

EPISTEMOLOGICAL CONTRIBUTIONS OF DIDACTICS IN AND FOR THE FORMATION OF FUTURE MATHEMATICS TEACHERS

CONTRIBUCIONES EPISTEMOLÓGICAS DE LA DIDÁCTICA EN Y PARA LA FORMACIÓN DE FUTUROS PROFESORES DE MATEMÁTICAS

CONTRIBUIÇÕES EPISTEMOLÓGICAS DA DIDÁTICA NA E PARA A FORMAÇÃO DE FUTUROS PROFESSORES DE MATEMÁTICA

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Abstract

Didactics has been studied for centuries by several theorists and authors who sought to prove and argue about the various techniques and models of technologies to improve the teaching-learning process. The main objective of this work is to discuss the importance of Didactics in the formation of mathematics teachers in indigenous and quilombola modalities, proposing an education aimed at respecting the diversity and characteristics of these groups. It is based on national and international documents that ensure the right of all to education as a social and human right. If academic education has the function of preparing the professional future by indicating theoretical subsidies, didactic and pedagogical technicians, it is also committed to providing opportunities for reflections that enable the transposition of theory into pedagogical practice. For reflection on this theme, it was decided to carry out a bibliographic research to discuss the contribution of didactics, the formation of the mathematics teacher, Indigenous and Quilombola Education.

Keywords: Didactics; Teacher training; Indigenous Education; Quilombola.

Resumen

La didáctica ha sido estudiada durante siglos por varios teóricos y autores que buscaban probar y argumentar sobre las diversas técnicas y modelos de tecnologías para mejorar el proceso de enseñanza-aprendizaje. El objetivo principal de este trabajo es discutir la importancia de la Didáctica en la formación de profesores de matemáticas en modalidades indígenas y quilombolas, proponiendo una educación orientada al respeto de la diversidad y características de estos grupos. Se basa en documentos nacionales e internacionales que garantizan el derecho de todos a la educación como un derecho social y humano. Si la educación académica tiene la función de preparar el futuro profesional mediante la indicación de subvenciones teóricas, técnicas didácticas y pedagógicas, también se compromete a brindar espacios de reflexión que permitan la transposición de la teoría a la práctica pedagógica. Para la reflexión sobre este tema, se decidió realizar una investigación bibliográfica para discutir el aporte de la didáctica, la formación del maestro de matemáticas, la educación indígena y quilombola.

Palabras llave: Didáctica; Formación de profesores; Educación Indígena; Quilombola.

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Resumo

A Didática é estudada há séculos por vários teóricos e autores que buscavam comprovar e argumentar sobre as várias técnicas e modelos de tecnologias para melhorar o processo de ensino-aprendizagem. O objetivo principal desse trabalho é discutir sobre a importância da Didática na formação do professor de matemática nas modalidades indígena e quilombola, propondo uma educação voltada para o respeito às diversidades e características desses grupos. Tem como referência documentos nacionais e internacionais que asseguram o direito a todos à educação como um direito social e humano. Se a formação acadêmica tem a função de preparar o futuro profissional indicando subsídios teóricos, técnicos didáticos e pedagógicos, também tem o compromisso de oportunizar reflexões que possibilitem a transposição da teoria para prática pedagógica. Para reflexão acerca dessa temática optou-se por realizar uma pesquisa de cunho bibliográfico para discutir a contribuição da didática, formação do professor de matemática, Educação Indígena e Quilombola.

Palavras-chave: Didática; Formação de professores; Educação Indígena; Quilombola.

Introduction

From a Didactic perspective, throughout the History of Education, the perception is evident that teaching and learning are composed of inseparable theories and practices and cannot be fractionated while part of the educational process.

In this direction, this study aims to make a reflexive analysis about the importance of Didactics for the education of the educator and how it contributes to the construction of the teacher's professional identity, especially in the formation of future indigenous teachers and quilombolas, who will teach Mathematics in basic education schools, where they will also work with many teachers who increasingly need to qualify to face the challenges of day-to-day teaching work in the classroom.

Thus, it is necessary, in addition to a theoretical study to analyze daily the experience of the teacher in the classroom, his visions, anxieties, as teachers and his reflections on the work he performs in Education, preferably in the education of indigenous and *quilombolas* teachers.

In this sense, it is necessary to discuss about the initial training process of the future mathematics teacher, the contributions of this training to carry out their work with students and the professional knowledge of these future teachers in the context of pedagogical practice reflecting on the learning acquired in the licensure with the real problems faced in the day-to-day classroom.

This work has a qualitative approach, as a procedure, the bibliographic research referencing the importance of Didactics, the formation of the future mathematics teacher and the sociocultural diversity of indigenous and *quilombola* students. Thus, it is expected that the functioning of the teaching process and the work performed by the teacher in the classroom provide among other didactic, pedagogical, methodological, theoretical and constitutive elements in professional development.

Didactics' History

Didactics has been studied for centuries by different theorists and authors, mainly from the area of Education, who sought to prove and argue about the various techniques and models of technologies in order to improve the teaching and learning process. Over time didactics have been undergoing several changes, which has provoked advances in "how to teach", whose role is delegated to Didactics.

In the History of Education there are periods that presented various educational trends, that is, Teaching Theories known as: Traditional Pedagogy, Renewed, Technician and Criticism.

To these trends, it is necessary to make a parallel of these theories with Didactics, since historicity happened in the period in which Education was developing. Damis says (2010, p. 206):

Historically, the knowledge produced on the art of teaching has gone from emphasis on teaching to learning, from the transmission of knowledge by the teacher to the orientation of activities to stimulate the student's thinking and reflection, the importance of planning reinforcement contingencies, with the objective of achieving specific forms of behaviors, to regulate learning and develop skills in students. Finally, the understanding produced about the act of teaching has historically moved towards prioritizing either another element that constitutes the act of teaching.

To these perspectives, Saviani (2013, p. 398), points out that "[...] these theories can already be integrated within the classical approaches of education, which, as such, must be studied by all those who intend seriously to lead the educational field".

Understanding pedagogical trends in education, especially Mathematics Education, means manifesting methodological, theoretical and reflections about

pedagogical practice, since all these theories contribute to the educational process and consolidate, in educational institutions, the practice of teachers.

Libâneo, in the book "Didactics" (2013, p. 67) makes an analysis of pedagogical trends, and educational practices developed by teachers, taking into account the sociopolitical conditions of the educational institution and classifying trends in liberal and progressive. Being liberal in nature: Traditional Pedagogy, Renewed Pedagogy and Educational Technicality; those of a progressive nature: Liberating Pedagogy and Critical-Social Pedagogy of Contents.

These currents have differences between them. The traditional sees Didactics as a normative discipline, has rules, standards and activity and is centered on the teacher as the main pedagogical resource. Progressive Didactics is understood as a direction of learning. The teacher acts as an assistant in the student's development and teaching and learning is built in front of experiences, coexistences, discoveries, in order through motivation and stimulation of problems.

In Traditional Pedagogy, Didactics is a normative discipline, a set of principles and rules that regulate teaching. It prepares students to assume their role in society, valuing learning as absolute truth. In this trend, teaching actions are centered on the exposure of knowledge by the teacher, it is a mechanical learning, where the contents were separated from the knowledge experienced by students in daily life and were not in accordance with social realities. The idea prevails that teaching aims to pass on learning by assimilating the child as a small adult, who can learn in the same way, being only less developed.

Libâneo says (2014, p. 25):

The idea that teaching consists in passing on knowledge to the child's spirit is accompanied by another: that the child's assimilation capacity is identical to that of the adult, only less developed. The programs should then be given in a logical progression, established by the adult, without taking into account the characteristics of each age.

In the Renewed Liberal Trend, the school must adapt to individual social needs. The teacher puts the student in a favorable condition so that (starting from his needs and particularities) he can seek knowledge and experiences for himself, encouraging, guiding and placing the student in learning situations, adhering to

the individual abilities and characteristics of the students. However, the center of school activity is neither the teacher nor the subject, it is the active and researcher students.

The Liberal Tendency Renewing Not directive values the search for knowledge by the students themselves, it is a pedagogical current in which the role of the school is the formation of attitudes, there is a devaluation of teaching and overvaluation of psychological problems. Learning is modifying perceptions of reality.

As for the Liberal Technician Tendency, it is a model of human behavior based on specific methodologies. This Trend aims at the transmission of information by the teacher and memorization as learning. It houses an instrumental didactics interested in the rationalization of teaching, in the use of more effective means and techniques. The teacher is the administrator and executor of the planning, the means of predicting the actions to be performed and the means necessary to achieve the objectives.

In the Progressive conception according to Lebanon (2014, p. 33, our italics):

[...] has manifested itself in three trends: the liberator, better known as Paulo Freire's pedagogy, the libertarian, which brings together the defenders of pedagogical self-management; the social critic of the contents that, unlike the previous ones, accentuates the primacy of the contents in its confrontation with social realities.

In the Liberating Progressive Trend, teaching is centered on the social reality, in which teachers and students analyze problems and realities of the socioeconomic and cultural environment, of the local community, with their resources and needs, in view of collective action in the face of these problems and realities. It is a Didactics that seeks to develop the educational process within social groups and, therefore, the teacher is the coordinator of the activities that are always organized by the joint action of him and the students.

The Libertarian Progressive Tendency the school aims to transform the student's personality with a libertarian and self-managed objective, seeking to introduce institutional changes based on group participation and institutional mechanisms of transformation. The teaching content is made available to the student, however, it is not required, because it is understood that the important thing is the learning acquired by the experiences experienced in groups.

The Critical-Social Progressive Tendency of Content aims at the dissemination of universal cultural content, inseparable from social realities. Prepares the student for the adult world, providing instruments that will allow them to participate actively in the democratization of society. The role of the teacher is to be mediator and the student participates, based on the cognitive structures structured in the students. The teaching methods subordinated to the contents start from a direct relationship with the experience of the students who are confronted with external knowledge, relating the practice lived with the contents proposed by the teacher. In this case, the teacher is a mediator between knowledge and students, the two are active subjects and learning occurs through the effort of the students.

Critical Didactics values the educational institution as part of a social context as a whole, seeking changes in society through Democracy. For Saviani (2012, p. 10) it "recovers the unity of educational activity within social practice by articulating its theoretical and practical aspects that are systematized in pedagogy conceived at the same time as theory and practice of education".

According to Candau (2013, p. 16), "in the walk in this direction, didactic reflection should be elaborated from the analysis of concrete experiences, seeking to continuously work on the theory-practice relationship", which should be viewed associatively, walking side by side, that is, theory and practice in the vision of unity. Thus, didactics seeks the practice associated with theory and with this search the considerable pedagogical practice for the teacher and the student.

In this sense, Didactics in the search for resignification, presents itself with several characteristics over time in Brazilian education, inspired by the most diverse currents and pedagogical trends. These trends influence teachers to this day, bringing experiences that can help them in the search for a more effective pedagogical practice in the classroom.

Didactics and Mathematics Teacher Training

Currently, discussions about teacher training and the challenges encountered in the classroom have gained space in the academic environment, especially in the training of future mathematics teachers and in the continuing training of teachers who teach mathematics.

It is noteworthy that in the context of the training of Mathematics teachers are several specialties that make up undergraduate courses, such as Education, Mathematics Education, Pure and Applied Mathematics, among these, it is important to say that the curricular components for the training of future teachers, for example, Didactics, because it is a discipline that brings together what, why, how and when to teach.

Teachers need to have the knowledge of the theoretical, technological and scientific bases, and their articulation with the real demands of teaching, because it is through this domain that they can analyze, review and improve their pedagogical practice, for the teaching exercise in the classroom in view of the socio-educational and cognitive realities of the students.

For many years to teach mathematics the teacher had to pass on content to the students and they were just recipients of knowledge and the knowledge-holding teacher, so there was no room for these students to question or reflect on what they were learning.

Currently, the way of acting in Education requires adequacy to the reality of students, where the teachers need to present themselves dynamically in the face of the educational process. This teacher's attitude reflects didactics' position in the face of professional training, as Pimenta emphasizes that (2013, p. 150):

[...] didactics is, above all, the construction of knowledge that allows mediation between what needs to be taught and what is necessary to learn; between structured knowledge in disciplines and teachable knowledge through circumstances and moments; between the current forms of relationship with knowledge and the new ways of reconstructing them.

Thus, it is necessary that didactics in the teacher's education curriculum be an instrument of a reflexive and critical educational practice, enabling the

student to have a humanizing formation and contributing to the construction of an independent and autonomous thought. Albuquerque and Gontijo (2013, p. 80) say that:

[...] the didactics of mathematics is necessary throughout the training process, so that the undergraduate, in a dialectical movement between specific knowledge (mathematics) and didactic knowledge, is able to produce knowledge that will be essential in the organization and execution of pedagogical work, whose purpose is to teach/learn mathematics.

On the other hand, when perceiving the low levels of learning in mathematics teaching, one wonders what will really be the obstacle to be coped by teachers when teaching mathematical contents. Most of the time the methods, resources and methodologies used in the classroom are the result of a formation that does not accompany the development of a society that no longer values learning as absolute truth and challenges the applicability of the knowledge being acquired.

Among several interpretations about the practice of the mathematical educator, Fiorentini and Oliveira (2013, p. 920) highlight three distinct perspectives, which have an impact on the way the organization of the process of academic training or professional learning:

First Perspective – teaching practice is essentially practical, just mastering mathematical knowledge; teaching one learns by teaching; there is no need for theoretical training on teaching, learning and evaluation; mathematical practice is focused on exercise and by a more algorithmic or syntactic approach than semantics and has mathematics as a central place, focused on classical mathematical knowledge. Second Perspective - presents the teaching practice as a field of application of knowledge produced by academic research; has an immersion in the theory in mathematical knowledge and methodological teaching procedures for later application in practice; reserves the place of mathematics as central, distanced from school practices and a greater focus on the technical and didactic dimension than pedagogical. Third Perspective – brings the pedagogical practice seen as a social practice, constructed of complex knowledge and relationships that need to be studied, analyzed, problematized and understood; focus on the formation and problematization of the multiple professional activities of the mathematical educator, with the perspective of acting in both basic and higher education, in initial or continuing education.

In this context, it is necessary to investigate the relationship between academic education and the practice of the mathematics teacher in the classroom, in order

to understand whether the factors of this training contribute to a significant learning in their daily practice.

When discussing traditional pedagogy, in which teaching actions are centered on the knowledge exposure of by the teacher, a mechanical learning and the student is an object assistant, this methodology does not contribute to the formation of logical thinking and construction of knowledge.

The educator must be high evaluated, whether his pedagogical practice has been to meet his objectives or not, allowing to be shaped within his practice. For Freire (2012, p. 40), "that is why, in the permanent formation of teachers, the main moment is that of critical reflection on practice". It is important for the teacher to reflect on the way they teach and seek improvements to the student's understanding and education.

Thus, in addition to the mathematics teacher mastering the content he teaches, it is necessary to have pedagogical knowledge of the subject, understanding how knowledge is acquired by the different actors of this process.

The sociocultural diversity of indigenous and *quilombola* students

In the context of the treatment of sociocultural diversity in and for the training of future mathematics teachers, it is necessary to analyze about Education for values in the understanding of diversity, because with the publication of laws, parameters and guidelines for Higher and Basic Education it has become important to claim a training that can contribute to the construction of professionals committed to teaching and the conditions of democratic coexistence.

In the Law of Guidelines and Basis of National Education (LDBEN), no. 9394 of December 20, 1996, in articles 78 and 79, they characterize that indigenous peoples must have guaranteed by the states their basic rights of access to school education it is fulfilling the acceptance of their beliefs, traditions and ways of enabling their existence.

[...] -To provide the Indians, their communities and peoples with the recovery of their historical memories, the reaffirmation of their ethnic identities, the valorization of their languages and sciences.

II – To guarantee the Indians, their communities and peoples access to information, technical and scientific knowledge of the national society and other indigenous and non-Indian societies.

The Union will technically and financially support education systems in the provision of intercultural education to indigenous communities by developing integrated education and research programmes.

§ 1 - The programs will be planned with an audience of indigenous communities.

§ 2 - The programs referred to in this article, included in the National Education Plans, shall have the following objectives:

I - Strengthen the sociocultural practices and the mother tongue of each indigenous community;

II - Maintain specialized staff training programs for school education in indigenous communities;

III – Develop specific curricula and programs, including cultural content corresponding to their communities;

IV - Systematically develop and publish specific and differentiated didactic material.

§ 3 - With regard to higher education, without prejudice to other actions, care to indigenous peoples will take place in public and private universities through the provision of teaching and student assistance, as well as encouraging research and development of special programs (BRASIL, 1996).

In the National Curriculum Guidelines for *Quilombola* School Education, of November 20, 2012, when dealing with *Quilombola* education in article 7, it highlights the practices and political-pedagogical actions:

[...] III - respect and recognition of Afro-Brazilian history and culture as structuring elements of the national civilizing process; IV - protection of the manifestations of Afro-Brazilian culture; V - appreciation of ethnic-racial diversity; VI - promotion of the good of all, without prejudice sprees of origin, race, sex, color, creed, age and any other forms of discrimination; 30 VII - guarantee of human, economic, social, cultural, environmental and social control rights of *quilombola* communities; VIII - recognition of *quilombolas* as traditional peoples or communities; XIX - knowledge of the historical processes of struggle for the regularization of the traditional territories of the *Quilombola* peoples; X - right to development understood as an alternative development model that considers the participation of *quilombola* communities, their local traditions, their ecological point of view, sustainability and their forms of production of work and life; XI - overcoming racism – institutional, environmental, food, among others – and eliminating any form of prejudice and racial discrimination; [...] (BRAZIL, 2012, p. 5).

Through these legal frameworks, public policies are recognizing the value of a people and working to fill the gaps in *Quilombola* Education over time. In Opinion CNE/CEB No. 16/2012, when dealing with *Quilombola* Education says:

a) Ensure the development of specific legislation for *quilombola* education, with the participation of the *quilombola* black movement,

ensuring the right to preserve its cultural manifestations and the sustainability of its traditional territory.

b) Ensure that the diet and school infrastructure quilombola respect the food culture of the group, observing the care for the environment and local geography.

c) Promote specific and differentiated training (initial and continued) to the professionals of quilombola schools, providing the elaboration of pedagogical didactic materials contextualized with the ethnic-racial identity of the group.

d) Ensure the participation of quilombola representatives in the composition of the councils related to education, in the three federated entities.

e) Establish a specific degree program for quilombolas, to ensure the valorization and cultural preservation of these ethnic communities.

f) To guarantee to maroon teachers their training in service and, where appropriate, concomitantly with their own schooling

g) To establish the Quilombola National Education Plan, aiming at the full appreciation of the cultures of quilombola communities, the affirmation and maintenance of their ethnic diversity.

h) Ensure that the teaching activity in quilombola schools is preferably exercised by teachers from quilombola communities (BRASIL, 2012, p. 2).

There are also other national and international documents that ensure the right to all to education as a social and human right: Universal Declaration of Human Rights of 1948 of the United Nations (UN), Brazilian Federal Constitution of 1988, , National Guidelines for Human Rights Education defined in CNE/CP No. 8/2012, Decree number. 6.861/2009, which provides for Indigenous School Education and defines its organization in ethnoeducational territories, Convention 169 of the International Labor Organization (ILO) on Indigenous and Tribal Peoples (Decree No. 10,088/2019), the Curriculum Guidelines National For Indigenous School Education in Basic Education (Cne/CEB Opinion No. 13/2012 and Resolution CNE/CEB No. 5/2012) and Resolution No. 2 of July 1, 2015, which deals with the National Curriculum Guidelines for initial training at a higher level (licensure courses, pedagogical training courses for graduates and second degree courses) and for continuing education.

With the advances in *Quilombola* School Education from the creation of the National Curriculum Guidelines (NCD), it is necessary to think about this education based on the contexts of the use of territory, memory and ethnicity present in the narratives of people who live these ethno realities with the purpose of constructing methodologies that enable meaningful learning according to the sociocultural elements of the communities, which belong to them.

To implement the public policies that promotes a quality indigenous and *quilombola* education, it is necessary to reflect on the Brazilian territory with its differences and how education is offered to these groups.

The NCDs for school education and training of *quilombola* and indigenous teachers is an example of the construction of policies that can contribute to the recognition of ethnicity in Brazil and with public actions that promote the development of a diversified education in daily practice, valuing the specific quality of methodologies for the constitution, affirmation and valorization of various sociocultural groups, considering that the State needs to guarantee in institutional practice the participation of different social actors in the development of teacher education and specific to *quilombola* and indigenous trainers and that meets the historical demands of these populations, the specificity and complexity of the teaching role with the social organization of their peoples in the defense of their territory and appreciation of their history, traditions, knowledge and culture.

With Resolution No. 2/2015 new ways were pointed out for the degrees, in this sense it is necessary that the training institutions, rethink about the initial training of teachers guided by new criteria and milestones, requiring new configurations of courses and implementation of new practices of initial training, effective with sociopolitical transformations whose reflexes are felt in educational institutions. Also in accordance with this Resolution in its Art. 10:

The initial training is intended for those who intend to exercise the teaching of basic education in its stages and modalities of education and in other areas in which pedagogical knowledge is provided, comprising the articulation between theoretical and practical studies, research and critical reflection, use of training and previous experiences in educational institutions (BRASIL, 2015, p. 9).

Thus, teaching must be in line with the National Common Curriculum Base (NCCB), which needs to be contemplated by the various Higher Education Institutions, going through the skills and knowledge that graduates of undergraduate courses should have and that should be created in the initial training of the future teacher, especially mathematics.

In addition to the current demands and challenges, teacher education is a complex action, when it is reflected about the teaching role, as well as its social function. According to Serrazina (2012, p. 267), "being a teacher has always been a complex profession". He needs to reinvent himself and deal with new challenges, since he often has to face the lack of professional appreciation in various dimensions of education systems. These challenges translate into contemporaneity with the training required to work in the different stages and modalities of basic education, involving inclusive actions of students and valorization of diversity. In Resolution No. 02/CNE/2015, in its Article 3, it highlights that:

Initial training and continuing education are aimed, respectively, at the preparation and development of professionals for teaching functions in basic education in its stages – early childhood education, elementary school, high school – and modalities – youth and adult education, special education, vocational and technical education of high school, indigenous school education, field education, quilombola school education and distance education – from broad and contextualized understanding of education and school education, aiming to ensure the production and dissemination of knowledge of a given area and participation in the elaboration and implementation of the institution's political-pedagogical project, with a view to ensuring, with quality, the rights and objectives of learning and its development, democratic management and institutional evaluation (BRASIL, 2015).

When considering the challenges proposed by the DCN to meet the pedagogical aims, the formative processes should be supported by knowledge that results from the pedagogical project and the training path experienced, resulting from the professional practice of the graduate. This teaching profile should allow the graduate to understand the complexity of the school organization as a promoter of citizenship education, and should imply about the professional performance in teaching, organizing and managing basic education institutions. According to Leite et al. (2018, p. 728):

[...] it is worth mentioning that there are some factors that are part of the history of initial teacher education and that challenge it to overcome or mitigate them in the name of improving teacher education and basic education: the disarticulation between the pedagogical proposal and the institutional organization of undergraduate courses; the isolation of training institutions in the face of new cultural dynamics and social demands presented to school education; the distance between teacher education and basic education education systems; disregard ing the repertoire of knowledge of teachers in training; the lack of clarity

about what are the contents that the future teacher should learn and the restriction of the performance of the future teacher to conduct in the classroom, without considering the other dimensions of his professional performance.

So, it is necessary to promote, in the initial training of teachers, the mastery of contents of the respective areas related to the disciplines and knowledge proper to the teaching profession, marked by principles that go beyond the school space.

The mathematics teacher needs to know, with depth and diversity, mathematics as a social practice and that concerns not only the scientific field, but, above all, the school mathematics and the multiple mathematics present and mobilized/produced in the different daily practices. The mastery of this knowledge will certainly provide conditions for the teacher to explore and develop, in class, a significant mathematics, that is, a mathematics that makes sense to students, to their intellectual development, being able to establish interlocution/connection between the mathematics mobilized/produced by the students and that historically produced by humanity (FIORENTINI; OLIVEIRA, 2013, p. 924).

It is necessary that the Mathematics teacher interacts with instruments capable of making teaching and learning more contextualized, focused on the reality of the student, with proposals that lead him to think about the didactic forms of acquisition of knowledge through technical contents and active methodologies for the exercise of his teaching duties, where the student can put himself in an active position and expose his expectations and mathematical experiences experienced in his community.

In this context, Didactics can collaborate with the teaching work in the application of the development of knowledge required in teaching and scientific understanding and of researchers in the teaching of Mathematics, collaborating with precise methods, accessible and usable as an aid to didactic situations with regard to teaching competence.

Final Considerations

With this paper, we note the epistemological advances that direct the initial and continuous training of professionals of the teaching of Basic Education, from the definition of the Common National Curriculum Base articulating with these formative dynamics, contemplating several previously announced demands: expansion of

the workload of undergraduate courses, conception of pedagogical practice linked to teaching, inclusion of management as an aspect of the training of all graduates, the proposal of articulation between initial and continued training and the explicit defense of strengthening the identity of bachelor's degrees.

This proposal represents an initiative for a quality, differentiated and intercultural education in the country, constituting a potentiating process for the training courses of teaching professionals, mobilized by educational and training actions, with a view to preparing and teaching, in the classroom.

To this perspective, we notice a reconfiguration in the dynamics of initial and continued teacher education, which is based in the democratization of educational processes, linked to the recognition of the different cultures that intersect in educational institutions and discourses produced by different social actors, which are somehow involved in the formative processes.

However, it is necessary to reconstruct a curriculum that is favorable to the community realities of knowledge, actions and sociocultural practices originating and traditional *quilombola* and indigenous communities and peoples, based on the contexts of use of territory, memory and ethnicity, so present in the narratives of people who belong and live these realities, which can contribute to the construction of methodologies that provide teaching and learning, in order to value elements belonging to the local realities of these communities.

Other elements that can contribute to associate this approach is that it cannot disregard the role that Didactics can play in the development and acquisition of knowledge necessary for the mathematics teacher to develop skills required in the teaching profession.

With the implementation of the NCD for the formation of the magisterium, it is a great challenge for educational policies aimed at teachers, because many actions will need to be developed by the training institutions so that the guidelines and norms contained therein, gain dimensions, are understood by all educational spheres and get out of the role for the transformation of reality.

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Article received on: August 6, 2020

Approved on: December 4, 2020

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