CAPTURING DYNAMIC SHIFTS IN LEARNING OF MATHEMATICS TEACHERS IN A COLLABORATIVE SETTING: A POSITIONING THEORY PERSPECTIVE

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Abstract

The educational reforms are emphasizing, besides other things, the importance of collaborative work among teachers to improving education in schools. Still much is unclear about how teachers in fact react within a collaborative setting, despite emphasis on collaboration by reform curriculums as by invoking uses of phrases such as "exploring ideas together", "inquiry learning", "working in teams", "learning from each other". This study presents a case study (with a teacher named Fan) under frame of qualitative research. We explore engagement of a group of primary mathematics teachers within context of teacher training sessions (as collaborative settings)for understanding and implementing principles and pedagogy proposed by the New Primary Mathematics Curriculum in Portugal (ME, 2007). Positioning Theory (PT) has been used as an analytical lens to illustrate how Fan takes particular positions (in relations to other mathematics teachers) as a way to engage in the processes of professional mathematical learning promoted through these training sessions. Furthermore, what kinds of implications these dynamic positionings of Fan can bring to unpacking the complexity of teachers' learning within collaborative settings? Here dynamic movement between "I" and "we" that Fan invokes to handle complex of moral orders within collaborative setting. The purpose of the paper is to create evidence for teacher' learning which captures dynamic shifts that occur in a collaborative professional setting.

Keywords: Teacher Learning, learning as "holding", Collaborative settings, Education Reforms, Positioning Theory

Background of the study

In the present world, we tend to emphasize the learning aspects to become more competitive, because ultimately, it has become a post-modern mantra, that the strengthening of the learning in whatever area, becomes stronger when collaborative work is foregrounded. Despite of this, many aspects about the collaborative work are still unknown, especially when people are working

together. Here we focus on learning of mathematics teachersin collaborative training sessions. These teacherswork in public education system in Portugal.

The focus on investigating learning of mathematics teachers is consistent with the recommendations of research concerning the importance of learning of teachers as fundamental factor for successful learning of students at schools. Over the last decades, the emergency of international comparative assessment has provided an opportunity for researchers and policymakers to not only track students' performance within their own education system but also to connect this with teachers' learning, especially after publication of OECD (2005) report *"Teachers matter"* emphasizing the relation of students' success and quality of teaching. It is also becoming clearer that teachers' praxis is linked with many other factors, the challenge is how to develop and sustain teachers' quality and ensure that all the teachers continue to engage in the processes of learning that support their professional needs in an effective manner.

Researching teacher development/learning requires paying attention to many factors, among others, including researching teaching situations/acts, beliefs and practices that generate particular kinds of learning for the teachers. The *OECD Handbook for Innovative Learning Environments (2017)* has also highlighted the significance of learning of the teachers as a collaboration. An increasing number of theoretical and methodological perspectives have also been used to understand the dynamics of the teachers through the lens of the collaborative work. These investigations point to attention to at one hand, is to *i)* try to understand kinds of relations the teachers are establishing among themselves while working within their own communities*,* on the other hand, ii) ways of conceptualizing how are teacher learning in these communities.

Through this case study, we will provide an account of how primary mathematics teachers positioning themselves through their participation in the training sessions, we call them as collaborative settings, as part of the professional development under New Curriculum Reforms in Portugal (PFCM (ME, 2017) and, in turn, how their relative dynamic positioning in these collaborative settings indicate teachers' diverse and shifting positioning in the collaborative setting. Here notion of positioning theory advanced by Rom Harré and Luk Van (1999)would allow us to pay attention to particular discursive actshappens in these collaborative settings. Further, how teachers continually shift of positioning of these teachers through discursive acts permit them to accomplish certain types of actions become possible as a way for meeting their dynamic professional developmental needs. We will examine the dynamic interaction among teachers as discursive acts that lead to adopting particular professional actions. Now we will elaborate on three central theoretical notions for unpacking the complexity of teacher learning in collaborative setting: Professional development of teachers, Teacher's learning in Collaborative Settings and Positioning Theory.

Professional development of teachers in a collaborative setting

Professional development can be viewed as an opportunity for teachers to come together and engage in the processes of working with each other to find approaches or solutions and challenges that they are facing within their professional and personal concerns connected to their professional practices of teaching and learning of mathematics. This can also lead to the need for creating networks for working together and learning from each other. Nowadays, networks can provide many ways for developing professionally (Eraut, 2007; Sowder, 2007). Moreover, it has been studied that professional development of the teachers is related with learning successes of

students (Adler, 2000; Guskey& Huberman, 1995; Sowder, 2007), but still much is unknown about the nature and the quality of teacher learning that takes place during the processes of professional development (Sowder, 2007). Equally important is the fact, as highlighted by research, that professional development and the subsequent learning takes place in the situ of work processes, particularly in the relationships that teachers established with their peers (Eraut, 2007; Sowder 2007). These relationships may increasingly be established in person or online. More recently Geeraerts, Päivi and Heikkinen (2018) have noticed the potentiality of intergenerational learning of the teachers, particularly how they can benefit from each other, in this way, intergenerational learning provides opportunities to promote professional development among younger and older teachers. They highlight that ICT competence is something shared by the younger teachers, when they are collaborating with the older peers. At the same time, the more experienced teachers tend to share more practicalities from their own praxis. In this way, the professional learning is not only about individual motivation, but it depends on the characteristics of the knowledge based in the profession. In other words, in teaching, usually teachers have a wide range of concerns. This is very much aligned with their actions and how they are reflective by the nature of their job, as compared with other professions (Schön, 1983); how teachers engage and develop themselves when they discuss about implemented tasks is a challenge that is being continuously explored by the research community in mathematics education.

Teachers' learning in collaborative settings

Accordingly, to the roots of learning, one can pursue basically two different perspectives: in *Latin (aprender)*, with the meaning of *holding*, or from the Indo-European root, with the meaning of a *track* or furrow. "At various times in the evolution of our language it might have been understood as following a track, continuing, coming to know, or perhaps even getting into a rut" (Catania, 1998, p. 1). About the learning of the teachers, it becomes an imperative in these days, when society, economy, politics and so, education and curriculum demands are changing so quickly. Since Schulman's categorization about knowledge (1986) many researchers have identified more sub-categories of the knowledge. But knowledge is far more than a subject, it requires looking for the ways it is communicated, pursuing the own dynamics from the ways teachers handle the knowledge. In other words, one way to pursue is looking through the lens of social practice or more specifically, on collaboration work. Also, collaboration associated with the learning implies the idea of sustainability (Jaworski et al., 2017), but still how this is linked is not so clear for the research community. Linked with the Latin root of learning, with the meaning of holding, learning in education can be conceptualized as community of practice (Wenger, 1998) that has been used to study the process of teacher collaboration, particularly through the negotiation of the meaning while the formation of common goals occurssimultaneously. Aligned with this, learning of the teachers, presupposes a community, where they "hold" a meaning or different meanings, and how they share the different meanings, in other words, when they share certain information, how are they dealing with their rights and duties. In this way, conceptualizing the community of practice is a way to understand the learning in the "holding" perspective. We can describe the "holding" through capturing the dynamic in communication.

The collaboration between teachers should be a vital component of teachers' continuous learning (Mitchell *et al.*, 2018). Blending collaboration and learning is becoming so far, a globalized trend for every profession. Seeking learning of the teachers through collaboration is so far a need,

ultimately to have more success with the students, as it is highly correlation as shown through PISA (OECD, 2018). At the same time, the chosen approach, highlights the learning-in-context, as the engagement with the environment through which learning happens (Biesta, 2009) inspired in Dewey's theoretical view. Increasingly, teachers learning communities through collaboration are receiving more and more attention, particularly since these improvements seems reflected in student's achievement, highlighted by PISA and TIMSS (Schleicher, 2018). Collaborative interactions can be clarified in different aspects among the teachers: the value and diversity of roles among the teachers as a group of members (Robutti et al., 2016); different roles can be assumed by the participation of different teachers (van Es, 2009) and the roles of the teachers shift over time (Jaworski, 2005). Addressing the different positioning of the teachers, can allow us to perceive learning, through shifts in teachers' patterns of participation in central roles (van Es, 2009). Typically, when teachers participate in collaborative settings, they tend to act as supportive colleagues (van Es, 2009) and rarely engage in a discourse that involves challenging one another thinking (Darling-Hammond, 1997; Grossman et al. 2000).

Through the present study we attempt to understand, *how do teachers change from the supportive standpoint to the discourse with more challenges*. For example, Timperley (2011), theoretically, describes the jump of the professional development of the teachers, basically in two different stages. The difference between both, that she named routine and adaptive expertise professional developers relies with reflection in action, in other words, it requires adapting strategies all over time. Part of this issue seems be related with the creation of a culture of collaboration and formation of common goals that become central in the professional learning communities. This issue will be further discussed here, because in collaborative interactions, the learning of *all* participants is important, but of course also most challenging at the same time. Teachers can also assume different roles such as change agents or moral agents (within their school contexts) and these roles often expected through professional developmental opportunities. All these considerations such as who they are, how they perform, what role they can take or how they relate with other colleagues are effects on possible constructions of their identity as teachers (Darling-Hammond &Bransford*et al, 2005).* Here taking positioning theory with narratives and relationships among themselves (as teachers) can provide insights into the way teachers are engaged in the processes of learning through action of professional development. At the same time, the learning process is becoming more and more interdependent through other factors in educational field. Different countries, and by consequence different contexts all around the world strike to improve the educational experiences and the same time getting it reflected in PISA and TIMSS (Schleicher, 2018).

Positioning theory and learning of teachers in collaborative settings

In recent decades, research in mathematics education is implying more role that language can play in mathematics learning. This is also illustrated Ana Sfard (1998) debate of two metaphor that dominate the scene of learning: learning as acquisition and learning as participation. Here she argued cautious when language patterns that these two metaphors can create around the complex and dynamic construct of learning. She eluded the danger of dichotomizing learning by two metaphors: acquisition/participation. Instead, she raises the significance of taking these metaphors instead of either/or situation to and situation where both simultaneously can serve purpose of capturing complex practice/processes of learning in situ. Since reflecting the turn to discourse in the social sciences in recent decades has been increasing to the role in mathematical

learning (Edwards et al., 2011). Importance of bridging two metaphors of learning and importance of role of discourse in learning, we consider positioning theory as relevant analytical lens to explore teachers' discourse. Here, the underlying idea is that different actors have different positions of influence, which draws attention to the "dynamic stability between actors' positions, the social force of what they say and do, and the storylines that are instantiated in the saying and doings of each episode"(Harré& Van Langenhove, 1999, p.10). Positioning theory is also the "study of local moral orders" because it's "mutual and contestable rights and obligations of speaking and acting"(Harré& van Langenhove, 1999, p.1). *"If someone is positioned as powerful that person may legitimately issue orders and demand obedience in those engaged in some strip of life, in which this position is acknowledged." (Harré and Van Langenhove, 1999, p.1)*

While dealing with their own rights and obligations, how can teachers participate in a learning community, while stepping outside their own comfort zone?In this way, as positioning theory is perceived as a continuously negotiation of meanings, because positioning of the teachers is highly dynamic, the big challenge becomes how to determine different position that are taken when teachers are sharing ideas. However, through the examination and exploration of rights and duties, it is possible to analyze how teachers speak and behave in certain circumstances, particularly by analyzing ways teachers use personalpronouns to position themselves within arrays of shifting moral orders that occur dynamic collaborative settings.This could provide a contribution to illustrate how these teachers take particular positions in terms of relating with each other (as co-participants of training sessions) as a way they participate, share different meanings with each other during the training sessions, as a part of the particular continuous professional program.

Since identity formation according to Wenger (1998) is a "lifelong process whose phases and rhythms change as the world changes"(p.263). Implicitly the social environment is a key point since identity is negotiated all the time. In addition, because actors belong to multiple communities, their actions can become quite different depending on the nature and composition of the group (Wenger, 1998). This points to the fact that fluctuation in positions that different actors take exists. To address this aspect, positioning theory (Harré& Van Langenhove, 1999) will serve the purpose to capture the fluctuating aspects of the positions, but it is still "a starting point for reflecting upon the many different aspects of social life"(Harré& Van Langenhove, 1999, p.10). Since, the discourse of the teachers is a relational work, examining the dynamics of the interaction between teachers is a way to explore how teachers are using pronouns for example. Addressing trust between teachers is an important idea, since institutions with high level of trust; the participants are more comfortable to invest their energies (Tschannen-Moran, 2001). Through their own communication, teachers can express themselves and, in this way, one can pursue the way they are showing trust, because through positioning theory it is possible to explain how positions and storylines together enable possible actions and meanings between teachers, and this in today's world, is vital for any organization to have social capital to handle and tackle the unexpected issues.

Within this context, we explore the following research question: *How can we unpack complexity of mathematics teachers' learning through Positioning Theory (PT) by analyzing teachers' discourse under collaborative setting of Education Program of Mathematics Teachers in Portugal (PFCM)?*

Methodological context of the study

A strong motivation for the present study emerges from our experience, sincethe first author used to work as a teacher educator where she worked with Mathematics Primary teachers from 2008-2012 under the work of Education Program (PFCM). This Teacher Education Program recognized some of the ideas suggested by educational research regarding professional development as mathematics teachers and curriculum development in mathematics. Within the frame of PFCM special emphasis was given to the actual professional needs of the participant teachers through their active involvement in this education program and strongly supported these teachers to work in groups where they could exchange their ideas in order to generate the possibility of deep reflections. In particular, the PFCM suggested the following principles and activities to provide quality professional development opportunities to the participant teachers: training workshops for the practicing teachers, join experimentation of the designed mathematical tasks in the classroom accompanied by the trainer and reflection on classes with the trainer and later in the respective working group and promoting teamwork in a way that groups should be consisting of teachers from the same school or the same group. The program consisted of monitoring sessions (with planning, observation and reflection of lessons in teacher classroom) and 15 group-training sessions, where reflection continued and also discussion of mathematics and its didactic based on tasks proposed by the teacher educator, while taking the collaborative work as an assumption. Here we adopted a qualitative methodology, approaching dynamic content analysis as a way to write up my study inspired by the work of Quivy and Campenhoudt (1998). In this type of analyses, the concern is mainly with the vocabulary and the structure of the sentence. It is through positioning moves that people assume certain positions to themselves and others. Moreover, we wanted to trace how teachers take dynamic stances or positions to engage in the processes of learning to appropriate offerings as exhibited through demands that the New Curriculum imposes on them. Here one can recognize the idea that helping the teacher to teach effectively is not only a question of developing habits of thinking as teachers but also more about putting into action (in their practice) whatever they already know (Darling-Hammond et al., 2005). Finally, Sonia complemented observations she made during interviews with four teachers involved in this study in order to clarify these teachers' own professional trajectory (motivations to choose the profession, what kind of professional development courses they took).

About the participants in the study

Here we will present briefly some background of participants in the present study. The names of these teachers are anonymized.

Fan

To understand Fan, in order to conceive her learning in terms of change in reflections and possible effects act of sharing of her learning with other colleague within the same training session, some background will be provided first. Since she was part of a Continuous Program Formation under PFCM, which presupposes training sessions, her actions are embedded in the social setting, as she was herself immersed in them. She had studied mathematics education (undergraduate studies). At the time of training, she already had 15 years teaching experience, with grades 5 and 6, teaching almost exclusively mathematics (sometimes she was also teaching natural science). She was in charge for the teachers' group within mathematics subject (grades 5 and 6), while representing them in pedagogical teams with members representing the different sections of the

school. As part of these experience, she often referred how she was involved with the teachers from grades 7-9, while exchanging materials and experiences in an informal setting. In the interview, Fan was sharing that possibly she would like to pursue a master's in mathematics education, to further improving her teaching in mathematics, particularly if it could open the possibility to teach more advanced grades (high school level, for example).

Iba

Iba was specialized as a language teacher, but since she didn't find a position as such, she became a primary teacher, where she would teach all the subjects, including mathematics. In this way, she was the less experienced teacher in the primary school level. During the presentation in the first session, she was opening her concern about not feeling so comfortable with the subject, but at the same time, she manifested her willing to teach and the importance of motivating her own students. This attitude was probably emphasized by her own story with mathematics in her early childhood, that she was sharing initially with the group. Since the beginning, she appeared to try to understand and implement the tasks that we were discussing during the planning session.

Lim

Lim was an experienced primary teacher (with 15 years' experience) and often showing a little bit discontent with the fact that there was a new curriculum in mathematics that they (teachers) needed to handle. But at the same time, during his observed lessons (where I could participate) he was showing his willingness to try different type of tasks that he used to do.

Findings/results

In this section, we will present some episodes of pertinent data that illustrate how teacher shifts their positions from "I" to "we" within the collaborative setting enacted through Professional Development Programme under Implementation of New Curriculum (PFCM) in Portugal. The choice of selecting these episodes is purposive with intent to highlight shifting positioning of these teachers and how attention to PT can allow us to see nuances of shift in these positionings of these primary mathematics teachers.

Here we want to present Fan's positioning related to interpreting changing reflections on the work of her students through the tasks for supporting the learning of students in mathematics. She often presented the tasks that she had developed in her classroom with confidence, probably related with the fact that she was in charge for the teachers with grades 5 and 6 (in other words, it seems it is part of her duty, to perform as good as possible). In the presented case she tried to predict mistakes that her students could make in handling the demands of the mathematical tasks that she invited them to work on. She tried to modify her direction of teaching depending on the emerging learning needs and the reactions of the students to the presented learning tasks. Her reflections on the tasks that she developed in relation to anticipating mathematics learning of the students, she shared difficulties that she experienced in terms of her students' reactions while putting these mathematical tasks into practice in her classroom. Here she associated the difficulties that students face with the tasks as an indicator of her displeasure with her own teaching and with herself:

> Fan: When I presented the task, my goal was that they should be able to calculate the area of the rectangle, while using fractions. When we were planning the task, we were very

carefully choosing the fractions. For example, they could see that 3 halves are equal to 1,5 m... but my surprise was really that they couldn't recall the formula to calculate the area of the rectangle. Despite of my careful plan, I couldn't predict this. Two students, they added the values [instead of multiplying two measurements]. Honestly, I felt disappointed with myself! (Session number 5, 07.01.2011)

She made this commentary in education session number 5. She expressed her disappointment with herself, even when she was thinking, that she was careful with her plan, while trying to predict children's difficulties. Here one can notice that her positioning was shifting from an experienced teacher (with confidence and certainty on her judgment) to a teacher that can dynamically anticipate children's action in an ongoing manner and stay watchful to the emerging varied learning demands of the students in a real classroom situation. Here the changed position of the teacher allows her to become open for new learning for herself and for her students and to be ready to accept her own failures as part of her approach to engage continually with her own learning as a professional teacher. This indicates that positions of a teacher can change, but at the same time they can be temporary. But, since she points out her disappointment while accepting her own failure, this admittance of her disappointment within the group reflections allowed other fellow participants of the workshop to revisit their own positioning in relation to their practices. Before the described episode, teachers used often the pronoun "I", when describing their own teaching experiences. After the described episode, teachers were reporting their own "failures" while using more often the pronoun "we". Probably because of Fan status, since she was representing some of them, there were also teachers from low primary schools (grade 1-4), this represented a turning-point for the group. This turning point is more visible, since participants are more comfortable and able to invest their energies in contributing to organizational goals when they feel trust (Tschannen-Moran, 2001). This seems to point the fact that when Fan pointed her own failure, she trusted the group, while sharing her own "failure" or "insecurity". Later, in the same session, Fan interacted with another colleague (Iba) when the whole group was discussing the importance of different type of approaches when introducing new mathematics topic. In the following excerpt, while trying to reinforce the "us" pronoun, Fan seems to legitimize Iba´s position:

> Iba : Sometimes I look like a kindergarten teacher, because I create such a story around the [mathematical] context. I create a story around or create a kind of dolls. I'm sorry but I am not specialised in mathematics...
>
> Fan : Yes, it's very important for all of us to know. Sometimes I also feel ridiculous. (Session number 5, 07.01.2011)

Interestingly Fan support's Iba's effort to use stories, and she makes a moral assumption, assuming that "I also feel ridiculous", positioning herself in a reflexive way. But at the same time, Fan is assuming the importance of Iba's opinion for the entire group. When Iba is sharing that sometimes in order to illustrate her mathematical explanations, she is using drawings that can be similar to "dolls", she is aware about the ridicules that it can be, maybe a sense of a less appropriate thing to do. But while Fan seems to support and extend to the rest of the group while sharing "very important for all of us to know", reciprocate the "ridiculous feeling". At the same time, the positioning of Iba, as a non-specialist in mathematics, gives Fan a more powerful positioning, since institutionally she is in a more powerful position.

In another episode with a different teacher (Lim) as he was reflecting on a work of students in the training session, interestingly he assumes a different tone, as he usually was referring to his work with "I". Of course, when one is describing what happened with the classroom, it is somehow expected the use of "I". In other words, it seems that after the change of positioning of one teacher (Fan) it can influence the positioning of other teachers (as per the case of Lim) or consequently they can also change their positioning, in a reciprocal way. In the followed episode, Lim is describing an episode with his 1st grade pupils, about sitting in a room, according to the number they have received previously, as he attempted to conceive a realistic scenario as they are receiving tickets and take their seats accordingly:

> Lim: (...) since we worked a lot in the number line, I was expecting that at least someone would ask me where the chair was number zero. But we couldn't predict that they would be stuck with adding 5+5+5=15, instead of 10+5=15 for example. (Session number 6, 21.01.2011)

Interestingly, when he is describing the task, something that he feels as a "failure" act, through students' answers, he moved his positions from using the pronoun "I" to "we". This is just one example that occurred after Fans' episode. More cases came after this one. One can argue that due to the rights and duties, maybe experiencing the openness of Fan, hierarchically responsible for most of the group, the other members start the to share more openness, there less successful episodes.

One can perceived the transformation from using "I" or "Me" to "We" or "Us", particularly evident in describing not so well succeed episodes. Harré and Langenhove (1999) called this positioning to "I" or "me" as a self-positioning, and "we" or "us" as the "other". After this episode, there were more "failure episodes", but carefully used as a collective episode, while using the pronoun "we". Even if there is still a doubt about the legitimacy about the "we" as a trust, still recognizing "failure" episodes, shows benevolence, openness, but also reliability and honesty. According to Tschannen-Moran (2014), these are facets of trust between teachers and students. In the discussion part, it's further developed, applying the facets to the teachers exclusively. In this way, when one person positioned herself, others through interaction, also positioned themselves. In this way, positioning is dynamic and reciprocal. In other words, positions taken by teachers, despite of highly dynamic, can also be deterministic. That is, taking positions can be temporary, but we cannot ignore the fact, that positions can be sensed by others. Moreover, positioning theory is a highly dynamic process, one can witness turning points when the positioning of most of the group changes. In other words, positioning theory can provide insights about how members of a particular group can influence each other. Here one can observe the fact that teachers turned slowly to position themselves as being part of the group. Despite knowing that professional development is also being able to learn in a teacher-training program, the "feeling belonging to the group" takes time. As recognized by Harré (2012) the center of cognition shifts from individual to the local group. Through the shift from individual (I) to the local group (We), the collaborative work seems to take place, since sharing ways to develop tasks and at the same time, ways to feel seems to take place. As argued by Dumont et al. (2010) that emphasize that expertise of those with specialist knowledge are essential to challenging in situ learning.

The positioning theory through analyzing the use of pronouns can provide us with a useful tool to understand teachers' positions. In the present case, the movement from "I" to "we" was evidence of taking the position as "other". In this way, one can argue that positioning oneself in a group

includes the positioning of others as well. According to Timperley (2011) effective learning environment is highly connected with interactions between the teachers that allow them to improve professional development, also this should be part of their organizational routines. Professional development is a continuously ongoing act, where trust and sharing difficulties become the core of the group discourse, at the same with the shifting from individual to the group. In this way, defining in situ learning is difficult to think a priori, since elaborated by intergenerational studies, younger and older teachers allow us to see different kind of expertise. At the same time, different people with positions in the school, seems to allow different positioning.

Discussion

In relations to other theoretical perspectives such as narrative identity (Clandinin&Connely, 1991), positioning theory offers a broader perspective to the analyses of positioning that actors take within group settings. Concepts of the positioning theory such as shared storylines and local moral orders can be applied specifically to the learning that occurs within interaction and dynamics within the groups. Group dynamics can be interpreted as a mode of learning that can occur among and in between teachers. Here different positions in a small group is an act of negotiation and how members of a group negotiate their relations in discursive practices. While negotiating, members of a group can position themselves according to the interpretation that individual make about the moral aspects of social behavior. For example, through the change of pronouns from "I" to "we" and "us" in the form of talking about something difficult (as elaborated through this study), the positioning theory research into small groups can bring our attention to different multiple aspects of group interaction and group processes and the dynamic learning that can occur in the group settings. Since teachers are afraid about other critics (Hargreaves, 1995), the jump from "I" to "we" could at the same time represent a changing direction. The "we" pronoun seems to offer an interesting perspective to the problem-solving processes in a collaborative mode, so in this way, collaboration seems linked with the trust, as per suggestion of some studies (Mitchell et al. 2018; Tschannen-Moran, 2001). One hypothesis is that other teachers understood Fans' benevolence, as a way of trust. Particularly, since the benevolence was coming from the teacher in charge of mathematics on 5th and 6th grade. In this way, benevolence is reciprocated by others, but maybe reinforced from her own position in the school. Through positioning theory, one can see professional development of the teachers as a slow, dynamic and reciprocal work in progress. Accepting fewer good things should be part of the learning process according to today's postmodern perspective world (Hargreaves, 1995). On the other hand, learning in professional settings of the teachers is at the same time, a "tacit dimension" part of the professional knowledge, as people are often unaware that they do learning through their work (Eraut, 2007). While developing the professional development, intergenerational learning offers the possibility of different positions of the teachers, as they have also different positioning, as positioning can be reciprocating, despite of the dynamic enhanced. As noted by Geeraerts, Päivi and Heikkinen (2018) learning is related with the actions of sharing information, providing and receiving help, observing, reflecting, imitating and adjusting practices.

In this way, learning here is in parallel with the trust between the teachers to narrate less achieved tasks with their students', which presupposes a collaborative mode. But still, how can we argue about teachers learning within positioning theory is still an open question. Particularly because the determinism of the positioning is linked with time and space. But learning can be further

discussed, since it is related with the own context. But from the Latin root where learning had the main idea of "holding" and through the analyses of the pronouns, one can assume that learning collaboratively is related with the idea of the group as a "we", sort of developing slowly a group identity. But in other hand, following the Indo-European origin, it could mean following the "group track". In the described episodes, one can claim that being more benevolent, open and honesty seems to provide to the other teacher more reliability. One of the critiques is precisely how much positioning and so far, learning is intentional since the constraints of belonging in a teacher's trainer group exist. It means, in the end there will be a certificate proving teachers` capacity to participate in this kind of a program. Beyond the obvious question, that in the same conditions, another group of teachers will have different experiences.

One can also argue that the presented case provides a way to seek some possible "turning-points". Experience here should be understood as positioning, with the constraints, the kind of positions that exist here will not necessarily be found at other places and times. This is the simple reason why Harré and Langenhove (1999) define position in terms of rights, duties and obligations, in other words, "moral" properties are also momentarily specified. Clearly, teachers are constantly engaged in self-positioning, but also, while positioning the others. Highly dynamic and reciprocal, it also generates more questions for empirical research. For example, once it begins to open the acceptance of the "failures" as a group responsibility, is it for sure, that it is a turning-point? Since teachers feel the reliability, it requires creating trusting communities, where teachers should act with consistency and fairness, but still it seems difficult to suggest that acts can be pursued as turning-points. Also accepting "failures" and sharing them seems to be a trust movement on the teachers. First, it shows benevolence from the teacher side, it presupposes those teachers are responding sensitively to their needs. At the same time, the accuracy of information that they are sharing is also one of the facets of trust pointed by Tschannen-Moran (2014), in her study about fostering trust with students. During pointing their own failures, teachers seem more open to help or to collaborate with each other. It seems positive feedback, more trust develops more collaboration; and more collaboration seems to provide more trust. The learning disposition seems be related with collaboration while discussing the issues faced in their classrooms and in this way, teachers develop professional learning according to their openness to share. Adopting an open-hearted stance in relation to students on a nonjudgmental attitude and the same time listening well is a way to seek trust according to Tschannen-Moran (2014). The positioning theory allows us to capture intergroup relations, in a collaboratively ever-changing storylines, from different and particular positions. The word "position" has been used in many ways, in social and psychology writings. Particularly in recent years it has become a way to analyze mediated interactions between people, from their own individual standpoint. But positioning as a discursive practice requires seeking all individual points from a certain collaborative community. Since the concept of learning is also becoming more and more dependent on social influences, seeking the learning of the teachers, with the lent's of possible turning-points, linking with the use of pronouns seems a plausible way to further develop about the learning of the teachers. How we can address the trust within the positioning theory in teacher's education still needs to be more discussed in further research, specifically relating the using of the pronouns as possible turning-points as a collaboration between teachers. The idea of intergenerational learning is an important research perspective about teacher learning, Geeraerts, Päivi and Heikkinen (2018) claim that this happens due to the differences in knowledge, but the major point, seems to be related to the way

they are positioning themselves. It is the positioning that they adopt that promote the interaction, because that is provided by reciprocal and dialogical positioning and subsequent learning.

Since in these episodes, the positioning of the teachers changed, but at the same time, this changing can be temporary. This fact reinforces the importance of studies on collaboration between teachers, also that mainly distrust is still likely to have a deleterious effect on communication (Tschannen-Moran, 2001). If according to the classical definition of learning, it presupposes that change occur, the question that needs to be further discussed is, if the change is more or less permanent. But at the same time, we shouldn't forget that the learning itself is as if changing all-the-time status. The problem in education seems so far be something more deterministic. The positioning theory doesn't help either since discourse is highly dynamic, but still, we can identify, possible turning-points in some of the discourse and in this way, we can see the slow changes in teachers positioning.

Concluding remarks

The edification of the pronoun "we" initialized by Fan, could be further developed with the idea, that teachers are able to understand that in today's world. As posed initially in the introduction, living in today's world seems to require a type of mantra that there is a desirable edification as a "we", where probably the collaborative work is perceived as something extremely beneficial and positive. Of course, there are many cases, where they are dangerous in the collaborative work (case of the Second World War is a good example, where collaboration had a distasteful connotation (Campbell, 2006). Fans case allow us to understand, how much implication it brings to the group immersed in collaborative activities, the acceptance i) of the failure; ii) the expressing while using "we". Also, with the verbalization of the less successful episodes, we can seek a link between showing some weakness can strengthen the positioning of the entity "we" from the group. But Fans positioning, we shouldn't forget, and as pointed initially, is as someone powerful, in the sense that she was responsible, as she institutionally was the coordinator. In this sense, she is somehow powerful, in this way when she is pointing out her "failure", she legitimized not only her own standpoint, but for the other teachers, as member of that group, that allowed them to engage in similar ways. Since collaborative work is often constrain with the less good things, the perspective offered through the case study, allows us to think, teacher learning should be addressed with different type of actors (Jaworski, 2005) with different positions, because different positions allow different positioning and a way to explore more different type of positioning. Learning is highly dynamic and so is positioning theory and that allows to see that between instability and fluctuations, in the stability of each person that is stabilities, to experience learning. According to Timperley (2011), moving from routine to adaptive expertise, demands permanent changing, in a way that professional learning and development opportunities are effective, a desirable scenario for professional development and professional learning of the teachers. One way to ensure this, seems to be related to face the challenges and unpredictable episodes that occur most of the time in the classroom, ultimately and as it has been highlighted by Putnam and Borko (2000) learning of the teachers lies within the context in which teachers work strongly influences what and how they learn. In this way, the case study provides a helpful insight, while collaborative work seems to be closely related with trust. As defined by Campbell (2006) a community with social network and most of the population participating in them as is rich in social capital, also confidence is usually high. But since trust is still pursued as a risk (Hardin, 2006) the closer eye in collaborative settings is in itself a demand. The risk of opening up, since it can also

show the fragility of the different elements, seems to be more diluted when someone who is positioned as someone powerful in the institutional hierarchy, shows up with some weakness, it seems that it can create the energizer to a more collaborative work and subsequently create a trust to share more and additionally to develop confidence. This way, the community creates in itself challenges *in situ* learning (Dumont et al. 2010, Robutti et al. 2016). The relationship between the positioning of the different teachers reflects in other words the learning, because as Biesta (2009) recall from Dewey perspective about learning, it is always learning-in-context, through the engagement with the environment.

While doing the above considerations, pursuing the "we" pronoun as an indicator or predictor of a collaborative work among teachers is still something to be further investigated. The positioning theory (Harré& Van Langenhove, 1999) can be used as a clarification through the different positioning of the participants and how they can be reciprocated. Collaborative meaning here is related with a pragmatic change that accommodate a diverse, interdependent and complicated world. But since collaborative is rather than a choice, research in teacher education should put all the efforts to find out ways to foster the communication process between teachers in order to support the teachers learning. At the same time, it seems to be a way of creating the social capital, created and accumulated through people's participation, through the way positioning shifts and illustrates peoples learning, in a sense of "renewing the social capital" (Campbell, 2006). Reinforcing the "we" through the discursive analyses (Positioning Theory pursued as theoretical strength) seems to open the pandora box related with the positioning that can provide clues about the adaptive capacity of the teachers or as Timperley (2011) called adaptive professional expertise.

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