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# A History of (Mathematics) Teachers Training in Cuiabá and Barra do Garças - MT

## Uma História da Formação de Professores (de Matemática) em Cuiabá e

### Barra do Garças – MT

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#### ABSTRACT

This paper is a result of three studies: (BOTH; BARALDI, 2016; BOTH, 2016; BOTH, 2018), they were presented in two editions (XIII and XIV) of the National Oral History Meeting (ENHO). These researches were supported by the Oral History methodology for the constitution of historical sources, by collation of interviews with localized written sources, and they present histories for the (Mathematics) teachers training in Cuiabá and Barra do Garças, at Mato Grosso state. They focus on the period before and begin of the offer of graduation teachers training in these places, showing that this was permeated mainly by the lack. Also, both sites show the relevance of the presence of the Federal University of Mato Grosso (UFMT) for teachers training.

**KEYWORDS:** Normal School, UFMT, History of Mathematics Education.

#### **RESUMO**

O presente artigo é resultado de três estudos: (BOTH; BARALDI, 2016; BOTH, 2016; BOTH, 2018), apresentados em duas edições (XIII e XIV) do Encontro Nacional de História Oral (ENHO). Essas pesquisas se ampararam na metodologia da História Oral para a constituição de fontes históricas, por meio de entrevistas, e, pelo cotejamento destas com fontes escritas localizadas, apresentam histórias da formação de professores (de Matemática) em Cuiabá e em Barra do Garças, no estado de Mato Grosso. Enfocam o período que antecede e inicia a formação em nível superior para docentes, nestes locais, mostrando que tal foi marcada, principalmente, pela carência. Ainda, em ambos os locais se mostra a relevância da presença da Universidade Federal de Mato Grosso (UFMT) para a formação de professores em nível superior.

PALAVRAS-CHAVE: Escola Normal, UFMT, História da Educação Matemática.

#### Introduction

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The training of teachers in higher education in Mato Grosso was shown as a late process, when compared to other states, mainly in the South and Southeast regions, having its beginning in the second half of the 1960s, in Cuiabá, capital of Mato Grosso state. This training, both prior to the installation of a university on site, and the early days of higher education, is widely studied in Both (2014), resulting in the article presented at the XIII National Meeting of Oral History - ENHO: Both and Baraldi (2016).

After its beginning and consolidation in Cuiabá, from 1970 with the creation of the Federal University of Mato Grosso (UFMT), higher education began to serve inland cities. In the 1980s this university made its internalization process, having as one of the chosen cities Barra do Garças. It is about this campus that deals with Both (2016), article (also presented in the XIII ENHO) that addresses the first movements of higher education offered by this institution.

Still regarding the formation in Barra do Garças but addressing the region as a whole (which is composed of six municipalities: Barra do Garças, Pontal do Araguaia, Araguaiana and Torixoréu, in Mato Grosso, and Aragarças and Baliza, in Goiás), We have the work of Both (2018), presented at the XIV ENHO, which shows partial results of an ongoing doctoral research that deals with teachers training (Mathematics) in the period prior to the arrival of UFMT in this place.

Being these three works of historical nature, they defend a vision of History by which every historical event is the result of time, society, discourse and nature, being created through these relations, which can be conflicting or mild, a mixture between action and representation, matter and memory. By them means the past, not recomposing it as something whole, as it was lived, because even focusing on different aspects and in varying scales, something always escapes, but producing possible versions for the theme addressed. With this conception, historical writing is always seen as lacunar and subject to further questioning: "History is like a maze of adjoining corridors and doors, apparently all similar, but which, depending on the door the subject chooses to open, may be causing a deviation, a slip to another to come" (ALBUQUERQUE JR, 2007, p. 73), and thus, the past would be like an "abyss that does not stop digging; The more we want to get closer to him, the farther we get. [...] Invented, from the present, the past only acquires meaning in relation to this present that passes, therefore, it already announces its premature death" (ALBUQUERQUE JR, 2007, p. 61).

This historical invention can be realized in different ways, one of them through narratives, which allow an articulation of the past from the present, this mode, adopted in the articles on which we structured this text.

Given this, with the intention of articulating the three works previously discussed, what we present here is a history of teacher education (Mathematics), in two localities of Mato Grosso: Cuiabá and Barra do Garças, focusing both on the higher level, in its early years, as the formation that did without it.

#### **Methodological Procedures**

By taking History in permanent creation, Oral History is seen as a means of showing this fluidity, with narratives, historical sources, which were the background for the presentation of historical versions.

These narratives, produced with people directly/indirectly involved with the subjects studied, were collated with localized written sources. Noting that this comparison was not in the sense of checking or validating information, but rather as a possibility of "complementation, clarification, understanding of perspectives and possibilities" (BARALDI, 2003, p. 218).

According to the Oral History methodology, for the creation of these sources, some procedures were considered, which began in the choice of the theme and elaboration of the guiding question, which led to the search for bibliographies and readings relevant to the development of the works, also bringing possibilities of collaborators, who were chosen because of their involvement with the object of study. In many cases these interviewees were chosen through the network criterion, whereby an interviewee indicates the names of other potential collaborators, who may assist in the process of understanding the data<sup>4</sup>. After the acceptance of the collaborators, the interview, were recorded and later transcribed, a procedure that faithfully records everything that was said. After the transcriptions were completed, the textualizations occurred, in which some language vices were removed and the text was reordered thematically and/or chronologically, and explanatory footnotes were added, thus

<sup>&</sup>lt;sup>4</sup> It should be remembered that for the work of Both (2014), which originated the article Both and Baraldi (2016), nine interviews were conducted. In the researches that originated Both (2016) and Both (2018), five interviews were mobilized, conducted with six collaborators, and two interviews, respectively.

allowing greater fluidity. Despite these changes, the collaborators should recognize themselves in the texts, which are a joint production between researcher and interviewee. These texts were then returned to the deponents, who after making the changes deemed necessary, signed assignment letters, allowing the use of such in the research.

Once these procedures were completed, the formal data analysis began, from which we present some results.

#### Teachers Training (in Mathematics) in Cuiabá

The formation of teachers in Cuiabá, at higher level, was the result of a late movement, and its kick-off in 1966, with the creation of the Cuiabá Institute of Sciences and Letters (ICLC), before that most teachers were trained. by the Normal School, which trained teachers to attend, in theory, the Primary5, but who, due to lack of qualified professionals in the region, ended up working at all levels of education.

The first movements for the consolidation of the Normal School in the capital of Mato Grosso date from 1838, when the state was sent to Niterói, Professor Joaquim de Almeida Louzada, to train himself and, upon his return, to take over the direction of the Normal School. to be created in Cuiabá. However, as the shortage of trained professionals was intense in all areas, upon returning, he did not take over the school, but rather the Secretariat of the Provincial Government.

Even without having a trained teacher, the school was established in the capital in 1840, starting its operation in 1842, being closed two years later due to lack of resources and teachers. This school has since been closed and reopened several times, until it was consolidated, in fact, in 1910, when they arrived at Cuiabá Leowergildo de Mello and Gustavo Kuhlmann, who graduated from São Paulo Normal Schools. Through these teachers, São Paulo model was adapted to the Cuiabá's reality (AMORIM; FERREIRA, 2014; XAVIER; SÁ, 2008; SIMIÃO, 2006).

The Normal School continued to be the main teacher trainer until the 1960s, when the ICLC was established in Mato Grosso, as indicated, and the Secondary Education Improvement and Dissemination Campaign (Cades). This national-level Campaign began in Cuiabá in 1960

<sup>&</sup>lt;sup>5</sup> Corresponding to the current Elementary School I

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and was generally a "major vehicle of the ideals of the day regarding teachers training and a way for teachers to improve, discuss and formalize their practice, at a time when a locus for such an exercise was rare in our country" (BARALDI; GAERTNER, 2013, p. 13, emphasis added).

Among the activities of Cades was the publication of periodicals and manuals, which aimed to assist in teachers training and school organization, and offer courses to principals, secretaries, inspectors and, especially, teachers. The latter occurred on vacation and were aimed at "addressing the deficiencies of the hitherto lay teachers regarding the pedagogical aspects and the specific content of the subjects they would teach or already taught in the secondary schools", since until then, for most of these student-teachers, the training took place in practice, repeating models of former teachers. At the end of the course, the students took exams, the Sufficiency Examinations, and if they passed them, they were allowed to teach in places where there were no teachers trained in higher education. It's noteworthy that, unlike the Normal School, the Sufficiency Exams authorized the teacher to teach for the old Gymnasium<sup>6</sup> and Secondary<sup>7</sup>.

Since, at the time, few had a degree in Cuiabá, because in order to obtain this training they had to travel to other states, Cades was an important and respected means of teacher formation in the capital. So much so that one of the interviewees, highlighted in Both and Baraldi (2016), upon returning to the state, was advised to take the courses so that she could be able to teach.

The teachers who taught in this Campaign generally came from out of state, because there were few graduates. The courses were offered in different areas, including Mathematics. Cades worked in Cuiabá (and the rest of the country) until 1970, when higher education was relatively more accessible. Many who completed courses for the Campaign subsequently sought higher education at ICLC, which was the first institution to train higher education teachers in the state.

The Institute of Sciences and Letters of Cuiabá, when created in 1966, incorporated the Faculty of Philosophy Sciences and Letters, established that same year, and the Faculty of Economic Sciences, created the previous year. Among the various objectives of this institution was: "to create and develop the university spirit in Mato Grosso" (DORILEO, 1984, p. 19). The

<sup>&</sup>lt;sup>6</sup> Corresponding to the current Elementary School II.

<sup>&</sup>lt;sup>7</sup> Corresponding to the current High School.

Institute began its work linked to the State Department of Education and Culture, offering four Full Degrees: Natural History, Geography, Letters and Mathematics.

These first four courses were chosen because of the teachers available to work on them. However, the teachers training was not always the area in which he should work, as in the case of mathematics, where none of the teachers were graduates or bachelors in the area, but engineers, architects, economists, among others.

The curricula of the courses were organized by the teachers who began working there, who, having no experience at the college level, resorted to the help of former teachers or looked for models at other universities to be suitable for the ICLC. In mathematics the curriculum was organized primarily by engineers, who were majority in the faculty of the course8.

Twenty-three students started the Mathematics course (for which twenty-five places had been opened), of which three concluded: Nilda Bezerra Ramos, Luiz Gonzaga Coelho and Mauro Custódio. To enter the course, the candidates took an entrance exam consisting of two steps: one written and, for those who passed this first, another oral. This was the only mathematics class graduated at the Institute, because even with the opening of enrollments in subsequent years, there was no demand (SILVA, 1967).

The students who graduated in Mathematics from ICLC were graduated from UFMT, an institution created in Cuiabá, on December 10, 1970, to which the Institute was incorporated. These graduated in December 1969, however, their course was only recognized in 1974, with the first class of graduates in mathematics of UFMT, so the issue of the diploma was issued by this institution. Thus, it was the federal government that recognized that state-owned ICLC course.

Over the years, the Institute was consolidating itself, and by the end of 1971 already offered eleven courses: Economics, Engineering, Chemistry, Mathematics, Geography, Pedagogy, Accounting, Physics, Natural History, Letters and Social Work (DORILEO, 1977), which were transferred to the Federal University at the end of this year.

The Federal University of Mato Grosso was created in Cuiabá, incorporating the two higher education institutions of the capital: the ICLC and the Faculty of Law. Created in 1970, it officially started operating in 1972.

<sup>&</sup>lt;sup>8</sup> The Mathematics course consisted of 2,700 hours, distributed in 15 subjects, to be attended in four years of study, in a serial regime (RIBEIRO, 2011).

In the Department of Mathematics, most teachers were not trained in the area, so the University itself offered a specialization in Mathematics, 1973, taught by teachers from São Paulo. This course took place on weekends and lasted 486 hours. This specialization was also offered with the objective of recognizing the Mathematics course, because, at the time, the Federal Council required specialization from the teachers, mainly because they are not from the area. It is interesting to note that two of the three who graduated from the ICLC course attended this specialization and were working at UFMT, even without having received their diplomas, as the course had not yet been recognized, and they were, until then, the only two graduates. in Department Mathematics<sup>9</sup>.

The Degree in Mathematics has undergone several changes over the years, began as a Full Degree in ICLC, remained as a Full for three years at UFMT, however, on a credit basis, restructuring since 1975 as a Degree in Sciences with a degree in Mathematics, to finally return in 1987 to the Full Degree (SANTOS, 2014). It is noteworthy that during this transition period, both Full and Short modes were in operation, one extinguishing and the other being implemented.

Short Bachelor Degrees were created at UFMT by Resolution of the University Board of Directors No. 82, of December 2, 1974, considering Law 5.540 of 1968, Law 5.692 of 1971 and Resolution 30 of 1974. The Full Degrees in Physics, Chemistry, Natural History and Mathematics were extinguished, and the Short Degree in First Degree Sciences was offered instead, with full qualifications in Physics, Chemistry, Mathematics and Biology. It is noteworthy that the Degree in Science provided qualification for the First Degree and the Full Degree complemented it, allowing the teacher to also teach in the Second Degree.

The Short Degree continued until 1985 when, by Resolution of the University Board of Directors No. 64 of October 24, 1985, it was converted to Full Degree in Mathematics, Chemistry, Physics and Biology. As this Resolution was promulgated at the end of 1985, there was no entrance exam for 1986, entering the first students in Full Degrees only in 1987.

Finally, in addition to the initial training, in the 1980s, UFMT enabled continuing education for Basic Education teachers, first through the Science Teaching Support Center (Naec) and later with the Mathematics Education Teaching and Research Group (Gepemat).

<sup>&</sup>lt;sup>9</sup> This shortage of teachers trained in the specific areas remained for some time at the University, so much so that the first classes were practically for feedback from UFMT. Four of the seven graduates of the first class of UFMT, already started working in the Department of Mathematics shortly after their graduation.

Naec was a multidisciplinary group made up of professors in the areas of Chemistry, Physics, Mathematics and Biology, which aimed to be a "stimulating agent and catalyst for studies, research and innovations that would contribute to keeping science education always up to date. constituting a teacher training organ" (CODEX, 1982, p.8). To this end, it worked by orienting a teaching appropriate to the reality presented, providing teachers training courses, planning the installation of alternative teaching laboratories, as well as the acquisition / production/adaptation and distribution of texts and experimental materials.

Gepemat was formed due to the increase of mathematical educators and interested in the area within the UFMT, who were concerned about the teaching of mathematics in Mato Grosso, especially in Cuiabá. Since its inception, the group has been responsible for the "pedagogical disciplines of the Full Degree Mathematics Course, as well as the design and development of teaching projects in the Department of Mathematics, for extension courses for teachers in the education network" (WIELEWSKI; PALARO; WIELEWSKI, 2013, p. 101), in addition to providing advice to state and municipal secretariats, as well as to private schools. Through it, the Mathematics Teaching-Learning Laboratory was created at UFMT, which aimed to support the teachers of Basic Education, as well as the undergraduate students in Mathematics (UFMT, 1992).

Given the above, about the training of teachers in this capital, we can see that it was strongly marked by the lack of professionals trained to work at various levels of education, both basic and higher education. With the late arrival of higher education in the state, in Cuiabá the number of teachers trained by Escola Normal or Cades prevailed, even after the first decade of UFMT, since in the first years the University trained professionals, basically to their feedback, to work in the institution itself, few of them actually going to work in Basic Education. In the case of the Mathematics course, at the ICLC there was no teacher with training in the specific area and for the first class of UFMT the only two with mathematics training were the graduates of the ICLC, who did not yet have their diplomas, as they received it. with the first graduates of the UFMT course. Finally, the lack is also perceived when we see the performance of the groups Naec and Gepemat, enabling a continuing education for those teachers, who were mostly trained in the Magisterium and did not have a college degree.

#### **Teachers Training (of Mathematics) in Barra do Garças**

Still at the time of the Short Degrees, early 1980s, UFMT began its process of internalization. This process, according to respondents portrayed in Both (2016), had as its main objective to train teachers who could work within the state of Mato Grosso, which was extremely lacking in teachers with specific training. This internalization occurred with the creation of UFMT campuses in cities in the interior of Mato Grosso that stood out as regional hubs. The first inland campus created was the Pedagogical Center of Rondonópolis, in 1980, and the second Pedagogical Center of Barra do Garças, in 1981<sup>10</sup>.

In this text, we stick to this last campus, initially called Barra do Garças Pedagogical Center (CPBG), which later had its name changed to Center for Higher Education of the Middle Araguaia (Cesma), then Institute of Science and Letters of the Middle Araguaia (ICLMA) and currently the University Institute of Araguaia (UFMT, 2015).

The Pedagogical Center began with an administration room, which worked in the City Hall of Barra do Garças, and two night courses (Letters and Sciences), whose classes were held at the Gaspar Dutra State School. Then, due to the increase in the number of students, CPBG was transferred to a larger school in the Jardim Amazônia neighborhood and used the headquarters of the Neighborhood Association for administration, library and management sectors. In such period the University even built some rooms in that school.

Subsequently, the UFMT transferred the administrative sector to a market that was deactivated at that time in the municipality (whose building the city had received in exchange for taxes due). Classes began to take place at the João Batista State School, where the University functioned until it was transferred to its permanent campus in 1989. This campus was built in the municipality of Torixoréu, in a district called Pontal do Araguaia (conurbado Barra). Garças) which was later emancipated, dismembering from Torixoréu. According to the interviewees highlighted in Both (2016), this happened because the University required an area of 60 hectares for the construction of the campus and, at that time, the city hall of Barra do Garças, which would be the pole chosen by UFMT, was unable to have some land, the required size, that was near the county seat. Local university officials then contacted the neighboring municipality, Torixoréu, and Mayor Valdemar Nogueira at the time had the area available for

<sup>&</sup>lt;sup>10</sup> The creation of the Barra do Garças Pedagogical Center was regulated by Resolution 13/81, of the UFMT's Directing Council, being initially instituted, by Article 4 of the same resolution, three courses: Short Degree in Science, Full Degree in Letters, with qualification in Portuguese Language, and Physical Education. However, the latter was not offered at the time (UFMT, 1981), this, according to the collaborators, happened because there was not enough demand to justify the operation of the course.

donation to UFMT. When the campus opened, it had a sufficient number of classrooms and laboratories, as well as specific rooms for the administrative and management sectors.

Regarding the courses offered, as we saw, initially were two undergraduate degrees: Short Degree in Science and Full Degree in Letters, which began in 1982.

The Short Degree Course in Science had admission to the Barra do Garças pole until 1987, when it was converted into two Full Degrees, one in Mathematics and one in Biology (UFMT, 2015), by Council Resolution 09/87 Director of UFMT. Since then, entrance exams have been held for the Mathematics course (UFMT, 1987). It is noteworthy that during the transition between the Short and Full Degrees, as in Cuiabá, the two courses existed in parallel, so that the students who started the science course had the opportunity to complete it. Alternatively, those students who were studying science and wishing to migrate to one of the two new courses were allowed to do so without going through the entrance exam process. The mathematics course was offered at night so that those who worked during the day could attend it.

At the time of implementation of the Full Degree in Mathematics at CPBG, the curriculum of the course required adaptations, as the matrix of the previous course (Short Degree in Sciences) did not meet the proposal of the new Full Degree. This new curriculum was implemented in 1988, being the first curriculum matrix copied from Cuiabá and Rondonópolis, places where UFMT was already offering the Full Degree in Mathematics. This matrix underwent adaptations made by the course's own faculty in the late 1990s and early 1991s, when some subjects were removed and others inserted, as discussed in Both (2016), based on one of the interviews conducted.

Also, according to an interviewee from Both (2016), the consensus of the time was that the Full Degree should teach a lot of mathematics, but the faculty missed the teachers training itself. As the course matrix was structured, the student learned many Pure Mathematics contents, almost equaling a Bachelor's degree, but did not know the problems of being a teacher, teaching methodologies or other pedagogical issues. As it was not desired to reduce the workload of subjects focused on mathematics and felt the need to undertake a more pedagogical training, ended up excluding subjects of general education<sup>11</sup> in order to insert educational subjects<sup>12</sup>.

Regarding the teachers who worked in the course, in this initial phase, most of them came from Rondonópolis and Cuiabá (when from the state itself) or from Minas Gerais, Goiás and São Paulo, because there were few people with higher education in the region. Some came from Goiânia, as soon as they finished their degrees in Mathematics, other teachers had a degree in Engineering or Physics. According to one of the interviewees, who was a student of the first class, there was even at this early stage a student of the Mathematics course who, being an engineer, was invited to teach some subjects in the course while being a student in others. (BOTH; BOTH, 2016).

Finally, regarding the students, most were from Barra do Garças, Aragarças and Pontal do Araguaia, troubled cities on the banks of the Garças and Araguaia rivers, or from cities in the region.

Therefore, UFMT was a pioneer in offering higher education in the Barra do Garças region, starting with two undergraduate degrees, Full in Letters and Short in Sciences. This University has been, and still is, an important (or most important) means of higher education teaching in a region that was extremely lacking in this, and has been performing this role for over 30 years in the area.

But before there was an institution that offered higher education, how did teachers graduate in the Barra do Garças region? To answer this question, Both (2018) presents his article as a partial result of his doctoral research. This study is investigating the process of training teachers who teach mathematics in the region from the diamond mining, on the banks of the Araguaia and Garças rivers, formed by the municipalities: Araguaiana, Barra do Garças, Pontal do Araguaia and Torixoréu, in Mato Grosso, and Aragarças and Beacon, in Goiás, (figures 1 and 2, respectively). This is called Barra do Garças region, because it is the largest and most developed municipality in the region and is thus known by local residents. Its timeframe ranges from the arrival of gold mining in the region (from 1924) to the installation of the Federal University of Mato Grosso in Barra do Garças (in 1981), as we have seen, the first institution to offer higher education at the site.

<sup>&</sup>lt;sup>11</sup> Subjects like: Portuguese Language, Sociology, Philosophy, Physical Education, Studies of Brazilian Problems, among others.

<sup>&</sup>lt;sup>12</sup> Subjects such as: Teaching Practice, Didactics, Supervised Internship, Educational Psychology, among others. Perspectivas da Educação Matemática – INMA/UFMS – v. 12, n. 29 – Ano 2019



**Figure 1:** Mato Grosso Municipalities that are part of the research<sup>13</sup>.

<sup>&</sup>lt;sup>13</sup> The city of Cuiabá is not part of the research, but, being the state capital, it is highlighted on the map as a reference for the location of other cities.

<sup>&</sup>lt;sup>14</sup> Minor changes were made to the map, in which we highlight the municipalities of Araguaiana, Barra do Garças, Pontal do Araguaia, Torixoréu and Cuiabá, and also added the caption.

<sup>&</sup>lt;sup>15</sup> The city of Goiânia is not part of the research, but, being the state capital, is highlighted on the map as a reference for the location of the others.

<sup>&</sup>lt;sup>16</sup> We made minor changes to the map, highlighting the municipalities of Aragarças and Baliza, and also adding the caption.

The cities that comprise Barra do Garças region are mostly relatively recente constitution<sup>17</sup> and with peculiar characteristics. In this region, all municipalities come from diamond mining<sup>18</sup>, and in the mining period comprised three municialities: Araguaiana (from which Barra do Garças was dismembered) and Torixoréu (which after Division, originated Pontal do Araguaia), in Mato Grosso e Baliza (from which Aragarças originated), in Goiás, all on the banks of the Araguaia and Garças rivers.

As we have seen, teacher education in Mato Grosso at a higher level started late, as the Normal School and the Secondary Education Improvement and Dissemination Campaign (Cades) were solely responsible for it until 1966. Also, in Barra do Herons, prior to the establishment of the Federal University, the teaching training was basically in charge of the Normal School, a teaching level, which was taught by the nuns of the Salesian congregation, whose classes were held at the Mother Marta Cerutti Institute, one of the pioneer schools of the municipality. and that exists to this day.

Beyond the interviews<sup>19</sup>, the author, in her article, was supported by a documentary research conducted by her at the oldest school in Barra do Garças, State School Colonel Antônio

<sup>&</sup>lt;sup>17</sup> The exception is the municipality of Araguaiana - MT, which was the first municipality created in eastern Mato Grosso, directly dismembered from Cuiabá. By Laws No. 211, of May 10, 1899 and No. 387, of April 12, 1904, a district was created, under the name of Araguaia Registry, under the municipality of Cuiabá. This district was elevated to the category of municipality, under the name of Registration of Araguaia, by State Law No. 636, of July 8, 1913. Subsequently, by State Decree No. 161, April 21, 1932, the Municipality of Registration of Araguaia took the name of Araguaiana. By Decree-Law No. 032 of December 21, 1935, the district of Barra do Garças, which belongs to the municipality of Araguaiana, was created. In 1948, with the emancipation of Barra do Garças, regulated by State Law No. 121 of September 15, 1948, the municipality of Araguaiana was extinguished, which then became the district of Barra do Garças. Years later, through Law No. 5.006 of May 13, 1986, the former municipality of Araguaiana was restored, but with diminished territory. The municipality of Baliza - GO was emancipated by Law No. 91 of October 27, 1936, while Aragarças, emancipated by State Law No. 788, of October 2, 1953, dismembering from Baliza, municipality from which it was district by then. Torixoréu was elevated to the category of municipality by State Law No. 665 of December 10, 1953, dismembering the municipality of Guiratinga. Finally, in 1991 Pontal do Araguaia, until then district of Torixoréu, was elevated to the category of municipality, through State Law 5.097, of December 20, 1991.

<sup>&</sup>lt;sup>18</sup> According to Valdon Varjão (1985), the mines in that region began due to a very popular legend at the time, the legend of S. S. Araya. This tells that at the end of the Paraguayan war, some warriors, who fought on the banks of the Garças and Araguaia rivers, began panning on the banks of these rivers and finding a large number of diamonds, placed them in a bottle. At that time, the banks of these rivers were mostly populated by Bororos Indians. Then legend has it that one day these former combatants were surprised by the attack of a tribe, and to outwit the natives they pretended to flee. Before simulating the escape, however, they buried the diamond bottle under a very large stone, inscribed with SS Arraya 1871, meaning Simeão da Silva Arraya (name of a former Paraguayan war fighter who would be one of the that were there). After being able to outwit the tribe, they returned to fetch the bottle, however, due to the flooding of the rivers, the waters had risen and loaded it. The prospectors who later settled there found countless diamonds, but the lost bottle was never found.

<sup>&</sup>lt;sup>19</sup> In their article "Some particularities of teacher education in the Barra do Garças region", Both (2018) mobilized only two interviews, however, their doctoral research continued and has thirteen interviews in all. However, as the intention is the articulation between the three texts presented in ENHO, we will not use the other narratives already produced.

Cristino Cortes, which began her work in 1933 in an itinerant way, with teachers giving classes to students in their own houses. The school had a physical operating space only in 1949, albeit in poor conditions, according to documents from the school's archive, and that year had a director, Teresa Melo Bosaipo, appointed by the mayor of the time, Ladislau Cristino Cortes. The school was renamed Schools Reunited Colonel Antonio Cristino Cortes. Its own building was built in 1953, offering a structure more conducive to the development of classes and was renamed, since then, School Group Colonel Antonio Cristino Cortes.

One of the interviews, discussed in Both (2018), was conducted with a teacher who worked most effectively in the city of Aragarças, Goiás. The teacher was, at the time, 83 years old and was still teaching private mathematics and physics classes in a room in the city. own residence. About his training, he taught throughout his teaching life without the specific training required, which at the time was the Normal Course. He had a degree in Engineer and Engineer, Mechanical Design Technician and Accounting Technician, but these did not enable him to teach. When he arrived in Aragarças, he was invited to teach in the state of Goiás and took an exam to certify his knowledge, but, as he had no specific training, he can only apply for kindergarten teacher. However, the school was without a teacher of physics and mathematics to teach in high school and high school. He was then hired for the position, under the responsibility of the director of the time, who knew him and attested his knowledge to the State Department of Education.

The teacher considered that the precarious conditions and resources that the region offered at that time, had reflections on education. According to him, there was an extreme shortage of teachers, and those who worked in teaching had little training and knowledge, which directly implied the quality of learning of students, who had a large deficit of knowledge in subjects in general.

This deponent even attended two years of Mathematics Degree, before going to live in Aragarças, but could not complete it, because he had a kidney stone that caused many complications in his health and so, having already missed much, eventually gave up the course.

The other interviewee was, at the time, 68 years old and was no longer working in teaching. She has taught throughout her professional life in Barra do Garças, having always worked from the first to the fourth grade of Primary, current Elementary School I. On the training available in the region in her youth, she remembers that the options for those who wanted to continue their studies after the Gymnasium, were the Accounting Technician or the

Normal School. Having opted for the latter, she began teaching before she even completed the course. In his view, Normal offered a complete preparation for those who wanted to pursue a teaching career.

She taught about fifteen years only with the training she obtained at Normal, then, due to changes in the legislation, needed to get a higher education. To this end, he took Pedagogy in Jales - SP, in a modular course, in which students spent two weeks taking classes at the headquarters of the Faculty of Philosophy, Sciences and Letters of Jales, every two months, and the rest of the time could stay in their cities of origin. Several teachers of the time did the same, who, coming from various municipalities in the region, filled three to four buses to travel to Jales.

Regarding the offer of training for teachers in the Barra do Garças region, prior to the arrival of the UFMT, there was in Barra do Garças municipality the Normal School, cited by the deponent, which was a Magisterium level course, that is, it offered qualification. to teach from first to fourth grade of the Primary school of the time. The course was taught by the nuns of the Salesian Congregation, and the classes were held at the Mother Marta Cerutti Institute, the second school in the municipality of Barra do Garças, which still exists today.

In addition to the Normal School, through documentary research, Both (2018) identified a Pedagogy course offered, in split mode, by the State University of Mato Grosso<sup>20</sup> (UEMT), in the period of Mato Grosso Uno, ie, before the division between the states of Mato Grosso and Mato Grosso do Sul. About this course, deponents of Gonzales (2017) reported that "we had installments all over the country. Mato Grosso had too. I remember that I and other colleagues also taught in Barra do Garças [...]" (GONZALES, 2017, p. 319).

Thus, until that moment of the research, Both (2018) argued that the training of teachers who worked in the Barra do Garças region, in their period of interest, was mostly at the Second Degree level. This is because most teachers had the Normal course or other technical courses, such as Accounting, for example.

#### Some final considerations

<sup>&</sup>lt;sup>20</sup> Current Federal University of Mato Grosso do Sul (UFMS). Perspectivas da Educação Matemática – INMA/UFMS – v. 12, n. 29 – Ano 2019

Teachers training in both places studied here was based on the sign of lack. In general, the performance of teachers was intense without the required training for the modality. The late implementation of higher education in the capital of Mato Grosso, which occurred only in the second half of the 1960s, directly influenced the delay in the arrival of such training in the interior of the state.

Even the Barra do Garças region (considered one of the state's development references), until the 1980s (when a UFMT campus was finally installed there), had its teachers trained only by the Normal School or by technical courses. When higher education became more in demand, one of the options was a split education offered in Jales - São Paulo, about 680 kilometers from Barra do Garças. There was also evidence of a Bachelor Degree in Pedagogy offered by the now defunct UEMT in the city of Barra do Garças.

Thus, the Normal School is of great importance in the institutional formation of teachers in Cuiabá and in the region of Barra do Garças and, when in higher education, of the Federal University of Mato Grosso, which has been training teachers for almost 50 years in Cuiabá, and there are almost 40 in Barra do Garças.

#### References

ALBUQUERQUE JR, D. M. História: a arte de inventar o passado. Bauru, SP: Edusc, 2007.

AMORIM, R. P de; FERREIRA, M. S. O Estado e o ensino normal em Mato Grosso nos anos 1960. In: Congresso Luso Brasileiro da História da Educação. Colubhe, 10, 2014, Paraná. **Anais...** Curitiba – PR, 2014, p.1-15.

BARALDI, I. M. **Retraços da educação matemática na região de Bauru (SP):** uma história em construção. 2003. 241f. Tese (Doutorado em Educação Matemática) - Instituto de Geociências e Ciências Exatas, Universidade Estadual Paulista, Rio Claro, 2003.

BARALDI, I. M.; GAERTNER, R. **Textos e contextos:** um esboço da CADES na história da educação (matemática). Blumenau, SC: Edifurb, 2013.

BOTH, B. C., BARALDI, I. M., Um histórico para a formação de professores de Matemática em Cuiabá, In.: Encontro Nacional de História Oral. Porto Alegre. 2016. **Anais.** p.1-12. Disponível em: <a href="http://www.encontro2016.historiaoral.org.br/site/anaiscomplementaress">http://www.encontro2016.historiaoral.org.br/site/anaiscomplementaress</a>. Acesso em 11 mar. 2019.

BOTH, B. C. Sobre a formação de professores de matemática em Cuiabá – MT (1960-1980). 2014. 402f. Dissertação (Mestrado em Educação Matemática) - Instituto de Geociências e Ciências Exatas, Universidade Estadual Paulista, Rio Claro, 2014. BOTH, E. G., Algumas particularidades da formação de professores na região de Barra do Garças, In.: Encontro Nacional de História Oral. Porto Alegre. 2018. **Anais**. p.1-15. Disponível em: <a href="http://www.encontro2018.historiaoral.org.br/site/anaiscomplementares">http://www.encontro2018.historiaoral.org.br/site/anaiscomplementares</a>>. Acesso em 11 mar. 2019.

BOTH, E. G., A UFMT em Barra do Garças – MT: Uma história da formação de professores de Matemática, In.: Encontro Nacional de História Oral. Porto Alegre. 2016. **Anais**. p.1-11. Disponível em: <a href="http://www.encontro2016.historiaoral.org.br/site/anaiscomplementaress">http://www.encontro2016.historiaoral.org.br/site/anaiscomplementaress</a>. Acesso em 11 mar. 2019.

BOTH, E.G.; BOTH, B.C. Um Olhar sobre a formação de professores de Matemática na região do Médio Araguaia mato-grossense. In: Encontro Nacional de Educação Matemática, XII ENEM, São Paulo, 2016. **Anais...** São Paulo – SP, 2016.

CODEX. **Naec:** Núcleo de Apoio ao Ensino de Ciências. UFMT, Cuiabá, 1982. Disponibilizado pela professora Elisete de Miranda e pelo Gepemat.

DORILEO, B. P. Universidade o fazejamento. Cuiabá: UFMT, 1977.

DORILEO, B. P. Pensar para fazer. Cuiabá: UFMT - Imprensa Universitária, 1984.

GONZALES, K. G. Formar Professores que Ensinam Matemática: uma história do movimento das Licenciaturas Parceladas no Mato Grosso Do Sul. 2017. 534 f. Tese (Doutorado em Educação para a Ciência) – Faculdade de Ciências, Universidade Estadual Paulista, Bauru, 2017.

MAIA, J. M. E. **As ideias que fazem o Estado andar:** A Fundação Brasil Central e a imaginação territorial brasileira. Rio de Janeiro. 2011. Disponível em: <a href="http://www.coc.fiocruz.br/index.php/todas-as-noticias/264-as-ideias-que-fazem-o-estado-andar-a-fundacao-brasil-central-e-a-imaginacao-territorial-brasileira?tmpl=component&print=1&page=#.WQI4PIjyvIU>. Acesso em: 27 abr. 2016.

PRANDI, J. **Mapas de Mato Grosso e Goiás**. 2013. Disponível em: <http://mapasblog.blogspot.com.br/2011/12/mapas-do-mato-grosso.html>. Acesso em: 15nov. 2016.

RIBEIRO, I. F. **Primeiro esboço da história do curso de matemática do Instituto de Ciências e Letras de Cuiabá (ICLC).** 2011. 46 f. Trabalho de Conclusão de Curso - TCC (Licenciatura em Matemática) – Universidade Federal de Mato Grosso, Cuiabá, 2011.

SANTOS, V. M. P dos. As Transformações na estrutura do curso de licenciatura em matemática do campus de Cuiabá da UFMT: da fundação da universidade até os primeiros anos do século XXI. In: Encontro Nacional de Pesquisa em História da Educação Matemática. Enaphem, 2, 2014, São Paulo. **Anais...** Bauru – SP, 2014, p. 535-544.

SILVA, A. P. da. Instituto de Ciências e Letras de Cuiabá: edital de concurso de habilitação. **O Estado de Mato Grosso**, Cuiabá, p.3, 31 dez. 1967. Disponível em: Arquivo Público do Estado de Mato Grosso.

SIMIÃO, R. A. V. O Processo de profissionalização docente em Mato Grosso (1930-1960). In: SÁ, N. P.; SIQUEIRA, E. M. (Org.). **Coletânea Educação e Memória.** Cuiabá: EdUFMT, 2006, v.4.

UFMT - UNIVERSIDADE FEDERAL DE MATO GROSSO. **Resolução do Conselho Diretor nº 13, de 27 de janeiro de 1981**. Cuiabá – MT. Disponível em: <http://sistemas.ufmt.br/ufmt.resolucao/OpenResolucao.aspx?resolucaoUID=1108&ano=198 1&tipoUID=1>. Acesso em: 12 abr. 2015.

UFMT - UNIVERSIDADE FEDERAL DE MATO GROSSO. **Resolução do Conselho Diretor nº 09, de 13 de fevereiro de 1987**. 1987. Cuiabá – MT. Disponível em: <http://sistemas.ufmt.br/ufmt.resolucao/OpenResolucao.aspx?resolucaoUID=2575&ano=198 7&tipoUID=1>. Acesso em: 15 mai. 2016.

UFMT – Departamento de Matemática. **Proposta de implantação da pós-graduação em educação** – linha de pesquisa: Educação Matemática. Cuiabá, 1992. Disponibilizado pelo Gepemat.

UFMT – UNIVERSIDADE FEDERAL DE MATO GROSSO. **Campus universitário do Araguaia - UFMT:** histórico. Barra do Garças, 2015. Disponível em: <a href="http://araguaia.ufmt.br/?pg=historico">http://araguaia.ufmt.br/?pg=historico</a>>. Acesso em: 12 abr. 2015.

VARJÃO, V. **Barra do Garças:** Migalhas de sua História. Brasília: Senado Federal, Centro Gráfico, 1985.

WIELEWSKI, G. D.; PALARO, L. A.; WIELEWSKI, S. A.; HELIETE M. In: VALENTE, W. R. (Org.). **Educadoras matemáticas:** memórias, docência e profissão. São Paulo: Editora Livraria da Física, 2013. p. 97-112.

XAVIER, A. P. da S.; SÁ, N. P. A Escola normal de Mato Grosso no século XIX. Revista Série-Estudos - UCDB. Campo Grande, v.25, [s. n.] p. 123-132, jan./jun. 2008. Disponível em <www.serie-estudos.ucdb.br/index.php/serie-estudos/article/view/245/216>. Acesso em: 22 mar. 14.

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