UFSCar mentoring programs for novice teachers: a qualitative synthesis of the different offers

Programas de mentoria da UFSCar dirigidos a professores iniciantes: uma síntese qualitativa das diferentes ofertas

Programas de mentoría de la UFSCar para profesores principiantes: una visión qualitativa de las diferentes ofertas

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Abstract

We present a synthesis of qualitative evidence from theses and dissertations about different mentoring programs that have promoted the professional development of participating beginning teachers (PIs). The programs were related to four research interventions focused on assisting the difficulties and demands of beginning teachers in Basic Education (EB) through mentoring programs. The support was carried out through professional conversations between novice and experienced beginner teachers with experienced teachers trained to act as mentors. The data analysis suggests that the mentoring model adopted in the development of the programs presents favorable elements for the beginning of the teaching career in different teaching areas and levels, and contexts of action, among other aspects. We indicate considerations about the mentoring model adopted and the relevance of further research on the programs and efforts of follow-up and induction of beginning teachers.

Keywords: Novice teachers. Mentoring. Induction. Teacher Professional Development.

Resumo

Apresenta-se uma síntese de evidências qualitativas registradas em teses e dissertações sobre as diferentes ofertas de programas de mentoria que se mostraram associadas à promoção do desenvolvimento profissional dos professores iniciantes (PIs) participantes. O material considerado refere-se a quatro pesquisas-intervenções com foco no auxílio às dificuldades e demandas de professores principiantes da Educação Básica (EB) por meio de programas de mentoria. O apoio foi realizado por intermédio de conversas profissionais entre professores iniciantes com docentes experientes formados para atuar como mentores. Os dados da análise realizada sugerem que o modelo de mentoria adotado na realização dos programas apresenta elementos favorecedores do desenvolvimento profissional no início da carreira docente em diferentes áreas e níveis de ensino, contextos de atuação, entre outros aspectos. Indicam-se considerações sobre o modelo de mentoria adotado e a relevância de novas investigações sobre programas e ações de acompanhamento e indução de professores iniciantes.

Palavras-chave: *Professores iniciantes. Mentoria. Indução. Desenvolvimento profissional docente.*

Resumen

Se presenta una síntesis de las pruebas cualitativas registradas en las tesis y disertaciones sobre diferentes ofertas de programas de tutoría que han demostrado estar asociados a la promoción del desarrollo profesional de los profesores principiantes participantes. El material considerado se refiere a cuatro investigaciones-intervenciones centradas en ayudar en las dificultades y demandas de los profesores principiantes de Educación Básica (EB) a través de programas de tutoría. El soporte se llevó a cabo mediante conversaciones profesionales entre profesores principiantes con profesores exrimentados formados para actuar como mentores. Los datos del análisis sugieren que el modelo de tutoría adoptado en el desarrollo de los programas presenta elementos favorables para el inicio de la carrera docente en diferentes áreas y niveles educativos, contextos de actuación, entre otros aspectos. Se presentan consideraciones sobre el modelo de tutoría adoptado y la pertinencia de seguir investigando sobre los programas y las acciones de apoyo e inducción de profesores principiantes.

Palabras Clave: *Profesores Principiantes. Mentoría. Inducción. Desarrollo Profesional del Professorado.*

One of the main challenges faced in education over the last few decades refers to how teachers' education can support teachers and enable them to deal with the complexities of teaching and promote the desired learning taking into consideration students' characteristics in the different school spaces and society in general (WANG; ODELL, 2002). This becomes more relevant when teaching is marked by growing tensions and paradoxes originated in social circumstances and events of different nature with implications for teachers such as their development toward professional autonomy in a world where the education policy is imposed from external agencies and powers (LA VELLE; FLORES, 2018).

Mentorship processes focusing on beginning teachers are considered a "bridge" to connect the initial education and continuous development actions. They are processes of induction to teaching in which a more experienced teacher supports another that has just joined the school staff. In general, the main purpose of mentorship processes or BT's induction is to support them in teaching practices and help them to socialize in professional activities and the school culture. Another objective is to minimize some of the limitations of the initial education process related to their action in the school environment and within the profession (MARCELO, 2017).

Such initiatives target professionals that have just concluded the teaching courses and joined an education network or system at the beginning of their career as teachers, professionals that are already experienced at a certain level o teaching, but start to work at another level, graduates that after working in a different activity decide to become teachers, and also experienced teachers that need some support to adapt to a new public policy, for example. For this reason, the main target population of mentorship processes are usually teachers with up to five years of teaching experience.

This study was based on doctorate theses and master's dissertations about mentorship directed to basic education (BE) beginning teachers (BT) in programs offered by researchers from the Federal University of São Carlos (UFSCar). From a synthesis of qualitative evidence found in the research results and the elements indicated by Darling-Hammond, Hyler and Gardner (2017), we sought to determine how such elements appear in the initiatives referenced and how they are associated with the effectiveness of the UFSCar mentorship programs.

1 UFSCar mentorship programs: theoretical methodological basis and general features

Over two decades, the UFSCar research team developed four interventions focusing on mentorship programs directed to the support to BT starting their careers. Such initiatives gathered experienced teachers (with over 10 years of experience) to become mentors of the beginning teachers. This choice was based on the fact that these professionals usually present certain baggage or stock of broader and deeper professional knowledge, even though more years of teaching experience does not necessarily mean more qualified action (GALLAVAN, 2015).

To carry out this program, the relevance of processes that could promote learning and teachers' professional development was considered and the theoretical-methodological base of the program characterized the model adopted, which is briefly addressed below.

- Teaching is seen as an activity informed by multiple sources and types of knowledge resulting from different personal, school, and professional experiences, in different temporal and physical spaces affecting the teachers' cognitive, social, and emotional dimensions (MIZUKAMI *et al.*, 2010).

- Teaching is a continuously learnt activity. Knowledge related to teaching is built before and during the initial education, and over their professional activity. In the latter period, the practical character of learning is added, which occurs in many cases via fragmented processes. Over time, the teachers' action goes through distinct phases with specific characteristics that demand specific education actions related to that phase of their career, context and level of teaching, and the contents taught, which somehow shapes each teacher's professional development process (LIMA, 2015).

- Teachers' professional development processes comprise two distinct phenomena, which are interrelated over these professionals' learning trajectories as follows: 1. learning *to teach,* which refers to learning about students, how they learn, for instance, learning about the school contents, how they can be taught, that is, basic knowledge for teaching (SHULMAN, 1986); 2. Learning to act as a *professional teacher*, which means to know about the professionals' roles, responsibilities, ways of acting in situations that go beyond the classroom and include the teachers' participation in the school life (with students' families and the school and professional community) (KNOWLES; COLE; PRESSWOOD, 1994).

- Beyond the technical dimension of teaching, the activity involves aspects such as reflection, emotions, beliefs, dispositions, agency, professional values, etc., which are fundamental in the teachers' development process, along with solid knowledge (LA VELLE; FLORES, 2018).

- The initial education, which is indispensable for the teachers' action is usually limited (GATTI *et al.*, 2019) and this becomes evident at the beginning of the teaching work (HUBERMAN, 1995).

- BT need to build up knowledge regarding their context of action, about their students, and how to meet the curriculum requirements, among others. Many experience tensions due to the limits defined by the teachers' role when they undertake new commitments or positions of responsibility. Showing certain degree of difficulty along with feelings of inefficacy, lack of self-confidence, conflicts, and dilemmas related to teaching and their professional activity is not unusual.

- Teachers' learning and professional development processes require support and suitable conditions in the context of these professionals' action and personal commitment. Support to BT can be promoted through mentorship and induction programs.

Next, we introduce a brief description of the characteristics of the mentorship programs, which is the context of the analysis presented (Chart 1). The specificities of each of the offers are indicated since despite sharing the same theoretical-methodological basis, they varied regarding the BT's level of teaching, the mentors, the type of activities developed (on site, virtual, or hybrid) and the time of duration of the mentor-BT interactions.

Chart 1 – Characteristics of the UFSCar mentorship programs.

Program	Program focus	Type	Duration of the mentorship programs
Physical education mentorship program (PMEF - Programa de Mentoria de Educação Física)	Teachers with under 1 year of experience in teaching physical education (PE).	On site.	8-12 months.
Online mentorship program (PMO- Programa de Mentoria Online)	Teachers with up to five years of teaching experience in the initial years of elementary school (IY).	Mentorship on site; Online mentor-BT interaction.	8-30 months.
Online mentorship qualification program (PFOM- Programa de Formação Online de Mentores)	Qualification for education professionals to work as mentors of teachers with up to five years of teaching in IY and children's education (CE).	Online mentors' initial and continuous education. On site mentor-BT interaction for mentorship task accomplishment.	3-16 months (with a 5-month extra module).
Mentorship hybrid program (PHM- Programa Híbrido de Mentoria)	Teachers with up to five years of teaching experience in CE, IY, and youth and adult education (YAE).	Hybrid with mentors and BT (emphasis on virtual interaction).	3-30 months.

Source: The authors.

The organization of the programs investigated included pair work, with a mentor and a beginning teacher, or groups of three, that is, one mentor and two beginning teachers. They held professional talks frequently (on site or virtual) building up the mentorship process.

All programs used an "open curriculum", that is, all contents and mentorship actions were established in mutual agreement between the BT and their mentors, based on the demands presented and the contextual characteristics of the BT's action. Thus, the mentorship trajectories followed presented a strongly individualized and situated character.

The mentors' and BT's participation was voluntary and none of them had their workload in the classroom reduced to take part in the program since the programs investigated were not linked to any induction public policy and were offered by a public university[1] as an outreach project.

2 Data collection and analysis processes

The analysis proposed was based on qualitative evidence syntheses, known as systematic review, which focused on the qualitative investigation of theses and dissertations about the mentorship programs. In general, with such methodological option we sought to reach a deeper understanding of complex phenomena via the exploration and systematization of the participants' different perceptions and experiences in specific contexts and times (SOUSA; WAINWRIGHT, SOARES, 2019).

This implies the construction of a broad and exploratory understanding of the characteristics of the different mentorship program offers. To achieve such aim, the theoretical reference used included those elements considered fundamental in the promotion of an effective professional development in teachers' professional development programs (PDPD - *programas de desenvolvimento profissional docente*) by Darling-Hammond, Hyler and Gardner (2017) as described below, in which effectiveness is understood as the structured professional learning that unfolds in practical changes and improvement of the students' learning. It seems relevant to mention that regarding the latter, 'the establishment of a relation between the BT's participation and the improvement of their students' learning', even if it is desirable, its characterization through qualitative studies that adopt teachers' narratives as their main source of data is rather difficult.

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[1] Three of these initiatives were funded by CNPq and FAPESP. As regards the mentors, in PMO and PHM, they were granted a scholarship.

Chart 2 – Description of the elements considered as related to the PDPD effectiveness.

Elements for the PDPD success	Description
Content emphasis	Working on content supports the teachers' learning to be applied in the classroom. It aims at the curricular development of specific and pedagogical contents.
Active learning	Active learning involves teachers directly in the conception and experimentation of different teaching strategies, providing them with opportunities of involvement in the same type of learning that they intend to apply to their students' learning. The use of active and interactive methods and other strategies based on their contexts of action enables "rooted and highly contextualized" professional learning (DARLING-HAMMOND, HYLER, GARDNER, 2017, p. 7, translated by the authors).
Collaboration promotion	To promote collaboration, a space must be defined for the teachers to share their ideas and cooperate mutually with their own learning, many times in the work context. When collaborating to each other, teachers can build up communities that change positively the classroom and the school culture and teaching.
Effective practice model use	The use of teaching models or detailed guidance about the "best practices" can include lesson plans, teaching units, students' work samples, peer observation, videos, or teaching cases.
Directed guidance and specialist support	Directed guidance and specialist support involve sharing knowledge about contents and practices based on evidence, directly focusing on teachers' individual needs.
Feedback and reflection	High-quality professional learning usually provides teachers with time to reflect, receive contributions, and introduce changes in their practice. Both feedback and reflection help teachers to analyze thoroughly the perception of strengths and flaws obtained from their practice.
Sustained duration	The time destined to the mentorship (frequent and over an extended period of time) provides teachers with suitable conditions to learn, practice, implement, and reflect upon new strategies to favor changes in their practice.

Source: Adapted by the authors from Darling, Hyler and Gardner (2017).

Starting with this theoretical background, the analyses and narratives of research participants of eight theses and nine dissertations developed between 2002 and 2021 were surveyed. The works (Chart 2) were qualitative, exploratory studies that adopted the same

theoretical-methodological base regarding teachers' learning and professional development, even if they belonged to different programs. The investigation sought to answer the following questions: i) which elements indicated as associated to the PDPD effectiveness can be identified in the works surveyed addressing the offer of mentorship programs by UFSCar?; ii) How are these elements presented?; iii) What do the theses and dissertations about these programs reveal regarding the BT's and mentors' perceptions of such elements?

Chart 3 – Theses and dissertations about mentorship programs.[2]

	THESIS	
PMEF	Title (author, year)	Objectives
	PE teachers in the first year of their career: professional learning analysis from a teaching initiation program (FERREIRA, 2005).	To identify, describe, and analyze two beginning PE teachers' learning process based on a mentorship program, in which the mentor was both the study researcher and the experienced teacher.
PMO	THESIS	
	Title (author, year)	Objectives
	UFSCar mentorship program and the professional development of three beginning teachers (MIGLIORANÇA, 2010).	To analyze the learning process of three beginning teachers during their attendance to the UFSCar Teachers' Portal Mentorship Program.
	DISSERTATIONS	
	Title (author, year)	Objectives
	UFSCar Teachers' Portal Mentorship Program contributions, a beginning teacher's self-study (BUENO, 2008).	To analyze the learning process observed during the mentorship attendance and when participating in other development activities in 2005.
	Teaching and learning experiences: strategies for beginning teachers' online education in the UFSCar mentorship program. (PIERI, 2010).	To understand the contributions of Teaching and Learning Experiences (EEA - *Experiências de Ensino e Aprendizagem*) to the beginning teachers' teaching practice. Also, with an investigative purpose, looking into EEA as development strategies used in the Online Mentorship Program (PMO - *Programa de Mentoria Online*)
	Beginning teachers' development: The UFSCar Online Mentorship Program (MASSETTO, 2014).	To identify how the Online Mentorship Program contributed to the development of beginning teachers that took part in the initiative, based on those participants' analysis 7-9 years after the conclusion of their attendance to the program.
PFO	THESES	
	Title (author, year)	Objectives

[2] As regards PMEF and PMO, UFSCar did not require the approval by the ethics commission to carry out the investigation. The PFOM was approved by the ethics commission (CEP/CONEP) on 06/12/2013, the protocol number was not informed. Regarding PHM, it was also approved and the CAAE protocol is: 68145717.8.0000.5504.

	Title	Objectives
	UFSCar Online Mentor's Qualification Program (PFOM - *Programa de Formação Online de Mentores da UFSCar*): Contributions to the professional development of beginning teachers (GOBATO, 2020).	To analyze mentorship actions that might have contributed to the learning and professional development of the BT assisted by the UFSCar Online Mentor's Qualification Program (PFOM).
	Learning in the UFSCar Online Mentor's Qualification Program: Experienced teachers' emotional experiences (MASSETTO, 2018).	To analyze the professional learning and the emotional experiences expressed by experienced teachers during their attendance to the PFOM.
	Mapping qualification needs presented by teachers' educators attending the UFSCar Online Mentor's Qualification Program (MALHEIRO, 2017).	To identify the qualification needs expressed by the mentors taking part in the PFOM seeking to understand the relationship between the different types of knowledge required in their work as BT's educators.
	School specialists in the mentorship work: Challenges and possibilities (BORGES, 2017).	To analyze the PFOM contributions to the basic knowledge of three mentors participating in the program, who worked simultaneously as principal, coordinator, and supervisor in schools. It also south to identify challenges and possibilities found by the research participants, along with approximations and distance between the work developed at the schools and the mentorship.
PHM	THESIS	
	Title (author, year)	Objectives
	Hybrid Mentorship Program (PHM – *Programa Híbrido de Mentoria*): Contributions to beginning teachers' professional learning (CESÁRIO, 2021).	To analyze the process of learning how to teach developed by two beginning teachers by investigating their dialogues with mentor teachers during their participation in the PHM.
	DISSERTATIONS	
	Title (author, year)	Objectives
	PHM contributions to the professional development of beginning teachers (BARROS, 2020).	To identify and analyze whether and how the PHM contributed to the professional development of BT taking part in the program.
	Elements of teachers' identity constitution of beginning teachers in children's education and initial years of elementary school. (PINHEIRO, 2020).	To understand elements of the personal and professional trajectory that constituted the professional identity of BT in children's education and initial years of elementary school while attending the PHM.

Source: the authors.

The data selection, organization, and systematization occurred as follows: Each research report initially implied careful reading to identify and select the data and analyses that were related to the purposes of this article. Next, the information selected was organized in a chart referencing the program to which it was linked, also indicating the source research, and considering the elements listed by Darling-Hammond, Hyler and Gardner (2017). The analysis process involved recognizing the articulations and overlaps of the elements taken as reference

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in the excerpts collected for each program since in some cases the excerpt presented more than one of those elements.

The analysis below is organized based on the elements referring to the PDPD effectiveness (DARLING-HAMMOND; HYLER; GARDNER, 2017). Excerpts of theses and dissertations are presented as evidence of each of the elements considered.

3 Results

3.1 Content emphasis

Considering the different programs, emphasis was placed on content and demonstrated by the alignment between the program purposes, the demands presented by the BT, and the difficulties noticed by the mentors when privileging teaching activities. We observed that the PMEF, which addressed physical education teaching, and the PMO, PFOM, and PHM, which supported teachers in the initial years of elementary school (IY) and the youth and adult education (YAE) focused the mentorship process on the knowledge of specific content and general pedagogical knowledge (PIERI, 2010; BUENO, 2008; MIGLIORANÇA, 2010; and MASSETTO, 2014 in PMO); MALHEIRO, 2017; BORGES, 2017; MASSETTO, 2018; and GOBATO, 2020 in PFOM; CESÁRIO, 2021, BARROS, 2020, and PINHEIRO, 2020 in PHM). And, in several cases, the pedagogical reasoning processes and the content pedagogical knowledge (SHULMAN, 1986) were also identified, as well as their changes over the mentorship processes developed.

In the programs working with the CE teachers (PFOM and PHM), greater emphasis was observed on general pedagogical knowledge (GOBATO, 2020; MASSETTO, 2018; MALHEIRO, 2017, and PINHEIRO, 2020). The professional talks focused on class management - children's behavior -, planning, and literacy.

All programs produced changes in the beginning teachers' knowledge base and practices. For example, in the PMEF, two participants[3] showed at first that they did not master some specific contents of the area and general pedagogical knowledge, suggesting gaps in their

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[3] The female pronoun will be used throughout the text to refer to the participants (BT, mentors and researchers) since most of them self-reported being women.

initial education (FERREIRA, 2005). However, changes were observed at the end of the mentorship process:

> I don't know the technical and tactic elements of this type of teaching, I cannot even plan what has to be done with the students. I need more specific methodological elements to teach physical education and more activities. (BT1, CE, 25/04/03)

> It's a bit difficult for me to teach a physical education class articulating the doing and the thinking about it, I have no theoretical base and I need more class time. I need to study the contents, study more about nutrition, pedagogical and physiological aspects, sociology, anthropology, and philosophy. What I got from my undergraduate course only is not enough. (BT2, CE, 27/06/03)

A year later, the same teachers reported having built knowledge with their mentors, but also based on their practical experience.

> Today I feel more confident about the content, how to deal with students, how to call their attention, and teach them. (BT1, CE, 22/03/04)

> What I've learnt and that I am going to use this year are the coexistence rules and respect, the class organizational structure (first stretching, then activity, and the conversation with students at the end). (BT2, CE, 22/03/04)

3.2 Active learning

The theoretical-methodological base of the four programs seems to have enabled the M-BT professional conversations to promote active learning processes. This occurred because the topics approached were raised from the situations lived by the beginning teachers in their work context, which were shared with their mentors. This process involved a movement of reflection, planning, improvement, and experimentation with teaching strategies in the classroom real context by the BT in response to the mentorship actions.

In PMEF, for example, the diaries were relevant resources since they provided a "portrait of the classes" under the perspective of the beginning teachers, their difficulties, experiences, and learning. In such case, the register of classes required that the BT observed their students, who started to notice the learning promoted when carrying out those actions and "relating them with their practice, which made them either keep the activities or modify them" (FERREIRA, 2005, p. 128). Other strategies adopted were: indication of reading material with

discussions, teaching strategies and bibliographic material, promotion of reflection processes by asking specific narratives and affective support. Some of these strategies were seen to be more effective than others in the mentor's opinion to promote the BT's learning such as the diaries and collective dialogues.

Regarding their participation in the PMO, BT "A", advised by mentor "M", evaluated the period she attended the program, presenting some reflections and how they influenced her work with students. She also highlighted the relevance of the initiative: "PMO clarified the process my students were going through and helped me to organize the thinking and the practice for other activities that I applied in my professional routine, making my classes more productive and significant" (MIGLIORANÇA, 2010, p. 296).

In the PFOM, the mentor asked the BT to share the characterization of her class, which favored her identification of the children's literacy phases, enabling the development of mentorship actions focusing on that context: "Based on the information obtained with that activity [collective analysis of text production] we managed to classify the students' learning into four phases. From that point onwards, we could direct the activities according to each one's abilities" (M-8 about BT-8, mentorship diary) (GOBATO, 2020, p. 117).

The PHM also adopted mentorship strategies similar to those applied in the PMEF and in other initiatives such as the diary, for example. Next, BT Ananda reported that the help supplied by her mentor impacted her work with the Portuguese content since she could put the mentor's suggestions into practice, which resulted in a more suitable choice of books to work in the classroom.

> […] I tried to do it the way she explained, reading only the title and discussing the possible content of the poem […] I did it, and the children said a lot of interesting things […] I noticed great interest when we provoke their curiosity, or start from their own ideas (BT Ananda, 28/08/18, reflection diary, Tool: Diary).

> […] I can already see great difference in many students, even to prepare their answers during the lesson, I have no doubt that their vocabulary has increased. […] And today, I even noticed a change in the way some students chose the book to read, they did not only look at the cover, they leafed the book through, did a quick reading, and checked the blurb on the back cover. (BT Ananda, 03/09/18, reflection diary, Tool: Diary). (CESÁRIO, 2021, p. 238).

3.3 Collaboration

In the programs, collaboration was understood in two ways: one involving the M-BT interactive and collaborative process, which predominated in the PMO; and the other, when the mentors worked with more than one BT at a time and kept collective interactions, as occurred in the PMEF, PFOM, and PHM. The conversations, guidance, exchanges, and collective analyses in the four programs clearly created some space for presentation of ideas, reporting of practices, and evaluation.

Ferreira (2005, p. 180) reported that in the PMEF, individual meetings with BT enabled conversations about the situations they faced on a daily basis and provided access to "their personal stories". Another aspect emphasized was the case of a BT being able to show her emotions such as "crying, which according to her, was blocked in her throat because of the hard situations she had been facing at school". It was a day when the conversation focused on "[…] minimizing feelings of sadness, anxiety, and desire to give up the profession".

The collective conversations became a space for exchange of experience, information, and a source of knowledge of other school contexts. When accessing other realities, the BT accompanied by the mentor could analyze together the situations, share the problems, and minimize the feeling of loneliness and incompetence. Those meetings gave the BT the chance to put themselves into the colleague's shoes and reinforce the value of talking to a peer that lived similar or different situations (FERREIRA, 2005).

In both formats, the conversations were also a space for the mentor and BT collectively devise the steps of the intervention conducted and the actions that should be carried out by the BT.

In the PFOM, part of the mentors were coordinators and principals in the schools the BT worked. This fact generated greater proximity between them and enabled joint work, on site and collaborative, as pointed out by mentor "L." when talking about the work with two BT:

> I met the two BT to work on the characterization of students according to each one's difficulties. We prepared a list of literacy and mathematics, wrote a note to the parents explaining the importance of the project, and prepared a diagnostic evaluation for the BT V.'s class on literacy to verify the level of each student (M3- Mentorship diary) (MALHEIRO, 2017, p. 130).

The same mentor and one of the BT put forward the following comments:

> *Mentor L:* I have supervised the activity plan and we meet weekly to analyze students' activities and the diaries elaborated by the BT. […]. I have suggested diversified activities regarding text production and she has accepted the suggestions. […] our work flows, it's hard work, but the results are good (M3- Mentorship diary) (MALHEIRO, 2017, p. 134).

> *BT1:* The relationship with the mentor developed in way that she could feel our problems and anxiety that we faced constantly in the classroom and could help us every week during the program (Self-evaluation - BT1) (MALHEIRO, 2017, p. 134).

Since collaborative work was one of the axes of the mentorship action development, the mentors' incentive for the establishment of partnerships with their BT was observed. Below is one example of activity elaboration:

> […] This chronogram model is interesting, it enables you to work always with the same routine of activities and helps you not to forget the content. What do you think of this suggestion? We can build it up together and if you see its helpful, you can put it into practice. Let's test it? (Mentor W., 23/04/19, Activity 1.1) (CESÁRIO, 2021, p. 255).

The BT also asked the mentors' collaboration via construction of a reliability relationship in the experienced teachers' advice work. Below is an illustrative example of the process involved. BT Ananda asks support from mentor V. to help her to diagnose the level of literacy of one of her students:

> I'k like to know your evaluation of this kid. I evaluated as syllabic-alphabetical due to the sentence and other evaluations I made (…) at the school, two other teachers agreed with me, but today, with the coordinator, I was in doubt, she said it is alphabetical and that I should to analyze it at the word level. (PI Ananda, 27/2/2019, WhatsApp) (CESÁRIO, 2021, p. 250-251).

3.4 Emphasis on effective practice, directed guidance, and specialist support

From the PMO offer, we evidenced that the mentors provided their educational work in two types of guidance, which outstood as a function of the mentorship model adopted, for emphasizing the pedagogical practices and reflection processes of the supported BT.

One of them is the mentor of the "give the fish" type, that is, guiding in a very directive mode, indicating the description of phases and characteristics of the processes involved in the action to be carried out by the BT. This occurred through instructions about "how to do it", or even via demonstration of practices that had been tested by the mentor in their teaching activity. It could also be developed from a work of search for theoretical information with other mentors and specialists about what could be done to face the problem-situation that the BT presented. In such cases, when receiving models/examples of practices, the BT were instructed to adapt them to the students, contents, and classroom context, always supervised by the mentor.

The excerpt below about the PHM illustrates how the mentor shared her practice in a detailed way to her BT, this is very close to what is called "give the fish" since it offers a model or recipe:

> I'll report what I'm doing with my class this year. […] A strategy that I used was to create a behavior poster that is painted by them every week (green, for good behavior, yellow for behavior that needs improvement, and red for unsuitable behavior). Before starting to work with this poster I read the collection "*O Que Cabe no Meu Mundo*" (What Fits my World) by Kátia Trindade. […] After the reading, […] I made the arrangements with the class. We arranged to include positive actions, that is, how students should behave. […] Such arrangements are reviewed every Monday with the students. I also prepared a table where I put an X every time the student misbehaves (the table includes standing in line, break time, homework, classroom assignment, etc.). Then, when the student gets yellow or red, I can observe individually what needs to be improved. (Mentor W., 01/04/18, Feedback) (CESÁRIO, 2021, p. 188).

Another type of guidance is the "teaching how to fish" model, which follows a more inductive logic, in the sense that the mentor supervises critically the actions carried out by the BT, questioning rather than "giving a recipe", thus incentivizing their autonomy. This was evidenced in the PFOM, according to the report by Gobato (2020):

> "[…] I decided to verify what was being worked in the classroom by observing the BT's weekly plan and the students' notebooks. In fact, there were lots of crosswords that were not related to the content, and a lot of childish activities. We talked and I asked some questions that made her think of the activities she had been proposing, for example: when proposing a crossword, do older students take any advantage of this activity? Do these crosswords relate in any way to these students' daily life? How meaningful is this type of activity? After the questioning, the BT reflected and suggested working with recipes, regional newspaper articles, and other subjects that might be of interest to the class. To find out what would interest the class, I suggested that she registered in the diary, so that those topics could be resumed in the future". (M6 about BT6, Mentorship diary).

> Observing the BT3's planning and the notes she added, one of the activities planned and already applied was a game to put the alphabet in the correct order. In the notes she had formed two teams. She observed that in the boys' group […] they didn't understand each other, they worked individually, whereas the girls' group outstood for their organization [..]. Considering this remark, we noticed the need to work on organizing productive groups. I think that the groups should not be separated according to the students' sex. […]. The groups should be heterogeneous, always considering the knowledge of their members. To reach good results, the ideal was to group students based on close hypotheses. The distance between the group members' knowledge cannot be too far (pre-syllabic can be grouped with syllabic students, while syllabic ones can be grouped with syllabic-alphabetical, etc.). Thinking about enabling the formation of productive groups, we suggested that the BT should read texts about group work: How to group my students? Planning – New School (M3 about BT3, Mentorship diary).

Regardless of the type of mentorship offered – "giving the fish" or "teaching how to fish" –, their professional conversations were usually marked by interactive processes that included the diagnostic analysis of the situations, considering action alternatives, planning practices, predicting results, developing selected practices, analyzing results, and devising a new plan in a new cycle of action.

3.5 Feedback and reflection

It seems relevant to highlight that the feedback given by the mentors to the BT had educational purposes. This type of feedback aimed not only to evaluate the BT's learning, but rather to provide them with reflective elements to scaffold their professional learning with explanations, suggestions, appraisal, and evaluations, permeated with questioning. Additionally, in many cases, it demonstrated the mentors' professional knowledge.

In the PMO, we selected some examples of feedback offered by mentor M to her BT found in Pieri (2010, p. 97):

> I think you can understand that a single methodology does not cater for all students. It is necessary to seek efficient alternatives so that learning can occur – this is what you do when miming with your "mouth" for the students to identify the letter that must be used in certain word. The two types of activities developed are suitable and should be carried out frequently. (Feedback - mentor M. – 01/06/2006)

> […] the activities you have been developing with the kids are suitable for them to familiarize with reading and writing and getting acquainted with the language they are learning. In relation to the spontaneous text production, I did not find any mention.

> Don't you think it is important for the kids to produce their own texts? This is usually a great source for us to know how they elaborate their writing. Spontaneous texts (kids produce the texts alone in the way they think is correct) are almost like an "investigation", because if you analyze the texts thoroughly, they will guide you in those children's literacy process, helping you to redirect the actions, procedures, and tasks. (Feedback - mentor M. – 16/06/2006) (PIERI, 2010, p. 97).

Feedbacks were seen to be a relevant source of knowledge in the mentorship since many stimulated the beginning teachers' reflection process, among other tools. In the excerpt below, extracted from the BT Ananda's diary, she demonstrated how this instrument worked in the process:

> […] everything that you wrote in yesterday's feedback makes total sense and made me rethink how much we have worked with texts this year. […] Teachers should not compare different classes, each class is unique, but we end up doing that all the time, and I had compared them to the previous class. (…) It is very good to be able to reflect upon and analyze our daily actions, only doing that we will be able to improve our action. Thanks professor mentor [mentor] V. (BT Ananda, 11/03/19, Reflective diary) (CESÁRIO, 2021, p.189).

In Massetto (2014, p. 131), BT S analyzed her participation in the PMO as follows:

> The importance of reflecting upon our practice, this made me see that in some things I were right, but in others I was wrong, and that there were other ways … Suddenly, [the mentor] called my attention to situations, proposals, developments for my practice, and reflections upon what I had been doing, which made me think and restart…broaden my knowledge! […] Not only did that contribute to the kids learning, but also to my own benefit.

3.6 Sustained duration

Regarding sustained duration, BT Lara reflected upon the learnings she developed throughout her participation in the PHM:

> […] I am more autonomous now and I can notice better what the class needs. It is interesting that this autonomy and the perception occurred now that the school year is finishing. I needed a lot of time to get on track. At the same time, it is cool to observe this advance because when I teach a third year again, on another occasion, I know it won't be that hard. Of course, each class is unique, but I will be better prepared to face the specificities of this level of learning (BT Lara, 18/11/18, Reflective diary – 15-month M-BT interaction) (CESÁRIO, 2021, p. 284).

In Barros (2020), one of the BT also reported that she reflected and noticed her own evolution over those months: "Today, after some months [eight months] working with my mentor […] I found out knowledge that I didn't know I had, and some were flaws in my education, and I had to overcome these flaws, my mentor guided me and sent suggestions" (BT Elaine - 20/12/2019) (BARROS, 2020, p. 132).

One example from the PMO refers to an excerpt of a conversation between the mentor and BT "C", in which the former gives feedback to the BT about the work she had carried out in the previous year. Some considerations about the positive aspects evidenced in the past work were presented along with some questioning about the situations experienced at the beginning of a new school year, establishing a continuous process, whose starting point was the "accomplishments" of the previous year.

> As for the work we are developing in the PMO, I analyzed our meetings and observed some changes that occurred naturally:
>
> I noticed more self-confidence and autonomy in your reports of "problems" and in seeking solution to them.
>
> The interval between our meetings (at the beginning we would meet at least twice a week) over time, this frequency changed.
>
> The initial anxiety was controlled.
>
> All these factors indicate maturity and autonomy, don't you think so? I'd like to know your opinion about this subject and your current expectations in relation to our work in the PMO. (20/02/2006 - MIGLIORANÇA, 2010, p. 133).

In the PMO, at the end of the participation in the program, beginning teachers should elaborate a teaching case that could illustrate their participation in the initiative. Below is an excerpt of the BT "C's." case, she was advised by mentor "M.". The excerpt presents some reflections and developments regarding the establishment of some arrangements with her students, emphasizing the PMO relevance in this process over the three years:

> This questioning and the reflections that my mentor proposed made me realize that teaching and learning processes are almost always quite long since the whole process requires a beginning, middle, and conclusion planning. As she said "if one does not know to which port one is sailing, no wind is favorable ". A very relevant condition for this process is to know how to reflect about one's own practice: observation, analysis, and reflection are great allies. […] At each attempt that failed [arrangements with the class, for instance], I reflected upon my attitudes and students' reactions. However, each time I felt more tranquil, aware of what I was doing, and mainly, I noticed that my "new world" [teaching] was not a "seven-headed hydra" and that I only had to trust myself and never stop reflecting at each success or failure, easy or difficult situation. […] In this profession, I'll face new hurdles and challenges, and our meetings made me notice that to overcome these hurdles, I have to stop and reflect upon my work, evaluate it […] I expected to find the "solution to all my problems" in the PMO, but throughout the process I noticed that there is no ready-made recipe for that. (Teaching case I, BT C.) (MIGLIORANÇA, 2010, p. 144-145).

4 Final considerations

In this synthesis of qualitative evidence from the data analyzed, we could establish relations between the characteristics of the programs, the promotion of the participating BT's professional development, and changes in their teaching practice. Although students' changes were reported in the material examined, the evaluation of such data was out of the scope of this work since it involved countless variables (DARLING-HAMMOND; HYLER; GARDNER, 2017).

We also observed that the theoretical-methodological background sustaining the mentorship model adopted in the four initiatives was relevant, despite the specificities of the offers such as being on site, virtual, and hybrid, and for focusing on BT at different levels of teaching and in different areas, belonging to different networks and regions, and the way each of the programs was developed.

On proposing and developing the offers, the organizers avoided adopting procedures that have been seen as constraints/difficulties in the construction of professional knowledge. These are described below:

1. "One-size-fits-all" programs that neglect teachers' learning specificities such as focusing on practice only, the career phase, and the specific teaching demands.

2. Limited focus on learning new techniques and actions, neglecting the context, the teachers' previous knowledge, their beliefs, and the curriculum.

3. Development of specific training processes such as workshops and short-term courses.

4. Establishing changes in the teaching practice, such as the PDPD purpose without the necessary support to the teachers.

5. Lack of suitable opportunities for the teachers' prolonged participation (DARLING-HAMMOND E RICHARDSON, 2009; MORICONI, *et al.*, 2017).

The exploratory character of this systematization pointed out the richness of qualitative data found in the theses and dissertations used as reference, and the possibility of presenting an overview, even if brief, about the different mentorship programs offered by UFSCar.

When considering the scarcity of research on mentorship programs targeting BT in basic education, we defend the need for development and investigation of other programs to validate the results presented in this article and broaden the knowledge about this type of action aiming at teachers' professional development.

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