

A History of the Formation of Teachers of Mathematics at the Federal University of Rondônia – UNIR – in Ji-Paraná (1988-2012)¹

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ABSTRACT

This article is the result of a doctoral research that aimed to make a historical construction of the trajectory of the Short Degree course in Sciences with Qualification in Mathematics, since its creation, consolidation process until the current Degree in Mathematics at the Federal University of Rondônia (UNIR) in Ji-Paraná. Anchored methodologically in the history of Mathematics Education, traces were sought for the construction of the sources through interviews with some eyewitnesses, official documents and photographic images, among others. For the analysis, documentary research resources were used. The results show that the course was constituted with a teaching staff coming from different Brazilian regions and left a multipurpose formation in Sciences, for a more contentious formation in Mathematics, however, with the creation of the Mathematics Week (SEMAT) and the formation in stricto sensu graduate level of teacher educators, has moved towards a strong trend in Mathematics Education.

KEYWORDS: History of Mathematics Education. Higher Education in Rondônia. Degree History.

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*Uma história da Formação de Professores de Matemática na
Universidade Federal de Rondônia – UNIR, em Ji-Paraná (1988-2012)*

RESUMO

Este artigo resulta de uma pesquisa de doutorado que teve como objetivo fazer uma construção histórica da trajetória do curso de Licenciatura Curta em Ciências com Habilitação em Matemática, desde sua criação, processo de consolidação até o atual curso de Licenciatura em Matemática da Universidade Federal de Rondônia (UNIR) em Ji-Paraná. Ancorado metodologicamente na História da Educação Matemática, buscou-se vestígios para construção das fontes por meio de: entrevistas com algumas testemunhas oculares; documentos oficiais e imagens fotográficas dentre outras. Para a análise, foram utilizados recursos da pesquisa documental. Os resultados evidenciam que o curso se constituiu com um corpo docente vindo das diferentes regiões brasileiras e saiu de uma formação polivalente em Ciências, para uma formação mais conteudista em Matemática, porém, com a criação da Semana de Matemática (SEMAT) e a formação em nível de pós-graduação *stricto sensu* dos professores formadores, caminhou para uma forte tendência em Educação Matemática.

PALAVRAS-CHAVE: História da Educação Matemática. Ensino Superior em Rondônia. História da Licenciatura.

*Una historia de la formación del profesorado de matemáticas en la
Universidad Federal de Rondônia en Ji-Paraná (1988-2012)*

RESUMEN

Este artículo es el resultado de una investigación doctoral que tuvo como objetivo hacer una construcción histórica de la trayectoria del Curso de Licenciatura en Ciencias con Calificación en Matemáticas, desde su creación, proceso de consolidación hasta la Licenciatura en Matemáticas actual en la Universidad Federal de Rondônia (UNIR) en Ji-Paraná. Anclados metodológicamente en la Historia de la Educación Matemática, buscamos rastros para la construcción de las fuentes a través de: entrevistas con algunos testigos oculares; documentos oficiales e imágenes fotográficas, entre otros. Para el análisis, se utilizaron recursos

de investigación documental. Los resultados muestran que el curso se constituyó con un personal docente proveniente de diferentes regiones brasileñas y dejó una formación multipropósito en Ciencias, para una formación más polémica en Matemáticas, sin embargo, con la creación de la Semana de Matemáticas (SEMAT) y la formación en *Stricto Sensu*, nivel de posgrado de formadores de docentes, se ha movido hacia una fuerte tendencia en la educación matemática.

PALABRAS CLAVE: Historia de la educación matemática. Educación superior en Rondônia. Licenciatura en Historia.

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The past is, by definition, a datum which nothing in the future will change. But the knowledge of the past is something in progress, which is constantly transforming and perfecting itself.

Marc Bloch

Introduction

This article results from the thesis entitled: *From the multipurpose education to the Mathematics education movement: a historical trajectory of Mathematics teachers education at the Federal University of Rondônia in Ji-Paraná (1988-2012)*, aimed to make a historical construction of the course of the Short Degree program in Sciences with specialization in Mathematics, covering its creation and consolidation process, up to the current Licentiate degree in Mathematics.

Historical construction happens when it leads to the comprehension of the past and the representation between what was and no longer is, in a way that allows for the development of a thinking process regarding this History (CHARTIER, 2010):

When we move past the idea that, instead of a copy of past circumstances, History is a construction of the historian based on evidence of such past that have made their way

into the present, is that we begin to perceive History as a production. (VALENTE, 2013, p. 25).

The choice for an investigation within the field of History was made because the first author of this article was the first public teacher with specific training in Mathematics to act in relation to the course that was being implemented in 1992 in substitution for the Short Degree in Sciences, inaugurated only four years prior, in 1988. The author also conceives that “History should clarify our memory and assist in rectifying its mistakes (LE GOFF, 2003, p. 29), which was his motivation to carry out this research, instead of relying solely on his memories, while attempting to understand how, from a historical point of view, the course has evolved into what it is today.

The contextualization presented leads us to the main issue brought up by this research, which has been elaborated and split into two dimensions: What models of teacher training circulated and were appropriate for the formation of UNIR’s Licentiate course in Mathematics in Ji-Paraná? How can we explain the local appropriations of models that had circulated nationally?

Historical time, like the period covered in this research, is the historian’s exclusive attribution. This is clearly supported by authors of the School of Annales, such as Bloch: “To the extent that we limit ourselves to studying chains of related phenomena, over time, the problem is, in short, simple. It is convenient to request from such phenomena their own periods” (2001, p.150).

The conception undertaken by Bloch led us to define a time frame between 1988 and 2012. The beginning being 1988 because that was the year the course object of this study was created. 2012 has been determined as the end since it marks ten years after the implementation of the Diretrizes Nacionais para Formação de Professores de Matemática (National Guidelines for the Training of Mathematics Teachers). Under this time frame, we strive to understand how the historical construction process took place within the Mathematics teachers training course in Ji-Paraná.

A historical retrospect of some IES's performance within the Federal Territory of Rondônia, and UNIR's creation and expansion towards the countryside

History is built between stays and breaks in such a way that establishing the origin of the course analyzed in this study only from its creation in 1988 would be among other things, anachronistic, since several movements contributed to its existence. This research does not aim to seek the origin as a fixed conditioning point for the local degree, "After all, something's origins do not mean that this same something is currently one way or another. As the historical movement cannot be apprehended on a straight-line basis, the origins do not justify the stay"(GARNICA, SOUZA, 2012, p. 25-26), it must, instead, assume the development of signs and intensive studies to understand how a culture for teacher training in Mathematics was built at UNIR's *Campus* in Ji-Paraná.

The first records of Higher Education in Rondônia date back to the 1970s, "when [...] in 1973, an agreement was made between the Government of the Federal Territory of Rondônia and Federal University of Rio Grande do Sul (UFRGS). Thus, the first high education courses were installed within the Territory of Rondônia" (RUEZENNE, 2012, p. 59).

The process of these courses, which are also part of the local History, is directly connected to the Brazilian/world History. It would be a mistake to conceive that everything was constituted locally in isolation:

Arguably, the mistake does not lie in considering biases, it is not in the search for understanding what happens at the local, regional, or national level, but in falling into what I usually call a *focal* view of reality, according to which we lose touch with the understanding of the totality (FREIRE⁴ *apud* FILHO, 2003, p. 8).

⁴ FREIRE, Paulo. A Educação na Cidade. São Paulo: Cortez, 2000.

In 1967, the Rondon Project is implemented in Brazil to carry out palliative actions to minimize social issues arising from the poorest areas in the Brazilian inland. The project arrives in Rondônia via an agreement between the Territory Government and UFRGS for the installation of an extension of this IES in Porto Velho.

The courses offered short degrees in Fine Arts, Sciences, Social Studies, and Letters. It provided a multipurpose Science course, something common at the time, highlighting the need for Mathematics, Physics, Biology, and Chemistry teachers around the country.

On February 22, 1975, 81 students from the four courses joined the program. The ceremony that took place in the Carmela Dutra School's hall of acts also marked the end of this IES in Rondônia (ALBUQUERQUE; MAIA, 2008). The actions developed by this project spread across the country and lasted 22 years, ending in 1989.

On May 18, 1976, the termination of the Rondon Project's activities in Rondônia led the local government to sign an agreement with the Education Nucleus belonging to the Education Center of the Universidade Federal do Pará (UFPA) to implement UFPA's Education Nucleus in Porto Velho. (ALBUQUERQUE; MAIA, 2008).

The courses available were: Licentiate Degree in Letters, Social Studies, Natural Sciences. The latter trained the teacher to work with the subjects of Science and Mathematics in elementary schools. UFPA ceased its activities in Rondônia in 1985.

Other Universities in the Amazon region had also worked in Rondônia, which was still under the Federal Territory label: Escola Superior de Educação Física do Pará (ESEF), which began its trajectory in 1976, closing in 1982; Federal University of Acre Foundation (FUFAC), from 1977 to 1979; and Faculdade de Ciências Agrárias do Pará, which saw their agreement terminated as soon as the classes were concluded.

There is an inseparable relationship between present and past, the IES that worked in Rondônia, and the remainings analyzed in this research.

Through this past, or “In this devotion to the past, however, there are cracks through which innovation and change are insinuated” (LE GOFF, 2003, p. 217) so that such changes triggered a movement that led society to claim the offer of higher education by an institution from Rondônia.

The first IES genuinely created within the Federal Territory was the Fundação Centro de Ensino Superior de Rondônia (FUNDACENTRO), in Porto Velho, at a time the capital experienced full urban expansion. Its creation took place through Law No. 108, dated July 8, 1975, and signed by Mayor Mr. Antônio Carlos Cabral. Given the length of bureaucratic procedures, their operation did not take place shortly after the law was signed. Other IES acted locally during the period, following UFPA’s example.

The inaugural class was only held on August 8, 1980, with the then Governor Mr. Jorge Teixeira de Oliveira, who bolstered his support to the project leading to UNIR’s creation.

Rondônia was emancipated and became a State through Complementary Law 47 of December 22, 1981.

Arising from the struggle of the pioneers of what was the newest State of the Union, and with the support of the local authorities, Federal University of Rondônia – UNIR was created on July 8, 1982, by Law No. 7011.

In September 1982, Professor Euro Tourinho Filho, who had previously chaired the study commission UNIR’s creation, was appointed by João Batista de Figueiredo, then President of Brazil, to be the college’s first Dean, with the responsibility of consolidating the IES in Rondônia, a difficult task, considering that their first budgetary resources only arrived in 1983.

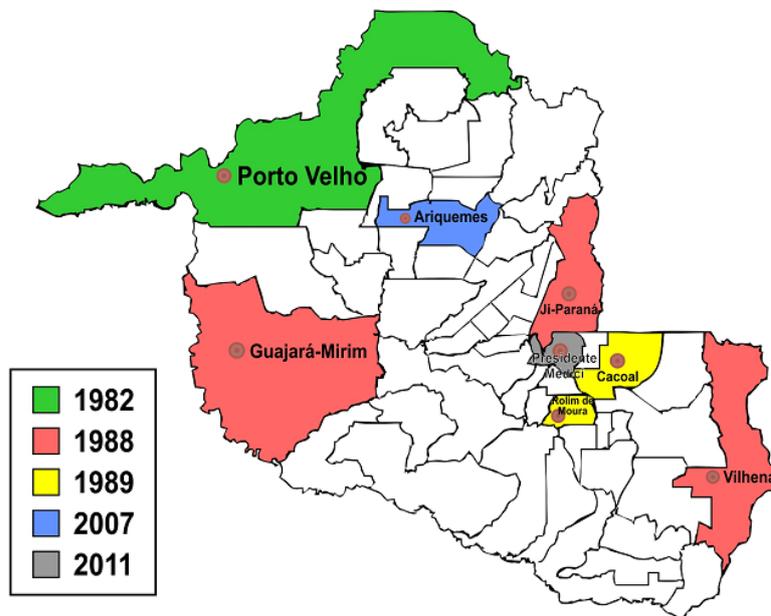
It should be noted that in an annex by the Directing Council’s Resolution No. 04/CD of 1982, the Commission clarifies that Administration, Accounting, and Economic Sciences courses taught by FUNDACENTRO would be assimilated by UNIR under the terms of Law 7.011.

As for the other courses listed under the proposition for the first entrance exam, held in 1983: Administration, Accounting Sciences, Sciences – Degree in Mathematics, Physical Education, Geography, History, Letters,

and Pedagogy, which were already in operation in the State, taught by UFPA and were assimilated by UNIR.

In 1988, considering Rondônia's extensive territory (nearly 148 square miles)⁵ and that confining all UNIR's activities within Rondonia's capital, Porto Velho, would make it impossible for a good part of the population within the State to have access to higher education, the University's Board undergoes a rupture in its organizational structure and approves the expansion to other regions of the State, giving rise to the expansion of the university towards the countryside. The first units, namely Advanced *Campi*, were chosen to prioritize a geographical organization so that they could serve the population across the State. Figure 1 shows each UNIR *Campi* pinpointed in the map of Rondônia. The colors represent each *Campi*'s year of creation:

FIGURE 1 – UNIR's expansion towards the interior of the State



Source: Own authorship

⁵ Source: <http://www.brasilecola.com/brasil/aspectos-populacao-rondonia.htm>

All courses were of short degree and aimed to train manpower to meet the growing demand in the Educational area.

UNIR *Campus* in Ji-Paraná: building an identity for the education of Mathematics teachers

As an educational institution, UNIR “Reorganizes itself in fact, embodying the most genuine characteristics of the historiographical monograph and attempts to build a historical identity, taking the coordinates of time and space into account [...]” (MAGALHÃES, 1999, p. 64) and, imbued with this relationship of time and space as a historical variable that brings up a History of the *Campus* and course object of this study.

According to the systemic expansion process towards the countryside, after the end of the courses initiated by UFPA, the city of Ji-Paraná (230 miles from the capital Porto Velho) receives a UNIR *Campus*. The first course implemented was a Licentiate of Science with a degree in Mathematics.

Its creation was made official via Agreement 001 of June 24, 1988, celebrated between UNIR and the Municipality of Ji-Paraná, signed by Dean Álvaro Lustosa Pires and Mayor Roberto Jotão Geraldo.

The agreement aimed at a financial and administrative cooperation of the “Urupá *Campus*”, name listed under the document and also in the minutes of the *Campus*’ Council and the Department Council, in addition to several documents referring to the first years of the course implementation. Urupá are any indigenous persons belonging to the Urupá peoples, currently considered extinct, who inhabited Rondônia in the 19th century (HOUAISS, 2001). However, this information is unknown to most ji-paranaenses.

Professor Eudes Barroso Junior was appointed by Dean Álvaro Lustosa Pires through Ordinance No. 183 of June 1, 1988, to coordinate the

Science course with a degree in Mathematics and provide advice regarding the implementation and structuring of the *Urupá Campus*.

The inaugural class was held in the building of the old adult education program after the first entrance exam. The students were notified by radio, and the expectation was such that there was general disbelief that the Federal University was now a reality. Professor Eudes Barroso Junior, who taught the inaugural class, says:

When I booked the night, seven o'clock at night in the Adult Course building, I had just structured the secretarial section on the upper floor. The students arrived and, as I watched, they would come and say: Is this where the University will work? Are you the teacher? I said yes. Do you speak for the University? Yes, I am a representative of the university (JUNIOR; SOUZA, interview granted on November 15, 2012)

It was also up to Professor Eudes to proceed with the teacher selection. The event took place in two stages: Initially, we proceeded with curriculum analysis, then an interview was conducted with the data previously analyzed, it was in that interview that the institution's proposal was presented, and the candidate was supposed to show their interest. The professor selected would be temporarily assigned by the State or Municipality to the university.

Among the selected teachers, few had any experience with Higher Education, such as Professor Maria Leopoldina Froes Yague, who spoke to us about the teachers' selection:

I was an employee of the Territory, but I had a 20-hour contract with the State. So, it was through my State contract that I was assigned to UNIR. Before, I had worked here, at the Federal University of Pará's Campus, I was the coordinator of Universidade Federal do Pará's Campus. Federal University of Rondônia was created right after the courses ended, but only in Porto Velho, [...]. When the university came to Ji-Paraná, they came to me to work with this perspective of compromise. For that, there was this selection (YAGUE, interview granted on March 5, 2013).

The course had a brief stay with the facilities borrowed from the Adult Education program. It moved to the place where it currently operates in 1989. There were regular meetings between UNIR's management, represented by Professor Eudes with the mayor and councilors of Ji-Paraná. There was an agreement between the parties that the City Hall would provide the place for the installation of the courses and, consequently, the *Campus*. The action was carried out via Municipal Law No. 448 on September 18, 1992.

Before explaining the use of the time cuts this research demands, we must quote Bloch's writings, as he wisely guarantees:

The river of the ages flows without interruption. In this, too, however, our analysis must make use of cuts. For the nature of our spirit forbids us to apprehend even the most continuous of movements, if we do not split it into sections. How to fix those in History over time? In writing, they will always be arbitrary. It is also important that they coincide with the main turning points of the eternal change (BLOCH, 2001, p. 147).

As Bloch, we understand that our gaze must fall over certain inflection points established by the course modalities.

The education on Science with a degree in Mathematics (1988-1994)

The Licentiate course on Science for the elementary school, with a degree in Mathematics, was authorized via Decision No. 1050 of the Federal Council of Education. The rapporteur commends the institution's praiseworthy initiative, focused on the high purposes of reducing the shortage of qualified human resources for teaching, mentioning that the course at the headquarters had already been approved by Jorge Bornhausen, then Minister of State for Education, through MEC Decree No. 322 of May 11 of that same year.

While the course was locally authorized, there was a national movement contrary to this multi-purpose training model in short courses.

Some universities no longer accepted this method for teacher training, born in an authoritarian way during the military regime.

The course was implemented as an extension in Porto Velho *Campus*. The first Course Curriculum corresponded to the first six semesters of the same course that operated in the capital in the form of a full degree, comprised of 8 semesters.

The graduate was qualified to work with Mathematics and Science in elementary school and, in exceptional cases, would be allowed to teach Mathematics also in high school:

With regard to teachers, the first tenders destined to fill vacancies for education professionals in the university were authorized by the first Dean-elect, José Dettoni, via Ordinance No. 6/CONSUN of September 5, 1989. Despite the tender, the course kept receiving the contribution of teachers provided by the State and Municipality for a long time.

In 1989, the *Campus* started offering two courses: Sciences and Pedagogy. Irmgard Margarida Theobald, professor at this IES since 1990 and one of the first teachers at the *Campus* to hold the position of Course Coordinator recalled the duties related to the title:

The coordination took care of the students, followed the Course Curriculum, regardless of the course. Whether Science or Pedagogy, we had to take care of it, follow the Course Curriculum, I think it was 91 or 92. At that time we had to have the students' file in hand, the secretary staff typed some documents, the students filled in all the forms, everything by hand. We still used a typing machine for the memos, the documents, and carbon paper to make copies. Students' enrollment was all done manually. There were folders with Syllabus for each discipline. Professor Artur Moret introduced me to the first computer. He was the only teacher who knew how to work with computers here (THEOBALD, interview granted on May 23, 2013).

The last Short Degree classes in Sciences were opened in 1993 and 1994, however, their recognition only took place through Ordinance

873/MEC, on July 21, 1995. No information was found during the research to explain the delay in the course recognition.

At the time, providing an educational background that would enable teachers to work only with the elementary school no longer met the expectations, thus, the Short Degree leaves the scene to give way to the Degree in Mathematics.

The Degree in Mathematics (1992-2012)

Through Resolution No. 071 of May 6, 1992, the Conselho Universitário da UNIR (CONSUN) approved the Projeto Integrado de Qualidade Educacional (Integrated Project for Educational Quality, PIQUE), which was defined as a set of actions aimed at covering all *Campi* in the countryside, seeking higher didactic-pedagogical-administrative quality, resizing the course offer and optimizing resources through the creation of centers dedicated to specific areas of knowledge within the *Campi*. Among PIQUE's actions, the Degree in Mathematics program was created in Ji-Paraná, as the Science course had already existed in the Municipality.

At this turning point, there was a period in which the two degrees intersected, taking place concurrently at the *Campus* (1992-1994). According to Bloch "it is by no means impossible, *a priori*, that, with experience, the natural phases of phenomena of seemingly diverse order will overlap" (BLOCH, 2001, p.151). The two courses being ministered at the same time was due to the fact that the first was completing its entry classes in 1990 and 1991, just as the second started.

With the enforcement of the Degree in Mathematics in 1992, UNIR promotes the first tender intended to hire Mathematics professors; that is, four years after the inauguration of a course that trained Mathematics teachers to work in elementary schools. Other tenders took place, however not as many or as frequent.

Thus, the implementation of the course came to meet the requests of science graduates, realizing that being trained only to teach at the elementary level did not meet the demand for qualified professionals in the State. The students presented a document from the State Education Secretariat (SEDUC) to the coordination, proving the immediate need to hire 238 high school teachers to work in Rondônia, 18 of those positions were in Ji-Paraná. This course has been consolidated by its various actions carried out throughout its lifetime.

Course Complementation/Completion (1993-1995)

In the imminence of enabling the Science graduates to also teach Mathematics in high school, the Studies Complementation was created. The 990 hours Course Curriculum for the Completion was approved and authorized by the CONSEPE via Ordinance 101 of October 13, 1993. The subjects corresponding to the final period were those usually taught in the last periods in full degree courses.

Considering the project's special character and the substantial number of teachers expecting to complement their courses, the Department of Exact Sciences approved the opening of two classes, from 1993 to 1995. The first class graduated on December 17, 1994.

The emancipation of the course in relation to its headquarters in the capital (1999)

Since its implementation in Ji-Paraná, this degree has served as an extension of the course taught at the headquarters in Porto Velho, including the same Course Curriculum. Carried out in 1999, the reformulation of the local Pedagogical Political Project introduced a significant change in the History of the course. The project was the result

of a conversation with all teachers and configured the first Course Curriculum developed by the teachers of the course.

The experience *in locus* with the first Course Curriculum and its adaptation to the local reality made room for a reflection on the perspective of a curricular change among teachers and graduates, however, the central element was the publication of the L.D.B. Law No. 9.394 of December 20, 1996, which triggered a series of changes in Brazilian Education.

At the same time, there was already a movement at the national level for the reformulation of various teacher training courses, moving towards the appropriation of new profiles and characteristics for Mathematics Degree courses. Together with these changes, the Mathematics Education movement grew, with a close connection with the initial teacher training.

Parallel to the approval of the new Course Curriculum through Resolution 334/CONSEPE of January 14, 2000, the *Campus* and, consequently, the course became autonomous. The struggle for emancipation was strenuous. The periodization that preceded it was comprised of conflicts within the local academic community demanding greater attention to the course. From the beginning of the operation until the publication of Resolution 334, 12 years had passed before the course would finally be emancipated from the one originated in Porto Velho, acquiring independence and, since then, having its own Pedagogical Political Project (PPP) and faculty.

The actions of the teaching staff start to involve the discussions and growing reflections around the country concerning the best, or ideal way for training teachers.

Specialization in Mathematics Education (2000-2006)

In 1999, the course had already formed 8 groups of teachers (Science and Mathematics). However, the graduates, while experiencing the exercise

of teaching, contacted the teachers who gave form to the course and sought new teaching methodological alternatives for their classes in schools.

Attitudes similar to these led the faculty to reflect on the role of the teacher educators in this degree. In a meeting, the possibility was raised that the initial training should include aspects of Education together with Mathematics, that the course should provide future teachers periods of experience in study and research regarding the teaching of the discipline.

The timing was perfect, as the degree course was undergoing changes and could take ownership of the curricular modifications circulating across the country. As a referral, the faculty then decides to create the Specialization in Mathematics Education, and its approval by the UNIR Superior Councils, took place via Resolution No. 009/CONSEA, of April 17, 2000. The course started in the same year.

3 entries (2000, 2003, 2006) were offered, with 15 places per class. In 2007, the department released new public notices for the opening of new classes, however, they were not filled out and the course was closed.

To complete the course and obtain the title of Specialist in Mathematics Education, the graduate student had to write and carry out the public defense of a monograph. These were the precursors to the 1st Mathematics Week held by the course.

Mathematics Week: a dialog between the course and other Brazilian researchers (2001-2012)

Considering that the monographs were defended publicly, the then coordinator of the specialization course, Professor Aparecida Augusta da Silva, proposes that an event be held to socialize the research with the academic community, as well as other concerned parties.

This initiative results in the 1st Mathematics Week (SEMAT), with the core objective of contributing to the initial training of the participating

students and the continued education of the external community. Other activities were added to it (monographs defenses, lectures, short courses, workshops, video exhibitions), culminating in the program for the event, which happened from August 27 to September 9, 2001.

Figure 2 is a photographic record that immortalized I SEMAT. Immortalized it because:

Paintings, statues, publications, and so forth allow us to share nonverbal experiences or knowledge of past cultures. They show us things we may have already known but hadn't taken seriously before. In short, **images allow us to “imagine” the past in a more vivid way.** (BURKE, 2004, p. 17, Emphasis added by the authors).

SEMAT punctuates a break from the previous training model, strictly limited to the classroom environment. It is important to say that the event was held in the open on the first day, as the Campus did not have an auditorium.

FIGURE 2: 1st Mathematics Week



Source: Professor Renata Gonçalves Aguiar's personal file

It was noticeable through the programming that, since the event's first edition, the emerging activities were related to Mathematics Education. The subjects of the monographs presented already pointed to a strong trend

present at the event, and that such trend reflected the teaching work carried out in the classroom.

The Degree in Mathematics, object of this study, needed to come out of isolation. It needed to promote the articulation of its graduates with other Mathematics courses, tearing down regional geographical limits: “Life is short. On their own, no specialist will ever understand anything but half, even in their field of study” (BLOCH, 2001, p. 26), immersed in this conception, teachers of the course, in touch with the Brazilian Society of Mathematical Education (SBEM), created SBEM’s Regional Rondônia. During the holding of III SEMAT, on October 6, 2003, the then President professor Célia Maria Carolino Pires gave a lecture and institutionalized the branch.

SBEM contributed to the course by linking it with what was being developed within the scope of Mathematics Education at national and international levels. This search for harmony with Mathematics Education exponents and manifest by their presence at local events was fundamental for the consolidation of the course profile. The teaching staff appropriated the knowledge shared by these speakers, promoting reflection, changing attitudes, contributing to the establishment of the identity of the course with trends in Mathematics Education.

Although the time frame for this research is limited to the year 2012, SEMAT has been carried out continuously, with an average presence of 300 participants, and its 20th edition will be held in 2020.

The 2006 curricular reform

With the consolidation of Mathematics Education in Brazil, the faculty almost entirely appropriated this globalized trend locally. The Course Curriculum was opposed to this trend. Until then, the course offered teacher training with a bachelor’s degree and far from a Licentiate. The faculty was not bound to the PPP, but promoted a break

with the training model in place and a new reformulated curriculum was designed through this praxis in 2006:

The need for a reformulation of the Mathematics Licentiate course in Ji-Paraná is the result of a discussion started in 2004 among professors from the former DCEN – Department of Exact and Nature Sciences. Undergraduate students and teachers working in elementary and high school who, together, realized a great distance between the training course and the reality in the teaching of Mathematics in Basic Education, participated in the discussion. Most of them said that a teacher training course should, in addition to developing other skills, devote special attention to the needs of teaching in basic education (BASTOS; OHSE; ALBUQUERQUE, 2008, p. 100).

Local History developed through communication with other knowledges that circulated in different regions of the country, not in isolation. “If taken in isolation, all sciences mean nothing but a fragment of the universal movement towards knowledge (BLOCH, 2001, p. 50)”, but from there, it found support in actions circulating across the country, such as the implementation of the Diretrizes Curriculares Nacionais para a Formação de Professores da Educação Básica (National Curriculum Guidelines for the Training of Teachers of Basic Education) through Resolution CNE/CP 1/2002 and Resolution CNE/CP 2/2002, which instituted the duration and workload in training courses for Basic Education teachers. The legislation in question was a milestone, bringing change and improvement to the reformulation of the Mathematics teachers training course.

Also, Mathematics undergraduate courses were being discussed in state and national forums promoted by SBEM, which published a special issue in its magazine in 2002 with cover subject: Licentiate in Mathematics, a course under discussion⁶. A collection of different articles resulting from the discussions that took place up to that date and which, along with other documents, served to guide the faculty in the

⁶ Educação Matemática em Revista. Year 9 – no 11A – Special edition, April 2002.

preparation of the new Course Curriculum, moving away from a strictly content-based training paradigm and towards a trend in Mathematics Education was made available through this publication. Implemented in 2006, the new project was characterized as a break with the old model, such as the inclusion of the Research Seminar and Term Papers (TCC), encouraging the training of more thoughtful researcher-teachers.

A TCC that starts to be developed from the Mathematics Seminars, therefore, one year before its public defense, having the accompaniment of a professor advisor, in addition to promoting the initiation to scientific research, also allows the future teacher to expand their systematized knowledge regarding writing, reading, interpretation, concatenation of ideas, argumentation.

First class graduated in 2010, after the new PPP implementation. In 2012, 25 term papers had been presented. It is possible to infer that there was a consubstantial change in the object of research between these works. The intention of the authors to permeate teaching processes that better interact with the learning of Mathematics is evident. The analyzed research followed paths that related Mathematics Education with: History of Mathematics; Youth and Adult Education; Special Education, Interdisciplinarity, Teaching Policy, Social Movements, and Textbooks.

The profile of the teacher within the course (1988-2012)

In 2012, the course had passed through three different Course Curriculums, with the first being implemented in 1988 and its two reformulations occurred in 2000 and 2006. The teaching profile as a pedagogical idea has changed over the course of this course. In fact, if “we argue with our peers, if we research and continually search for new theoretical sources and new alternatives for action in the classroom, then it is to be expected that our ideas are also constantly changing (FIORENTINI, 1995, p. 29).

During the course of the Science Course started in 1988, there was not a complete staff of permanent professors, therefore, the undergraduate degree continued to receive the contribution of a substitute and accredited professors, however without training at the *stricto sensu* graduate level. There was an engineer among them, the rest were professors. The contribution of these characters was unique for the creation and development in the first years of the course.

Considering that among the faculty there were graduates, but also engineers and other bachelors and considering that the teachers who held a *stricto sensu* postgraduate degree were, for the most part, from outside the area of Education, it is concluded that the training perspective in the period (1992-1999), was moving towards the formation of Mathematics teachers with strong tendencies to a Bachelor of Mathematics.

In 2000, a new Course Curriculum was implemented and kept valid until 2005. There was no longer the presence of member-professors. The staff is now composed of permanent and substitute teachers, most of whom are licensed and have few bachelor's degrees. The Department added two courses: Mathematics and Physics. As for graduate education, there are doctors, masters, and specialists. There is a profile of trainers for a degree in Mathematics.

With the new curricular reform, in 2006, and the departure of Physics professors to another Department in 2007, the new departmental unit in 2009 adds the bachelor's degree in Statistics and undergoes a significant change in its faculty.

Considering the profile of 12 teachers who work exclusively in Mathematics, there are 10 graduates in Mathematics and 2 two bachelors in other areas. Among these, 8 are teacher educators who experienced teaching in elementary schools, exercised their jobs in the most remote Brazilian locations, in schools located in rural areas, in rural schools and on the outskirts of large urban centers.

The migratory movement is still a reality of the State. No teacher within the group is from Rondônia. Another relevant aspect, both concerning naturalness and undergraduate training, is that there are representatives of the 5 Brazilian regions in the group.

Throughout the course, teacher educators appropriated pedagogical actions with perspectives aimed at the formation of Mathematics educators. These practices motivated teachers to join postgraduate courses, contributing to the change in the faculty's profile.

Although the time frame for the present research is limited to the year 2012, it is important to note that the profile trend towards Mathematics Education has strengthened locally with the *stricto sensu* qualification, where in 2020 there are 10 doctors in this faculty, 7 with a PhD in the areas of: (a) Mathematics Education; (b) Education, Sciences, and Mathematics; and (c) Education with investigations developed in the line of research in Mathematics Education. The group also comprises two master's in mathematics and one in Computer Sciences.

It is also noteworthy that, from the initiative of the course faculty, UNIR, on October 5, 2018, had seen the approval by CAPES of the first Academic Master in Mathematics Education in Northern Brazil, which is already underway with two groups of master's students in Ji-Paraná.

Conclusion

The course was created for a non-specific, more general education through the Licentiate degree in Sciences (1988-1992). This movement advanced towards the structuring of the Mathematics Licentiate course, with a model close to the formation of the Bachelor of Mathematics (1992-2005) and, from the reformulation that took place in 2006, it appropriated trends for the formation of Mathematics Educators.

The periods (1988-1992), (1992-2005), and (2006-2012) marked the changes in the conceptions regarding the profile expected from the teacher's

training, however, it is impossible to affirm arbitrarily that there was a single cause which caused the rupture in detriment of the conditions that arose, but successive reasons led to several changes in the History of the course, since the choices were made through conditions imposed by several lines of force, all of them converging to the same phenomenon.

The identity of the course, which is subject to permanent renovation, is being built based on its faculty's responsibility, keeping open space for new teachers, but moving towards a consolidation of this licentiate course in front of the collective.

The migration of teacher educators to Rondônia and, consequently, to the course that has a teaching staff comprised of teachers from all 5 Brazilian regions, with a repertoire of training courses in different licentiate tendencies. It is also worth mentioning is also worth mentioning. Thus, different training models circulated, and this cultural diversity influenced the course. Unlike some groups, which exist across the country and are resistant to innovation, the local group has become more open to changes and disruptions, and the actions that have actually worked have remained.

When viewing the trajectory of the most significant changes that led to the consolidation of this licentiate course, the trends discussed by the national Mathematics Education movement stand out, being appropriate within local realities present in their teachers' practices, and in the curriculum prepared for the course. Such appropriation is more closely rooted within the creation of the Mathematics Week and the training at the *stricto sensu* post-graduate level of teacher educators. This formative culture did not settle for a specific formative model, but became a very dynamic culture, following the movements that circulated across the country.

It is up to the academic community that makes up the course to continue on the path of permanently building the identity of this degree,

rethinking their practices that will affect the teaching life's history, within the motivating know-how of teaching and learning Mathematics.

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