

CONTINUOUS LEARNING IN ENVIRONMENTAL EDUCATION FOR
KINDERGARTEN TEACHERS IN THE VIEW OF COMPLEXITY AND
TRANSDISCIPLINARITY

*FORMAÇÃO CONTINUADA EM EDUCAÇÃO AMBIENTAL PARA PROFESSORES
DE EDUCAÇÃO INFANTIL NA VISÃO DA COMPLEXIDADE E DA
TRANSDISCIPLINARIDADE*

*FORMACIÓN CONTINUA EN EDUCACIÓN AMBIENTAL PARA PROFESORES DE
EDUCACIÓN INFANTIL EN LA VISION DE COMPLEJIDAD Y
TRANSDISCIPLINARIEDAD*



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ABSTRACT: This article shows the research results that proposed designing, developing, and analyzing a training experience in Environmental Education in the view of Complexity and transdisciplinarity for early childhood education teachers. This study was developed in 2017 and 2018 by the research group in Environmental Education and Complexity. The qualitative methodology included 11 teachers of early childhood education by providing a continuing education course in Environmental Education organized in 24 hours, between face-to-face meetings and distance activities. The qualitative research was used for analyzing the data obtained through observation, interviews, and questionnaires developed from the theoretical study. The results show the potential of Complexity theory and Transdisciplinarity as an essential contribution to continuing education for teachers to overcome the conservative view prevailing in Environmental Education teaching practice.

KEYWORDS: Environmental education. Complexity. Transdisciplinarity. Continuing education for teachers. Early childhood education.

RESUMO: Este artigo apresenta os resultados de uma pesquisa que se propôs a elaborar, desenvolver e analisar uma experiência formativa em Educação Ambiental na visão da complexidade e da transdisciplinaridade para professores de Educação Infantil, desenvolvida nos anos de 2017 e 2018 pelo Grupo de Estudos e Pesquisa em Educação Ambiental e Complexidade. A metodologia, de abordagem qualitativa, contou com a participação de 11 professoras de Educação Infantil, por meio da oferta de um curso de formação continuada em Educação Ambiental organizado em 24 horas, entre encontros presenciais e atividades a distância. A pesquisa utilizou para análise os dados obtidos por meio da observação, entrevista e questionários, elaborados a partir do estudo teórico. Os resultados mostram o potencial da teoria da complexidade e da transdisciplinaridade como importante contributo no processo de formação continuada de professores para a superação da visão conservadora predominante na prática docente em Educação Ambiental.

PALAVRAS-CHAVE: Educação ambiental. Complexidade. Transdisciplinaridade. Formação continuada de professores. Educação infantil.

RESUMEN: Este artículo presenta los resultados de una investigación que se propuso elaborar, desarrollar y analizar una experiencia formativa en Educación Ambiental en la mirada de complejidad y transdisciplinariedad, para docentes de Educación Infantil, desarrollada en los años 2017 y 2018 por el grupo de investigación en Educación Ambiental y Complejidad. La metodología de enfoque cualitativo contó con la participación de 11 docentes de Educación Infantil, a través de la oferta de un curso de formación continua en Educación Ambiental organizado en 24 horas, entre encuentros presenciales y actividades a distancia. La investigación cualitativa utilizada para el análisis, los datos obtenidos mediante observación, entrevista y cuestionarios, elaborados a partir del estudio teórico. Los resultados muestran el potencial de la teoría de la Complejidad y Transdisciplinariedad como un importante aporte, en el proceso de formación continua de los docentes, para superar la visión conservadora imperante en la práctica docente en Educación Ambiental.

PALABRAS CLAVE: Educación ambiental. Complejidad. Transdisciplinariedad. Formación continua del profesorado. Educación infantil.

Introduction

The environmental crisis, currently characterized by two major threats to human life: the Covid-19 pandemic and climate change, highlights the inextricability between the way of living of human beings and the survivability of the planet. This concern takes relief when observing how knowledge about socio-environmental issues is worked by teachers at different levels of education, still in a predominantly traditional way and decontextualized from reality (SAHEB; RODRIGUES, 2019). The challenge for learning with regard to Environmental Education is the complexity of socio-environmental issues, which "[...] need to be understood in its multidimensionality, observing the multi-causality and multi-referentiality occurring, seeking to understand the most important relationships, connections and links" (MORAES, 2010, p. 5, our translation).

Given this scenario, one must first question what are the epistemological and cognitive paths necessary for the understanding of socio-environmental issues, capable of contributing to the construction of a new way of relating characterized mainly by the reunion with the ability to live harmoniously with nature and society. From this concern, we sought contributions that could help in the construction of a proposal for continuing education in Environmental Education in the vision of complexity and transdisciplinarity. Thus, with a qualitative, action research approach, this article presents the path that involved the theoretical study, development and delivery of a classroom course for teachers of Early Childhood Education.

The general objective was to develop a continuing education in Environmental Education for Early Childhood Education teachers, based on the vision of complexity and transdisciplinarity. The first step was the bibliographic research, through the study of Nicolescu (1999), Morin (2011), Moraes (2015, 2010, 2007) and Pineau (2005, 2000, 1988), Galvani and Pineau (2012) and Leff (2012). The second step was, based on Moraes (2015), the elaboration of transdisciplinary indicators of Environmental Education for Early Childhood Education. The third step was the organization of a training proposal for teachers, outlined from the epistemological and methodological implications of complexity and transdisciplinarity, taking into account the assumptions of Environmental Education and the articulation with Gaston Pineau's tripolar theory and Moraes' ecosystemic thinking. Then, the training entitled "Transdisciplinary Practices of Environmental Education in Early Childhood Education" was carried out, presented throughout the text, from which we seek to highlight the assumptions that gave theoretical basis to the pedagogical action with teachers of Early Childhood Education and present it with a brief analysis.

Complexity and transdisciplinarity as a way to train Early Childhood Education teachers in Environmental Education

The socio-environmental crisis, a serious problem that deserves global attention, is not a novelty, but a global consensus that has been evidenced and conveyed for some time now by both the academic community and the media. Despite being considered an advance, the recognition of socio-environmental problems alone is not enough to overcome the degradation of the environment, the fragility of ethical and moral values, and the reductionist paradigm that guides the relationship between human beings and nature. This crisis presents itself as the frontier between the current context of humanity and its re-signification, especially of thought, since "the environmental crisis is above all a problem of knowledge" (LEFF, 2012, p. 191, our translation).

When reflecting on Environmental Education and its paths, we understand the urgency of a new formative perspective, which includes alternative and effective ways of thinking, acting and feeling, able to provide a basis for a pedagogical process aimed at the transdisciplinary construction of knowledge as a way to reflect on socio-environmental issues. Transdisciplinarity (NICOLESCU, 1999), nourished by the complex vision of reality and knowledge, as opposed to dogmatic and univocal thinking, constitutes an important contribution to Environmental Education, as a way of interconnection in the search for possible answers to the ethical, political and socio-cultural challenges that are so urgent and necessary.

In this sense, concomitant to the presence of Environmental Education in the school context, there is a need for reflection and debate about the conceptions that underpin the teaching practice and that give characteristics to the environmental education work. It is important that teachers are aware of the existence of relationships between their way of understanding reality, their methodological options, and the impact of their teaching practice.

It is necessary a thought that unites and does not separate, that considers uncertainty, contradictions, temporariness, in short, change, so that one can see the true reality, which is not static and linear, but considers subjectivity, the different knowledges, the clarity of the other, in a vision thought as a whole (OLIVEIRA; BEHRENS; PRIGOL, 2020, p. 1891, our translation).

As a mediating principle of thought and action, as well as of the way of thinking and understanding reality, according to Moraes (2007, p. 20, our translation), "complexity demands that we think about teacher education from a process of integral education", that is, a proposal for a more creative, constructive and transforming teacher education. A teacher education process from a transdisciplinary perspective needs to consider the three pillars proposed by

Nicolescu (1999), namely: levels of reality, the logic of the third party included, and the complexity of relationships.

According to Nicolescu (1999), the levels of reality correspond to the different perceptions that exist and are constructed by the subject in the relationships that he/she develops from being and being in the world. The logic of the third included concerns the overcoming of binary logic for the recognition of the possibility of interaction between opposites. Finally, the third pillar, complexity, is constituted as a worldview that seeks to understand the permanent changes in reality based on the complexity present in all problems, as well as the universal interdependent relationships.

A teacher training process from this perspective implies considering a training based on the tripolar theory of Pineau and Patrick (2005), which includes three levels of analysis: self-training, hetero-training, and eco-training. According to Moraes (2007, p. 24, our translation), "an epistemometodologically transdisciplinary teaching is built through the competent articulation of these three poles", integrating during the entire formative process "the relationship with oneself (self-training), the training in the relationship with the other (hetero-training) and the training with the environment (eco-training)" (MORAES, 2007, p. 26, our translation).

Therefore, in the construction of the continuing education proposal for teachers, we sought to articulate the three poles, translating transdisciplinarity and complexity into methodological steps that overcame fragmentation. Thus, transdisciplinary research-action workshops were organized focused on developing and experimenting a training process based on the transdisciplinary vision of Environmental Education.

Methodological Process

Based on the qualitative research approach, the methodological path of research-action was designed, considering that "[...] research and action can and should go together when the transformation of practice is intended" (FRANCO, 2005, p. 485, our translation). It is noteworthy that, based on the proposal of shared construction of knowledge and joint strengthening to face problems, this research had the involvement of researchers from the Group for Studies and Research in Environmental Education and Complexity in the reflection, preparation and implementation of the classroom course, as well as in monitoring during the

workshops, recording the observations of the developed activities, speeches and interactions of the participants.

The data collected were worked from the workshops of the on-site course called "Transdisciplinary Practices of Environmental Education in Early Childhood Education", which developed a training considering the transdisciplinary dimensions and indicators of Environmental Education for teaching practice in Early Childhood Education, in the second half of 2018. As a general objective, it sought to analyze the contribution of complexity and transdisciplinarity to the development of a continuing education in Environmental Education for Early Childhood Education teachers, focusing on overcoming the conservative view of Environmental Education.

Course Description

For the development of the continuing education process, it was based on the concepts of Morin (2011), Nicolescu (1999), Moraes (2015), Pineau (2000), Galvani and Pineau (2012) and Leff (2012). All phases - theoretical study, elaboration of dimensions, indicators and workshops, and follow-up of the continuing education course - were carried out with the support of the research group. The course was structured by face-to-face workshops, totaling four, in which the five dimensions were organized.

Based on Moraes (2015), who proposes transdisciplinary dimensions to education, and the objectives of Environmental Education present in the National Curriculum Guidelines for Environmental Education (BRASIL, 2012), the following transdisciplinary dimensions were adapted for Environmental Education: political, cognitive, creative and aesthetic, relational and spatial. Such transdisciplinary dimensions do not concern practical applications, but should be constituted as the vision that underlies the pedagogical proposals, transposing them into practice. From them, qualitative indicators were built corresponding to actions and methodologies for teaching practice in Environmental Education.

The political dimension involves issues related to attitudes that enable early on the exercise of democracy, citizenship, and cooperation, which are important for learning environmentally responsible and solidary attitudes, aiming at the common good. The relational dimension includes intrapersonal, interpersonal, emotional, and ethical aspects, necessary for the construction of socio-environmental values and affective bonds with nature and the environment. The cognitive dimension concerns the activities that involve the understanding

and perception of socio-environmental issues. The creative and aesthetic dimension has the purpose of providing experiences with nature based on imagination, affection, and sensitivity to natural beauty. The spatial dimension refers to the playful possibilities of interaction and organization of space as an important sustainable educator in the affective relationship with the place.

The structure of the meetings was developed from the contributions of Moraes (2015), Galvani and Pineau (2012), and Espinosa (2017, 2014, 2009). Each meeting followed a sequence of activities, which were based on:

(a) sensitive listening: initial moment in which participants shared the results of the task they performed during the week, since, always at the end of the meeting, they received an activity to develop with their students at school. It was a rich moment for the exchange of experiences, doubts and recognition of expectations, and when the theme of the previous meeting was revisited. Thus, the moment of exchange among teachers was based on the hetero-training perspective, which aims at the socialization of individuals, and understands that cultural exchanges, through relationships, contribute to the construction and appropriation of knowledge (PINEAU, 2000).

b) Knowledge Dialog: moment of presentation, in which the group researchers presented concepts about the themes worked on. It was part of the second moment of the training, after the exposure of the participants' experience, because it was understood that "an authentic education cannot privilege abstraction in knowledge. It must teach how to contextualize, concretize, and globalize" (NICOLESCU, 1999, p. 162, our translation), that is, the exchange of experiences is extremely important, but it cannot be restricted to common sense, as well as focus only on a specific context; it is necessary to broaden the discussions and this is only possible with the help of theory.

c) Reflection on practice: in the third moment, we chose to perform reflective dynamics, which, in addition to addressing the theme worked on that day, sought to sensitize the subject to reflect on himself and his actions with regard to the environment. When we talk about environment, we must take into consideration not only the environment itself, but the relationship that occurs between the individual and the environment. Eco-training is a necessary aspect for this reflection, since it "brings as a complement to the others a greater emphasis on the reciprocal relations person-environment" (PINEAU, 2000, p. 22, our translation), aiming at an awareness of the relationship between man and nature, inserting, besides information, a reflective process about the formation of the human being.

d) Exploration: in the fourth moment, a mobilizing dynamic was inserted, with the purpose of inviting the teachers to experience practices related to the theme of the day. "Transdisciplinary education reassesses the role of the intuition of the imaginary, of sensitivity, and of the body in the transmission of knowledge" (NICOLESCU, 1999, p. 162). Through the mobilizing dynamics, we sought to awaken in the participants the sensitization, the imaginary, their feelings in relation to the theme worked on. These moments, even if performed in groups, aimed to sensitize the participant to reflect on his longings and difficulties, thus inserting self-formative aspects, so that the subject becomes responsible for his acts and actions that lead him to the self-formative process (PINEAU, 2000).

e) Self-assessment: the proposal for teacher training in the view of complexity and transdisciplinarity should go beyond the traditional model of transmission and instruction, to value the reflection of the teacher on his or her own learning process. In this sense, self-evaluation was part of all the meetings, with the primary objective of providing moments for the teachers to think about their thinking, their conceptions, and what and how they were learning. Also through self-evaluation, they were able to reflect on the proposed activities and their conduction, being able to make suggestions, so that everyone could participate in the reorganization and critical analysis of the proposal experienced (NICOLESCU, 1999).

Before each meeting, the participating teachers received by e-mail a text for prior reading related to the following theme. At the end of each meeting, they were oriented about the development of a task on the theme worked in the workshop with their class at school, seeking to provide an opportunity to transpose what was worked in the workshop into pedagogical practice. The results, doubts, and ideas were always shared at the beginning of the next meeting, during the moment that focused on sensitive listening.

Another important aspect was to socialize with the participants, at each meeting, references to websites, books, and other materials that could be used as research sources for the organization of the Environmental Education classes. The theme was developed from the complexity viewpoint, considering the multi-referentiality and dialogicity among the natural, social, political, economic, and cultural aspects that make up the relationship between human beings and the environment.

The training was carried out in the format of an extension course, with a total of 24 hours, divided into 12 classroom hours, with four three-hour meetings, and 12 hours of distance learning activities.

At the end of the day's workshop, the participants were asked to conduct a self-assessment and evaluation of the activities developed during the day. Thus, they had the opportunity to reflect on the contribution of the workshops to their teaching practice, as well as to suggest new organizational possibilities and methodological guidelines for the group responsible for the training.

Characterization of the teachers participating in the course

The registration was done through an online form, and the invitation to participate in the training was published on the social networks of the research group members, as well as on the group's official website. After the registration period, it was necessary to select the participants, due to the high number of applicants. The selection criteria were: being an Early Childhood Education teacher, time working in Early Childhood Education, and different schools, seeking to enable a team member to act as a multiplier in the space where he or she works.

The training had 11 participants, all female, Preschool Education teachers, ten of whom worked in the private network and two in the public network. All of them had specialization, but none in the environmental field. Among them was a pedagogical coordinator for Early Childhood Education and an educator from the Municipal Education Secretariat.

Discussion and analysis of the data

The experience reported in this article is a path on how to operationalize transdisciplinarity and complexity in a teacher training process in Environmental Education. The first aspect observed is the importance of starting the training with the subjects that will think, design and implement the continuing education course. The proposed process, from the collective construction of the dimensions and indicators to the development of the workshops, provided the members of the research group with the creation and experience of transdisciplinary practices.

For discussion and analysis, we used information from the observations that the members made of the activities and conversations developed by the participating teachers during the four meetings of the course. Also, we chose to use a priori categories (BARDIN, 2011), since the training was developed from a theoretical reference selected and studied; therefore, for the analysis, we aimed to identify the involvement of participants during the five

moments proposed in each workshop: sensitive listening, knowledge dialogue, reflection on practice, exploration and self-evaluation.

First category: sensitive listening. All the meetings started with this moment, in which the participants shared in a circle the experiences oriented in the previous meeting and carried out with the children in their school during the week. They showed photos and activities and everyone showed a lot of excitement, interest, and asked questions to each other. This moment stood out for the space provided for dialogue and the incentive for **interaction**. "We know that every teacher education process depends on the type of experiences lived in learning environments" (MORAES, 2007, p. 33, our translation); in this sense, potentiating the exchange of knowledge, information and sensations, the workshops offered:

[...] a social and individual learning environment in the deepest sense of the learning experience. Learning in its most radical sense, which, much more than just providing content and information, generates processes of formation of the human subject, instituting new ways of being, of understanding, of positioning oneself before others and oneself, facing the challenges of the times in which we live (CARVALHO, 2012, p. 69, our translation).

From this perspective, it is noteworthy that during the observations made during the training process, it was possible to verify that the teachers value the opportunity to share their teaching practice during the training moments. In the four meetings, there are fragments of the teachers' statements that refer to the importance of the exchanges among peers, highlighting how much it adds to their teaching practice. In the final questionnaire, it is also possible to observe the importance of the exchange among peers; when the teachers were asked to make a brief evaluation of the course, the 11 participants highlighted that the interactions with peers were essential, because through the shared experiences, they understand that it is possible to rethink their practice and come up with new ideas.

In this respect, Nóvoa (1995, p. 26-27, our translation) states that continuing education practices "organized around individual teachers may be useful for the acquisition of knowledge and techniques, but they favor isolation and reinforce an image of teachers as transmitters of knowledge produced outside their profession. Thus, the interaction that occurs among peers during the formative process contributes for teachers to realize, based on the experiences of their colleagues, that they don't need to act individually and that this exchange can increasingly enrich their pedagogical practice.

Second category: Knowledge dialogue. The moments called knowledge dialogue were dedicated to the exposure of scientific knowledge by the group members. The teachers showed

an understanding of the importance of contacting and updating their knowledge, agreeing that they had difficulty knowing where to look for reliable information. The most frequently consulted sources were random sites on the Internet, by searching for keywords on Google. The participants asked for book and website references for study, showing interest not only in practical activities, but also in theoretical foundations.

Third category: reflection on practice. After the explanation by the research group of the theme from the theoretical perspective, the participants were encouraged, through directed activities, to mobilize a reflection about their pedagogical practice articulated to the theme presented.

It is agreed with Nóvoa (1999, p. 25, our translation) that a "[...] formation needs to stimulate a critical-reflexive perspective, which provides teachers with the means for autonomous thinking and facilitates the dynamics of participated self-training". Thus, it is noteworthy that the whole formative process was designed to value the importance of theory related to practice. In each meeting, the emphasis was on offering moments for the teachers to share their teaching practice, thus being able to interact with others and seek to articulate the theory presented with the teaching practice carried out in their daily lives, that is, a continued education needs to provide an opportunity for the teacher to understand his practice, think and act on it, seeking to constantly expand, re-signify, and transform the teaching practice already carried out.

For Nóvoa (1995, p. 25, our translation), "theory provides us with indicators and reading grids, but what adults retain as reference knowledge is linked to their experience and their identity. [...]. It is not a matter of mobilizing experience only in a pedagogical dimension, but also in a conceptual framework of knowledge". In this way, it is indispensable that the teachers' formative process provides opportunities for moments of relationship with practice. It is through the experiential reports that, most of the times, the teacher is able to make the relationship between theory and practice. When the trainer is explaining the theoretical elements of the educational process and searches for practical situations to illustrate, he/she encourages teachers to search for situations similar to the reported one in the practices they have already performed, helping them to relate and share their experiences, which are related to the specific theory. Therefore, it is considered that teachers' speaking moments during a formative process are necessary for them to expand their range of experiences and knowledge.

Fourth Category: Exploration. During the moments of exploration, the participants were invited to establish contact with the themes worked on in the meeting in a transdisciplinary

and creative way, therefore with the support of art, music, poetry, plastic arts, photography and body expression. Transdisciplinarity presupposes the valuing of other knowledge beyond the disciplinary, so the work during continuing education, from dimensions beyond the cognitive, was important to awaken in the participants emotions and relationships of the theme with their life story and experiences in other contexts, "[...] attending, in this way, to its various dimensions that not only encompass the cognitive nature referring to the left brain hemisphere, but also the affective, artistic, aesthetic and spiritual dimensions". (MORAES, 2015, p. 94).

Fifth category: self-assessment. It was possible to identify from the teachers' speeches and answers in the record of the self-evaluation activities their contribution to the process of awareness in relation to the perspective of self-training, an important component of teacher training, considered a tripolar process, characterized by three poles: oneself (self-training), others (hetero-training), and things (eco-training). For Pineau (1988, p. 103, our translation),

[...] self-training, in its last stages, corresponds to a double appropriation of the power of formation; it is to take this power in hand-to become a subject, but it is also to apply it to oneself: to become the object of formation for oneself.

The process of reflective analysis about the construction of meanings from their experiences was considered by the participating teachers as an important and enriching point in the training, because they considered it necessary to think about the process and, at the same time, contribute to the evaluation and then to the development of the reorganization of the workshops.

The five moments of each workshop sought to provide the participants with experiences that contemplated the three principles of transdisciplinarity according to Nicolescu (1999), in a non-linear manner, but integrated and complementary, in such a way that each one of them would permeate. The different levels of reality, one of the pillars of transdisciplinarity (NICOLESCU, 1999), were valued through the encouragement of dialogue, by listening to and welcoming different sensations and ideas, coming from different ways of reading the world; the complexity was contemplated as an epistemological principle when considering the teacher training focused on the multidimensional subject, in a dialogical relationship between scientific knowledge and teaching knowledge; the third pillar, the logic of the included third party, was present mainly through the moments that privileged the recognition of individual conceptions, their beliefs and the sharing and dialog confronted with different conceptions that showed a non-excluding logic and that could be complementary, included.

Since the first workshop, the teachers were invited to identify and rethink their conceptions of Environmental Education, showing, through the questionnaire and orality at first, a conception tied predominantly to natural and conservationist issues, such as preservation of green areas, water and waste recycling. At the end of the last meeting, the participants demonstrated, through speech and answers to the questionnaire, to have expanded their conception, understanding that social and environmental issues are intertwined and that, in this relationship, Environmental Education focuses on the problematization of social practice since childhood.

Final remarks

The teacher training in Environmental Education in the view of complexity and transdisciplinarity should include the dialogue between scientific knowledge and knowledge built from the knowledge of the world, everyday life relationships, subjectivity, social, artistic, political and cultural aspects. It is, therefore, a question of combining the themes related to environmental issues with pedagogical work aimed at reforming thinking, which requires the development of a teaching practice that values dimensions that go beyond the content and is, therefore, of a transdisciplinary nature.

Based on these aspects, this research aimed to develop a continuing education in Environmental Education for teachers of Early Childhood Education in the view of complexity and transdisciplinarity; for this purpose, indicators were developed that provided the basis for the construction of the training course.

The training process was applied to teachers of early childhood education in public and private schools in the city of Curitiba and metropolitan region. Through it, it was possible to verify that the participants showed great interest in the theme by understanding its importance, but often did not know how or from what to work with Environmental Education.

Regarding the training process carried out, it was possible to verify that the participants value moments of sharing with their peers, stating that they have learned more in moments when there were reports and exchange of experiences. In addition, they pointed to theory related to practice as an essential element for a fruitful training process.

Therefore, it can be said that a training process that aims to enable teachers to reflect and act on their practice must consider the real needs of these teachers, i.e., it must start from their reality, which involves school dynamics in their daily lives, showing these teachers that

bringing Environmental Education into the classroom is not an extra work, as many think, but consists in focusing on basic daily things that are already performed in the school environment, such as working with respect for others and empathy.

One can also emphasize the importance of theory in the educational process, since the theoretical foundations support the pedagogical practice; however, a theory that does not relate to practice is useless. It is understood, through observations and teachers' reports, that for theory to make sense, it needs to be accompanied by practical examples that help the teacher make the connection between theory and practice. Thus, it is advocated a formative process that values the inseparability between theory and practice and that, in addition, helps the teacher to be a transforming agent in their teaching practice, understanding that the practice performed with their students will reflect in the citizenship formation of these subjects.

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