

A History of Teacher Education in Paraná: The *Volante University*

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RESUMO

Este artigo apresenta os cursos de formação de professores ofertados pelo projeto da Universidade Federal do Paraná, *Universidade Volante*, na década de 1960. A história é contada a partir de fontes documentais e de fontes orais criadas para essa investigação sobre uma parte da História da Educação no Paraná. Foram consultados os anuários da Universidade Federal do Paraná, promotora da *Universidade Volante*, que forneceram dados quantitativos. As fontes orais contribuíram com aspectos qualitativos e foram criadas a partir de entrevistas com duas educadoras que participaram do projeto, uma como formadora e outra como aluna. As entrevistas foram realizadas seguindo procedimentos teórico-metodológicos da História Oral, que são apresentados no artigo. A investigação revelou como se mobilizavam os professores do interior do Paraná, na década de 1960, em busca de formação profissional em um cenário que revela uma faceta da história da formação de professores e da educação matemática no Brasil.

PALAVRAS-CHAVE: História da Educação. Formação de Professores. História Oral. História da Educação Matemática no Paraná.

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ABSTRACT

This article presents the teacher education courses offered by the project of the Federal University of Paraná, *Volante University*, in the 1960s. The story is told from documentary sources and from oral sources created for this research on a part of the History of Education in Paraná. The yearbooks of the Federal University of Parana, promoter of the *Volante University*, were consulted, which provided quantitative data. The oral sources contributed qualitative aspects and were created from interviews with two educators who participated in the project, one as a trainer and the other as a student. The interviews were conducted following theoretical and methodological procedures of Oral History, which are presented in the article. The investigation revealed how teachers from the interior of Paraná, in the 1960s, were mobilized in search of professional training in a scenario that reveals a facet of the history of teacher education and mathematics education in Brazil.

KEY WORDS: History of Mathematics Education. Teacher Education. Oral History. History of Mathematics Education in Paraná.

*Una Historia de Formación de Profesores en Paraná: La
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RESUMEN

Este artículo presenta los cursos de formación de profesores ofrecidos por el proyecto de la Universidad Federal de Paraná, Universidade Volante, en la década de 1960. La historia es contada a partir de fuentes documentales y de fuentes orales creadas para esta investigación sobre una parte de la Historia de la Educación en Paraná. Fueron consultados los anuarios de la Universidad Federal de Paraná, promotora de la Universidade Volante, que proveyó datos cuantitativos. Las fuentes orales contribuyeron con aspectos cualitativos y fueron creadas a partir de entrevistas con dos profesoras que participaron del proyecto, una como formadora y otra como alumna. Las entrevistas fueron realizadas siguiendo los procedimientos teórico-metodológicos de la Historia Oral, que son

presentados en el artículo. La investigación reveló cómo se movilizaban los profesores del interior de Paraná, en la década de 1960, en la búsqueda de formación profesional en un escenario que revela una faceta de la historia de la formación de profesores y de la educación matemática en Brasil.

PALABRAS CLAVE: Historia de la Educación Matemática. Formación de Profesores. Historia Oral. Paraná.

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Introduction

Volante University was a project of the Federal University of Paraná (UFPR), with the collaboration of the state government of Paraná and municipalities in the 1960s. This project carried out actions in polo cities of the state, ranging from teacher education courses⁴ to lectures and concerts by the University's symphony orchestra.

Among the courses offered by the *Volante University* were those designed to train teachers who sought to socialize the issues discussed in the classes of the Faculty of Philosophy Sciences and Letters of the UFPR. It is recognized by Pinto (2013) that the *Volante University* was a bold project that foresaw to remedy the lack of teachers for high school in the state, because most of the teachers in the High School⁵ and College⁶ were professionals from other areas of knowledge and/or unlicensed.

In this article, we will present some understandings about such courses, using an analysis of documents and narratives of two educators, Henrieta Diminsky Arruda and Neuza Bertoni Pinto, who acted,

⁴ Although we do not agree with the term training to refer to teacher education processes, we will maintain the nomenclature used in the documents of the time.

⁵ High School/ College: term given by Capanema Renovation to the first four-year cycle, when it instituted a High School in 1942. According to Brazil (1942) the High School would be the secondary school destined to teach the first cycle course. Available at: <<https://www2.camara.leg.br/legin/fed/declei/1940-1949/decreto-lei-4244-9-abril-1942-414155-publicacaooriginal-1-pe.html>>.

⁶ College: term given to one of the secondary schools, instituted by the Capanema Renovation. According to the Decree-Law n° 4,244 that provides for the Capanema Renovation, the "College" would be the secondary school destined to give, besides the gymnasium's own course, the two second cycle courses (BRAZIL, 1942). Available at: <<https://www2.camara.leg.br/legin/fed/declei/1940-1949/decreto-lei-4244-9-abril-1942-414155-publicacaooriginal-1-pe.html>>.

respectively, as formator and student in the project. The narratives were constituted from interviews conducted according to the theoretical-methodological assumptions of Oral History and are part of a collection of oral sources for research on the history of mathematics education in Brazil.

In addition, we will bring an overview of teacher education in the state of Paraná in the sixties, context for the creation of the *Volante University*. We will also present the methodology of Oral History - as used to obtain the narratives of the educators interviewed - and, finally, we will address some understandings about the *Volante University* and its role in the history of mathematics education in Brazil.

The education of mathematics teachers in Brazil and the *Volante University*

It is possible to affirm that the formation of professors in Brazilian universities began in the 1930's with the Statute of Brazilian Universities, when undergraduate courses were allocated to the Faculties of Philosophy, Sciences and Letters (FFCL), which had as one of their objectives to offer teacher education courses for Secondary Education (MARTINS-SALANDIM, 2012).

The lack of trained teachers became even more serious in 1942, when the Organic Law of Secondary Education (Capanema Reform⁷) was promulgated, which caused a significant increase⁸ of students in secondary education. As an alternative, to boost the education of teachers who would work in Secondary Education in Brazil, the authorities of the time promoted the Campaign for Improvement and Dissemination of Secondary Education (CADES). Among other actions, CADES made the Sufficiency Exams possible. With them, the Ministry of Education (MEC) organized

⁷ Capanema Reform instituted a Secondary Education with two cycles, a first cycle of four years (High School) and the second cycle of three years, in the classic and scientific modalities (BRAZIL, 1942). Available at: <<https://www2.camara.leg.br/legin/fed/declei/1940-1949/decreto-lei-4244-9-abril-1942-414155-publicacaooriginal-1-pe.html>>.

⁸ MOREIRA (2018) reports this growth in numbers.

preparatory courses, as well as tests, which provided approved candidates with the professional registration that authorized them to teach in cities where there was no Faculty of Philosophy and/or licensed teachers.

In Paraná, in particular, the confrontation with the lack of teachers had been happening since 1938, with the foundation of the Faculty of Philosophy, Sciences and Letters of Paraná (FFCL-PR). Specifically, for mathematics teachers, from 1940 the Mathematics Course of this institution was authorized. But the number of teachers trained was not enough, so that, still in the 1960's, there are records of CADES's performance in teacher education in Paraná, with courses in the cities of Curitiba and Londrina (COSTA, 2013).

In the 1960s, the Paraná government decided to create public policies for updating and improving courses for teachers in order to adapt the educational system to its project of economic development in the state. The Educational Weeks were launched to implement these actions. In this same decade there were also other implementations: courses were offered for Industrial Education; the Brazilian and American Program for Elementary Education (PABAE⁹) and improvement courses prepared by the Center for Educational Studies and Research (CEPE¹⁰). In the area of mathematics, in addition to the formations mentioned, there was, according to Lima (2006), the performance of the Group for the Teaching of Mathematics Studies (GEEM¹¹) in the education of teachers who taught this subject. This contribution happened through the Nucleus of Studies and Dissemination of Mathematics Teaching (NEDEM), according to the work prepared by Seara

⁹ Brazilian and American Elementary Education Program (PABAE): This program was the result of an agreement between Brazil and the United States Operation Mission to Brazil, and its main objective was to improve primary education. This agreement began in 1956 and ended in 1961, but was renewed and extended until mid-1964. The headquarters of its organization was located at the Institute of Education of Minas Gerais, in Belo Horizonte, and the agency responsible for promoting it was the National Institute of Pedagogical Studies (INEP). To learn more about PABAE, Moreira (2018) is recommended.

¹⁰ Center for Educational Studies and Research (CEPE): CEPE had a great part of its action focused on Primary Education and in relation to Secondary Education there are records of courses related to the subject of Mathematics, with the theme of Modern Mathematics, with Osvaldo Sangiorgi as speaker. To learn more about CEPE, we recommend (COSTA, 2013).

¹¹ Group for the Study of Mathematics Teaching (GEEM): GEEM had its headquarters located in the city of São Paulo and among its actions, we highlight the courses that aim at the teacher's mathematics education, presenting concepts related to the Modern Mathematics Movement (MMM). To learn more about GEEM, we recommend Silva (2006).

(2005). The existence of courses on Modern Mathematics Teaching in the State of Paraná was also registered by Costa (2013).

NEDEM emerged in the early 1960s as a group of teachers interested in studying the teaching of mathematics. The Nucleus was headquartered in the State College of Paraná, and was coordinated by Professor Osny Antonio Dacol. An important action of this group was the production of collections of textbooks destined to the teaching of mathematics, as well as training courses for teachers. These courses, which took place between 1967 and 1968, were sponsored by the Paraná Educational Foundation (FUNDEPAR). The training conducted by NEDEM was justified by the adoption of the textbook collections by public schools, making it necessary for teachers to use them.

Despite the panorama presented, the lack of teachers in the interior of Paraná continued to be a problem that lasted until the late 1960s. The courses promoted by entities such as NEDEM, GEEM and CADES¹² were offered predominantly in the capital and in polo cities, which made it difficult for teachers from more distant municipalities to participate. In this sense, the *Volante University* played an important role in the formation of teachers in the countryside, mainly because it covered a large part of the state of Paraná. A trace of the *Volante University's* performance as a teacher education institution can be seen from the data in Figure 1, indicating the number of participants by theme, and their respective attendance, in the first edition held in the city of Ponta Grossa. It can be seen that the theme that obtained the highest number of registrations and attendance was Didactics and Pedagogy, revealing the interest in teacher education.

¹²Campaign for Improvement and Dissemination of Secondary Education (CADES): CADES, among its actions, promoted the Sufficiency Exams through which the Ministry of Education (MEC) organized preparatory courses and a test that offered the approved candidate the professional registration that authorized him to teach in cities where there was no faculty of Philosophy. To learn more about CADES, Baraldi and Gaertner (2013) are recommended.

FIGURE 1: Data related to the first promotion of *Volante University*

II — Resumo por Tema:				
Temas	Inscrições	Freqüências	Faltas	% de freqüência
Medicina	232	191	41	83,6
Administração	623	485	138	77,8
Urbanismo e Saneamento .	93	68	25	73,1
Agricultura e Veterinária .	1.102	781	321	70,9
Didática e Pedagogia	1.577	1.204	373	76,3
T O T A L	3.627	2.729	898	78,3

Source: Paraná University, 1960-1961, p.125.

The *Volante University* had eight editions in the following cities and years: Ponta Grossa (1961); Londrina (1962); Maringá and Jacarezinho (1963); Paranaguá (1964); Cascavel (1968); Paranavaí (1969) and Campo Mourão (1970), in addition to a special edition that took place in 1969, at the Bicentennial celebrations in the city of Lapa. These courses reached a significant number of municipalities and a total of 85,845 registered in all editions. They were divided into Free Registration Courses, open to any kind of public; Elective Courses and Professional Courses, aimed at a specific public. Registration could be made in the municipalities; in addition, participants who had attended at least two thirds of the classes were granted certificates of participation (VIEIRA, 2014).

On average, the courses promoted by *Volante University* lasted from four to five days and generally met the requests of the municipalities selected for each edition. The University selected the corresponding areas and forwarded the requests to its Coordinators so that they could make available the teachers who would participate in that promotion. The

communities prepared to receive the courses, usually in improvised classrooms, using parish halls and gymnasiums.

Such referrals were in line with what the Federal University of Paraná, in its yearbook of 1960-1961, highlighted as the objectives of the *Volante University*, considered a pioneering activity of internalization of the University:

- Democratization of the University - which takes place when it opens its doors to the people.
- Cultural and technical development of the populations of the interior of the State - by means of highly practical courses of updating and orientation, within reach of all the layers of the people, which meet the regional claims and demands.
- Motivation for cultural development - directing the culture to all the parts where it is necessary. (UNIVERSITY OF PARANÁ, 1960-1961, p.120).

Due to lack of financial resources, the last promotion of *Volante University* took place in 1970. *Volante University* was treated as a pioneer project of the UFPR's university extension that, years later, would serve as a model for other extensionist practices at the national level, such as the Rondon Project (VIEIRA, 2014).

Despite the importance of the *Volante University* in the State of Paraná, the documentary data available are mainly quantitative. To help in the perception of how it worked and was received by the participants, we opted for the elaboration of oral sources, through interviews with two female professors who were involved in the *Volante University* actions. In the next section, we will present the methodological reference used in the interviews and creation of these sources.

Methodological procedures for the creation of oral sources.

According to Portelli (2010) Oral History is a specific form of discourse, in which the term history invokes a narrative of the past and the term oral indicates a means of expression. By recalling and producing

narratives the subjects tell what they have lived, impregnated by the way they still relate to their past and the meanings they attribute to it in the present time (RIOS, 2012).

The creation of oral sources in this investigation happened through the methodological parameters of Oral History practiced by GH OEM¹³, in the Thematic Oral History field. When working with Thematic Oral History, the researcher focuses on a set of themes defined by the objectives of the research and life experiences of the collaborator. For this type of research, the selection of the interviewees is fundamental. In a meeting, scheduled for other purposes, we found that Professor Neuza Bertoni Pinto had been a student in some of the courses promoted by *Volante University*, at a time when she was also the director of a school in the city of Palotina-PR. She told that her participation in the *Volante University* courses was very important for her trajectory, because she had the desire to "do more" for the place where she was working.

The second educator interviewed was Professor Henrieta D. Arruda. From the contact with Masseli's dissertation (2017), in which there is an interview with professor Henrieta, we were aware that she had taught mathematics courses at *Volante University*. Very willing to talk and collaborate with the research, Professor Henrieta revealed her passion for teaching, stating that "she was definitely born to be a teacher".

Each interview was conducted using keywords, made available to the collaborators in the form of cards, chosen in order to consider the performance¹⁴ of each educator at *Volante University*. The interviews went through the process of transcription, textualization and approval

¹³ For a better understanding of Oral History practiced by the Oral History and Mathematics Education Group, Garnica (2007) is recommended.

¹⁴ The keywords were chosen according to the role that each teacher played at *Volante University*. In this way, words were thought about the planning of the courses offered, in the case of Professor Henrieta, who was a teacher, to mention: textbook; and, in the case of Professor Neuza, student of the courses in question, words that were related to the participation in the courses offered, to mention: course colleagues.

by the collaborators. At the end of the process, the terms of informed consent (TCLE) and the letters of assignment were signed.

In addition to the oral sources produced, we conducted a documentary research in the yearbooks of the Federal University of Paraná. This search for the yearbooks took place after Vieira (2014) mentioned them, developed within the Post-Graduate Education Program of the UFPR, and allowed us to obtain the abstracts of each edition of the University Volante.

The testimonies, the oral sources.

Historian Jenkins (2013), in presenting his version of what history is, mentions that it is a discourse on the past, demystifying the thought that history and the past have the same meaning. In addition, he emphasizes that

The past has already happened. It has already passed and historians can only bring it back mediated by very different vehicles, such as books, articles, documentaries etc., and not as present events. The past is past, and history is what historians do with it when they get to work. History is the craft of historians [...]. (p.25).

In other words, the object of history is the past, and the past is everything that happened everywhere. What can this tell us about *Volante University*? It is a past belonging to the 1960s, in the state of Paraná. It was an initiative of the university that promoted courses, some of them destined to the formation of teachers. The research about *Volante University* has constructed a historical version about its own past. This perception is in line with Jenkins' ideas (2013), by burying the idea of some historians who intend to invoke the real, objective and true past. Jenkins (2013) states that such claims were not and never will be realized, since

[...] no historian can encompass and thus recover the totality of past events, because the "content" of these events is practically unlimited. It is not possible to report more than a fraction of what has already happened, and an historian's account does not correspond exactly to the past: the mere volume of the latter makes total history impossible. Most of the information about the past has never been recorded, and most of what has remained is fleeting. (p.31).

The version of the history of the *Volante University* that we present is, therefore, a speech about this past, one of the many possible ones. On the interpretation of this past, Jenkins (2013) states that the past we "know" is always conditioned by our own visions and,

[...] thanks to the possibility of seeing things in retrospect, we, in a way, know more about the past than the people who lived there. By translating the past into modern terms and using knowledge that may not have been available before, the historian discovers not only that it has been forgotten about the past, but also "reconstituting" things that were never constituted as such [...]. (p.34).

History is never enough, it is always meant for someone, it is produced by being influenced by power relations. According to Jenkins (2013, p.34) "[...] history is basically a discourse in dispute, a battlefield where people, classes and groups autobiographically elaborate their interpretations of the past to please themselves.

Regarding Oral History, Alberti (2013) states that, depending on the direction of the work to be done, it can be defined as a method of investigation, a source of research or a technique of production and treatment of recorded testimonies. She also mentions that if she were to risk a definition for Oral History, she could say that it is a research method that favors conducting interviews with people who have participated/witnessed events as a way of approaching the object of study (ALBERTI, 2013). Regarding the interviews, Alberti affirms that Oral History allows recovering what is not found in documents of another nature, such as

unclear or never evoked events, personal experiences and particular impressions. She believes that,

[...] the main characteristic of the Oral History document is not the unpublished nature of some information, nor the filling of gaps from which the archives of written or iconographic documents, for example, are resented. Its peculiarity - and of Oral History as a whole - derives from a whole posture regarding history and socio-cultural configurations, which privileges the recovery of what was lived as conceived by those who lived [...]. (ALBERTI, 2013, p.30-31).

On the other hand, the study of the written documents, notably the Yearbooks, showed that they did not include the perspective of the teacher trainers and students participating in the teacher education courses of the *Volante University*. Thus, the production of oral sources, coming from the interviews with the two educators, allowed us to contemplate other perspectives, more personal and qualitative, of the *Volante University* movement, allowing a reflection on their contributions to the teaching formation in the state of Paraná in those years.

It is important to emphasize that not every interview is adapted to the production of oral sources, being necessary some special care. The researcher Alessandro Portelli can provoke some reflections that lead to deepen the ideas about this moment full of tensions. Portelli (2010) says that the moment of the interview (the between/the view) is an exchange of glances, and that

[...] the interview situation institutes a dialogical bipolarity, two subjects face to face, mediated by the strategic use of the microphone. Around this object the two look at each other. The idea that there is an "observed" and an "observer" is a positivist illusion: all the time, while the researcher looks at the narrator, the narrator looks at him in order to understand who he is and what he wants, and to model his own discourse on these perceptions. (p.20).

In other words, the discourse is shaped by the relationship between the researcher and his collaborator. This statement by Portelli (2010) also shows the importance of maintaining a relationship of cordiality and mutual trust during the interview, because the way the researcher conducts this process determines the form of the report. Furthermore, on this subject, Portelli (2010) addresses that

Empathy and trust between the interviewee and the interviewer are often spoken of, but what really makes Oral History meaningful is the effort to establish a dialogue between and beyond differences. [...] To speak of the border that exists between us (collaborator and researcher), there must be an effort to speak beyond the border. With a single gesture, this limit is demarcated and crossed, which transforms the interview into a utopian space - an experience of equality in which two subjects, separated by cultural and social hierarchies, have escaped their inequalities and annulled them, making them the territory of their exchanges. (p.213, authors' emphasis).

For Portelli (2010) Oral History is an opportunity for hidden narrators¹⁵ to use a public speech, since such narrators rarely have the opportunity to speak. This statement was particularly important for our research, since although Professor Henrieta had been a teacher in some of the courses promoted by *Volante University*, her name did not appear in any record of such courses in the UFPR yearbooks. With Oral History, Professor Henrieta had the opportunity to narrate her participation, even though she was not registered in the documentary sources that we had access to for this research.

About the research collaborators, Portelli (2010) states that people are not books and, obviously, cannot be studied as such. This imposes the need to point out that there are researchers who regret that the collaborators, in interviews thus produced, have not been leafed through in order to obtain as much information on the subject. This is not only impossible (since each collaborator has his or her own time and way of

¹⁵ To learn more about the term hidden narrators, Portelli (2010) is indicated.

narrating his or her stories), but it is also undesirable, since the investigation process here finds no parallel with a police investigation, for example, or with a statement in which something must be said. In this investigation process, when the possibility of granting the interview is combined, the objectives are presented and the collaborator is invited to say what he or she wishes on the subject, and his or her silences must be taken into account as indicative of questions that deserve further investigation.

Bruner (2014) states that there is something beyond the subtleties of the narrative structure preventing us from moving from intuition to the explicit understanding of the problem of understanding what a narrative is. For the author, stories are not innocent and they carry a message, often so well camouflaged that not even the narrator knows what it is about. We almost never ask ourselves what form is given to reality when we dress it with a story, and common sense holds that the story's form is a transparent window to reality, not a form that imposes a mould on it. And this is because it doesn't matter that we all know that the universe of good stories is inhabited by good protagonists or that the real world is not "really" that way; we also cling to narrative models of reality and use them to shape our daily experiences. Narrative, including fictional, shapes things in the real world and often offers credentials to access reality.

About the ability to narrate a story, Bruner (2014) states that a story, like every act of speaking, is an enunciation, and also has a specific purpose, that is, what did the narrator want in doing that narration to that viewer? This leads us to reflect on the oral sources produced in this work and to think that the act of narrating about these words cannot be, and never will be, a molded act, since, as Bruner (2014) states, the narrator, when narrating himself, narrates with a specific objective for that particular person, and chooses how and what he will narrate. As she talks about one of the key words of this research ("journeys"), Professor Neuza's narrative contemplates the difficulties of the journey, of the

roads, as she realizes that such information would be useful to our reflections on the importance of the *Volante University*.

According to Bruner (2014),

Through the narrative we build, rebuild, and somehow reinvent yesterday and tomorrow. Memory and imagination amalgamate in this process. [...] No matter how much the human mind has exercised its memory and refined its recording systems, it can never capture the past in a complete and faithful way. On the other hand, it can never escape the past. Memory and imagination are suppliers and consumers of each other. (p.103).

These statements from Bruner (2014) corroborate what we tried to capture in the interviews conducted for this survey. In other words, we are aware that the educators, when reporting their memories about the *Volante University*, are showing the way they see, at the time of the interview, the courses, as well as what marked them and made memories.

Reflections

In this section, we will present some understandings about the *Volante University*, anchored in the interviews with professors Neuza and Henrieta, who participated in the teacher education courses, the first as a student and the second as a teacher of these courses, as mentioned above.

The first highlight refers to the way teachers Neuza and Henrieta learned about the *Volante University* courses and mobilized to attend them. In this sense, professor Neuza mentioned that she worked at the "St. Augustine's State Gymnasium" and, due to her husband's transfer to another city, she had been invited to take the direction of this institution.

[...] in 1961 I had to assume the direction of the school, perhaps because I was the only teacher graduated from the Normal Secondary School and also because I was

already acting as Secretary and Mathematics teacher, a subject that I liked very much, but I taught with the knowledge that I brought from the Normal School. [...] And I got involved and received the notice that I would have this *Volante University*. And the distance from where I was, Pallottine to Cascavel I think it was more than 100km, but it seemed more distant because it was all dirt road, it had clay. [...] and for me it was an event! [...] I enrolled in every course I could and stayed there all week. So here I already talked about how important it was for me and how to get in. (Neuza Bertoni Pinto Neuza in MOREIRA, 2018, p.55).

It is noticeable that the courses promoted by the *Volante University*, for Professor Neuza, had an important role in relation to the possibilities of continued training, at that time, in the state of Paraná. As she mentions, it was in her interest to continue her studies; however, in those years, this type of teacher education was rare due to the infrastructure conditions that the state provided.

As for the participation of Professor Henrieta, as professor of the courses at the *Volante University*, the path was a little different. In the 1960s, when the *Volante University* courses began, Henrieta was also involved with NEDEM and it was from this group that she was invited to participate in these courses.

Well, this is the material we used for *Volante University*, it is the mathematics theory of NEDEM that we took to Londrina, and through the interior of Paraná. "Fundamental Concept for the Modern Teaching of Mathematics in the First Series". Professor Clélia and I were going and then we organized all the handouts for *Volante University*, to spread the work of NEDEM in the pedagogy courses in the interior of Paraná. (Henrieta D. Arruda in MOREIRA, 2018, p.69).

In her narrative, Professor Henrieta mentions using the Fifth Year¹⁶ book produced by NEDEM to prepare the classes of the *Volante University* courses in which she participated. However, it was noticed in the summary by edition of each *Volante University* that Professor Osny Antonio Dacol,

¹⁶ To learn more about NEDEM's book collection, we recommend Seara (2005) and Masseli (2017).

NEDEM's coordinator in those years, also acted as professor of some of the University's courses, which leads us to ponder that perhaps the Mathematics courses, presented by NEDEM's collaborating professors, were based on the material produced by this group and not only on the course presented by Professor Henrieta.

Another point regarding NEDEM's proximity to *Volante University* is related to the similarities between its functions. While the *Volante University* took courses in the regions where it passed, in the 1960's, in order to disseminate the discussions that were taking place at the FFCL-UFPR, as well as to provide services and other courses and lectures, NEDEM, at this same time, disseminated the Modern Mathematics Movement in the state of Paraná, offering instructional courses for the use of its books. This note was made due to the fact that, in the interview given by Professor Henrieta, many of the times she approached some topic at *Volante University*, she referred to NEDEM, making it necessary for us to intervene to question how a certain fact had occurred at *Volante University*. This led us to reflect that perhaps, for many of the people involved in both initiatives, *Volante University* and the NEDEM Courses were the same thing, or that confusion between them could commonly occur due to their similarities, as they both formed teachers and the issues disseminated and/or dealt with were the same.

Another important point is related to the difficulty of locomotion, at the time when *Volante University* was, for many teachers from inland municipalities, the only teacher education opportunity.

This question of travel as I said was a huge difficulty, in relation to the means of transportation, there was a bus, but we used very private drives, because at the time they were rare among families. So it was very difficult to move from one city to another, because of the precariousness of the roads. (Neuza Bertoni Pinto, in MOREIRA, 2018, p.57).

Well, *Volante University* is what I told you, 62.72.82.92.2002, 2012, 54 years old. What a shame! It's

because there was no university in the interior, nowadays there is. The professors didn't have the opportunity to have this content, so at the time it served for something... Imagine Londrina 50 years ago, Maringá and all those other cities we went to... It was really a good idea, I don't remember if it was the education office that did it, or sponsored by the office... Those courses we gave were about the beginning of Mathematics, the nomenclature, the correct terminology, that right sequence of you working on Mathematics, even the way to hold a pencil because children, most children to this day and teacher too, don't know how to hold a pencil the right way [...] So you had to start from there, from BEABA of the thing you know? To be able to trace the numerals, everything in the correct way. "- What is the correct tracing of the numerals?" Most people did it anyway. I saw real nonsense! (Henrieta D. Arruda in MOREIRA, 2018, p.71).

It can be seen that these factors influenced the search for formations, since they were not commonly offered and territorial access was difficult. In the western region of the state of Paraná, the lands were still being colonized¹⁷, the structuring of this part of the state was beginning, and this also influences the educational structure of this region of the state. In addition, it is also possible to notice, in the speech of teacher Henrieta, the lack of education for teachers in the interior of the state of Paraná. These statements help us to understand how important the *Volante University's* performance in the interior of the state was in offering teacher education courses, because they were courses that "went" to the population.

Another point that we would like to highlight refers to the fact of the association of the emergence of the *Universidade Volante* to the influence and/or model for the creation of State Universities in the state of Paraná. This question was raised during the realization of this research and, however, in the studies realized after this questioning, no registers of such influence were found, although it is mentioned in the speech of professor

¹⁷ Although we do not agree with the term colonized, we chose to use it since it is the term used by our collaborators in their interviews.

Neuza that she believed that the Universidade Volante had "planted the seed" for the opening of universities in the region¹⁸.

Besides the aspects raised, there is still a point that we would like to detach and leave open: the fact that the offer of "Vaccination Techniques" courses and courses related to Hygiene are also destined to professors, during some editions of *Volante University*.

There was a teacher, Paulo de Tarso Monserrat, who gave a beautiful lecture on the issue of hygiene, because they had a conception, at school and it seems that he was changing a little, the role of the teacher to maintain the health of children. It was a vision that I liked a lot [...]. (Neuza Bertoni Pinto, in MOREIRA, 2018, p. 58).

It is interesting to observe the change of laws in history, because currently, teachers cannot and should not act as health professionals, just as the hygiene of the student also does not concern the work of the educator.

Final Considerations

This article aimed to present the teacher education courses offered by *Volante University*, in the state of Paraná, in the 1960s, mobilizing oral sources created from two interviews with educators from the state of Paraná. We highlight the importance of *Volante University* in the internalization of teacher education, already present in the capital, at a time of political difficulties and structural precariousness of the state highways. In addition, oral sources indicated an interrelationship between what was happening in the capital, in terms of mathematics teacher education, NEDEM's Modern Mathematics and the teacher education promoted by *Volante University*.

While some gaps were filled, others were opened from the established oral sources. We highlight the possible relationship between *Volante*

¹⁸ Due to lack of time, these discussions will not be addressed throughout this text.

University and the first universities in the interior of Paraná and the training on hygiene and health for all teachers.

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