

Opinions of Documenta Magazine: Mathematics teacher training courses in Brazil (1962 to 1979) in focus

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ABSTRACT

This article presents an analysis of requests for authorization, conversion and/or recognition of courses that trained mathematics teachers in Brazil, between 1962 and 1979. These requests were made by federal or private public institutions and published in Documenta Magazine. This Magazine was published monthly, between 1962 and 2006, by the Federal Council of Education (CFE). This analysis is an excerpt from the research by Gomes (2019), which is part of the wide-ranging project “Mapping the training and performance of mathematics teachers in Brazil”, from Oral History and Mathematical Education Group, Ghoem. In order to analyze these opinions Gomes (2019) mobilized the reference of Depth Hermeneutics, proposed by John. B. Thompson. So, we bring to the academic debate, declared intentions to train teachers, justifications of the counselors, insertions of geographic regions in the mapping and courses in their intention to be, even though many of them have not been created, this being our main contribution to the History of Education Mathematics.

KEY-WORD: History of Mathematics Education. Depth Hermeneutics. Federal Council of Education.

Pareceres da Revista Documenta: cursos de formação de professores de Matemática no Brasil (1962 a 1979) em foco

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RESUMO

Neste artigo, apresenta-se uma análise de pedidos de autorização, conversão ou reconhecimento de cursos que formavam professores de Matemática no Brasil, entre 1962 e 1979. Esses pedidos foram feitos por instituições públicas federais ou privadas e publicados na Revista Documenta. Esta Revista foi publicada mensalmente, entre 1962 e 2006, pelo Conselho Federal de Educação (CFE). A análise aqui em tela é um recorte da pesquisa de Gomes (2019), a qual integra o projeto de ampla envergadura Mapeamento da formação e atuação de professores de Matemática no Brasil, do Grupo História Oral e Educação Matemática (Ghoem). Para analisar esses pareceres Gomes (2019) mobilizou o referencial da Hermenêutica de Profundidade, proposto por Jonh. B. Thompson. Assim, trazemos para o debate acadêmico, intenções declaradas de formar professores, justificativas dos conselheiros, inserções de regiões geográficas no mapeamento e de cursos em sua intenção de ser, ainda que muitos deles não tenham sido criados. Esta é, julgamos, nossa principal contribuição para a História da Educação Matemática.

PALAVRAS-CHAVE: História da Educação Matemática. Hermenêutica de Profundidade. Conselho Federal de Educação.

Dictámenes de la Revista Documenta: cursos de formación de profesores de Matemáticas en Brasil (1962 a 1979) en foco

RESUMEN

Este artículo presenta un análisis de las solicitudes de autorización, conversión o reconocimiento de cursos que formaron a maestros de matemáticas en Brasil, entre 1962 y 1979, de instituciones públicas federales o privadas, publicados en la Revista Documenta. Esta Revista fue publicada mensualmente, entre 1962 y 2006, por el Consejo Federal de Educación. Este análisis es un extracto del estudio de Gomes (2019), que forma parte del amplio proyecto Mapeo de la formación y actuación de profesores de matemáticas en Brasil, del Grupo História Oral y Educação Matemática (Ghoem). Para analizar esos dictámenes, Gomes (2019) movilizó la referencia de la Hermenêutica de Profundidad, propuesta por Jonh. B. Thompson. Traemos al debate académico, intenciones declaradas para capacitar docentes, justificaciones de los consejeros, inserciones de regiones geográficas en el mapeo y cursos en su intención de ser, a pesar

de que muchos de ellos no se han creado, siendo esta nuestra principal contribución a la Historia de la Educación Matemáticas.

PALABRAS CLAVE: Historia de la Educación Matemática. Hermenéutica de Profundidad. Consejo Federal de Educación.

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Um acontecimento vivido é finito, ou pelo menos encerrado na esfera do vivido, ao passo que o acontecimento lembrado é sem limites, porque é apenas uma chave para tudo que veio antes e depois.
Walter Benjamin

Introduction

This article presents an analysis of requests for authorization, conversion and/or recognition of courses from federal public or private institutions that trained mathematics teachers in Brazil.

These requests were published in Documenta Magazine between 1962 and 1979. This analysis is an excerpt from Gomes' master's research (2019), financed by the Coordination for the Improvement of Higher Education Personnel (Coordenação de Aperfeiçoamento de Pessoal de Nível Superior, Capes).

The research was carried out with the Graduate Program in Education for Science, from the School of Sciences, São Paulo State University (Unesp) campus of Bauru. Such a research is part of the wide-ranging project “Mapping the training and performance of mathematics teachers in Brazil”, from the Oral History and Mathematical Education Group (Ghoem).

Knowing the Federal Education Council, Documenta Magazine and its opinions

The Federal Council of Education (Conselho Federal de Educação, CFE) was instituted, bounded to the Ministry of Education and Culture (Ministério da Educação e Cultura, MEC), by the Law of Directives and Bases of National Education (Lei de Diretrizes e Bases da Educação Nacional, LDB) number 4,024 of 1961. Among several purposes, this Council was the body responsible for evaluation of requests for authorization, conversion and/or recognition of courses, made by federal or private public institutions. The CFE was composed of a Plenary and several Chambers and, among its attributions, we highlight to those related to the functioning of Higher Education Institutions and the functioning of courses.

The counselors who made up the Higher Education Chamber issued opinions on the processes related to Higher Education. Among these processes, we highlight the creation, recognition and/or adaptation of courses and institutions; approval of the curriculum of professors appointed to compose the faculty members of the institutions. When the requests arrived at the CFE, they were sent to the Higher Education Chamber, where a rapporteur was appointed to study them and issue an opinion, favorable or not.

Both the proposals that were evaluated and the results of the CFE evaluations were published in a specific channel: Documenta Magazine. This Magazine was produced and distributed from 1962, the same year that the CFE was installed. It contained the decision-making of CFE members on two different fronts. One contemplated the counselors' considerations on issues related to Brazilian education and the other, texts that referred to official matters of CFE.

Gomes (2014, 2016) carried out a survey on requests for authorization, conversion and/or recognition of courses that trained mathematics teachers. The author consulted and mapped more than 200

editions of Documenta Magazine, published from 1962 to 1979, and pointed out that in the 1970s there was an exponential growth in the number of these requests, compared to the previous decade. From this survey, the author obtained a set of approximately 1,000 opinions, and it is from them that elements emerged for the hermeneutic exercise.

There were approximately 520 courses involved in this analysis, with approximately 370 requests receiving a favorable opinion on the creation, conversion or recognition. It was noticed that the institutions located in the Southeast and South regions were that most requested the creation or recognition of courses of this nature and the North region that least requested it. It is highlighted that in this Magazine, only requests from federal public institutions or private institutions were published.

Depth Hermeneutics: understandings about our symbolic form

As proposed by the referential of Depth Hermeneutics, Gomes (2019) carried out different moments of analysis of the set of studied opinions, being these symbolic forms (intentional human creation). There are three analytical moments, according to this referential, which turn to different dimensions of the symbolic form. In formal analysis, the focus is in the “internal” contents of the symbolic form, describing them in detail. The socio-historical analysis aims to identify and describe elements of space and time in which the symbolic form was produced and circulated. The moment of interpretation/reinterpretation, mediated by the other two analyzes, consists of synthesis, with possible meanings for the symbolic form.

In the text related to this moment of interpretation/reinterpretation, Gomes (2019) constituted a story, in a continuous flow, about what Documenta Magazines tell us about the creation, or not, of courses that

trained mathematics teachers in Brazil, in private institutions or federal public, around 1960s and 1970s³.

In order to write a history and constitute these courses' creation movements, the structure and the content of the opinions published in Documenta Magazine were observed and, at the same time, the socio-historical context of the proximity of the 1960s and 1970s was problematized. When studying the requests, Gomes (2019) realized that he was moving between symbolic forms. The requests of higher education institutions, the courses that trained Mathematics teachers and Documenta Magazine, as symbolic forms, were considered, because there is an intentional aspect in them, since there is the intention to say it through the opinions of the CFE counselors and the requests of the institutions.

For the intention to say of the counselors was received by their interlocutors, the distribution of copies of the magazine followed specific rules, that is, a conventional aspect. The magazine should be sold to the interested people, by the National School Material Foundation, through a distribution system, throughout the national territory.

The value of the copy varied between the value of NCr \$ 3.50 (three new cruzeiros and fifty cents) and NCr \$ 5.00 (five cruzeiros), in the period covered here. These prices could be readjusted each year, according to the annual price taken for printing. The distribution could not exceed the number of 700 (seven hundred) copies and any other copies intended for purposes of public interest were subject to authorization by the President of the Federal Council of Education.

There is an intertwining between the structural and referential aspects. This is because the Documenta Magazine is structured in such a way that the considerations of the counselors on issues related to Brazilian education and texts that refer to official matters of the CFE can be conveyed. During the production and distribution of Documenta Magazine,

³ In Gomes (2019), the reader is referred to other texts, we call Notes, where the other two analytical exercises proposed by the Depth Hermeneutics referential and which were produced simultaneously, in a feedback movement, are presented.

there were other elements that permeated the context, such as the Law of Guidelines and Bases, the Military Dictatorship and its Institutional Acts, the protest movements etc.

After all, what do the Documenta Magazines tell us and their opinions about the formation of mathematics teachers in Brazil (1962 - 1979)?

The period set here, 1960s and 1970s, is justified by the fact that 1962 was the year of publication of Documenta Magazine. Also, because of the promulgation of the 1st Law of Guidelines and Bases of National Education (LDB), in 1961, there was a disconnection between the bachelor of mathematics and teachers preparation⁴. In addition, previous research (GOMES, 2014; GOMES, 2016; MARTINS-SALANDIM, 2012; LUIZ, 2017) pointed out that in the 1970s there was an increase in these requests. This growth occurred because higher education institutions had to adapt to CFE⁵ Resolutions 30/74 and 37/75, which specifically dealt with teacher training courses.

But the specific changes related to teacher training were inserted in a broader socio-historical context and it is an analysis of this analysis that we will present below.

In the 1960s, we highlighted the national political scenario, given that three different presidents assumed the presidency of the Republic throughout 1961: Jânio Quadros (from January to August, when he resigned his position), Paschoal Ranieri Mazzilli president of the Chamber of Deputies (from August to September, interim President, since the Vice President João Goulart was out of the country), João Goulart (from September 1961 to March 1964).

This exchange of presidents of the Republic was not smooth. While Mazzilli was acting as interim President of Brazil, more conservative opposition groups, composed of the dominant elites and sectors of the

⁴ "In Brazil such courses are called "Licenciaturas". The "Licenciaturas courses" have as its main goal to prepare teachers for teaching specific subjects (as Math, Sciences, Geography, History etc.) in secondary schools". In this text, we will call these "licenciaturas" as teachers preparation.

⁵ These Resolutions of the Federal Council of Education will be addressed elsewhere in this article.

Army, Navy and Air Force, did not accept that João Goulart took over. For these groups, he had a leftist political position. At the same time, a resistance movement by the social and political sectors that supported Goulart, led by Leonel Brizola, governor of Rio Grande do Sul, divided the Armed Forces and prevented a military coup.

João Goulart returned to Brazil, took office on September 7 as president of the Republic and signed, still in 1961, the first Law of Guidelines and Bases of National Education (LDB/61). It was this 1st LDB that established the separation between teachers preparation and bachelor's degree, with the well-known 3 + 1 model: a Didactics course, or equivalent, after the bachelor's degree was concluded. In this model, the focus was on specific disciplines in the first three years. Martins-Salandim (2012) highlights that this model was legally established at the end of the 1930s and that even after the 1st LDB, many teachers preparation continued to offer pedagogical training in the final part of the course. This practice of juxtaposing of these training was naturalized and rooted in the courses, whose privilege in the number of hours and in the sequence of discipline was specific training. Before this legislation, there were already teachers working with Mathematics and, even after, and still today, their trainings do not always occur in specific undergraduate courses.

On the night of March 31, 1964, the military coup was launched and, on April 1, Ranieri Mazzili, accompanied by a military junta, took the interim presidency for 15 days. After that, Marshal Humberto Castelo Branco took over until 1967. During this period, the National Information Service, four Institutional Acts (Atos Institucionais, AI), were created, in addition to the extinction of opposition political parties and the promulgation of a new Federal Constitution. In the 21 years of the Military Dictatorship, many other soldiers (admirals, generals, marshals, brigadiers) were in power and the dictatorship intensified repression actions, especially with organizations that opposed the coup and the dictatorship.

At the time when the 1964 coup took place, many intellectuals considered it only as a moment of reorganization of the country and believed that the country would soon return to normality. According to Rothen (2004),

[...] The failure to identify, at that moment, that it was a coup or possible unconditional adhesion, or even, the attitude of doing what was possible, allowed the CFE not to be extinguished during the military dictatorship and increased its assignments. (ROTHEN, 2004, p. 46).

In 1965, short (or partial) teachers preparation in Sciences, Degree in Languages and Social Studies appeared to train multipurpose teachers to work only in junior high⁶. The creation of these short teachers preparation, with a minimum duration of two and a half years, aimed at preparing, in the short term, teachers to meet the expansion of high school⁷, notably in its first cycle, the gym (MARTINS-SALANDIM, 2012).

The intention, among others, was to honor the courses of the Philosophy Faculties, thus minimizing the action of the courses and exams of sufficiency that were widely accepted throughout the country. Among them, the performance of Cades (Campaign for Improvement and Dissemination of Secondary Education)⁸ stands out, which offered preparation courses for these exams. In addition, the (full) long-term teachers preparation was maintained to train the high school, junior high or high school teacher.

During this period, we highlight the difficulties that institutions had to obtain authorization to create Teachers Preparation in Mathematics. Most of the requests submitted to the CFE, were made by private higher education institutions. The low demand and the difficulties to install these courses in regions more distant from capitals and training centers of the country are

⁶ In Brazil, until 1975, the gymnasium corresponded to the final four years of current elementary school.

⁷ In Brazil, until 1967, high school was divided into three courses and comprised the scientific course, the normal course and the classic course. Then, it came to be called a "collegiate" course, with the first three years being the same for everyone and, later, whoever wanted to take the old normal course and the old classic course had to do another year.

⁸ About Cades, see publications by Ivete Maria Baraldi, among them, Baraldi (2003) and Baraldi and Gaertber (2010).

highlighted. There were also difficulties in finding mathematics teachers already trained who could work in these courses (GOMES, 2014).

If, with the promulgation of the 1st LDB, in 1962, teacher training in Brazil gained independence in relation to the bachelor's degree, to which was always linked, it did not guarantee an identity to this training. Directly affected by the need to qualify teachers for high school (junior and high school) in a shorter period and meet the demands, teacher training was in the background.

1968 begins and, with it, the most repressive period of the military dictatorship. At the beginning of his mandate, Marshal Artur da Costa e Silva approved Institutional Act number 5 (Atos Institucionais, AI-5), which authorized the closing of the National Congress, the cancellation of political mandates and censorship. This year was marked by the intense activity of the student movement, by movements of resistance to the military regime and by the repression and torture of people against the dictatorship.

In that same year, the law number 5,540/1968, of the University Reform, was drafted and approved, but not without contrary manifestations by the country. Inspired by the North American university model, this Reform established the basic and professional cycles, postgraduate studies (master's and doctorate) and the adoption of the credit system with enrollment by subject. It also established norms for the organization and functioning of higher education and its articulation with the middle school, extinguished the chair, introduced the regime of full time and exclusive dedication to teachers. In addition, it consolidated the departmental structure, created the system of credits by subjects and instituted semiannual periodicity. Private entities were recognized as entities assisted by the government and the budget allocated to them was definitively supplied.

In 1969, Costa e Silva was removed from the government, on the grounds that he suffered a stroke. A military junta, made up of Army Ministers Aurélio

Lyra Tavares, Navy Augusto Rademaker and Aeronautics Márcio de Souza Mello, assumed the power from August 31 to October 30 of 1969.

With the beginning of the 1970s, the oppressions of the military government continued and new legislations were published. With the discourse that education for the formation of human capital was aimed at, relating education and the labor market, the law number 5,692/71 was created. This law established the guidelines and bases for the teaching of 1st and 2nd degrees. It established the extension of the obligatoriness of elementary school, the professionalization of secondary education for all, the continuity of the educational system - from primary⁹ to higher education and the cooperation of companies in education.

On the other hand, the established educational system aimed at adapting to the dependent economic model. This was due to the imposition by the North American economic policy, through the MEC / Usaid¹⁰ agreements, which provided for the collaboration of technicians from the United States in these restructurings. As ways of developing education from a market perspective were planned, a process of privatization of education began, based on the molds of the business system. In this model, efficiency and productivity overlapped pedagogical values, that is, teaching should be adapted to the technocratic entrepreneurial mindset.

It was possible to notice an increase in the number of requests for creation and/or recognition of courses that trained teachers in the 1970s. Unlike the previous decade, all states in the Midwest region and also the Federal District, presented requests, involving institutions public and private. The state of Mato Grosso presented most of them, of which more than half had a favorable opinion. Another region that stood out was the Northeast, in which only one of the nine states did not submit an

⁹ In Brazil, until 1971, primary education historically constituted the first stage of school education. In 1971, primary education was merged with the four years of junior high school, giving rise to 1st degree, lasting eight years. Following the law of Education Guidelines and Bases Act of 1996, the teaching of 1st degree was replaced by elementary education.

¹⁰ From 1964, during the Brazilian military regime a series of agreements made between the Ministry of Education (MEC) and the United States Agency for International Development (Usaid) became known as the MEC / Usaid agreement.

application, and four of them had all applications accepted. In the South region, all states made requests and, although Santa Catarina was the state that requested the least, it was the one with the highest number of approved applications. Four of the seven states in the North region submitted applications for the creation of a teaching preparation in Mathematics or Science, with Acre presenting most of them, of which half received a favorable opinion. The Southeast region has had a large volume of requests and favorable opinions since the beginning of the decade, since all states made requests.

In 1974 was established the Bachelor of Science short term, in order to train teachers to the activities, areas of studies and disciplines of teaching 1st and 2nd degrees related to the scientific sector. The course of Sciences could be structured as teachers preparation of 1st degree, short term, providing enabling general qualification in science. But, it could also be structured as (full) teachers preparation, which besides the general qualification, enabled specific qualifications in mathematics, physics, chemistry and biology. In addition, the course of science could cover both the modalities.

In the year 1975, by Resolution number 37/75 of the CFE, it was determined the progressive implantation, in a mandatory way, from the academic year of 1978, of the teachers preparation in Sciences with general qualification in Sciences. This teachers preparation trained them to teach the respective area of study in the 1st degree and enabled qualifications in Mathematics, Physics, Chemistry and Biology to work in the 2nd degree. The teachers preparation in Sciences (polyvalent), Mathematics, Physics, Chemistry and Biological Sciences, should become, within the established deadline, the single Science course disciplined by Resolution number 30/74.

Due to Resolutions number 30/74 and number 37/75, requests for conversion of courses in Mathematics (full teachers preparation) and Science (teachers preparation of 1st degree), in Science course (teachers

preparation of 1st degree and full teachers preparation, with qualification in Mathematics), appear since 1975 in the copies of Documenta. From Gomes (2016), it can be seen that many higher education institutions that already had the mathematics course asked for this conversion of their courses, in two cases. One of them when there was a polyvalent teachers preparation in Sciences, but there was no full teachers preparation in the scientific area. The other case was when there was one or more full teachers preparation in the scientific field, but there was no teachers preparation in Sciences.

Conclusion

At the end of this history we stopped, reflected and realized that, going against the American university models, LDB of 1961 did not cause significant structural changes, keeping the chair system and the creation of universities by the junction of isolated schools. The Federal Council of Education, from the LDB of 1961, led the reform of higher education that culminated with the University Reform in 1968, being that “(...) one of the changes contemplated by the University Reform that directly interfered in the training of teachers for secondary education was the extinction and dismemberment of the FFCL ”(MARTINS-SALANDIM, 2012, p. 325)¹¹. The students, who were unhappy with university politics, suffered intense repression. In 1968, with the Institutional Act number 5 (AI-5), they became even more intense.

Researches by Ghoem have been problematizing how was the dynamic of courses that existed and that met to different demands and public policies for training of teachers in Brazil and also revealing how late the arrival of undergraduate courses of this nature in different regions of the country was.

¹¹ In the quote by Martins-Salandim (2012) the acronym FFCL refers to the Faculties of Philosophy, Sciences and Degree in Languages (Faculdade de Filosofia, Ciências e Letras).

On the other hand, Gomes (2019) pointed to the attempts that federal and private public institutions made to create courses of this nature. Thus, our contribution to the History of Mathematical Education is also to bring to the debate the courses in their intention to be a course, even if they have not been approved. These paths, the declared intentions, the justifications of the counselors, the insertion of geographic regions on the map, which, although they do not have created courses of this nature, participate of these creation movements of these courses.

And it is in this flow, in this scenario of national political and economic power relations, that specific undergraduate courses to train mathematics teachers from private or public federal higher education institutions were designed, requested, adequate, created, encouraged, and denied. They are movements, plots, ideas, proposals, formats, without that, however, the teachers preparation take on an identity.

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