



## Life Story Readings of Mathematics Teachers at Pibid

### Leituras de Histórias de Vida de Professores de Matemática no Pibid

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#### ABSTRACT

This paper deals with orientation activities, outlined by the parameters of the Oral History methodology, in “Institutional Program for Teaching Initiation Scholarships” (Pibid), in the course of Mathematics Degree, at *Universidade Tecnológica Federal do Paraná* (UTFPR), during the academic years 2016 and 2017. With the main objective of understanding how the teacher of mathematics, supervisor of the students in the school, becomes the teacher of mathematics that is, were carried out readings and elaborated some activities, as the production of autobiographical writings reporting on their histories of life, scripts, realization, transcription and textualization of interviews with supervisor teachers. In this text, we intend to present important moments in this process, including the readings that the undergraduates elaborated of the narratives produced from the life histories of the supervisor teachers.

**KEYWORDS:** Teacher Training, Narratives, Undergraduate Course of Mathematics, Oral History.

#### RESUMO

Este texto trata sobre atividades de orientação no Programa Institucional de Bolsas de Iniciação à Docência (Pibid), no curso de Licenciatura em Matemática, do câmpus de Cornélio Procópio da Universidade Tecnológica Federal do Paraná (UTFPR), durante os anos letivos de 2016 e 2017 e que foram delimitadas pelos parâmetros da metodologia História Oral. Com o objetivo principal de olhar para como o professor de matemática, supervisor dos alunos na escola de Educação Básica, se torna o professor de matemática que é, foram disparadas algumas leituras e a elaboração de algumas atividades, como a produção de escritas autobiográficas relatando sobre suas histórias de vida, roteiros, realização, transcrição e textualização de entrevistas com os professores supervisores. Neste texto, pretendemos apresentar momentos importantes nesse processo, incluindo as leituras que os licenciandos elaboraram das narrativas produzidas a partir das histórias de vida dos professores supervisores.

**PALAVRAS-CHAVE:** Formação de Professores, Narrativas, Licenciatura em Matemática, História Oral.

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## Introduction

Attempts to develop practices inspired by the Oral History methodology in the Mathematics Degree course at the *Universidade Tecnológica Federal do Paraná*, Cornélio Procopio Campus, were undertaken during the 2016 and 2017 school years.

About the desire to approach Oral History with future math teachers, how we theoretically understand and exercise Oral History, about the proposed activities, in curriculum subjects or in projects linked to this course, about the reflections and notes regarding the insertion of this methodology in these formal spaces of initial teacher education, we deal more carefully with Andrade and Sachs (2018a). It is important, however, to note that, inspired by Tizzo, Flugge and Silva (2015), we consider “that these activities were not configured for us as experiments; they were carefully thought-out teaching and research strategies for each of these disciplinary and teaching initiation contexts” (ANDRADE; SACHS, 2018a, p. 215).

Andrade and Sachs (2018b) and Sachs and Andrade (forthcoming) discuss more specifically the activities that were thought and mobilized, with Oral History, within the Institutional Program for Teaching Initiation Scholarships - Pibid. The main purpose of the proposal was to look at the student supervising teacher at the Primary School, where they performed part of the project's expected weekly workload, and sought to understand how this math teacher becomes this math teacher. Rolkowski (2006) was our inspiration for the elaboration and development of these activities in this training space. In his research, the author set out to investigate the life history of mathematics teachers, looking at how the life course makes the teacher become a mathematics teacher the way he is. And then our concern fell on the math teacher, Pibid's supervisor: how does he turn out to be the math teacher he is?

However, before specifically addressing this objective - let's say overall - of our proposal, we chose to develop some exercises with the scholarship students. For this, readings and writing and narrative analysis exercises were performed with them (two pairs of students)<sup>3</sup>, under our guidance. In Sachs and Andrade (forthcoming) we try to look at the autobiographical writings produced by the undergraduates, in which they reported on their life

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<sup>3</sup> In this course, Pibid was structured as follows: project coordinators invited some course teachers to mentor pairs of fellows. Thus, although we are not project coordinators, we contribute to it through the guidance of some fellows. Still, we chose to carry out these orientations together, constituting a small group, with two mentoring teachers and four fellows (who were not the same during the project, due to dismissals and new ties).

stories, launching a reflection on the path that led each of them to - and made - the Bachelor degree course. in math.

The life story of four scholarship holders, followed by a brief analysis of the (mis) paths in mathematics teacher education, can be found in Moreira et al. (2017). In addition to this exercise, the fellows also prepared interview scripts, conducted interviews with supervising teachers<sup>4</sup>, transcribed the audios and textualized the transcripts. This whole process was outlined by the parameters of Oral History, as we were able to understand and exercise. Writing the life histories of the fellows was supposed to be just an exercise, but it took other proportions to the point of throwing us into discussion and reflection, in Andrade and Sachs (2018b) and in Sachs and Andrade (forthcoming), about how these Autobiographical writings can prepare and, in this case, permeated the interviews with the supervising teachers carried out later, allowing a reflection on the mobilization of Oral History within Pibid.

This is the ground on which this new text is sustained. In this, we intend to look at the exercise of analysis of the textualizations elaborated from the interviews with two supervising teachers of Pibid, mathematics teachers of Basic Education who collaborated with our endeavor to take Oral History into the Degree course, without initially knowing or waiting, but having been surprised on the way by the important developments and contributions of this initiative. These analyzes are readings of narratives and were performed by four fellows, and of these, one of them (due to the completion of another fellowship course) was linked to the project after the moment their life stories had already been produced. Thus, we will bring to the scene, in this work, four life histories of undergraduates and the analysis of the life story narratives of two supervising teachers performed by three scholars. We justified this choice because, a priori, we observed traces of the previous exercise in the analysis triggered by the undergraduates.

### **About the narratives**

As we looked at this work in Pibid, dealing with narratives was necessary so that we could think and effect readings and constitution of narratives. In Andrade and Sachs (2018a,

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<sup>4</sup> Washington and Agnaldo, true names and authorized by the teachers for use in our academic work dealing with their activities under Pibid.

p. 213), we clarify that “by mobilizing Oral History, in these spaces, in the Degree course, we understand that we take it in two ways, as a methodology for constituting narratives and also as an approach to teaching”. Above all, in Pibid, Oral History was mobilized as a methodology to constitute narratives. In addition to studying narratives, the fellows fired them by writing about their life stories - autobiographical writings - and by textualizing interviews with supervising teachers. They also took care of interpreting narratives when they began to analyze, even in a simple movement and beginning of an analysis, the narratives of life stories translated into textualizations.

Our work on narratives at Pibid was parameterized by Garnica (2012), in which we found the support we were looking for in our initiatives with this work in the initial math teacher training course, an attempt to listen to each other, to narrate, to communicate. and to interpret undergraduate and graduate life histories: “Listening to each other - a fundamental principle for those who work with narratives - implies trying to understand experiences and create strategies for action, for example, for future teachers. Hence the importance of taking the narrative work to undergraduate courses” (GARNICA, 2012, p. 340). It is also in this author that we support our understanding of narrative as one:

[...] experience structured as an account, as a “telling”, as a way of constructing meanings (a sense for oneself - the one who narrates, narrates while narrating something - and a sense for the which is narrated) from actions nailed in time, using the description about something, someone or about himself (biography) (GARNICA, 2012, p. 340).

Also, Tizzo, Flugge and Silva (2015, p. 890) help us in this understanding by stating that “the narrative can be understood as a reconstruction of experiences”. What we understand as experience in carrying out these activities, discussions and reflections with Pibid scholarship students is based on Larossa's (2002; 2014) understanding.

[...] “the experience is what happens to us, what happens to us, what touches us. Not what happens, not what happens, or what touches” ([LAROSSA, 2002] p. 21), is what touches us and, when it touches us, it transforms us in some way. Still, as Larrosa (2014) observes, we do not have here a pretense of authority with our experience, nor approach it to practice, considering ourselves as active - but rather passionate - subjects or the experiment, the empirical, what can be produced scientifically or technically (ANDRADE; SACHS, 2018a, p. 214).

Finally, we agree with Tizzo (2019), that the power of narrative work in teacher education processes, such as the one we describe here, in the Pibid context, “is linked to a narrative policy, which comprises an ethical dimension, because respects the worldview of

those involved; also, aesthetic because it proposes a style of writing, ways of elaborating the narrative; and politics because it concerns personal empowerment.” At the same time, we deal with the ethical, aesthetic and political dimensions of our activities. In the following sections, this will be made clearer by presenting parts of the undergraduate productions.

### **The life stories**

*From everything to my love, I will be careful. Love that brings in the significance of the mulberry surname. I was born, or rather, made a bonfire in June in the city of Assisi. My name Ana, small and full of grace. Second daughter of parents that come from Paraná. Who educated and cared for me. Before, and with such zeal, and always, and so much. My childhood and part of my youth lived in places or colonies in the region of Assisi such as Mussi, Guaritá, Santa Terezinha and Industrial. These last two were in a Plant, which had a little school. That even in the face of the greatest charm, she could spend her days pulling doll hair, but no: she would embarrass and follow Professor Luzia who went up the colony with the children and me, who was not even old. [...] (MOREIRA; SACHS, 2016, p. 1, emphasis added by the authors).*

Autobiographical narratives of life stories, as well as oral history research, are “interested in broad experiential perspectives on a set of life experiences reported by particular social actors” (GARNICA, 2011, p. 7). The social actors in this case are the students of the Mathematics Degree course who tell how they become the undergraduates they are.

Without following rules or models, the orientation we gave to the students was to narrate the paths, the choices, the deviations, the renunciations, the resistances that designed their life trajectory until they were in the Mathematics Degree course, among others, as Pibid fellows.

Each one of them was written in its own way, without interference from the mentors, without rules, because we understood [that] the way of doing, chosen by each one, could also reveal a little of their life story, the proper style that each one chooses to satisfy their conditions, to show themselves on a life course towards a Bachelor degree course, without even theoretically paying attention to it (SACHS; ANDRADE, forthcoming).

In addition to reading Rolkouski (2006), we dialogued with Rolkouski (2008) and Teixeira et al. (2012), which, we realized, served as inspiration to compose the narratives elaborated by the students. Narratives who told life stories as diary records, with details, confidences, and feelings that could imagine the pages scrawled with that trajectory; story flooded by poetry interspersed with the Sonnet of Fidelity, by the poet Vinícius de Moraes;

maternal life story that unveils dreams and arrives in teaching; A story that changes the course of a life for love and arrives in another great love, mathematics, leaving behind the vacancy already won in engineering. “These narratives all talk about experiences, bring experiences, share experiences, reconstruct experiences” (SACHS; ANDRADE, forthcoming). What these stories tell brought us closer to these students, stories unknown to teachers, classmates, and Pibid. These stories matter and we corroborate Paula and Auarek (2012) when they affirm that it is in the life stories, in these trajectories, that includes teaching, therefore, there is no teaching trajectory, there is a life trajectory.

Among the reasons that projected their stay in the course were the teacher with her experiences in Basic Education, Philosophy, Mathematical Logic, the look of satisfaction of the past teacher, Pibid, the semester completed, the difficulties already overcome, the cancer healed ... Stories that signal the (dis) paths that lead four young people to become graduates in Mathematics, specifically from the *Universidade Tecnológica Federal do Paraná*, Cornélio Procópio Campus.

Performing these autobiographical writings, a process of knowing the other settled in the group. This exercise made students more sensitive and better prepared to interview supervising teachers, which followed the activities. The proposal of the autobiographical writings was then an attempt to prepare for the interview with Pibid's supervising professor, but it was much more than preparation, it made a great contribution. It enabled the student to have “*a more affectionate look at the teacher's attitudes*” and, as she said, “*it was unexpected to deal with the feeling flowing in the interviewee's gaze*”.

In this work, autobiographical writing can be considered an experience for the group of undergraduates and mentors - an experience because we understand that it was something that touched us, that happened to us and changed us.

### **The analysis exercises: narrative readings**

“How did these math teachers, Pibid supervisors, become the math teachers they are?” Was the question that led to the writing of the script for the teacher interviews and thus allowed them to narrate their respective trajectories. It was composed of questions of a personal nature, basic education and academic formation, besides questions that allowed the teacher to talk about the ways that led him to be a mathematics teacher, about being a teacher

and the classroom and about the Pibid project. Having drawn up the script, they sent each of the teachers an invitation letter describing the intentions of the assignment and scheduled the interviews.

The script was previously sent to the teachers so that they could familiarize themselves with the theme that would be addressed in the conversation. However, to conduct the interviews, the fellows chose, once again inspired by Rolkouski (2006), to turn the questions that made up the script into theme cards, that is, they made rectangular cards in cardboard paper and in each one of them, they spelled out keywords that referred, each on a sheet, to script questions. This suggestion was adopted thinking of the best fluency and conduct of the dialogue at the time of the interview and, instead of proceeding with a sequence of questions with more frequent stops, the fellows were presenting, one by one, the tokens to the collaborator, sitting at a table in front of him, while he was answering what his memory allowed when he read the word on the file. For example, in order for the contributor to tell about his experiences and expectations with the Pibid Project, the form had the inscription “Pibid” and he could talk about what that word was most relevant to him at that moment. This procedural choice was explained to the teachers before starting their interviews and they agreed to make it this way.

This process of invitation and conduction of interviews took place with three supervising teachers of Pibid, however, we continued our activities considering only the interviews with two of them. The third teacher involved in this movement was uncomfortable since the beginning of our work and with the possible sequence of activities with the audio of the interview provided by him, we chose to discontinue. In possession of the audios of the other two interviews, the fellows were instructed to proceed with the transcription and the textualization of the material<sup>5</sup>. These textualizations were read and authorized by the

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<sup>5</sup> We understand transcription and textualization according to Vianna (2014): “transcription is the name we give to the transformation of the sound record into 'faithful' text” (p. 75), it is a lengthy procedure, a careful and exhaustive exercise. transforming audio into text; and the textualization “transforms the 'spoken language' interview into a 'written language' text, a text that will have the structure, format and degree of conceptual and technical elaboration that can be given by the author” (VIANNA, 2014, p. 76), that is, it is about taking care of the transcribed text so that it has more reading fluency, without losing the characteristics or modifying of the collaborator's speech. The moment of textualization allows, for example, to modify the order (or grouping) in which some subjects were approached during the interview. It is important, however, that this text does not misrepresent the collaborator's speech and that he can, after this procedure, continue to recognize his speech now in the form of written text. It is usually the textualization that is returned to the collaborator to verify if he wants to add, maintain or remove excerpts from his speech, before authorizing it for the researcher's use. Upon approval of this text, the collaborator usually proceeds with the signing of the letter of assignment of rights, whose care and file are the responsibility of the researcher (SACHS; ANDRADE, forthcoming).

contributors after the scholarship holders made the changes suggested by them after reading the initial text, as well as the use of this material for research purposes and consequent scientific publications, was authorized by the teachers with the signature of the assignment letters, which we keep on file.

The result of the textualizations can be considered as narratives produced collaboratively by the undergraduates and supervisors, who told about the life stories of the latter. Rather than looking at these narratives, we proposed that students try to read them and elaborate interpretations (analyzes) of these stories - this activity we call reading of the life stories of supervising teachers from the perspective of the Pibid fellows who followed them weekly. schools.

The two textualizations obtained from interviews with Pibid supervising teachers were discussed and analyzed by the students, together with us, in orientation meetings. At one of these orientation meetings, at the end of the first half of 2017, a conversation took place with the four fellows of the time and they reported the difficulty in transcribing emotions. One scholar says: *“When I was transcribing it, I kept remembering everything, everything, of people sitting like this, of him in that emotion, just ... But when you read, you said: ‘people! It’s nothing to do with what I felt there, right, what he passed on to us, that emotion’”*. And her way out of this is to somehow insert poetry in the discussion after textualization as a form of transcreation <sup>6</sup>. And that was precisely the same strategy that she used in her autobiographical narrative, with reference to the Fidelity Sonnet.

In this movement of looking, reading and interpreting narratives, students studied in parallel some texts of the book “Living and telling: experiences and practices of math teachers”, by Teixeira et al. (2012), which presents eleven ways (texts) of listening to the thirteen narratives of math teachers that are exposed in parts in the first section of the book. Each text elaborates an interpretation from the life stories of two or more narratives. Then, each Pibid fellows chose a text to study and, when choosing the text, had their eyes turned to the narratives that were addressed in that specific text. In this way, they could perceive at least one way of interpreting life story narratives of math teachers. All the chosen texts, as well as the narratives that were treated in these texts, were socialized in the group.

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<sup>6</sup> Process in which it is possible to incorporate extra text elements in the collaborators' narratives.



*Reading 1:* One of the scholars' reading of the narratives used some inventiveness. She proposed an analysis she called "*the math teacher set.*" To do so, it mirrored the mathematical concept of sets, specifically, Venn diagrams, and looked at the life histories of these two teachers highlighting their uniqueness and their convergence. Sets W and A refer, respectively, to the life histories of teachers Washington and Agnaldo. This attempt at analysis she called "*Whose Diagram.*"<sup>7</sup>

*"Who has never had dreams? Being an astronaut, a singer, a soccer player, the Barbie doll, so many dreams, just like everyone else, our actors also had other dreams before becoming teachers (W<sup>8</sup> even did an aeronautics course, but only did). As Agnaldo was a very hard-working boy, he did not set limits on his dreams when deciding which college to go to. I wanted to be a lawyer, to study law, but the closest college that offered the course was UEL<sup>9</sup> and for financial reasons was not possible. With W it was no different, like many people, he dreamed of doing medicine, wanted to be a doctor, and since the time he attended basic education there were already promises to bring the course to the city [of] Cornelius [Procopius], which did hopes were renewed and he did one until a pre-college course in Londrina. But nothing to happen. The financial issues in these young people's lives were never the best and did not allow them to do what they wanted at first, but they did not give up on graduating. A's sister had spoken about the Mathematics course she was taking at the time, where she had a great interest in teaching, W already had a vocation for exact, so that's where it all began. The undergraduate degree in Science at FAFICOP - Cornélio Procópio Faculty of Philosophy, Sciences and Letters, was their choice. At the time the Science course also had other qualifications (in Physics, Chemistry and Biology), A chose to focus only on Mathematics and then to specialize in Mathematics, W already did a degree in Physics and then Short Mathematics, which qualified him to be a math teacher. After entering the competition at school and a while already teaching, they had a great opportunity for professional growth, A had the opportunity to work as a Mathematics technician, taking care of the Mathematics discipline of more than 19 municipalities, being chief assistant of the Education Center. While W worked as coordinator of the discipline of Physics [...].*

[...]

*The core experience lasted eight years for both teachers, but the desire to return to the classroom was already speaking louder, but it was no longer the same, a school that was so traditional was already losing its ways and receiving more and more. more a different audience and full of challenges. And our actors didn't miss that. They currently teach at Monteiro Lobato High School, where W teaches math and physics at another institution, and A belongs only to math. And today, with almost twenty-*

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<sup>7</sup> This material, produced by the fellow, has not yet been published elsewhere. It is intended that the complete analysis be submitted and presented as communication in a scientific event.

<sup>8</sup> In some places, the fellow uses the initials of the teachers' names to refer to them.

<sup>9</sup> Universidade Estadual de Londrina.

one years of career, they still foster the importance of keeping up to date to share their knowledge as best as possible. After a long career, the teachers are supervising the PIBID project, and are delighted to have the pleasure of having trainees in the classroom with them, sharing their knowledge and experiences.

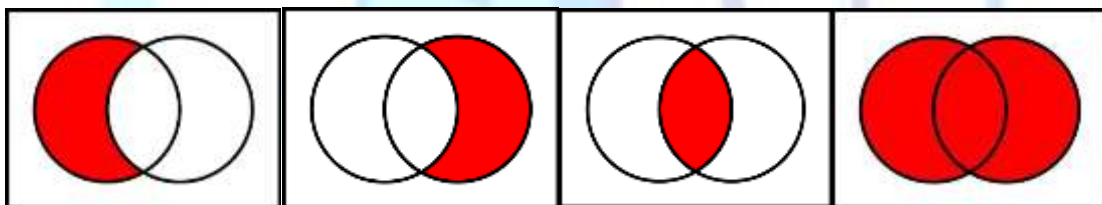
[...]

Washington believes the project helps grantees go through a “restudy,” as sometimes some content turns out to be difficult to remember and the exchange of experiences in the classroom strengthens both teachers and students who often bring different materials to teach and helps the classroom teacher. With so much in common, what most intersects these sets are the elements that belong [...] to the classroom: the students. It is for them that these teachers try to do their best and continue on this path that they did not choose but were chosen.

[...]

The purpose of working with the diagrams in these stories made it possible to value each element that made these sets special, both their particularities and their similarities. And the years of profession, their dreams, the financial and personal difficulties, the college, the core, the supervision of PIBID, have not gone in vain, and today bringing these great stories together it is clear that they have a love for what they do, and for more than the profession is not valued know that the great return is in the eyes of those who attend the classes, the rubbers spent, the tasks delivered, hearing that some have passed college entrance exams and others who even want to follow their path of teaching [. ..] They know that they contributed to the formation of a citizen and knowledge is something that no one can take from anyone”.

Figure 1 - Who's Diagram



Source: Reading 1 Productions (the authors)

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Reading 2: In the exercise of analyzing the two narratives, a scholar chose to bring out some excerpts from the teachers' speeches and, from these fragments, sought in the literature theoretical support for the understanding of these speeches. In this way, he writes his analysis interspersing fragments of the textualizations and his theoretical understandings about them. For this, she organizes her reading by

*subjects: first presents her two characters, tracing personal information of teachers; He then looks at how their discourse treats “the school, the teacher and the process of teaching and learning”; and concludes his reading by addressing the fragments in which teachers talk about “the difficulties of teaching and the importance of Pibid”.*

*“Teaching was a common choice for these two teachers, but despite some similarities, their life histories make them very different, including their attitudes and decisions regarding their classes. One must also consider that opting for something that one likes and is pleased to do, makes his job easier, but in reality, for various problems and needs, this does not always happen. Professor Washington makes it clear in his speeches that he prefers to teach Physics, which prefers Physics to Mathematics, although he is currently also a Mathematics teacher, while Professor Aginaldo chose to dedicate himself to Mathematics and seems to be happy with his choice. Can these preferences interfere in any way with the teaching and learning process?*

*[...]*

*Professor Washington recognizes the importance of keeping up to date and reinforces the need for continuing education in the teaching career: 'I was eight years away from the discipline (to work at the Core) and I realized the importance of resuming all content again, it is a “restudy” is a new formation. Even knowing the content, many details can be forgotten, especially in Mathematics, which has many formulas and concepts. Even acting teachers should always seek professional development, renew knowledge '.*

*Despite countless difficulties, especially when it comes to teachers of the discipline of mathematics, some memories of our characters reveal their commitment to the chosen profession. ‘The time I spent at the Center made me miss the profession, the teaching itself. I thought about all the difficulties, the lack of interest of the students, how complicated it is to deal with children, there are times when we lose a little bit of the skein, but I also thought about how gratifying it was to come into the room and see that even one or two students were willing, my pleasure is to see them evolve '. This speech by Professor Washington reveals the difficulties and challenges of the teaching profession, as well as the satisfaction to see that his work is recognized, even by the minority. Professor Aginaldo reveals that despite all the difficulties he has faced, and still faces, he seeks to be the best he can for his students: 'As much as I have difficulty, have my problems, I always try to do the best in the classroom, update me, study hard, bring the best I have to my students. I hope you can pass as much knowledge as possible so that they suffer less than I did '.*

*[...]*

*Professor Aginaldo reaffirms the importance of interns and PIBID: 'We had the privilege of having PIBID in a [...] paid way and giving the students the opportunity to also attend a classroom with the*

*teachers and accompany the reality'. He also fears the end of projects and programs to support the initiation of teaching, such as PIBID: PIB PIBID is a very important project that gives students the opportunity to know the reality of the school environment, values the teacher and the student at the university. I hope this project is not over, because we are going through some difficult times, some drastic changes, with a government that doesn't care much about education '.*

*Considering all the difficulties already faced by teachers, Professor Agnaldo's fears regarding difficult times and the low importance given to education are ours, too, the end of initiatives such as PIBID, as well as other initiatives aimed at improving education. , especially in basic education, is really worrying, without investment in initial and continuing teacher education it is impossible to guarantee quality public education, to train qualified professionals, and teaching becomes less and less attractive at the same time as teacher education. quality, with a transformative character, becomes a reality for the few”.*

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*Reading 3: In his reading, a fellow addressed many topics that jumped into his eyes while reading the narratives. The themes he points out portray the difficulties and problems that the public school has, both in terms of working conditions and the initial and continuing training of teachers.*

*“The same situation that Washington and Agnaldo have with many teachers who work in the public-school system, the academic training they received to teach took place over the past century. It would not be a problem if there were government incentives for continuing education [...].*

*Thus, educators need to deal with a teaching structure, built years ago, disorienting new generations who do not live the reality that this system was built to direct, making it difficult to implement appropriate environments for an education that provides autonomy and criticality.]*

*The student-teacher relationship is a condition of the learning process, it is the foundation of the educational process. A stream of student-teacher dialogues provides better conditions for teaching and learning, where the process of student guidance becomes simpler and the routine of healthy classroom expressions.*

*It is not always that teachers get a healthy involvement with the classrooms, unkind attitudes unfortunately turn out to be occasional when the relationship between teacher and student is not pleasant, so it is necessary that the professional is prepared to deal properly with different situations. that is submitted, avoiding attitudes that further fosters the distancing of healthy relationships.*

[...]

*The development of the text exposes some of the difficulties present in the performance of teaching in the public system, whose structure is insufficient for teachers to mediate a significant education, causing education professionals to be frustrated over the years. The dropout of new public school teachers reflects the great professional devaluation, the new process of supplementation of teachers in public schools, segregates teachers. With the disunited class, there is no political union for change to be met, discouraging professionals who are already working in an outdated educational system, while educational outcomes underline society's view that the public school is insufficient, which is the main basis of education. political class's argument for its selective negligence and measures with subjective interests.”*

## Considerations

Readings 1, 2, and 3 show us ways of looking at and listening to teachers' life stories - Pibid's supervising teachers. Each scholar, graduating in Mathematics, undertakes an analysis, a reading, a highlight.

The search for singularities and convergences between the two supervised teachers interviewed permeated reading 1, which was represented by the “*Who Diagram*”. Teachers with trajectories that resemble, for example, not following their dreams - as the question in the text, “*Who has never had dreams?*” Shows. These teachers report other professional desires that were replaced by what was possible: being a teacher (in mathematics). The life histories of these undergraduates show that they have this in common with supervisors. In Moreira et al. (2017), the scholars explain the (dis) paths that lead them to the course and make them stay there: it is the “*path they did not choose but were chosen*”.

[...] between Economics, Psychology and Fashion, chose for the Degree in Mathematics. Competition from the entrance exams of the first two did not allow them to become real to her; Fashion was what she wanted but relying on luck to survive didn't seem like an option.

[...] between the dream - Law - and the entrance exam - Business Administration -, he searched for something that he admired: teaching. But also, enjoying math and being close to university were factors that brought her to the course.

Among so many misadventures - the scholarship, but not realized, the death and the entrance exam, dengue and the inscription - came the nominal call for admission [...] to the course.

What was supposed to be Mechanical Engineering at Unioeste became Mechanical Engineering at UTFPR and then became a Mathematics Degree (MOREIRA et al., 2017, p. 10-11).

She also highlights the financial issues that, in the case of these two teachers, was a determining factor, limiting them to dedicate themselves to the courses they wanted and the Mathematics Degree course emerges in this scenario as an option, for A from a suggestion of sister who was already in this degree and for W for affinity with the exact area. Between the dream and the possible is also the story that makes teaching an option in the path of some of the scholarship holders.

About these choices - which are not quite choices - there is also a reflection movement in reading 2. One of the supervising teachers, with initial training for acting in physics, reports that he prefers to be a teacher of physics than mathematics - but also has a second training, Short Degree. However, the physics classes are not enough for him, needing to take also the mathematics. The student asks, "Can these preferences interfere in any way with the teaching and learning process?" She, who, in writing her life story, also highlights the contingency of her choice - she wanted teaching, and what was near her residence was the option of mathematics - does not answer the question.

The narrative produced from the interview with one of the supervisor's addresses, among other topics, public investment in education. The analysis carried out by the scholarship holder pays attention to this, both in terms of initial education programs, such as Pibid, as well as teacher salary and working conditions: "Without investment in initial and continuing teacher education, it is impossible to guarantee public education. with quality, train qualified professionals, and teaching becomes less and less attractive, while quality education, with a transformative character, becomes a reality for the few".

In reading 3, this discussion is also present. The student highlights the difficulties that the teacher encounters in his performance - in the professional devaluation, in the relationship with the students, in the lack of continuing education. They are uncomfortable coming to him through interviews with supervising teachers and his stay in school, provided by Pibid.

In these interpretations the fellows were aware of some points that touched them in listening and reading the life stories. They found in the teachers' narratives similarities with their own ways. Two narratives of life stories and three distinct readings. In Sachs and Andrade (forthcoming), we highlight that the activity of interviewing, constituting and interpreting narratives may have contributed to the scholarship to understand that:

That teacher, whom the scholar accompanies every week at school, who takes care of the contents and being in front of a classroom, who has the eyes of undergraduates looking at his attitudes and his math lessons, allows the scholars to develop activities in their classes also have life, desires,

frustrations, expectations, families, losses, choices. Some things make more sense to future teachers and some empathy with each other, with the fellow student, the supervising teacher, and - why not? - with the future student comes into existence.

In addition to this more empathetic contribution, we consider that the interviews with teachers, the transcription and textualization processes, were enriching for the group to understand more about the dispositions of Oral History and some of its potentialities, be they possibilities and limitations.

We ended these activities with these fellows while ending the Pibid subproject at the institution. A work that started shy and grew in yearnings, practices, dialogues, reflections and discussions, and also in scientific publications. More than Pibid and all its contributions to the initial education of mathematics teachers, also narratives, Oral History and life stories are now part of the teaching trajectories of these undergraduates.

## References

ANDRADE, M. M.; SACHS, L. “Obrigada por ter apresentado a História Oral”: propostas desenvolvidas e analisadas em um curso de Licenciatura em Matemática. *Bolema*, Rio Claro, v. 32, n. 60, p. 212-230, 2018a.

ANDRADE, M. M.; SACHS, L. Exercícios de escrita de história de vida e História Oral na formação inicial de professores de matemática por meio de um trabalho no PIBID. In: ENCONTRO NACIONAL DE HISTÓRIA ORAL, 14., 2018, Campinas. *Anais...* Campinas: Unicamp, 2018b. p. 1-8.

GARNICA, A. V. M. História Oral e História da Educação Matemática: considerações sobre um método. In: CONGRESSO IBERO-AMERICANO DE HISTÓRIA DA EDUCAÇÃO MATEMÁTICA, 1., 2011, Covilhã. *Anais...* Covilhã, 2011. p. 1-12.

GARNICA, A. V. M. Estacas em paisagens móveis: um ensaio a partir da narrativa de três professores de Matemática. In: TEIXEIRA, I. A. C. et. al. (Org.). *Viver e contar: experiências e práticas de professores de matemática*. 1. ed. São Paulo: Livraria da Física, 2012. p. 331-347.

LARROSA, J. Notas sobre a experiência e o saber de experiência. Tradução de João Wanderley Geraldi. *Revista Brasileira de Educação*, São Paulo, n. 19, p. 20-28, jan./abr. 2002.

LARROSA, J. *Tremores: escritos sobre experiência*. 1. ed. Belo Horizonte: Autêntica, 2014.

MOREIRA, A. P.; SACHS, L. Conhecendo a trajetória de uma licencianda por meio da História Oral. In: ENCONTRO NACIONAL DAS LICENCIATURAS, 6., 2016, Curitiba. *Anais...* Curitiba, 2016, p. 1-3.

MOREIRA, A. P. et al. (Des)caminhos na formação de professores de matemática. In: ENCONTRO PARANAENSE DE EDUCAÇÃO MATEMÁTICA, 14., 2017, Cascavel. *Anais...* Cascavel, 2017, p. 1-11.

PAULA, M. J.; AUAREK, W. A. Viver e contar. In: TEIXEIRA, I. A. C. et. al. (Org.). *Viver e contar: experiências e práticas de professores de matemática*. 1. ed. São Paulo: Livraria da Física, 2012. p. 33-40.

ROLKOUSKI, E. *Vida de professores de matemática – (im)possibilidades de leitura*. 2006. 288 f. Tese (Doutorado em Educação Matemática) – Universidade Estadual Paulista “Júlio de Mesquita Filho”, Instituto de Geociências e Ciências Exatas, Rio Claro. 2006.

ROLKOUSKI, E. Histórias de vida de professores de Matemática. *Bolema*, Rio Claro, v. 21, n. 30, p. 68-88, 2008.

SACHS, L.; ANDRADE, M. M. Possibilidades outras de empinar orquídeas: iniciativas disparadas mobilizando a História Oral no Pibid-Matemática. *Jornal Internacional de Estudos em Educação Matemática*. No prelo.

TEIXEIRA, I. A. C. et. al. (Org.). *Viver e contar: experiências e práticas de professores de matemática*. 1. ed. São Paulo: Livraria da Física, 2012.

TIZZO, V. S.; FLUGGE, F. G.; SILVA, H. Práticas Possíveis com a História Oral na Formação Inicial de Professores (de Matemática). *Bolema*, Rio Claro, v. 29, n. 53, p. 887-908, 2015.

TIZZO, V. S. *Mobilizações de Narrativas na (e para a) Formação de Professores: potencialidades no (e a partir do) Programa Institucional de Bolsas de Iniciação à Docência*. 2019. 488 f. Tese (Doutorado em Educação Matemática) – Universidade Estadual Paulista “Júlio de Mesquita Filho”, Instituto de Geociências e Ciências Exatas, Rio Claro. 2019.

VIANNA, C. R. Sem título. In: GARNICA, A. V. M. (Org.). *Cartografias contemporâneas: mapeando a formação de professores de Matemática no Brasil*. Curitiba: Appris, 2014. p. 67-85.

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