

# Innovative and insurgent teaching practices: interdisciplinarity and contextualization as possible paths<sup>1</sup>

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## ABSTRACT

This article aims to present innovative and insurgent teaching practices that sought, in interdisciplinarity and in the contextualization of knowledge through students, to transgress what is set. These practices were developed with the implementation of the *Espaço Horta na Escola* Project, aiming to modify the view of the school community regarding the work developed at the State School of Elementary and High School Education Cora Coralina, Cacoal – RO, Brazil. We adopted the methodology of participant observation and conducting rounds of conversations to produce the data. In this perspective, the observation of innovative and insurgent teaching practices, which were thus characterized by demonstrating original actions or not, but which incorporated renewal to the teaching intention, are a way to go beyond what is instituted in the classroom. There are challenges, but that can be overcome when diverse teaching and learning strategies are used, promoting effective and meaningful practices.

**KEYWORDS:** Teaching practices. Interdisciplinarity. Contextualization. Insurgency.

*Práticas docentes inovadoras e insurgentes: interdisciplinaridade e contextualização como caminhos possíveis*

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## RESUMO

Esse artigo tem como objetivo apresentar práticas docentes inovadoras e insurgentes que buscaram, na interdisciplinaridade e na contextualização dos saberes por intermédio dos alunos, transgredir o que está posto. Essas práticas foram desenvolvidas com a implantação do Projeto “Espaço Horta na Escola”, visando modificar o olhar da comunidade escolar a respeito do trabalho desenvolvido na Escola Estadual de Ensino Fundamental e Médio Cora Coralina, Cacoal – RO, Brasil. Adotamos como metodologia a observação participante e a realização de rodas de conversas para produzir os dados. Nessa perspectiva, a observação das práticas docentes inovadoras e insurgentes, que foram assim caracterizadas por demonstrarem ações originais ou não, mas que incorporaram renovação à intenção docente, são um caminho para ultrapassar o que está instituído nas salas de aula. Apontamentos que existem desafios, mas que podem ser superados quando são utilizadas estratégias de ensino e de aprendizagem diversificadas, promovendo práticas eficazes e significativas.

**PALAVRAS-CHAVE:** Práticas docentes. Interdisciplinaridade. Contextualização. Insurgência.

*Prácticas docentes innovadoras e insurgentes:  
interdisciplinariedad y contextualización como posibles caminos*

## RESUMEN

Este artículo tiene como objetivo presentar prácticas de enseñanza innovadoras e insurgentes que buscaban, en la interdisciplinariedad y en la contextualización del conocimiento a través de los estudiantes, transgredir lo establecido. Estas prácticas se desarrollaron con la implementación del Proyecto "Espacio Horta na Escola", con el objetivo de modificar la opinión de la comunidad escolar sobre el trabajo desarrollado en la Escuela Estatal de Educación Primaria y Secundaria Cora Coralina, Cacoal – RO, Brasil. Adoptamos la metodología de observación participante y la realización de rondas de conversaciones para recopilar datos. Desde esta perspectiva, la observación de prácticas docentes innovadoras e insurgentes, que se caracterizaron por demostrar acciones originales o no, pero que incorporaron renovación a la intención

de enseñanza, son una forma de ir más allá de lo que se instituye en el aula. Señala que existen desafíos, pero que pueden superarse cuando se utilizan diversas estrategias de enseñanza y aprendizaje, promoviendo prácticas efectivas y significativas.

**PALABRAS CLAVE:** Prácticas docentes. Interdisciplinariedad. Contextualización. Insurgencia.

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## Introduction

The teaching work provides us with fabulous experiences, even more when it comes to pedagogical practices, since there are challenges faced on a daily basis, mainly related to the ways of teaching and learning that need better understanding on the part of teachers. Methodological approaches sometimes have no direct application for practices developed in the classroom, because in the face of challenges, difficulties, some tools that could be used in the teaching and learning processes are not, which can compromise student learning.

Given this context and observing current education, understanding the roles of the school as an educational institution, of teachers, students, and the school community is essential for the collaboration and participation of all in the development of school activities. In the same way, understanding the daily practices that students develop is important for building and increasing teaching work, which requires changes in the teacher's attitude towards knowledge. In this logic, the teacher assumes an attitude of contextualizing school content, understanding that students have their own knowledge and that, when integrated with school knowledge, they go beyond the limits of the subjects.

The teacher takes interdisciplinarity as a form of teaching to address a theme, interrelating it with content from different subjects. The intention is to provide students with meaningful learning

(AUSUBEL, 2000), as well as the application of specific knowledge in each area for the investigation and analysis of this theme. In view of the above, interdisciplinarity is integrated with the different areas of knowledge in order to promote mutual influence between school and everyday knowledge and between teachers and students.

There are several obstacles to the application of interdisciplinarity, ranging from the requirement of greater commitment from students to school activities, changing study habits and transparency in the preparation of their work and studies. In the same way, it occurs with teachers, in which their work demands serenity, full involvement with the stages of the proposed activities, availability to plan and develop interpersonal relationships. Therefore, using interdisciplinarity requires an attitude different from the disciplinary model, in which the production of knowledge occurs in a linear, hegemonic manner and is propagated almost individually, which reduces the development of interpersonal relationships and makes it difficult to contextualize the learned contents.

In view of the above, the present work consists of an experience report, carried out at the State High School Cora Coralina in the municipality of Cacoal, Rondônia state. The choice of the Educational Institution was due to the fact that it was the work place of one of the authors, who sought to contribute to the improvement of school activities, as well as to add knowledge to their academic and professional training.

This report presents some activities that were developed during the 2019 academic year by the pedagogical team, teachers, students and contributors of the school community, addressing activities planned and developed in an interdisciplinary way. The purpose of using this approach was to experience pedagogical practices and experiences that help in understanding different contexts of knowledge combined with curricular and interdisciplinary proposals developed in the school environment, aiming at contextualizing the contents and contributing to the development of teaching and learning processes.

The narrative description addresses actions developed with students in practical activities, just like the theoretical aspects that supported the work. The activities developed aimed at contextualizing school content with other subjects and the knowledge that students already had, mobilizing them to produce practical results. In this context, students were encouraged to seek diversified ways of using the knowledge learned in the classroom and vice versa, as well as exploring the experiences. An opportunity that certainly provides meaningful learning and, at the same time, promotes the renewal of teaching practices in the search for a transformative education.

The interdisciplinary teaching practice is evidenced as one of the ways to reduce the gap between the school reality and the students' reality, without disregarding the challenges generated by the attempt to implement this new practice. We found that interdisciplinarity and contextualization go hand in hand with innovative and insurgent teaching practices regarding what is put in the prescribed curriculum and didactic materials, in addition to favoring the meaningful learning of students, encouraging them to want to learn school content.

It is worth mentioning that we consider innovative and insurgent practices to be those that, even though they are not original, incorporate something new to alter ideas, concepts and practices that move in the renewing direction of the teaching intention. Therefore, they are practices that argue against students' passivity and lack of creativity and see them as copartners of their learning.

### **Contextualizing the place: State School of Elementary and High School Education Cora Coralina - Cacoal - Rondônia**

The State School of Elementary and High School Education Cora Coralina is located at José do Patrocínio street 2559 in the center of the

municipality of Cacoal, in Rondônia state, Brazil. In Figure 1 we can see the location and the facade of the school.

**FIGURE 1:** Location in map and the facade of the school.



Source: Cora Coralina school, 2020.

The school started its activities on September 12, 1986, through decree n° 3041 (RONDÔNIA, 1986), called Municipal School of 1<sup>st</sup> Degree Cora Coralina. In 1998 the school was renamed State Elementary School Cora Coralina, through the decree to change denomination n° 9003 of 02/23/2000 (RONDÔNIA, 2000). In 2002 it received authorization to work with Regular High School, acquiring the name State School of Elementary and High School Education Cora Coralina.

The School was named Cora Coralina to honor the poet Ana Lins de Guimarães Peixoto Bretas, known as Cora Coralina. About number of effective of the school, with regard to enrollment in high school, there were 849 students in 2019. According to a survey carried out in April of that same year, these students were distributed as follows: 311 in the first-year classes, 283 in second year classes and 255 in third year classes. These students live in several neighborhoods in the city, and they are between 14 and 17 years old.

The teaching staff has 29 teachers who take responsibility and exercise educational practices aimed at respecting students and have a critical and reflective position in the face of relevant and fundamental issues

related to the teaching and learning processes. The school also has a pedagogical team formed by supervisors, advisors, a psychologist and two responsible for school management.

The institution works with the organization of spaces in ambient rooms that allow customization according to the disciplines that are allocated in these rooms. Therefore, students move between classrooms with each class change. It should be noted that the objective of organizing space in ambient rooms preserves and safeguards the materials necessary for contextualizing and enriching the classes of the disciplines allocated there.

The school adopted the critical-social pedagogical conception of the contents, which defends the idea that it is through the public school that knowledge is disseminated, a condition for clarifying the people and encouraging participation in social struggles. For that, it is not enough to teach only academic and school content, it is necessary to value the skills and life experiences of students.

Thus, interdisciplinarity and contextualization are aspects valued by the school, in the teaching and learning processes, allowing teachers a broad view for decision-making. Aspects also appreciated by the school are the development of autonomy, appreciation and respect for students' knowledge and participation of the school community in the activities that the school develops as a strategy for bringing the school and the surrounding community closer together.

### **Interdisciplinarity and contextualization: guiding the paths for innovative and insurgent teaching practice**

The option for participant observation, in addition to participation in activities, provided us with access to information about pedagogical activities that were articulated between supervision and teachers and, later, with students. Thus, in meetings and in rounds of conversations



we were able to access the teaching plans, as well as, investigate the actions and projects that would be developed. This approach was significant for the development of interdisciplinary, innovative and insurgent teaching practices.

According to Vaillant and Marcelo García (2012, p. 19) “teaching capacities are an essential element in the adequate effectuation of student learning, [...]”. These authors corroborate our understanding of the development of school activities that excel in practices with a predominance of dialogue, cooperation and articulation, both among students, as between teachers with students and the pedagogical team. It is worth mentioning that insurgent practices are those that when rebelling against the coloniality of knowledge are inspired by solidarity, the exchange of socio-cultural knowledge and an emancipatory and liberating education.

We found that it is part of the school's pedagogical proposal to stimulate research, curiosity, cultural creativity and the initiative to discover new possibilities of knowledge. In this logic, dialogues and conversations promoted exchanges of experiences among teachers, which contributed to adjust planning, as well as the elaboration and development of interdisciplinary activities. Thus,

The interdisciplinary approach, in the context of education, manifests itself, therefore, as a contribution to the reflection and the forwarding of solutions to the difficulties related to research and teaching, and which concern the way knowledge is treated in both functions of education. (LÜCK, 1994, p. 20).

The first step is taken to use the interdisciplinary approach with a decolonial character, in which teachers exercised the most committed and attentive look at the knowledge that students could bring to contextualize the project that would be developed at school. Fazenda (2008, p. 17) emphasizes that we must think about interdisciplinarity “as an attitude of daring and a search for knowledge”. Therefore, the *Espaço Horta na*



*Escola*<sup>4</sup> Project was launched with the objective of promoting everyone's understanding and responsibility in relation to the healthy management of the spaces in which we live.

With regard to contextualization, with the intention of breaking the barriers of the disciplines, it was decided to value the experiences of the students exposed in their knowledge and daily activities. This is the decolonial character of teaching practices that rebel against what is prescribed. Thus, it can be seen that contextualization only makes sense in the sociocultural reality of students, because when they enter the classroom, they bring knowledge acquired on a daily basis (MATTOS, 2020) with their families.

Mattos (2020) also states that contextualizing for contextualizing does not give real meaning to the content that students learn at school, nor does it help them regarding the usefulness of this knowledge for application in their reality. Therefore, contextualization must be directly related to what students already know or what they learn daily in their family activities. This was the way to arouse the interest of students.

These were the steps taken for interdisciplinary activities at school to make teaching practices innovative and insurgent, that is, to contextualize seeking support in the students' culture; develop the project by merging the disciplines in such a way that they were presented in the exchange of one or more with other disciplines and approaching some content through practical activities involving school and community. We observed that arousing students' interest in learning was an aspect that also stimulated teachers and the pedagogical team. Therefore, teaching practices should reflect the commitment to students' meaningful learning.

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<sup>4</sup> Original name in Portuguese of the Space-Vegetable Garden in School Project.

## Methodological aspects

We assume that the methodological approach directs the researcher's view. It was with this understanding that we chose participant observation to develop the experience report that is provided when looking for new knowledge and professional and academic additions. The survey of the theme is complementary to another research on sustainability and medicinal plants in Indigenous School Education. The subjects involved were about 250 high school students, six teachers, the school's pedagogical team, two volunteers and the school community that participated in the culmination of the project.

Our objective was to transgress what was put in the classroom, to make students more autonomous and creative, who must know how to argue and debate ideas. These practices are actions of creative insubordination (D'AMBROSIO; LOPES, 2015) as a resource to modify the prescribed and which intends to dare and create teaching practices that facilitate the students' meaningful learning.

Among the procedures adopted for the production of data, we highlight the conversation wheel, with a view to obtaining information about the teaching practices that were developed in high school. The use of the conversation wheel made it possible for each participant to see the others and, at the same time, listen to each other's voice, which favored interactive discourse. According to Sampaio, Santos, Agostini and Salvador:

The space of conversation wheel intends to build new possibilities that open up when thinking, in a continuous movement of perceiving - reflecting - acting - modifying, in which participants can recognize themselves as conductors of their action and their own possibility of "being most" (SAMPAIO; SANTOS; AGOSTINI; SALVADOR, 2014, p. 1301).

We also used conversations with teachers and students, observation, capture of audios and images as a research tool. There was

also access to the school's records documents, such as a political pedagogical project and action plans for activities.

### **The development of the *Espaço Horta na Escola* Project: interdisciplinary possibilities**

Various activities can be developed at the school with the help of a vegetable garden, but it was decided to let the students choose the direction of the project. An interesting proposal came from the students of the third year of high school, mixing the discipline of biology with those of physics and sociology. So that in the development of activities, students could relate content from these areas, such as energy sources, consumption relations, concepts of ecology and environmental education. According to Eno, Luna and Lima:

The gardens inserted in the school environment can be a living laboratory that allows the development of several pedagogical activities in environmental and food education, uniting theory and practice in a contextualized way, helping in the teaching-learning process (ENO; LUNA; LIMA, 2015, p. 249).

The school already had a space for vegetable garden that was used to develop the *Espaço Horta na Escola* Project. It is called that because it is a space for the development of a school vegetable garden, with beds built of masonry and covered with *sombrite*<sup>5</sup> canvas, as we can see in Figure 2.

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<sup>5</sup> Portuguese name for a kind of protective screen.

**FIGURE 2:** *Espaço Horta na Escola.*

Source: Authors' photographic archive, 2019.

With the structure already in place, the space was used for the development of activities, which were carried out in stages, with students who had the support and collaboration of volunteers. All work was supervised and guided by teachers from the three disciplines.

The mobilization and organization for the definition of the proposal, realization of the dynamics with the students to debate the construction of concepts and fundamental values to the project, survey of materials and resources necessary for the materialization of the project, were established by defining groups, in which each class it was a group. These groups had tasks to be carried out to carry out the initial activities, such as cleaning the beds, sowing, care, maintenance and monitoring.

In the planting activity, students were responsible but with the collaboration of teachers and volunteers. This step counted on the help and partnership of student M. S., who has experience with growing vegetables, as she works with her family to grow and sell at local fairs. In addition to her, they had the collaboration of school janitor R. who also has experience with growing vegetables. Both student and school janitor made many contributions to the execution of the activities.

These voluntary practices corroborate the Law of Directives and Bases of National Education - LDBEN 9394/96 (BRASIL, 1996), which in its Art. 3, states that teaching will be taught based on principles of which it is worth highlighting “the valorization of experience out of school” and the “link between school education, work and social practices”, which are contained in items X and XI of the law (BRASIL, 1996, p. 9). Therefore, we understand the pedagogical action developed at the school as a decolonial act that uses innovative and insurgent practices, guided by ruptures that violate practices imposed by the public power.

The seeds of parsley, coriander and lettuce, acquired by the students themselves, were allocated in cups for germination and, later, transferred to the beds. The students were left with the responsibility to continue and preserve the vegetable garden until the end of classes.

With the students of the second-year classes, it was decided to collect and produce seedlings for donation to the school community. The biology teacher presented the contents on the diversity, morphology and physiology of plants. In this perspective, students were proposed to conduct research on plant species for medicinal purposes and uses. This practice corroborates the National Curriculum Guidelines for Basic Education (BRASIL, 2013, p. 163) which has research as a pedagogical principle, requiring teachers “to be facilitators of knowledge acquisition; they should encourage research, knowledge production and group work”. In this perspective, students were organized in pairs and each pair was given the popular name of a medicinal plant. The students, through research, got to know some plants with medicinal properties, their active ingredients and chemical formulas of the compounds.

We observe the entrance of an ethno-knowledge, since the use of medicinal herbs is a practice of the original peoples and involves ancient knowledge. It also involves ethnobotany, in which plants are incorporated, by people, into their daily and cultural practices. Mattos and Oliveira (2019, p. 61) affirm that “ethnobotany is understood as an

area of knowledge that studies the relationship of man with nature, of which plants are integral part and widely used [...]”, establishing an integrative relationship and interrelationships developed in dynamic systems between humans and plants.

In another stage, the students were in charge of aerating and/or producing seedlings of the researched plants. At this stage, the students were able to share and exchange seedlings. The focus of this activity was on the exchange of information and experiences, since many students reported having different species of plants at home, cultivated by their mother, by another family member and by them. According to Mattos (2020, p. 132) “by proposing a task, the teacher enables the development of knowledge from socio-cultural groups”, exploring the argumentation and the apprehension of new knowledge.

Approximately one hundred and thirty seedlings were collected, which were accommodated in the *Espaço Horta na Escola* and maintained until socialization. During this period, students took turns to take care of the seedlings. Each day a group of students was responsible for watering the seedlings. And in scheduled practical classes they did the cleaning and maintenance of the beds.

To culminate the activities, the “1<sup>st</sup> Scientific and Cultural Exhibition” was held on November 15, 2019 with the theme “Life and Environment”, with an emphasis on environmental preservation; food, health and well-being; power generation; as well as cultural and artistic manifestations. It was an opportunity to introduce parents, other teachers and the surrounding community to the activities developed during the school year, the level of commitment to knowledge and the students' learning evolution.

For the exhibition of a particular experiment or research, visual and written material was used, prepared by the students, making them authors of their learning and developing it in a more meaningful and contextualized way. An advantage of this activity was to combine theory with practice,



generating better assimilation of concepts and understanding of processes that take place for the acquisition of knowledge. Another advantage was to arouse curiosity and generate student engagement, who learned values such as cooperation, solidarity, organization, autonomy and a sense of team.

We found that the knowledge that is anchored in the students' cognitive structure, is that which is present in their culture and which they have already acquired. This knowledge influences the acquisition of school knowledge, favoring meaningful learning by students. Therefore, it “accelerates and influences the quality of learning developed by students” (MATTOS; MATTOS, 2019, p. 107). These activities stimulate and awaken the desire to learn, making students moved by cognitive impulses to be directed towards exploration, argumentation and the solution of the tasks proposed by teachers.

The show also featured model presentations that were developed by students to learn notions of geometry and architecture. This activity was planned by the mathematics and physics teachers, together with students from the third year of high school. The models had a power generation system, which we can see in Figure 3, in which a model was displayed with the representation of the wind power generation system.

**FIGURE 3:** Model with demonstration of power generation.



Source: Authors' photographic archive, 2019.



The model brings reality, experienced or not by the students, on a reduced scale. As a teaching and learning approach, it enables the study of a graphic language applied to different areas of knowledge. For Simielli:

[...] working with models is not simply making the model, this is because the process of building models, in itself, is an interesting process, as the student really perceives the transition from three-dimensional to two-dimensional or, in the case of specific to the construction of the model, from two-dimensional to three-dimensional [...] (SIMIELLI, 2015, p. 103).

We found that in the process of building models together with the theorizing of concepts, students had more autonomy to argue and seek answers for the development of models.

The 1<sup>st</sup> Scientific and Cultural Exhibition also featured presentations of cultural dances, exhibition of photographs, reinterpretations of works of art, scientific experiments, exhibition of fruits, spices, vegetables, and greens to encourage healthy eating.

## **Conclusion**

The possibilities of teaching and learning curricular content become more meaningful when contextualized in the students' experiences and knowledge and are presented in an interdisciplinary perspective. The development of innovative and insurgent teaching practices, carried out through interdisciplinary, facilitates the interaction of the various areas of knowledge, as well as providing the commitment of teachers to contextualize school content, in addition to awakening in students the search for knowledge in close relationship with your daily life.

The development of the “Espaço Horta na Escola” Project was important for the school community to understand that the activities developed, inside and outside the classroom, are practices that, combined with theories, do not only teach school content, but that go beyond the borders of subjects. With this

understanding, the interdisciplinary practices developed in cooperation between teachers, students, the pedagogical team, and the school community promoted a transformative action, that is, a change of perspective, in which innovative and insurgent teaching practices are focused.

We realized that the exchange of experiences between teachers and students occurred constantly, promoting the enrichment of teaching and learning processes. We also realized that some teachers were motivated and developed interdisciplinary activities, basing their practices in collaboration with students, understanding that both they and students have knowledge that can facilitate these processes. In this logic, knowledge that is in the students' cognitive structure is used to anchor new knowledge that is apprehended and can be applied in any opportunities of everyday life.

We emphasize that the implementation of interdisciplinary activities, through innovative and insurgent teaching practices, face difficulties and resistance from some education professionals, but overcoming these limits and challenges is part of the change in looking at the different ways of presenting school content. Although with some difficulties, many interdisciplinary practices are developed by teachers who venture and rebel against what is put in classrooms.

These are practices that inspire other teachers and promote the acquisition of new knowledge, as well as the happiness of both teachers and students. The first because he sees his commitment recognized and the second because he can understand why he learns certain school contents. To corroborate these actions, we rely on Cortella (2014, p. 95) when he states that “the pedagogical experience has to be something admirable” and Mattos (2020, p. 125) when he says that promoting happiness in the classroom “means to facilitate learning and that be pleasant, critical and liberating”. Therefore, teachers and students develop pleasant affective tones for both teaching and learning.

The context and experiences were diverse, enriching the development of interdisciplinary activities and innovative and insurgent teaching practices.

Respect for students' knowledge and autonomy were fundamental to achieve the proposed objectives. We agree with Freire (2017, p. 58) when he warns us that “teaching requires respect for the autonomy of being educator”, but we also understand that it is a challenge for teachers. Assigning tasks, assigning responsibilities, making commitments and promoting constant dialogue are incentives for teachers and students and play a fundamental role when carrying out innovative and insurgent practices.

When looking at the educational spaces in our country, we need to be aware of the silences or noises that occur in the classroom. The type of action that is developed is shown to guide practices. And these teaching practices that are innovative and insurgent seek or promote a critical reading of the world (FREIRE, 2000) in which actions of creativity, freedom, discovery, and dialogue can be announced; or one can denounce actions of selectivity, which hierarchize knowledge, which are hegemonic and power centralizer.

What is in vogue is what the teacher wants or seeks in the development of his professionalism. He cannot remain in the illusion of a linear and alienating structure. To transform the world, insurgent, transformative and challenging actions are necessary. We turn to Freire (2000, p. 26) again when he states that “what is not possible, however, is even thinking about transforming the world without a dream, without a utopia and without a project. [...]. Dreams are projects that we fight for”. These dreams are transformed into innovative and insurgent practices, challenging what is put.

## References

AUSUBEL, David P. *Aquisição e retenção de conhecimentos: uma perspectiva cognitiva*. Trad. Ligia Teopisto. Lisboa: Edições Técnicas, 2000.

BRASIL. MEC. *Diretrizes Curriculares Nacionais da Educação Básica*. Brasília: MEC, 2013. Disponível em: [http://portal.mec.gov.br/index.php?option=com\\_docman&view=download&alias=15548-d-c-n-educacao-basica-nova-pdf&Itemid=30192](http://portal.mec.gov.br/index.php?option=com_docman&view=download&alias=15548-d-c-n-educacao-basica-nova-pdf&Itemid=30192). Acesso em: 07 maio 2019.

BRASIL. MEC. *LEI N° 9.394 de 20 de dezembro de 1996*. Estabelece as Diretrizes e Bases da Educação Nacional. Brasília, DF: Senado Federal, 1996. Disponível em: [http://portal.mec.gov.br/seesp/arquivos/pdf/lei9394\\_ldbn1.pdf](http://portal.mec.gov.br/seesp/arquivos/pdf/lei9394_ldbn1.pdf). Acesso em: 22 nov. 2019.

CORTELLA, Mario Sergio. *Educação, Escola e Docência: novos tempos, novas atitudes*. 1. ed. São Paulo: Cortez, 2014.

D'AMBROSIO, Beatriz S.; LOPES, Celi E. Insubordinação criativa: um convite à reinvenção do educador matemático. *Bolema*, v. 29, n. 51, p. 1-17, 2015. Disponível em: <http://www.scielo.br/pdf/bolema/v29n51/1980-4415-bolema-29-51-0001.pdf>. Acesso em: 16 jan. 2019.

ENO, Élen G. J.; LUNA, Renata R.; LIMA, Renato A. Horta na escola: incentivo ao cultivo e a interação com o meio ambiente. *Revista Eletrônica em Gestão, Educação e Tecnologia Ambiental*, v. 19, n. 1, 2015, p. 248-253. Disponível em: <https://periodicos.ufsm.br/reget/article/viewFile/19538/pdf>. Acesso em: 07 maio 2019.

FAZENDA, Ivani Catarina A. Interdisciplinaridade-transdisciplinaridade: visões culturais e epistemológicas. In: FAZENDA, Ivani Catarina A. (org.). *O que é interdisciplinaridade?* São Paulo: Cortez, 2008.

FREIRE, Paulo. *Pedagogia da autonomia: saberes necessários à prática educativa*. 55. ed. São Paulo: Paz e Terra, 2017.

FREIRE, Paulo. *Pedagogia da indignação: cartas pedagógicas e outros escritos*. São Paulo: UNESP, 2000.

LÜCK, Heloísa. *Interdisciplinaridade: Fundamentos Teóricos- Metodológicos*. Petrópolis RJ. Ed. Vozes, 1994.

MATTOS, Sandra Maria N. *O sentido da matemática ou a matemática do sentido: aproximações com o programa etnomatemática*. São Paulo: Editora Livraria da Física, 2020.

MATTOS, Sandra Maria N.; OLIVEIRA, Keila F. Ecologia dos saberes: o etnoconhecimento sobre o uso das plantas medicinais do povo Paiter Suruí. *RETTA*, v. 10, n. 19, 2019, p. 53-68. Disponível em: <http://www.ufrrj.br/SEER/index.php?journal=retta&page=article&op=view&path%5B%5D=4155&path%5B%5D=2906>. Acesso em: 21 out. 2019.

MATTOS, Sandra Maria N.; MATTOS, José Roberto L. Etnomatemática e práticas docente indígena: a cultura como eixo integrador. *Hipátia*, v. 4, n. 1, 2019, p. 102,115. Disponível em: <https://ojs.ifsp.edu.br/index.php/hipatia/article/view/1092/809>. Acesso em: 21 out. 2019.

RONDÔNIA. *Decreto no 3041 de 12 de setembro de 1986*. Cria Escolas no Município de Cacoal/RO.

RONDÔNIA. *Decreto no 9003 de 23 de fevereiro de 2000*. Dá nova designação às escolas de rede pública estadual de ensino.

SAMPAIO, J.; SANTOS, G.C.; AGOSTINI, M. e SALVADOR, A.S. Limites e potencialidades das rodas de conversa no cuidado da saúde: uma experiência com jovens no sertão de pernambucano. *Interface – Comunicação, Saúde, Educação*, vol. 18, supl. 2, 2014. p. 1299-1312. Disponível em: [http://www.scielo.br/scielo.php?pid=S1414-32832014000601299&script=sci\\_abstract&tlng=pt](http://www.scielo.br/scielo.php?pid=S1414-32832014000601299&script=sci_abstract&tlng=pt). Acesso em: 21 set. 2019.

SIMIELLI, Maria Elena R. Cartografia no ensino fundamental e médio. *In: CARLOS, Ana. Fani A. (org.). A geografia na sala de aula*. 9. ed. São Paulo: Contexto, 2015. p. 92-108.

VAILLANT, Denise; MARCELO GARCÍA, Carlos. *Ensinando a ensinar: as quatro etapas de uma aprendizagem*. Trad. Maria dos Santos Lopes. 1. ed. Curitiba: Ed. UTFPR, 2012.

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