION RESEARCH IN BRAZIL: A BIBLIOGRAPHIC STUDY OF THE EARTE PLATFORM

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### Abstract

Languages and discourses are an important theme for the environmental education field. Following the discussion of subtheme 5 at the 13<sup>th</sup> Invitational Seminar on Environmental Education Research, this exploratory study in document analysis discusses various aspects of academic production on language and discourse in the Environmental Education (EE). The present research was elaborated from a qualitative and interpretative perspective. The study centers on the analysis of thesis and dissertation abstracts contained in the EArte Project database, an open access digital repository of state of the art EE research in Brazil. Forty abstracts were found, with the words 'language' or 'discourse' in the title: 36 with the word discourse and 4 with language. The results showed that the term 'language' appears infrequently and generally linked to different genres of expression, while the term 'discourse' seems to traverse research in the area in general, found in the titles of works on a diverse range of investigative themes.

**Keywords:** environmental education, state of the art review, language, discourse.

## LENGUAJE Y DISCURSO EN LA INVESTIGACIÓN EN EDUCACIÓN AMBIENTAL EN BRASIL: UN ESTUDIO BIBLIOGRÁFICO EN LA PLATAFORMA EARTE

### Resumen

Lenguajes y discursos son un importante tema para la educación ambiental. A partir de la movilización ocurrida en las discusiones del subtema 5, *lenguajes y discursos*, del 13<sup>th</sup> Invitational Seminar on Environmental Education Research, esta investigación es un estudio exploratorio de análisis documental, que tuvo por objetivo comprender las características de las producciones científicas de educación ambiental sobre lenguajes y discursos. Se realizó un estudio cualitativo e interpretativo, a partir del análisis de resúmenes de tesis y disertaciones presentes en el banco de datos del Proyecto EArte, repositorio digital, de acceso público, que reúne producciones académicas ligadas a la educación ambiental. Cuarenta resúmenes fueron encontrados, siendo 36 relacionados a la palabra discurso y cuatro a la palabra lenguaje. Los resultados indican que el término lenguaje aparece poco y, generalmente, ligado a diferentes géneros de expresión, mientras que el término discurso parece tener una transversalidad para la investigación en el área, estando presente en los títulos de trabajos con temáticas de investigación bastante diversificada.

**Palabras clave:** Educación Ambiental. Estado del Arte. Lenguaje. Discursos.

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## LINGUAGEM E DISCURSO NA PESQUISA SOBRE EDUCAÇÃO AMBIENTAL NO BRASIL: ESTUDO BIBLIOGRÁFICO NA PLATAFORMA EARTE

### Resumo

Linguagens e discursos são um importante tema para a educação ambiental. A partir da mobilização ocorrida nas discussões do subtema 5, *linguagens e discursos*, do 13th Invitational Seminar on Environmental Education Research, esta pesquisa é um estudo exploratório de análise documental, que teve por objetivo compreender as características das produções científicas de educação ambiental sobre linguagens e discursos. Foi realizado um estudo qualitativo e interpretativo, a partir da análise de resumos de teses e dissertações presentes no banco de dados do Projeto EArte, repositório digital, de acesso público, que reúne produções acadêmicas ligadas à educação ambiental. Quarenta resumos foram encontrados, sendo 36 relacionados à palavra discurso e quatro ao verbete linguagem. Os resultados indicam que o termo linguagem aparece pouco e, geralmente, ligado a diferentes gêneros de expressão, enquanto o termo discurso parece ter uma transversalidade para a pesquisa na área, estando presente nos títulos de trabalhos com temáticas de investigação bastante diversificada.

**Palavras-chave:** Educação ambiental. Estado da arte. Linguagem. Discurso.

### Introduction

In this text we problematize the relations between language, discourse and environmental education, as expressed in the academic production in Environmental Education (EE) in Brazil, based on theoretical contributions from the field and on discussions held at the 13<sup>th</sup> Invitational Seminar on Environmental Education Research.

Martins et al. (2008) explore the nature of the different discourses that interrogate and constitute the practices of environmental educators, presenting the central ideas of critical discourse studies and reflections on the relations between research in the field of Environmental Education and Science Education,

In the international context, Berryman and Sauvé (2012) argue that ‘language and discourse’ are fundamental dimensions of environmental education.

Browsing research journals in education and environmental education reveal the weight of language as part of a research problematic or as an object of research, directly as ‘language’ or ‘discourse,’ or through associated themes such as ‘voice,’ ‘story,’ ‘metaphor,’ ‘rhetoric,’ ‘literacy,’ ‘text,’ ‘writing,’ ‘reading,’ ‘defining’ and ‘debating.’

We share the authors’ idea that language and discourse are not spontaneously given but social constructs, “dialectically related to action and history, giving shape to a culture and being shaped by a culture” (BERRYMAN & SAUVÉ 2012: 141).

One example is the authors’ concern over the term Education for Sustainable Development (ESD), proposed by UNESCO as a substitute for Environmental Education (EE). This is also a polemical issue in the field of research and is closely linked to the discourse used both by UNESCO and by Latin American researchers, who emphasize the importance of retaining the term Environmental Education. As a question it thus strongly pervades the differences in the languages and discourses employed by the two ‘currents,’ as Berryman and Sauvé stress (2012):

However, the point here is not the issue of change in itself, nor is it the issue of the language and discourse in itself, but the dynamic and dialectic relationship that are being played out in environmental education between

language, discourse, and practice. Language and discourse bear some meaning, direction, intent and they orient or focus attention, perception and action that also feedback on language and discourse. (BERRYMAN & SAUVÉ, 2012: 134).

For Loureiro (2012), in accord with the critical tradition, the premises for a sustainable society are materialized through social movements and through collective and everyday actions that seek to break away from current patterns of sociability.

The critical current of Environmental Education, as described by Sauv  (2005),

...insists, essentially, on the analysis of the social dynamics that underlie real world environmental situations and problematics: the analysis of the intentions, positions, arguments, explicit and implicit values, decisions and actions of the different protagonists in any given situation. (SAUV  2005: 30).

For critical Environmental Education, a concern with language and discourses, and their influences on pedagogical praxis, is essential due to the dialogical dimension inherent to this approach.

Given the above, the importance of the relations between discourse and environmental education for the area becomes clear. However our question is how this theme might be expressed the field of research. Our hypothesis is that the abstracts of theses and dissertations available in the EArte database can help us understand the depth of the theme's exploration in the EE field in Brazil, its theoretical and methodological relations, and the main topics where these elements are investigated. In this way, publications that guide and justify the research are mentioned. The decision to explore these materials is based on our understanding that they constitute "a historical and political production, insofar as words are also constructs and insofar as language is also constitutive of practices" (FISCHER, 2001).

## Objectives

The research question informing the present study is: how have the terms language and discourse permeated the research the research in Brazilian Environmental Education?

Setting out from this question, we define the following objectives:

- to identify the frequency and meanings that the terms *Language* and *Discourse* assumed in the environmental education research, through the analysis of thesis and dissertation abstracts in the Earte (State of the Art of Research in Environmental Education) database.

- to identify the distribution of this production from 1981 to 2012 in Brazilian Environmental Education;

- to identify trends in the field vis-à-vis the terms *Language* and *Discourse*, with respect to the theme of the study, the methodological procedures most frequently adopted and the main theoretical framework used, seeking to map trends.

## Methodological procedures

The present research was elaborated from a qualitative and interpretative perspective, seeking to describe categories relating to the analyzed documents. In terms of research methodology, this investigation is an appraisal of the state of the art, which, as formulated by Romanowski and Ens (2006), signifies conducting "a mapping process that uncovers and examines the knowledge already produced and identify the approaches used, the topics most frequently researched and the existing lacunae."

In this sense, our approach is exploratory in kind, in line with an investigation into the field's state of the art, presenting a descriptive methodology that, by mapping and discussing a particular area of academic production, seeks to determine which aspects and dimensions are being highlighted and foregrounded in different times and places (FERREIRA, 2002).

Diverse authors have emphasized the importance of developing research in this area with the aim of deepening knowledge of a specific field and signposting potential gaps and areas of interest where future studies can enrich the accumulated body of knowledge (ROMANOWSKI & ENS, 2006; REIGOTA, 2007).

Our decision to study the production of theses and dissertations matches the argument advanced by Marini and Megid Neto (2011: 561) that these documents are more appropriate for state of the art research studies, “since they constitute primary documents and complete reports of the studies undertaken, which, as a rule, are subsequently presented in a succinct manner in articles or at events (congresses, symposia, etc.)”

The bibliographic data for this study was assembled using the EArte database, a research project that makes available a platform for searching a database containing theses and dissertations that connect environmental themes to education processes (available at: [www.earte.net](http://www.earte.net)), based on classifications elaborated by the research group itself. The objectives of the EArte project include compiling an archive of the dissertations and theses on Environmental Education developed in Brazil and conducting descriptive and analytic studies concerning this production. The project has been developed in collaboration with researchers from various universities and has become an important space for enabling different mappings of the academic production in the EE area in the country.

It is important to emphasize that the EArte database selects and classifies this literature through an analysis of the abstracts of theses and dissertations, an approach shared by our own investigation. Analyzing abstracts, rather than complete texts, allows the possibility of examining a large range of works – which is attractive for an exploratory work such as the present study. On the other hand, though, it precludes more in-depth readings suitable to developing more specific analyses on a smaller set of academic output.

The research was carried out in June 2016 and the quantitative data consulted again in August 2016, taking into account that the database is continuously fed with the new works to which the team has access. At the moment of our data collection, the database covered texts produced between 1981 and 2012, with the exception of 2010 when there was an interruption in the CAPES Theses and Dissertations Database, the main source of information for the EArte database.

To assemble the corpus of our work, the search terms utilized in the EArte system were ‘language’ and ‘discourse.’ Searches were undertaken in two ways: a word search in the title field, and a word search in the abstract field. The results returned for these searches were compared with the total production of the area and organized in tables.

We observed that the results from the word search in the abstract field returned a large number of works where the terms were used in a much wider context, such as, for example, works that contained the term ‘language’ in relation to computer language in studies on digital educational resources. Given the polysemy presented by the search terms used, we decided to limit our analysis to the results of the word search in the title field.

Next, in order to organize the data *corpus* in a way that would allow us to develop our analysis, we printed out the records for all 40 works identified by the searches. These were then categorized using the ‘study theme’ descriptor from the classificatory schema developed by the EArte team. In the project's classifications, the ‘study theme’ descriptor specifies the “theme or topic studied in the work, generally linked to the research problem/objective, but not corresponding to the object of investigation per se. It comprises the main or privileged study theme,” as presented on the project website ([www.earte.net](http://www.earte.net)).

Subsequently, based on our readings, the methodological procedures and theoretical frameworks used by the studies were identified in the body of the abstract, building a table for the term ‘language’ and another for the term ‘discourse.’ Due to the high number of works related to the term ‘discourse,’ we also analyzed these in relation to the space/subject of production of discourses and also in relation to the meanings attributed to the term in the title, enabling a clearer definition of its polysemy.

### Results and discussion

The results show the presence of the terms ‘language’ and ‘discourse’ in all periods of the environmental education research, with significant increase over the years. In Table 1 we show the data on the works published in the EArte database during four decades, based on the search terms ‘language’ and ‘discourse’ in two situations: identifying works in which the term is present in the title, or works that contain the word in the abstract. This data was compared with total production of the database.

Table 1 – Quantitative data on the presence of the terms ‘language’ and ‘discourse’ based on time filters and search field. (Source: earte.net)

Period	Total production selected in the database	Word in the title only		Word in the abstract	
		Language	Discourse	Language	Discourse
<b>1980-1990</b>	20	0	1	0	1
<b>1991-2000</b>	352	0	3	6	28
<b>2001-2009</b>	1737	2	25	51	164
<b>2011- 2012</b>	654	2	7	20	69
<b>TOTAL</b>	<b>2763</b>	<b>4</b>	<b>36</b>	<b>77</b>	<b>262</b>

The tabulated data enables us to observe that, for the abstract field, the terms ‘language’ and ‘discourse’ are present in 2.9% and 9.8% of works, respectively, with these percentages remaining more or less constant over the years studied.

Tables 2 and 3 were produced using the Study Theme descriptor in the EArte database, as mentioned in the Methodology section, based solely on the data containing the words ‘language’ (Table 2) and ‘discourse’ (Table 3) in the title. Abstracts were analyzed to determine which methodological procedures and primary theoretical frameworks were used. The data present in the forty abstracts were then summarized and presented as follows:

Table 2 – Qualitative data referring to the word ‘language’ in the title field. (Source: elaborated from the EArte database)

No.	Title of Work <sup>3</sup>	Study Theme	Methodological Procedures	Theoretical Framework
1	<i>A interface meio ambiente e linguagem: uma proposta de educação ambiental por meio do trabalho com a leitura</i> (The interface of the environment and language: a proposal of environmental education with reading)	Work and Training of Academic Staff /Agents	questionnaires, intervention	not indicated in abstract
2	<i>Linguagem cartográfica e Geografia integrando forma e conteúdo na construção da responsabilidade ambiental: uma experiência metodológica vivida com adultos em fase de alfabetização</i> (Cartographic language and geography integrating form and content in the construction of environmental responsibility: a methodological experience with adults in the literacy)	Teaching and Learning Processes and Methods	educational intervention	not indicated in abstract
3	<i>Desenhar é preciso: um estudo sobre a contribuição da linguagem do desenho como um fazer educação ambiental</i> (To design is necessary: a study on the contribution of the language of drawing as environmental education)	Teaching and Learning Processes and Methods	educational intervention	not indicated in abstract
4	<i>O papel da sensibilidade e da linguagem poética nos processos formativos em Educação Ambiental - uma ciranda multicolor</i> (The role of sensibility and poetic language in the formative processes in Environmental Education)	Work and Training of Teachers/Agents	educational intervention	not indicated in abstract

Examining the data in the table, we can observe that the four works referring to ‘language’ in the title are associated with different kinds of expression: literary, cartographic, artistic and poetic. The methodological procedures of the four works are related to analyses of educational interventions conducted using these forms of expression and none of the abstracts indicates the main theoretical framework employed.

The number of works with the word ‘discourse’ in the title is much higher, 36 works in total, the main characteristics of which detailed in Table 3:

Table 3 – Qualitative data referring to the word ‘discourse’ in the title field. (Source: elaborated from the EArte database)

Nº	Title of Work	Study Theme	Methodological Procedures	Theoretical Framework
1	<i>Representações de corpos e seus discursos: pintando a tela a partir dos olhares dos(as) acadêmicos(as) de Educação Física</i> (Representations of bodies and their discourses: painting the screen from the looks of the Physical Education students)	Conceptions, Representations and Cognitive Processes of the Trainee in EE	Focus groups Narratives	Cultural studies from a post-structuralist perspective
2	<i>A gestão ambiental entre o discurso legitimador e práticas instrumentais</i> (The environmental management between the legitimating discourse and instrumental practices)	Conceptions, Representations and Cognitive Processes of the Instructor in EE	Document analysis Semi-structured interview	Not indicated in the abstract

<sup>3</sup> We chose to keep the original title in Portuguese in the tables for not to mischaracterize it, but we bring the translation of the meaning in parentheses

3	<i>Conflitos ideológicos no texto da Lei 9.795/99: uma análise do discurso ideológico no texto da lei de educação ambiental</i> (Ideological conflicts in the text of Law 9.795 / 99: an analysis of the ideological discourse in the environmental education law)	Public Policies in EE	Document analysis	Discourse analysis
4	<i>Às margens do discurso verde</i> (On the margins of green discourse)	Communication	Document analysis	Post-structuralist theoretical premises
5	<i>A ética no discurso do jornal Zero Hora sobre as mudanças climáticas</i> (Ethics in the Zero Hora newspaper's discourse about climate change)	Communication	Document analysis	Depth hermeneutics
6	<i>O discurso do sujeito coletivo e a representação social do Parque Natural Municipal da Freguesia: o que os amigos do bosque contam?</i> (The discourse of the collective subject and the social representation of the Parque natural Municipal da Freguesia: what do forest friends count?)	Conceptions, Representations and Cognitive Processes of the Trainee in EE	-	Discourse of the collective subject
7	<i>Educação Ambiental: concepções e discursos dos profissionais do ensino fundamental, de 1ª a 4ª série, nas escolas confessionais de Manaus</i> (Environmental Education: conceptions and discourses of , 1 <sup>st</sup> to 4 <sup>th</sup> grade teachers in a confessional schools of Manaus)	Conceptions, Representations and Cognitive Processes of the Instructor in EE	-	-
8	<i>Discursos de professores sobre a Amazônia: contribuições para um ensino de Ciências em busca da sustentabilidade</i> (Teachers' discourses about Amazônia: contributions to science teaching to sustainability)	Conceptions, Representations and Cognitive Processes of the Instructor in EE	Case study Semi-structured interview	Discourse analysis from the French perspective
9	<i>O discurso sobre o ensino de Design levando em consideração aspectos ambientais</i> (The discourse on the teaching of Design taking environmental aspects)	Curricula, Programs and Projects	Document analysis	Not indicated in the abstract
10	<i>As vozes dos que vivem à margem dos rios urbanos: uma análise do contexto socioambiental da ocupação urbana, através dos discursos da população</i> (The voices of those living on the fringes of urban rivers: an analysis of the socio-environmental context of urban occupancy through discourses of the population)	Conceptions, Representations and Cognitive Processes of the Trainee in EE	Interviews Analysis of content Statistical analysis (Alceste)	Not indicated in the abstract
11	<i>As concepções de educação ambiental subjacentes aos discursos docentes e discentes: do arcabouço jurídico ao cotidiano</i> (The conceptions of environmental education of the teaching discourses and students: from the legal framework to the daily life)	Conceptions, Representations and Cognitive Processes of the Trainee in EE Conceptions, Representations and Cognitive Processes of the Instructor in EE Work and Training of	Questionnaires distributed to academic staff	Not indicated in the abstract

		Academic Staff/Agents		
12	<i>Conhecer para colonizar/colonizar para conhecer: a natureza do discurso do ecoturismo</i> (To know to colonize / colonize to know: the nature of ecotourism discourse)	Communication	Document analysis	Cultural studies
13	<i>Territorialidades em luta - uma análise dos discursos ecológicos</i> (Territorialities in struggle - an analysis of ecological discourses)	Foundations of EE	Analysis of statements by government institutions and sectors of the ecological movement	Not indicated in the abstract
14	<i>Projetos de Educação Ambiental desenvolvidos na escola: um estudo do discurso de alunos da Educação Básica</i> (Environmental Education Projects developed at school: a study of students' discourse of Basic Education)	Curricula, Programs and Projects Conceptions, Representations and Cognitive Processes of the Trainee in EE	Case study Observation Interviews Semi-structured questionnaires	Critical and emancipatory Environmental Education
15	<i>Consumo e técnica no discurso ambiental: da prótese ao ideal de sustentabilidade</i> (Consumption and technique in environmental discourse: from prosthesis to the ideal of sustainability)	Communication	Not indicated in the abstract	Thought of the philosophers Jean Baudrillard and Umberto Galimberti and the psychoanalyst Gláucia Dunley
16	<i>Discurso sobre Educação Ambiental em Geografia da 10ª classe no âmbito da defesa e conservação da natureza em Moçambique</i> (Discourse on Environmental Education in Geography of the 10th class in the nature conservation in Mozambique)	Curricula, Programs and Projects Conceptions, Representations and Cognitive Processes of the Instructor in EE Conceptions, Representations and Cognitive Processes of the Trainee in EE	Document analysis Interviews Questionnaires	Not indicated in the abstract
17	<i>O currículo e o discurso de professores e alunos do curso de Geografia sobre espaço geográfico, meio ambiente e preservação dos mananciais</i> (The curriculum and the discourse of teachers and students of the Geography course about geographic space, environment and water conservation)	Curricula, Programs and Projects Conceptions, Representations and Cognitive Processes of the Instructor in EE Conceptions, Representations and Cognitive Processes of the Trainee in EE	Questionnaire	Not indicated in the abstract
18	<i>Análise crítica dos discursos presentes nos documentos que definem a política de educação ambiental no Brasil</i> (Critical	Public Policies in EE	Document analysis	Historical-dialectical materialism,

	analysis of the discourses present in the documents that define the policy of environmental education in Brazil)			Critical Environmental Education, Critical discourse analysis
19	<i>A questão do formalismo no discurso oficial da Educação Ambiental</i> (The issue of formalism in the official discourse of Environmental Education)	Public Policies in EE	Document analysis	Not indicated in the abstract
20	<i>O discurso ambiental na comunicação de massa: um estudo da Conferência das Nações Unidas sobre o Meio Ambiente e Desenvolvimento</i> (Environmental discourse in mass communication: a study of the United Nations Conference on Sustainable Development)	Communication	Document analysis (newspapers and TV news programs)	Not indicated in the abstract
21	<i>O estudo da eficácia da Educação Ambiental formal à luz da análise do discurso</i> (The study of the effectiveness of formal environmental education by discourse analysis)	Curricula, Programs and Projects	Interviews	Modern linguistic theory
22	<i>A temática ambiental nas séries iniciais do ensino fundamental: concepções reveladas no discurso de professoras sobre sua prática</i> (The environmental theme in the initial grades of elementary school: conceptions revealed in the teachers' discourse about their practice)	Conceptions, Representations and Cognitive Processes of the Instructor in EE	Interviews	Not indicated in the abstract
23	<i>Discurso educativo e apropriação do meio ambiente na área de um grande projeto de investimento: o caso UHE-Tucuruí, PA</i> (Educational discourse and appropriation of the environment in a big investment project: the case UHE-Tucuruí, PA)	Curricula, Programs and Projects	Not indicated in the abstract	Not indicated in the abstract
24	<i>A ordem do discurso da Educação Ambiental</i> (The order of the discourse of Environmental Education)	Organization of School Institution	Statements given by academic staff and historical narratives of the environmentalist movement	Post-structuralist perspective
25	<i>Discurso ambientalista na Educação Ambiental e a legislação ambiental brasileira</i> (Environmental Discourse in Environmental Education and Brazilian Environmental Law)	Conceptions, Representations and Cognitive Processes of the Instructor in EE Foundations of EE	Interviews	Hermeneutics
26	<i>Da lógica dicotomizante a busca de novos paradigmas: o discurso de pesquisadores ambientais do Rio de Janeiro</i> (From dichotomizing logic to the search for new paradigms: the discourse of environmental researchers from Rio de Janeiro)	Conceptions, Representations and Cognitive Processes of the Instructor in EE	Not indicated in the abstract	Not indicated in the abstract
27	<i>Paradigmas sanitários e problemas ambientais: os discursos dos agentes comunitários de saúde</i> (Health paradigms and environmental problems: the discourses of community health agentes)	Conceptions, Representations and Cognitive Processes of the Trainee in EE	Semi-structured interviews	Discourse of the collective subject
28	<i>Avaliação da influência do discurso ambiental</i>	Organization of	Case study	Not indicated in

	<i>curricular das comunidades locais do distrito de Dondo-Moçambique</i> (Evaluation of the influence of the curricular environmental discourse of the local communities of the district of Dondo-Mozambique)	School Institution		the abstract
29	<i>A temática ambiental no discurso da Companhia Vale do Rio Doce: jornal Vale Notícias-Minas</i> (The environmental theme in the speech of Companhia Vale do Rio Doce: Vale Notícias-Minas newspaper)	Communication	Document analysis (newspapers)	Not indicated in the abstract
30	<i>Lixo sujo e lixo limpo - o discurso social sobre o lixo</i> (Dirty trash and clean trash - the social discourse about trash)	Conceptions, Representations and Cognitive Processes of the Trainee in EE	Not indicated in the abstract	Psychosocial approach
31	<i>O discurso da Agenda 21: recursos hídricos e a Educação Ambiental na escola</i> (The discourse of Agenda 21: water resources and Environmental Education in the school)	Curricula, Programs and Projects	Document analysis	Sociosemiotics and semiotics of cultures
32	<i>Uma floresta tocada apenas por homens puros... ou do que aprendemos com os discursos contemporâneos sobre a Amazônia</i> (A forest played only by pure men ... or what we learn from the contemporary discourses on the Amazon)	Foundations of EE	Document analysis (newspapers)	Cultural studies
33	<i>Tecnologias e educação ambiental: o discurso coletivo na formação docente</i> (Technologies and environmental education: the collective discourse in teacher education)	Didactic Resources Work and Training of Academic Staff /Agents	Analysis of the logbooks of academic staff	Discourse of the collective subject of Lefèvre and Lefèvre
34	<i>A Educação Ambiental na Pampulha: entre o discurso e a prática</i> (Environmental Education in Pampulha: between discourse and practice)	Curricula, Programs and Projects	Case study	Not indicated in the abstract
35	<i>A produtividade do discurso da sustentabilidade nas instituições financeiras: desafios para a Educação Ambiental contemporânea</i> (The productivity of sustainability discourse in financial institutions: challenges for contemporary Environmental Education)	Communication	Document analysis	Not indicated in the abstract
36	<i>A temática ambiental: concepções reveladas no discurso de acadêmicos-professores (séries iniciais do ensino fundamental) sobre sua prática</i> (The environmental theme: conceptions revealed in the discourse of academic-teachers of the elementary school about their practice)	Conceptions, Representations and Cognitive Processes of the Trainee in EE	Interviews	Not indicated in the abstract

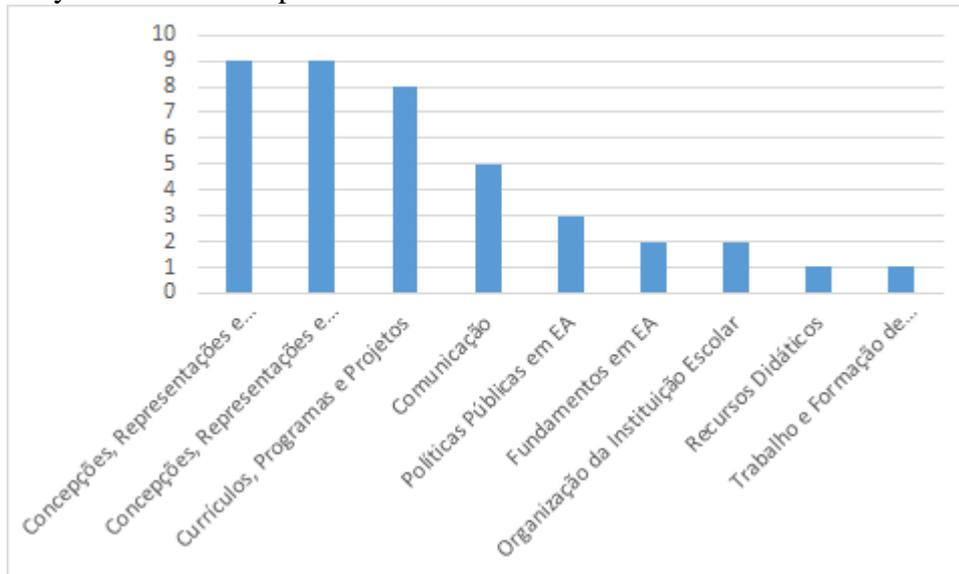
The dates show that ‘language’ and ‘discourse’ are themes important for research. Although the number of works not is big, it is necessary to consider that there are many used words to these terms with similar meanings, such as, voice, story, conceptions, senses, and others. There are a particular relationship methodological context, agreeing with the argument of the authors Berryman and Sauvé (2012):

Language and discourse are also central in research methodologies through ‘literature review,’ ‘interview research,’ ‘narrative research’ or through the study of ‘discussions’ or ‘conversations,’ through ‘content analysis,’

‘discourse analysis,’ ‘linguistics,’ ‘hermeneutics’ and ‘language research.’ (BERRYMAN & SAUVÉ, 2012: 134).

Our analysis of the occurrence of the study theme of the academic works, based on the descriptors used by the EArte platform, is shown in Figure 1:

Figure 1 – Study theme of the works presenting the word ‘discourse’ in the title, based on the analysis of the EArte platform



The figure reveals the transversal quality of the ‘discourse’ theme for research in the area, since the word discourse appears in titles linked to 9 out of the 13 study themes listed in the EArte database, more frequently present in the themes ‘Conceptions, Representations and Cognitive Processes of the Instructor in EE’ and ‘Conceptions, Representations and Cognitive Processes of the Trainee in EE,’ followed by ‘Curricula, Programs and Projects,’ but also showing a strong presence in works that analyze the environmental themes relating to means of social communication and their relations to EE. Attention is also drawn to the presence of works that analyze discourses in legal texts or institutional projects in the context of public policies in EE.

All the studies utilized qualitative methodologies of data collection and analysis, the most frequent being document analysis (media, curricular documents, legislation, etc.), which is present in 12 works, and interviews, present in 10 works. This result is similar to the findings of other studies evaluating production in the area, such as Freitas and Oliveira (2006), who emphasize the vast range of data collection instruments used, especially those designed to obtain qualitative information. As for underlying theoretical frameworks, a large proportion of the abstracts lack any indication. Among those approaches that were indicated are cultural studies, post-structural approaches (whether or not associated with cultural studies), discourse analysis, hermeneutics, critical and emancipatory EE, historical-dialectical materialism, semiotics and psychoanalysis. These theoretical perspectives were cited in our discussions on the theme held at the 13<sup>th</sup> Invitational Seminar on Environmental Education Research, where we specifically discussed the relation between the ‘languages and discourses’ theme and research in EE in approaches based on discourse theory (MARTINS et al, 2008), critical and post-critical perspectives (HART, 2005), cultural studies (GUIMARÃES et al, 2012), among others, which have encountered fertile spaces in the field.

The spaces/subjects producing discourses are also aspects representative of the diversity of the theme in the area. In the analyzed sample, we encounter analyses of discourses produced by academic staff and/or students from basic/higher education (15), curricular documents or legislation (8), the media (7), communities/social actors/urban population (4), researchers (1), projects (1), financial institutions (1) and ecological movement. This observation converges with the investigation of Reigota (2007) into Brazilian theses and dissertations, which indicated that the EE present in the production of knowledge in the area is directed towards various social groups, and also with the findings of Freitas and Oliveira (2006) showing that diverse formative spaces are linked to EE beyond the school.

We concur with Lopes (2006) that “investigating discourses implies investigating the rules that guide practices.” Studying the meanings of the different subjects and spaces involved in the production of discourses does not exempt us from seeking to understand the system of relations in which they are embedded. The author also reminds us that discourses “are interwoven with institutions, economic and cultural processes, norms and techniques that constitute social relations.”

An important aspect to highlight is that, in Brazilian research in environmental education, discourse is, by itself, a polysemic concept. This polysemy can be illustrated through fragments of some of the abstracts cited below:

The contradictions observed in the **discourses** arise from theoretical-political, epistemological or ideological disputes existing both in the field and in society itself (Work 9053 – Critical analysis of the discourses present in documents defining environmental education policy in Brazil)

...based on the **discourse** of one of its most important user groups, the Friends of the Wood. (Work 3080 – The discourse of the collective subject and the social representation of the Freguesia Municipal Natural Park: what do the friends of the wood recount?)

The data obtained point to a significant gap between the **discourse** and reality of Environmental Education (Work 4847 – The question of formalism in the official discourse of Environmental Education)

This polysemy of the term can be ascertained when we analyze the different meanings attributed to discourses in research studies in EE by considering the meaning contained in the titles. Pursuing a more detailed analysis, we can observe that *discourse* is used:

(a) in the context of discourses of people (academic staff and students, researchers, population, community agents), a category that appears in the majority of the works (15), such as, for instance, the works “Sanitary paradigms and environmental problems: the **discourses of community health agents**” and “**Discourses of academic staff** on Amazonia: contributions towards teaching Sciences in pursuit of sustainability”;

(b) as an adjectivized noun (environmental discourse, ideological discourse, collective discourse, green discourse, social discourse, ecotourism discourse, ecological discourse, educational discourse, legitimizing discourse), a characteristic present in 15 works, such as “Ideological conflicts in the text of Law 9.795/99: an analysis of the **ideological discourse** in the text of the environmental education law” and “At the margins of the **green discourse**”;

(c) in the context of discourses of documents (curricula, legislation, national or international EE documents, the media), present in five works, such as “Ethics in the **discourse of the Zero Hora newspaper** on climate changes”;

(d) through explicit reference to concepts and authors (‘order of discourse,’ alluding to Foucault), which appears in two titles: “The **order of discourse** of Environmental Education.”

These diversity of themes, frameworks and even meanings for the word ‘discourse’ can be explained by the inherent characteristic of our field of knowledge production, which combines various conceptions both in the field of research and in intervention initiatives (CARVALHO, 2006; MARTINS et al, 2008).

### **Final considerations**

In this work we have sought to map and discuss the circulation of the terms *language* and *discourse* in the academic production of Environmental Education in Brazil, setting out from the material made available and catalogued on the EArte platform. The analyses were undertaken on the works that cited the words ‘language’ and/or ‘discourse’ in the title and the data was obtained by using the classifications of the platform and by reading the abstracts. We recognize that other studies may have concentrated on researching this theme without citing these words in the title. Furthermore, the data was obtained merely from the abstracts. We stress that, as Ferreira (2002) argues:

We need to recognize that abstracts offer a history of academic production through a reality constituted by the abstracts taken as a whole, which is absolutely not the same as what can be narrated through the reality constituted through master’s dissertations and doctoral theses, and that could never be the one narrated by the reality experienced by each researcher in his or her research. The abstracts of the analyzed studies recount a certain reality of this production. There will be as many histories on academic production as the number of abstracts (of the same research study) encountered. (Ferreira 2002: 268)

For these reasons, we believe that the study provides a panoramic assessment of the circulation of the terms ‘language’ and ‘discourse’ in research in EE, recognizing that other analyses could be made along different analytic lines. For example, it would be possible to explore the relationship between the focus on discourse in research in EE (as demonstrated by the central role in the title) and those study themes related to policies (e.g. LOPES, 2006). The author advocates the productiveness of investigating how curriculum policies “simultaneously develop a process that is global and local, some would say glocal, that imposes determined shared conceptions, but also provides space for reinterpretation, modification, a reading different from pre-established patterns, due to the negotiation inherent to the very process of imposition.” However, this analytic deepening requires a more detailed study of complete documents, not just the abstracts of dissertations and theses, with the aim of identifying the possibilities for deconstructing hegemonic discourses on environmental problems and forms of overcoming these through educational action. The results showed that the term ‘language’ appears infrequently and generally linked to different genres of expression, while the term ‘discourse’ seems to traverse research in the area in general, found in the titles of works on a diverse range of investigative themes.

We agree with Berryman and Sauv e (2012) when they write that “there are many possibilities venues, angles, approaches and sources of inspiration to address the question of language and discourse in environmental education and environmental education research.” We hope to have contributed to deepening the understanding of the diversity and importance of the theme for our area of investigation in EE.

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