THEMATIC SECTION:
MATHEMATICS EDUCATION

Mathematical Knowledge for Normalists' Formation in Sergipe (1890 – 1930)

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ABSTRACT – Mathematical Knowledge for Normalists' Formation in Sergipe (1890 – 1930). In this work, the result of a research that aimed to characterize the mathematical knowledge present in the Sergipe normalists' formation at Instituto de Educação Rui Barbosa (IERB) in the period from 1890 to 1930 is presented. To achieve this purpose, sources such as decrees, regulations of public education in Sergipe and programs of the normal course were examined. To examine the sources, understandings presented by Valente, Bertini and Morais (2017), Valente (2018), Valente (2019) were used in relation to the professional knowledge of teachers who teach mathematics. Based on an examination of the sources, it is possible to affirm that the professional knowledge of the teachers was more centered on a mathematics to teach, since the mathematics for teaching was only possible to be identified implicitly.
Keywords: **Mathematical Knowledge. Normalist. Professional Knowledge.**

RESUMO – Saberes Matemáticos para a Formação de Normalistas em Sergipe (1890 – 1930). Neste trabalho, é apresentado o resultado de uma pesquisa que teve por objetivo caracterizar os saberes matemáticos presentes na formação das normalistas sergipanas do Instituto de Educação Rui Barbosa (IERB) no período de 1890 a 1930. Para alcançar tal propósito, foram examinadas fontes como: decretos, regulamentos da instrução pública sergipana e programas do curso normal. Para o exame das fontes, foram utilizados entendimentos apresentados por Valente, Bertini e Morais (2017), Valente (2018), Valente (2019), em relação aos saberes profissionais dos professores que ensinam matemática. A partir do exame das fontes, é possível afirmar que o saber profissional das normalistas estava mais centrado em uma matemática a ensinar, uma vez que a matemática para ensinar só foi possível ser identificada de forma implícita.
Palavras-chave: **Saberes Matemáticos. Normalista. Saber Profissional.**

Initial Considerations

What is the mathematical knowledge present in the formation of normalists from Sergipe in the period from 1890 to 1930? Can the identified knowledge be classified as knowledge to teach or as knowledge for teaching? Or, can the identified mathematical knowledge be characterized as professional knowledge of the normalists? To answer these questions, the objective was to characterize the mathematical knowledge present in the formation of Instituto de Educação Rui Barbosa (IERB) with Sergipe normalists in the period from 1890 to 1930.

The choice of theme is justified for two reasons. The first reason was instigated by the holding of an event: the *1st National Seminar on School Practices and Mathematical Knowledge in Normal Schools*[1]. From what is stated in the title, the definition of the research locus is clear: the Instituto de Educação Rui Barbosa (IERB), place where, for a long time, the formation of normalists - teachers for primary education - took place.

The second reason, also caused by the event's proposal, was the search for an understanding of mathematical knowledge, and for this, an approximation with investigations and systematizations developed by researchers linked to the *Grupo de Pesquisa de História da Educação Matemática no Brasil* (GHEMAT - Brasil) was fundamental and present in titles like: *Novos aportes teórico -metodológicos sobre saberes profissionais na formação de professores que ensinam Matemática* (Valente; Bertine; Morais, 2017), *O saber profissional do professor que ensina Matemática: o futuro do passado* (Valente, 2018) e *Programas de ensino e manuais escolares como fontes para estudo da constituição da Matemática para ensinar* (Valente, 2019). In these texts, the researchers present an understanding of the professional knowledge of the teachers who teach mathematics based on research carried out by the members of the Research Team on the Social History of Education – ERHISE at the University of Geneva.

It is worth mentioning that researches were identified that have already examined aspects related to the training of teachers in Sergipe based on the Instituto de Educação Rui Barbosa (IERB), like Freitas (1995) and Santos (2015). In the case of the first, it is the dissertation entitled *Vestidas de Azul e Branco: um estudo sobre as representações de ex-normalistas (1920-1950)*, that aimed to:

> [...] analyze the representations of former students of the Instituto de Educação Rui Barbosa - Normal School – about professional training and entry into the teaching career. To carry out this study, summarized life histories of former students who graduated from the institution in the period between the 20s and 50s were collected. Official documents were also analyzed. We sought to apprehend, during the analysis, aspects related to the process of entering the regular course; the duration and structure of the course; to the coexistence in the school space between teachers and students and to the beginning of the

> career of ex-normalists, the report of these experiences about the daily formation of the Normal School and the process of entering the career allowed to know not only the individual trajectories, but also the collective experiences in the school space and the insertion in the job market of the primary teachers of Aracaju, in the period studied (Freitas, 1995, abstract).

Based on what is stated in this summary, it appears that Freitas (1995) examines the professional training of normalists based on their memories. And, from an internal examination, it was only possible to identify a few references to mathematics and, in all cases, related to difficulties in understanding the mathematical contents.

Santos (2015), with the title *Uma investigação acerca dos saberes matemáticos na formação de normalistas em Sergipe (1890 – 1930)*, aimed to "[...] analyze how mathematical knowledge (Arithmetica, Algebra, Geometry and Drawing) was organized for the Normal Course at the Instituto de Educação Rui Barbosa (IERB) in the state of Sergipe, from legislation published from the 1890s to the 30s of the 20th century" (Santos, 2015, p. 13).

In the introduction, Santos (2015) presents an understanding of mathematical knowledge as "[...] those contents of school mathematics present for teaching, in the Normal Course, that were established in Sergipe legislation" (Santos, 2015, p. 13). From this understanding, it appears that the author linked, from the definition of the objective, mathematical knowledge to contents and disciplines/subjects[2]. This understanding is somewhat different from those systematized by GHEMAT researchers, such as Valente (2019), who indicate that it is possible, from sources, such as those used by Santos (2015), to characterize knowledge to teach and knowledge for teaching as parts of a professional knowledge of the teacher who teaches mathematics. Because of this, an exercise was carried out to give visibility and broaden the understanding of mathematical knowledge from sources such as: decrees, regulations, and programs. The text was organized into three topics: a synthesis of knowledge adopted as *lenses*, an examination of sources in search of clues to characterize mathematical knowledge and considerations.

A Definition for the *Lenses*: knowledge to teach and knowledge for teaching as a professional knowledge of the teacher who teaches mathematics

A text that initially allowed a rethinking about the understanding of mathematical knowledge was the one by Valente (2019) named as *Programas de ensino e manuais escolares como fontes para estudos da constituição da matemática para ensinar*. It is possible, based on what is stated in the title, to adopt programs as a source capable of identifying a mathematics for teaching. For that, the author deals with the mathematics present in the formation of teachers of first school years, and considers it as part of a "[...] set of professional knowledge of the teacher"

(Valente, 2019, p. 52). He highlights that in the process of construction of this professional knowledge, historically, a mathematics for teaching was being developed, articulated with a mathematics to be taught, to teach.

It is noteworthy that Valente (2019, p. 52) states that mathematics for teaching "[...] reveals itself as a professional knowledge, a mathematics for the exercise of teaching, a teacher's work tool to teach mathematics taking into account a math to teach". And, in this case, the author presents a path on how it is possible to mobilize sources such as programs and school manuals to answer the question: "[...] how to study the process of constitution of mathematics for teaching?" (Valente, 2019, p. 52). Also according to the aforementioned author, to answer this question it is necessary to consider historical traces, traces, and documents from the past, which are present in the current reality, and interrogate them to constitute historical facts.

Here, it is worth emphasizing, once again, that, for the constitution of these facts, the following sources were taken: decrees and programs referring to the normal course that operated at the Instituto de Educação Rui Barbosa (IERB) in the state of Sergipe, even though some of these sources had already been examined by Santos (2015) based on an understanding that mathematical knowledge was only linked to content.

However, Valente (2019) expands this understanding based on appropriations systematized by Swiss researchers who defend considering two types of knowledge, as shown below.

> A first type is a first type characterized as 'knowledge to teach'. Such knowledge has references in scientific disciplines and concerns the teaching object of teaching. On the other hand, there are 'knowledge for teaching'. In this case, there is a list of knowledge specific to the teaching profession, constituting its working tools in the task that teachers have to educate people. Thus, when considering these systematizations of knowledge, we work with the theoretical hypothesis that understands mathematics to teach as knowledge arising from the mathematical field, bringing together a range of contents that must be learned by those who are in the training process (Valente, 2019, p. 53).

Valente (2019) also defends that both the constitution of a mathematics to teach and the mathematics for teaching are the result of historical processes, related to each period and the purposes attributed to the school, among several other determinants.

> Mathematics for teaching, also a result of the process of historical elaboration, does not constitute general knowledge. It is a specific knowledge, of professional culture, proper to the formation of the future teacher. On the other hand, it is necessary to emphasize that the admission of the existence of mathematics for teaching does not imply its autonomy. As a specific knowledge, a knowledge of the teaching professional, a tool of the profession of being a

> teacher, this tool is articulated with the teaching object, the mathematics to teach, to be taught. It is only up to the teaching profession to possess the knowledge for teaching, a math for teaching. Historically elaborated in conjunction with the mathematics to teach [...] will be this specific knowledge of teachers, one of the elements that characterize the teaching profession (Valente, 2019, p. 54).

It can be seen, from what is stated in the quote, that the teacher who teaches mathematics must have in their formation a mathematics for teaching articulated with the mathematics to teach. And, to make it possible, Valente (2019) draws attention to aspects related to the content and use of school time based on this understanding of a mathematics to be taught.

Also according to Valente (2019), studies that involve official documentation, such as programs, should pay attention to the graduation of education. And the

> [...] graduation is directly linked to the organization of knowledge for teaching and gives rise to the purposes of teaching, the methodologies, the concepts of teaching and learning, the way in which the teacher-student relationship should take place, the use of school time, finally, represents an organized knowledge for teaching, a teacher's tool, a mathematics for teaching (Valente, 2019, p. 57).

The understandings drawn from Valente (2019) are taken as a reference to examine sources in search of a characterization of the mathematical knowledge of the normalists from Sergipe.

Proposed Mathematical Knowledge for Sergipe Normalists: a characterization

In order to answer one of the questions initially presented about the mathematical knowledge present in the formation of normalists in Sergipe in the period between 1890 and 1930, sources[3] such as these were used: decrees, regulations of public instruction, laws, publications from the *Diário Oficial* and programs, referring to the period from 1890 to 1930. To justify this chronological milestone, the same argumentation presented by Santos (2015) was used, the initial milestone of 1890 for the implementation of Decree No. 30, of March 15, 1890, authorized by President Felisbello Firmo de Oliveira Freire, with the regulation for the Normal Course. And the year 1930, at the end, for being a year of proposed changes to normal education.

> As for the program and schedule, its simplification and flexibility will appeal to children's activities and will give greater didactic autonomy to the teacher, making more dynamic, vital, and efficient processes available to them. These processes, in short, are the 'centers of interest' and the 'projects' of the Dewey and Decroly systems, so in vogue in the old and new world and in several states in

> Brazil. These are the characteristics of 'Escola Nova', in which it is possible to adapt to our teaching, for the time being (Sergipe, 1930 apud Santos, 2015, p. 125).

The sources examined in this chronological framework, with the caveat that the attempt pointed out here is, in light of what Valente (2019) put it, seek new faces for mathematical knowledge, beyond the association with mathematical contents.

A first source examined was Decree No. 30, of March 15, 1890, approved by Felisbello Firmo de Oliveira Freire.

> The numerous reforms that such an important branch of the public service has undergone have in practice produced no results in such a way as to compensate for the enormous sacrifices made by the State to maintain the same service. There is a real state of disorganization, which brings great disservice to public education, and therefore, to the popular classes. No state will be able to set out in search of prosperity without first looking after it with the keenest interest in popular education, the main basis for the well-being of nations (Sergipe, 1890, p. 80).

It appears that in the 1890s there was, on the part of managers, a concern with the organization of education in Sergipe lands. Regarding normal education, Decree No. 30/1890 provides guidance for normal public education, stating that "[...] those aspiring to primary teaching have the qualifications essential to their profession" (Sergipe, 1890, p 122). And the first time that information about mathematical knowledge appears is when the legislator presents the general themes that should be addressed in each subject[4], as shown below[5]:

> First subject: National language: grammar, writing, notions of Portuguese and Brazilian literature.
> Second subject: Pedagogy and its history: methodology; logic, preceded by notions of experimental psychology.
> Third subject: General notions of geography and history; geography and history of Brazil, notions of cosmography.
> Fourth subject: Elementary Mathematics; arithmetic; notions from algebra to first degree equations; geometry; practical applications.
> Fifth subject: Physical sciences: notions of physics, chemistry, and physical mechanics; natural sciences: notions of botany, geology (comprising notions of human anatomy and physiology). Geology and hygiene (Sergipe, 1890, p. 122-123).

It appears, from what is stated in this quote, that it is only in the fourth subject that mathematics appears and that, in this case, according to Valente (2019), it is a knowledge to teach since it has references to subjects/disciplines. Furthermore, in the 1890 document there is an indication that the subjects of geometry and trigonometry, and of arithmetic and algebras, should be brought together under the name of elementary mathematics. However, upon examining it, it is possible to identify the following information about it:

> Normal teaching will be essentially practical based on experimentation and manipulation, so that students can consider the subject from all its faces. In any State establishment, public education will be, as much as possible, intuitive, and practical, always moving from the simple to the compound, from the particular to the general, from the concrete [sic] to the abstract, from the definite to the indefinite (Sergipe, 1890, p. 82).

It is observed that, despite not being directly related to the mathematics to be taught or to the knowledge to be taught, these are clues present in the official documents, which provide indications of how, during training, normalists should work with the knowledge to teach. These are indicatives that can constitute knowledge to teach or mathematics to teach.

The examination of official documents immediately allows an identification of the presence of knowledge to teach or of a mathematics to teach, and they can be listed as follows:

- Regulation of 1890 – Elementary Mathematics; Arithmetic; notions from algebra to first degree equations; geometry; practical applications.
- Law No. 366, of 1899 – Arithmetic and Linear Drawing.
- Law No. 398 of 1900 – Arithmetic and Linear Drawing.
- Regulation of 1900 – Arithmetic and Algebra.
- Regulation of 1901 – Arithmetic.
- Regulation of 1907 – Arithmetic.

Decree No. 563, of August 12, 1911, proposed by the then President of the State, José Rodrigues da Costa Doria, a new organization for normal education, as it did not serve the "[...] purposes for which it is intended, and modern pedagogy does not have the development currently given to this matter in its relevant importance in teaching methods" (Sergipe, 1911, p. 13-14). In 1911, the Normal Course began to last for 4 years, and the so-called *Arithmetica e Elementos da Álgebra e Geometria*. Apparently, the guidelines set out in this decree are in line with what Valente (2019) calls attention to in relation to innovative programs, or, in this case, to the regulation that seeks to change the organization of normal education.

> Innovative programs may have in their details the methodological guidelines for teaching indications of how the work should be graduated. All of this is not present in established textbooks and regulations prior to those considered innovative; or being present, the guidelines will be different from those of the innovative proposal. The extreme case is to prohibit the adoption of didactic works considered outdated and not consistent with the new programs (Valente, 2019, p. 56).

From the examination of the other decrees, there is only one indication in relation to the knowledge to teach here understood as a subject, discipline, or subject.

• Decree No. 563, of August 12, 1911 - Arithmetic, Algebra and Drawing.

• Decree No. 571, of October 19, 1912 - Arithmetic and Linear Drawing.

• Decree N. 587, January 9, 1915 - Arithmetic, Linear Drawing and Practical Notions of Plane Geometry.

• Decree N. 630, of April 24, 1916 - Arithmetic, Notions of Algebra, Geometry and Drawing.

• Decree N. 724, of October 20, 1921 - Arithmetic and Drawing.

• Law No. 852, of October 30, 1923 - Arithmetic, Algebra and Geometry.

• Decree N° 867, of March 11, 1924 - Arithmetic, Algebra, Geometry and Drawing.

• Decree N° 30, March 11, 1931 - Arithmetic, Drawing, Plane Geometry and Algebra notions.

It is verified, from the listed information, that these rubrics can be directly associated with a mathematics to teach. Furthermore, Valente (2019), when dealing with sources such as official programs, highlights that they serve to fix content and parameterize school time.

> It is not the teacher's pleasure to linger on a topic, a subject or even just teach certain content that in a particular, individual way the teacher considers important. Since the time of graduate school in the late 19th century, programs indicate when at what time the course and what content should be taught, that is, they sediment a progress that should be given to undergraduate education (Valente, 2019, p. 55).

In other words, the teacher is not free to distribute and address the content in the order and time he/she wishes, that is, control and graduation, the sequence of content was part of the training of the teacher who taught mathematics. And this sequence is not indicated only with the name of Arithmetic, for example, the topics are detailed.

• 1917 Program – 1st year

Fundamental principles, relating to size and its species, to whole numbers; Numbering; Formation of units; Reading and writing numbers; Fundamental operations; Notable properties of addition and subtraction; Multiplication and division; Multiplication abbreviations; The inverse of fundamental operations; Reduction to the unit; Equality and inequality; Positive and negative amounts; Use of parenthesis and bonding; Complement of numbers; Number theory; Prime and multiple numbers; Determination of all prime factors of a number; Discrimination of prime numbers in the natural series of numbers up to any limit; Division by cancellation; Multiple number theorem; Divisibility characters, its applications up to 12; Decomposition of multiple numbers into their prime factors; Determination of all divisors of a number; Proof of

these operations; Search for the greatest common divisor and the least common multiple of two or more numbers; Ordinary fractions; General principles, amendments, reductions and operations; Mixed fractions; Operations on these; General ideas about decimal fractions. Converting an ordinary fraction to decimal and vice versa; Operations; Periodic tithe and its properties; Generative fractions; Metrology; Historical notion of the decimal metric system; Main units; Nomenclature of multiples and sub-multiples; System abbreviations; Operations on metric units; Reduction from old to modern measures and vice versa; Exercises with problems on each of the lessons given.

• 1917 Program – 2nd year

1st year recap; Complex number theory; Conversions, reductions, and operations; Evidence of operations; Ratios and proportions, their properties. Rule of three simple, compound, simple interest, compound interest, proportional division, simple commercial company, compound commercial company, commercial discount, rational discount, exchange, percentages, and commissions; Exercises and problems accompanying the lessons.

• 1917 Program – 3rd year

Number theory; Prime and multiple numbers; Description of prime numbers by the sieve method; Decomposition of multiple numbers into their prime factors; Divisibility theorem; Divisibility Characters; Determination of all divisors of a number; Pairs of dividers; Search for the greatest common divisor and the least common multiple of two or more numbers; Ordinary fractions; Changes, reductions, transformations and operations; Decimal fractions; Changes, reductions, transformations and operations; Conversion of decimal fractions into ordinary and vice versa; Metric system – Definitions, general ideas; Historical summary of the metric system; Ancient and modern measurements; Equivalence of these measures; Reduction coefficients; Operations on metric units; Number theory; Converting a complex number to a fraction of the main unit and vice versa; Reductions, operations and proofs thereof; Ratios and proportions, their properties; Rule of Three Simple and Compound Interest; Commercial Society, Proportional Division Discount, commercial and rational; False Position Rule; Medium term and term; Exchange.

It appears that the way the items are presented follows a sequence of a mathematics to teach. And according to Morais, Bertine and Valente (2021), the sequence has a historical character and changes in each pedagogical period, but in the programs examined in 1919 and in 1921, a concern with the sequence is identified, as the contents listed above started to receive an indication numerical, as shown below.

• Arithmetic subject teaching programs

1st - Fundamental principles relating to size. Whole numbers. Numbering. Unit formation. Reading and writing numbers.

2nd - Fundamental operations. The inverse of these operations. Abbreviations for multiplication.

3rd - Equality and inequality. Positive and negative amounts. Use of parentheses and link. Complement of numbers.

4th - Decomposition of multiple numbers into their prime factors. Determination of all divisors of a number. Pairs of dividers.

[...]

2nd Year

Recap of the 1st year program

15th - Complex numbering. Reduction and operations on complex numbers.

16th - Ratio and proportion.

17th - Rule of three simple.

18th - Rule of three compound.

19th - Simple interest.

20th - Compound interest.

21st - Simple commercial company.

22nd - Composite commercial company.

23rd - Change over England and France.

24th - Change over Portugal and the United States.

25th - Commercial discount.

26th - Rational discount.

It is defended here that the numbering works as an element of the sequence, it indicates a way to guide the teacher. In other words, the topics that should be worked on were already presented in a previous program, but in this last program, in addition to the presence of knowledge to teach or mathematics to teach, and an indication of knowledge for teaching or of mathematics for teaching from of the proposed sequence.

A highlight identified in this 1917 program for the Escola Normal – IERB is the indication of the *Arithmetic* compendium, by Antônio Trajano. This fact may be an indication of what was pointed out by Valente (2019).

> Studies that involve official documentation (teaching programs) [...] are important for characterizing the trajectory of professional knowledge of the teacher who teaches mathematics in the early school years, [...] The greatest emphasis on the professional knowledge of the teacher who teaches mathematics for the first years of school falls on mathematics for teaching. However, it is necessary to take into account that knowing the result of the historical process of elaboration is always in articulation with the mathematics to teach, also the result of historical processes. At broader levels, this means that the relationships established at each time between the disciplinary fields and education must occupy a place in the analysis of the production of professional knowledge in teaching (Valente, 2019, p. 61).

It appears that from the examined documentation, the evidence about the knowledge for teaching is not explicit. Despite not being explicit, it is possible to identify, in the regulations, information that is clear indications of what should constitute mathematics to teach articulated to a mathematics for teaching, as presented below.

> The special methodology for each subject is the responsibility of the teachers of each of the courses corresponding to those of primary and complementary education. § 2º The teacher will avoid processes that overload the student's memory; reasoning must be the basis of all effort. § 3º In the organization of the programs for each subject, a method and gradation similar to that of primary education will be observed; the teacher must always keep in mind that the objective of the normal course is the preparation for primary education (Sergipe, 1916).

Such guidance remains in the 1924 Regulation.

> The organization of the programs aimed, mainly, at the objective method, obeying the following precepts: § 1º The special methodology for each subject is the responsibility of the teachers of each of the courses corresponding to those of primary education. § 2º The teacher will avoid processes that overload the student's memory; reasoning must be the basis of all effort. § 3º In the organization of the programs for each subject, methods and grading similar to those of primary education will be observed; the teacher must always keep in mind that the objective of normal education is the preparation for primary education (Sergipe, 1924).

The orientation in relation to knowledge for teaching only changed after 1931, when an explicit indication of the intuitive method appeared in official documents. "Normal education will be guided by the intuitive method, direct or indirect, and the best processes that illustrate it: first, the object, the experience, the demonstration; then the theory, the definition".

Allied to this, it was possible to identify that for the mathematics to teach taught there is a possibility of identification in relation to graduation, sequence, and methods. Aspect considered by Valente (2019) as important for the formation of professional knowledge as action and sequence.

Final Considerations

What are the mathematical knowledge present in the formation of normalists from Sergipe in the period from 1890 to 1930? Can the identified knowledge be classified as knowledge to teach or as knowledge for teaching? Or, can the identified mathematical knowledge be characterized as professional knowledge of the normalists? From these questions placed at the beginning of the text, it is possible to filter expressions such as mathematical knowledge, knowledge to teach, knowledge for

teaching, knowledge to mathematicians and professional knowledge of the normalists who were used as lenses to examine the sources from a theoretical refinement.

From an examination of sources such as decrees and programs, it was possible to identify mathematical knowledge located in rubrics such as Arithmetic, Algebra and Geometry. But in a process of refinement and in the light of a theoretical understanding that defends the presence of a mathematics to teach and a mathematics for teaching, it was possible to identify in these rubrics a knowledge to teach or even a mathematics to teach expressed either by the major title of the discipline/subject, or by detailing all the topics listed, in the examined programs.

After identifying elements of a mathematics to teach, a certain subtlety was necessary to identify the mathematics for teaching, which is not always explicit. It appears that the knowledge for teaching, or even the mathematics for teaching, is present in guidelines related to, for example: normal teaching should be practical, based on experimentation and manipulation; the teacher should avoid memorization; reasoning should be the basis of all effort, intuitive and practical. Such guidelines, without a doubt, would shape the mathematics for teaching linked to the mathematics to teach.

Finally, it is possible to state that the combination of mathematics to teach and mathematics for teaching identified can be characterized as a professional knowledge of normalists in Sergipe in the period from 1890 to 1930. With the exception that the knowledge to teach, understood as a mathematics to teach, appears explicitly, and that the knowledge for teaching/mathematics for teaching was identified implicitly, but without any doubt, they characterize a professional knowledge of Sergipe normalists.

Translated by Sabrina Mendonça Ferreira

Received on March 15, 2021
Approved on May 19, 2021

Notes

1 Event held from October 19th to 30th, 2020, in remote format and organized by colleagues from Universidade Federal do Rio Grande do Sul.

2 It is worth clarifying that, in order to avoid anachronisms, the nomenclature indicated in the sources is used in this text in relation to the use of the expressions chair, subject and discipline.

3 Here it is noteworthy that the sources used are available in the Universidade Federal de Santa Catarina Digital Content Repository on the email address https://repositorio.ufsc.br/handle/123456789/98962.

4 It is worth clarifying, once again, that to avoid anachronisms, the nomenclature given in the source in relation to subject, subject and discipline is used in this text.

5 In this text, we chose to keep the spelling used in each source examined.

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