



Research paper

Facilitators' specific discourse strategies to construct socio-emotional dynamics promoting collaboration and dialogue in teachers' professional development

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ABSTRACT

Collaboration among teachers and a dialogical orientation are key features of effective professional development (PD). For this orientation to appear, safe socio-emotional dynamics need to be built. An observational study, using a descriptive system of data analysis, was carried out to identify the specific discourse strategies that an expert facilitator used to promote socio-emotional dynamics during a one-year PD process. We identified nine facilitator's specific discourse strategies intended to promote mutual trust and egalitarian inclusion among the participants. We also found that the facilitator's use of these strategies varied in different moments of the PD process.

1. Introduction

Research has established certain features that characterize effective professional development (PD) processes (Bates & Morgan, 2018; Darling-Hammond et al., 2017; Desimone, 2009; Desimone & Pak, 2017; Dunst et al., 2015). One of these features relates to the facilitators' promotion and support of collaborative processes among teachers. In contrast to traditional models of PD, in which PD is seen as an individual process of knowledge acquisition that takes place primarily outside teachers' usual working environments, research has shown that effective PD processes create spaces for teachers to share ideas, collaborate with each other, learn to reflect together on their practice, and build professional communities in their workplaces that can transform the culture of educational institutions (Darling-Hammond et al., 2017; Desimone & Pak, 2017). In this sense, an essential element of effective PD is the promotion of productive forms of conversation and collaboration, which Lefstein et al. (2020) called "teacher collaborative discourse" (p. 2). This collaborative discourse among teachers is one capable of helping teachers to jointly develop increasingly rich and elaborated representations of teaching practices, and of informing ongoing processes of improvement of those practices. Productive forms of conversation are defined by specific discourse practices and structure (Lefstein et al., 2020). These include: focusing on the problems and challenges of teaching practice (De Jong et al., 2022); providing evidence or reasoning for assertions (Horn et al., 2017; Vrikki et al., 2017); connecting classroom practices to conceptual principles and extending these connections

to teachers' future practice (Horn et al., 2015); and giving chances for sustained inquiry into teaching practice by identifying and maintaining the focus of a conversation, instead of jumping from topic to topic (Lefstein et al., 2020; Levine & Marcus, 2010).

Furthermore, teacher collaborative discourse is fundamentally characterized by its dialogic orientation (Bansal, 2018; Slavit et al., 2013; Vrikki et al., 2017). This dialogic orientation has been defined as participants' stance for engaging in genuine dialogue, where multiple voices can be heard and accepted, and where participants seek to incorporate different perspectives and build on each other's ideas. It entails a sense of shared responsibility for promoting collective understanding, and aims for constant review and improvement, through collective reconstruction, of the diverse ideas and perspectives at play (Horn et al., 2017; Lefstein et al., 2017, 2020). However, encouraging and achieving this dialogic orientation in collaboration and discourse among teachers in PD processes is not straightforward, and requires building a particular relational space and safe, positive socio-emotional dynamics (Vedder-Weiss et al., 2020; Vrikki et al., 2017) to enable it, in which the possibility of submitting your own ideas and practice for review is accepted.

Those who act as facilitators of PD processes can play a key role in this respect. Research has found that the creation of an affective and emotional climate and communicative rules that allow and promote a dialogical orientation is largely related to the facilitators' use of their language to manage, promote and support communication and collaboration among teachers (Alles et al., 2019; LeeKeenan, 2020; Molle,

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2013; Nachlieli, 2011). However, despite the growing interest in this topic, few studies have attempted explicitly to identify the specific discourse strategies that facilitators use to promote this kind of relational climate and socio-emotional dynamics in PD processes.

Our study, framed within a sociocultural perspective on facilitation processes (e.g., Collet, 2015; Heineke, 2013; Onrubia et al., 2022), seeks to contribute to this aim through a detailed analysis of an expert facilitator's discourse strategies in a long-term PD process involving all teaching staff from a secondary school. Our aim was both to identify the specific facilitator's discourse strategies to promote a genuinely dialogical and collaborative relational climate and safe, positive socio-emotional dynamics, and to explore how these strategies vary at specific moments in the PD process.

2. Theoretical framework

2.1. Socio-emotional dynamics in teacher collaboration in PD processes

Although most educational research on emotions is based on a view that emotions are internal and individual (Chen & Cheng, 2022; Vedder-Weiss et al., 2020), from a socio-cultural approach emotions can be defined as “socially constructed, personally enacted ways of being that emerge from conscious and/or unconscious judgments regarding perceived successes at attaining goals or maintaining standards or beliefs during transactions as part of social-historical contexts” (Schutz et al., 2006, p. 344). From this approach, and focusing on the study of the socio-emotional dynamics of teacher learning in PD processes, Vedder-Weiss et al. (2020) defined emotions as a social construct that develops in the interaction between teachers who learn together. They highlighted the importance of approaching their study using discourse analysis methodologies. These authors emphasized the co-constructed nature of emotions, and their intertwining with the processes of positioning and identification, among teachers and with the facilitators of these processes. Thus, socio-emotional dynamics can be defined as “the ongoing and reflexive ways in which all participants (teachers and PD facilitators) interact with, orient to and position each other in terms of their contributions within the PD interactions” (Finkelstein et al., 2019, pp. 339–340). They also highlighted the socio-emotional challenges for teachers that participate in PD processes, especially when these processes are based on collaborative reflective inquiry.

Some of these challenges relate to the feelings of anxiety, insecurity or embarrassment (Borko et al., 2008) and risk for self-image (Vedder-Weiss et al., 2019) that may derive from teachers sharing their own practice with others or critically discussing their own or other colleagues' practice (Finefer-Rosenbluh, 2016; Finkelstein et al., 2019; van Es et al., 2014). Similarly, attempts to introduce ‘top-down’ changes in teachers' practices, leaving aside teachers' perceived needs, can generate feelings of vulnerability or defensive attitudes in teachers, as they can be perceived as a disqualifying evaluation of their practices and their own identity as teachers (Finkelstein, 2019; Hunt, 2016). The difficulties for teachers in managing disagreements have also been highlighted (Dobie & Anderson, 2015; Trachtenberg-Maslaton et al., see Vedder-Weiss et al., 2020), despite the value that such disagreements can have for productive discussion.

Building, sharing, and respecting certain norms for regulating teacher interaction and participation in collaborative processes, which can promote appropriate socio-emotional dynamics, seems key to being able to address these challenges (Finkelstein, 2019). Positive socio-emotional dynamics are those in which teachers feel respected and valued, where the examination of your own (and others') practice is not experienced as evaluative or judgmental but as mutually supportive (Coles, 2013; Karsenty & Arcavi, 2017; Lefstein et al., 2020; Nolan & Moreland, 2014; Vrikki et al., 2017). By respecting teachers' beliefs and maintaining a nonevaluative attitude, this kind of dynamics promotes teachers' engagement to improve their practice, reduce teachers' resistance, and afford a stance of curiosity about student learning

(Finkelstein, 2019). In this regard, two main dimensions that characterize these dynamics emerged from a recent systematic review of articles about teacher team discourse and interaction: mutual trust and a sense of egalitarian inclusion among participants (Lefstein et al., 2020).

First, mutual trust is fundamental for collaborative interaction to be perceived by teachers as a safe space, where the risks of exposing one's own practice to scrutiny by others can be taken (Beisiegel et al., 2018). Hunt (2016) highlighted the presence of conditions of vulnerability and emotions of shame, guilt, or fear when the interaction focuses on teachers' compliance with certain pre-established ‘good practices’. These conditions are associated with teachers' insecurity as to whether they are applying these good practices well. The author stressed that, if there is a climate of respect and trust, these conditions of vulnerability can be opportunities for improvement if these negative emotions are discussed. In turn, Lowenhaupt et al. (2014) highlighted the need to build an initial positive emotional relationship between coaches and teachers, which allows teachers to accept coaches as reliable interlocutors.

Second, “egalitarian inclusion” (Lefstein et al., 2020, p. 9) is concerned with the horizontality of interactions between participants and the promotion of teachers' agency. Egalitarian inclusion occurs when all group members are included in the interaction, nobody is excluded or ignored, and there is a sense of equal standing, which makes teachers feel “equality as learners” (Dudley, 2013, p. 117; see also Lefstein et al., 2020). In this respect, Robertson et al. (2020) stressed that teacher-facilitator (coach) interactions intersect with, and are influenced by, issues of positioning and power, and pointed to the importance of acknowledging the knowledge and experience of all participants. They emphasized three elements in this regard: a horizontal, non-hierarchical flow of knowledge between all participants, aimed at ‘thinking together’; equity in decision-making about new practices to be implemented, so that these can be aligned with the needs of teachers and their students; and ‘affirmative vulnerability’, which involves acknowledging the emotionality of the relationship, the limits of one's own knowledge and skills, and the issues of agency, power and identity involved. Meanwhile, Sutton and Shouse (2019) highlighted how teachers with higher status and experience use a variety of strategies to maintain collaboration, avoiding assuming a technical expert role that tells others what to do. Moreover, Haneda et al. (2017) and Reichenberg (2020) drew attention to the importance of promoting teachers' agency through forms of interaction that ensure that everyone's ideas are valued.

2.2. Facilitating socio-emotional dynamics for teacher collaboration in professional development processes

As noted above, several studies have shown that the facilitators' use of their own language to manage, promote and support communication and collaboration among teachers involved in PD processes can contribute to creating positive socio-emotional dynamics. These studies were conducted in different contexts and have analyzed different types of PD processes (e.g., face-to-face literacy coaching; blended-online PD programs and video-based PD programs).

The results obtained by these studies point to some key aspects to create positive socio-emotional dynamics. For example, Finkelstein (2019) made four recommendations to promote ‘trust’ in coaching situations: involving teachers in setting the objectives of the discussion, directing these objectives towards students' learning rather than on teachers' practice, offering non-judgmental feedback and reducing hierarchical relationships, and transparently attending to the norms of discourse. Similarly, Alles et al. (2019) listed six general features of facilitators' actions aimed at promoting ‘trust’ in video discussions in a group of teachers: general appreciation (group members talk to each other politely, listen to each other, and let each other finish speaking); focus on events in the video; collective shared discourse rules; providing contextual information for the video excerpts; suggesting teaching

alternatives; and active involvement of all the participants in the establishment of a positive learning atmosphere and conversation culture. They also noted the evolution over time of the assumption of norms and a collaborative conversation culture by the group of teachers. On another note, Coles (2013) pointed out five key decision points for the facilitator in relation to collaborative discussions, three of which clearly point, in our view, to the socio-emotional dynamics: setting the norms of the discussion, moving from evaluation to interpretation, and meta-commenting (commenting on the discussion processes themselves). In turn, Karsenty and Arcavi (2017) insisted on the need to go beyond evaluation and feedback, establishing nonjudgmental norms of discussion, which transform evaluative comments into 'questions to think about'. In our view, these two studies point globally to the importance of 'egalitarian inclusion'. In a similar vein, other studies (Finkelstein, 2019; Heineke, 2013; Ippolito, 2010) have pointed out the need to balance, in the facilitator's actions, on the one hand the acceptance of teachers' practices, of their experience and local and situated knowledge, and of their representations of practice and teaching and learning processes, and on the other hand the assistance needed to promote the review of this experience, knowledge and representations, and the introduction of changes in their practices. In short, there is a need for the facilitator to respect teachers' autonomy, to support and promote collaboration among participants, to provide them with tools for reflection and analysis, and to encourage them to make their own decisions about improving practice in an increasingly informed way (Collet, 2015; LeeKeenan, 2020; Molle, 2013; Wood et al., 2017). In addition, Jaber et al. (see Vedder-Weiss et al., 2020) and Schneeberger McGugan et al. (2023) stated the importance of capturing in conversation teachers' negative emotions or feelings about processes of analysis or proposals for improving their practices, helping to elaborate upon them, and redefining the frames or representations that give rise to them, to facilitate teachers' commitment to reviewing and changing their practices.

A smaller number of studies have identified facilitators' discourse strategies aimed specifically at managing and promoting socio-emotional dynamics that can support collaboration and collaborative productive discourse among teachers, differentiating them from other discourse strategies of the facilitator. Thus, van Es et al. (2014) identified, in their framework for facilitating video-based discussions, a specific move called "supporting group collaboration" (p. 346), in which they included three specific discourse strategies: standing back (allowing the group members time to discuss an issue); distributing participation (inviting different participants to share their ideas); and validating participants' ideas. Moreover, Zhang et al. (2011) included, among the facilitator discourse strategies they identified, two groups of specific strategies of this type: (i) establishing learning community, including six specific strategies (positive feedback, providing support (encouraging), joking, sharing resources, sharing personal experience, and establishing concrete ground rules (e.g., "There is no stupid question"; p. 357); and (ii) maintaining group process (meta-talk, task explanation, calling a teacher's name, and assigning learning issues).

Within this framework, our paper aims to contribute to a deeper understanding of the specific discourse strategies that facilitators can use to address the socio-emotional dynamics of collaborative processes among teachers in professional development processes. To this end, it focuses on two questions that previous research left open to further study: the identification of these specific strategies, and whether these strategies vary at different moments in an extensive PD process.

Some of the characteristics of our study are of particular relevance in attempts to address these two questions. On the one hand, we studied an extensive PD process (nine sessions of about 2 h each, over a full school year), involving a large group of teachers (18) and an experienced facilitator, and taking place in the workplace of the participating teachers. On the other hand, we used an analytical procedure that frames the analysis of the facilitator's discourse in a broader analysis of the joint activity of the participants throughout the process, which

makes it possible to situate the identified discourse strategies in relation to the different moments of the analyzed PD process.

Accordingly, the specific research questions guiding the study were:

- a) What specific discourse strategies does an expert facilitator use to promote socio-emotional dynamics that can support collaboration and shared construction among participants in an extended PD process?
- b) Does the presence of these discourse strategies vary at specific moments in the PD process?

3. Method

In accordance with the research questions, we carried out an observational study in a natural situation, using a descriptive system of data analysis (Evertson & Green, 1986). Within this framework, the study combined a qualitative analysis of the facilitators' discourse strategies that were identified and an analysis of their presence and frequency at different moments in the PD process.

3.1. Study context

The data for this study came from a professional development process about cooperative learning to promote inclusion carried out in a subsidized secondary school (covering education for students aged 12–16 years old) near Barcelona (Spain). One of the school's priorities is ensuring inclusion for all. For this reason, the school management team usually promotes the continuous professional development of the teaching staff to incorporate inclusive methodologies in their classrooms. In this case, the PD sessions about cooperative learning were organized at the teachers' request after attending a sensitization workshop on this topic. The entire teaching staff (10 women and 8 men) participated in the PD process, including the school principal, the school counselor, seven science, technology, engineering and mathematics (STEM) teachers, seven Social Sciences and Language teachers, one Physical Education teacher, and one music teacher. Most of the teachers had been working at that same school for more than 5 years; only four of them had joined the school more recently. Within their area of expertise, and as usual in the Spanish context, each teacher taught different subject contents in different year groups (e.g., one STEM teacher could teach technology in the second year and mathematics in the fourth year; one social sciences and language teacher could teach Catalan in the first year, and history in the third year). During the PD process, each teacher selected the specific subjects in which he/she would use cooperative learning for each educational level, making sure that it was introduced in all groups of students.

The facilitator was an external professional with more than 15 years of experience as a facilitator of PD processes related to the introduction of teaching practices using cooperative learning, which he has carried out in a wide variety of schools. As a facilitator, he deliberately adopts a collaborative and dialogic orientation, and his practice is explicitly grounded in a sociocultural perspective of facilitation processes and teachers' professional learning. He has carried out a continuous task of reflecting on his practice as a facilitator, which he formalized through academic and professional contributions, and as a trainer of other facilitators.

The PD process was based on the program "Cooperar para Aprender, Aprender a Cooperar" [Cooperate to Learn, Learn to Cooperate] (CA/AC) (Pujolàs, 2008; Pujolàs & Lago, 2018). The process comprised nine sessions, each of which lasted 75–135 min. These sessions took place approximately once a month throughout an academic year (see Table 1) and aimed to help teachers progressively introduce cooperative learning in their classrooms. To achieve this, the process focused on three main aspects of cooperative learning: A – Activities for improving classroom cohesion and students' interest in cooperative learning; B – Simple cooperative learning structures; and C – Tools and strategies to teach

Table 1

Date and main activities developed during the different professional development sessions observed.

Sessions	Date	Main activities
1	October	Introduction to the PD process and sessions Theoretical framework for aspect A of the CA/AC program (activities for improving classroom cohesion and students' interest in cooperative learning)
2	November	Co-planning of new teaching practices to improve classroom cohesion and students' interest in cooperative learning
3–4	December	Guided analysis and joint reflection about the new teaching practices related to aspect A incorporated in the classrooms
4	December	Theoretical framework for aspect B of the CA/AC program (simple cooperative learning structures) and co-planning of new teaching practices related to this aspect
5–6	February–March	Guided analysis and joint reflection about the new teaching practices related to aspect B incorporated in the classrooms
7	April	Theoretical framework for aspect C of the CA/AC program (teamwork competence) and co-planning of new teaching practices related to this aspect
8	June	Guided analysis and joint reflection about the new teaching practices related to aspect C incorporated in the classrooms
9	June	Evaluation of the entire PD process

students teamwork skills. These aspects were considered successively during the PD process.

Thus, at the beginning of the PD process (session 1 and part of session 2), the facilitator provided basic information about aspect A. Based on this framework, the teachers and the facilitator planned together how to incorporate some new practices related to aspect A –i.e. classroom cohesion activities (session 2). While introducing these new practices, each teacher had to complete a self-report describing their practices and reflecting on their development. These self-reports were analyzed by the facilitator and used as a starting point for the next sessions, focused on describing in detail how the new practices had been developed and reflecting on them through the lens of the objectives of the CA/AC program. Then, during sessions 3 and 4 of the PD process, the facilitator asked the group of teachers either to describe or analyze their new practices and helped them to develop their contributions through dialogue. As a result of this joint reflection, they ended up deriving criteria for further action. For such dialogue to be conducted productively, a safe context should be created, one in which all participants feel confident and sufficiently at ease to describe their experiences, to explain their insecurities, difficulties or doubts with the new practices, to analyze their own practices in detail, and to be willing to review and improve these practices.

Once this sequence of actions had finished for aspect A of the program, the sequence began again for aspect B and then aspect C, beginning in each case with the facilitator's presentation of information on the corresponding aspect of the program and ending with guided reflection on new practices and the definition of educational criteria. This process took place throughout sessions 4–8. The ninth and last session was devoted to evaluating the PD process (see Table 1).

3.2. Data collection

Data for this study included audio-recordings of each of the nine sessions (17 h and 5 min in total). The participants gave informed consent and maintained a positive disposition towards participating in this study. The main data corpus for the study also included a narrative record of each session and the documents and materials used or produced by the participants in the PD program (such as the PowerPoint presentations used by the facilitator, the facilitator's plan of the PD

sessions or teachers' self-reports about the practice they implemented in their classrooms).

Although not analyzed in the current paper, additional data were collected to obtain a better understanding of the PD sessions, including short interviews with the facilitator before and after each PD session; a longer interview with the facilitator before and after the process; and a final questionnaire to assess the teachers' satisfaction with the process.

3.3. Data analysis

Two types of analysis of the recorded sessions were carried out. To answer our first research question, the discourse strategies used by the facilitator to promote socio-emotional dynamics favoring collaboration and joint construction among the participants in this process were identified. To answer our second research question, the organization of the joint activity of the participants throughout the PD process was analyzed to identify the key moments in this process, and the presence of the discourse strategies used by the facilitator during those moments were examined.

First, the analysis of the specific discourse strategies used by the facilitator to promote socio-emotional dynamics favoring collaboration and joint construction among the participants was carried out through a deductive-inductive process, going back and forth between theory and data. This process took as its starting point the strategies identified in the works by van Es et al. (2014) and Zhang et al. (2011), as well as elements of the analysis carried out by Alles et al. (2019), Finkelstein (2019), Jaber et al. (see Vedder-Weiss et al., 2020) and Schneeberger McGugan et al. (2023). From these studies, a first tentative set of strategies was established. It included: establishing a positive conversation and learning atmosphere, promoting teachers' participation, validating participants' ideas, offering non-judgmental feedback and reducing hierarchical relationships, and copying with teachers' negative feelings and emotions. During the analysis process, this set of strategies was revised. Some strategies were reformulated, some were discarded and some new strategies were added. Thus, the nine facilitator's discourse strategies that are presented in the Results section were established. The analytical unit used in this process was the thematic fragment within a facilitator's conversational turn. A thematic fragment is identified based on meaning in context, in pragmatic and content terms. According to this, in each facilitator's conversational turn, none, one or more thematic fragments aimed at supporting the social-emotional dynamics among the participants can be identified, and those that are identified may correspond to the same strategy or to different strategies.

Analysis of the organization of the interaction between the participants during the PD process was carried out through the technique of analysis of joint activity (Coll et al., 2008; Onrubia et al., 2022). This technique allows identification of the different fragments, parts, or moments in which each of the sessions of the process is structured. These fragments, or interactivity segments, are determined based on two criteria, namely, their thematic focus and their structure of participation (Erickson & Schultz, 1997), i.e., the set of rules that delimits, for that particular fragment of the session, both the social participation of the participants and the way in which they approach the task they develop. An interactivity segment (IS) is therefore defined as a fragment or part of a session in which the same thematic focus and the same participation structure are maintained. The procedure used to identify the IS was inductive and started with the identification of the moments in the session in which there was a substantial change in the thematic focus or in the participation rules followed by the participants. All the interaction that took place between one of such moments and the next was considered an IS. Subsequently, the patterns of joint action of the participants within each IS were identified and described in detail. Types of IS were established, each type corresponding to all the IS with the same pattern of joint action of the participants. Therefore, each session was described as a particular sequence of particular types of IS. Once the IS were established and the sessions were described, we proceeded to

identify groups of IS that fulfilled similar functions in the context of the PD process and that configured the key moments in this process. Finally, the presence and distribution of the facilitator's discourse strategies among the main groups of IS identified were explored.

Coding reliability for the entire analysis was established through a collaborative coding procedure (Smagorinsky, 2008) based on consensual agreement between coders (Creswell, 2014). In this procedure, inter-coder agreement is not sought through independent corroboration, but through ongoing collaborative discussion among coders. This procedure is consistent with the socio-cultural tradition on which the work is based and allows for rich flexible coding that emerges from the collaborative discussion about each code, while drawing on the complementarity of the coders' expertise (Smagorinsky, 2008).

The procedure involves continuous collaborative work between two coders, who conduct systematic debriefing sessions (Shenton, 2004). The procedure can be described by the following steps:

- 1) Initial coding (i.e. discourse strategy identification) through collaborative coding sessions between the two coders.
- 2) Joint formalization of a first version of the identification criteria for each of the strategies.
- 3) Collaborative discussion sessions on the application of the criteria, resolution of doubts, discussion of disagreements, search for consensus and revision and reformulation of the criteria, if necessary.
- 4) Recoding according to the new criteria, if appropriate.

Steps 3 and 4 are repeated until 100% consensus is reached between the two coders.

Atlas.ti v7 was used for the entire analysis.

4. Results

The results are organized into two sections, corresponding to the two research questions that our study aimed to answer.

4.1. Identification of discourse strategies to promote socio-emotional dynamics favoring collaboration

Nine specific strategies were identified in the facilitators' discourse to promote socio-emotional dynamics favoring collaboration and shared construction among participants: showing a sense of humor (HMR), understanding and normalizing (NORM), showing respect and courtesy (RESP), using the teachers' names as if they were students participating in the new practices of cooperative learning (NAM), valuing positively (POS), establishing alliance (ALLI), attributing competence and responsibility (ATTR), recognizing teachers' concerns (RCG). We present them ordered by frequency of appearance. In each case, we describe the strategy, provide its percentage of appearance, the function that the strategy fulfills in the PD process, and some representative examples of the facilitators' use of the strategy. In the examples presented, the participants' names are replaced by pseudonyms to ensure anonymity.

The discourse strategy that the facilitator used the most was "showing a sense of humor" (HMR) (22%). The facilitator was considered to have used HMR when he made jokes or funny or ironic comments about a situation that was being discussed. These comments were often followed by laughter from one or more participants. The facilitator uses this strategy to improve personal relationships.

The following examples show the facilitators' use of HMR:

Facilitator (F): *We will talk about it later. Because we will talk about cooperative learning and about the structure of activity in the cooperative classroom. Look, ever since the times of those "Renewed programs" (...) some of us are a bit old! (...) Those "Renewed programs", where all activities were the same (...)*

(Session 1, IS2)

F: *[...] The rationale for heterogeneity, for working with different [students], [is that it] produces deeper, more diversified learning and that it allows people to go further. I always give an example ... it's an example that somebody who works in a bank gave me ... Not in one of those banks which are getting bailed out, huh? In one of the banks which are not! (...)*

(Session 1, IS2)

The strategy of "understanding and normalizing" (NORM) appeared with a similar frequency in the facilitator's discourse (21%). By using this strategy, the facilitator shows that he puts himself in the teachers' place and that he understands their feelings and concerns over the new practices and tries to soothe these concerns. This understanding and validation of feelings can be shown through normalizations ("it's normal, it's hard"); with statements that explicitly show that he understands the situation; and by contemplating the possibility of making mistakes and of testing out changes as part of the PD process. After teachers express their difficulties and discomfort, the facilitator intervenes by giving explicit encouragement; noting that they are applying innovative activities and that their suitability will have to be assessed; and postponing issues that create a feeling of unease. The use of this strategy helps to create an emotionally positive environment.

The following examples show how the facilitator responded to the teachers' doubts or worries about the new practices they were introducing in their classrooms:

F: *Let's see (...) three or four comments on what you've said (...). First, well, I hope that some of the improvement we've made on group cohesion, class integration and self-esteem ... I hope that it will have some impact. But I said it the other day and I repeat it today, this year, we are going to do very isolated, not very continuous and not very systematic activities and therefore the incidence of this will be reduced, huh? I already said it the other day and I say it again today, yes, because we have to be clear about this, and this is related to something else that worries you. Because what can't happen is that you end up introducing structures and activities and you finish the year with the feeling that, because of that, you couldn't teach a lot of the content of your program. This can't happen!*

(Session 2, IS2)

F: *Relax, Ferran, we'll keep talking about it ...*

Teacher (T): *Ok, ok ...*

F: *It's very normal that you feel anxious, it's normal that you feel anxious, it's very normal that you feel anxious. We've always thought it this way, you'll realize. Well, there will always be teams that won't work well, even if you change them again and again. I don't know if I made myself clear, but keep calm, ok?*

(Session 4, IS3)

The third most frequent discourse strategy was "showing respect and courtesy" (RESP) (18%). When using RESP, the facilitator shows explicit consideration towards the teachers and generates a situation in which they feel recognized and valued. The facilitator is sensitive towards the teachers' needs and requests; he is attentive and respects the teachers' speaking turns; shows his concern about the adequacy of his own explanations; and he apologizes when he makes a mistake or uses other polite expressions:

F: *... Cisco, I interrupted you; I interrupted you! It was related to that; it was related to what Joaquim said.*

(Session 2, IS5)

T: *No, they all come from sixth year*

F: *Yes, but no, I misspoke! Kids coming from different schools, kids coming from different schools.*

(Session 2, IS8)

The fourth most frequent discourse strategy was “using the teachers’ names as if they were students participating in the new practices” (NAM) (13%). The facilitator used the names of the teachers pretending that they were the students that were participating in the new practices of cooperative learning that were being introduced in their classrooms. He illustrated situations that may typically occur while working in cooperative teams, placing the teachers as students. To do so, he used his knowledge of the teachers’ personal qualities and interests. By this means, the facilitator helped the teachers to experience the teaching practices they would apply, and to get them involved in the innovation process. The facilitator gave the teachers a role that would give them more elements for discussing the new practices, providing them with first-hand experiential knowledge about these practices. The use of this strategy helps to generate a situation in which the participants feel recognized and valued and captures their attention.

In the following example, the facilitator placed Àngels, Míriam and Marta (who are teachers) as students working on a team, and assigned them the roles they would have to fulfill in a given cooperative learning structure:

F: Àngels completes the summary and Míriam asks a question about this paragraph. Now we follow with the second paragraph, Marta starts reading, Àngels wrote the summary, she writes the second summary and completes the question. Those of you who are language teachers know that, just as I referred to the four functions of language comprehension ...

(Session 4, IS4)

The strategy of “linking participants’ interventions” (LNK) was used with a similar frequency (11%). When the facilitator uses this strategy, he takes the contributions from one or several teachers and connects them with his own discourse, or links different teachers’ contributions. The use of LNK helps the facilitator to create and foster group cohesion and draws out change and improvement as collective tasks:

F: *Of course, of course, later, Alfons, we will be able to do the same with everybody’s [contributions], do you know what I mean? We have three proposals from this team, three from that team, and now we elaborate them together, the whole class. Let’s see, your first proposal, your second ... and we elaborate them all together. Am I ... am I making myself clear? When we’ve done it three, four, five times, what Pau said, ...*

(Session 2, IS7)

F: (...) I used Annette’s words, that some boys and girls play a role, they are in a zone from which it’s hard to get out. (...)

(Session 3, IS7)

The rest of the strategies were used less frequently. Specifically, “valuing positively” (POS), “establishing alliance” (ALLI), and “attributing competence and responsibility” (ATTR) were used with a percentage of 5% each.

The facilitator uses POS to convey that he values one or more participants by highlighting some of their personal qualities or praising and showing admiration for some of their initiatives. This can make the teachers feel recognized and valued:

T: (...) *we told the students that we were going to do a different activity, that it would be to introduce ourselves and to get to know each other, and well, we the tutors brought a suitcase.*

F: Ah, very good! Very good!

T: ... yes, the suitcase ...

T: ... a bag.

T: ... yes, a travel bag and then inside there were objects that somehow defined us, right? And well, so, we started to remove the objects from the bag, all the students were very interested, because ... I don’t know ...

T: ... A lot of curiosity

T: ... *it created great expectation to be honest, about what they are going to present themselves, how are they ... well, they are in a new school year*

F: Ok

T: ... *and they don’t know, they didn’t know any teacher at that moment*

F: That’s very important and the teachers brought the suitcase, well done!!

(Session 2, IS8)

By using the strategy of “establishing alliance” (ALLI) the facilitator shows that he shares the objectives of the activity with one or more participants, and that he is part of a good team together with the rest of the participants in the PD and that they know each other well. The facilitator can do this by demanding teachers’ opinions, or by explicitly offering them his help. The use of this strategy allows the facilitator to promote co-responsibility in the development of the PD process:

F: Look, we teachers know this very well. [We know] if it’s one kid or if it’s the team who is speaking. If what he says provides new elements for learning, ok. But if not ...

(Session 7, IS3)

T: *Because I’ve been searching but I haven’t found it (...)*

F: Carmen, I’ll help you, I’ll help you to search for it later ...

(Session 2, IS3)

When the facilitator is “attributing competence and responsibility” (ATTR) to the teachers, he creates expectations that the implementation of changes in their teaching practice would succeed. By means of this strategy, the facilitator tries to help teachers feel more capable of coping with the changes they will apply and with the challenges this will bring. He also uses expressions that place teachers as the protagonists of these changes, emphasizing that they are the ones who must make the decisions about, and will be in control of, these changes. The use of this strategy allows the facilitator to support the teachers’ perception of competence and self-efficiency. It also promotes agency and autonomy towards change and improvement:

F: You already know what your students can do, you know how fast you can do the team activities! Make a little plan!

(Session 9, IS3)

T: *How long do the roles last?*

F: (...) This year [the roles] will last the four or five activities that you’ll do until the end of the year, but next year they will last as long as you consider. In this sense, I want to tell you: this year, I have guided you a lot, but next year, I will only tell you: you need to make a decision about this. But I will not tell you: two structures, five structures, seven structures ... As much as you consider! I won’t tell you: the teams last two months, three months, one month ... Considering the proposal, how long do you think they have to last?

(Session 6, IS7)

Finally, the least frequent discourse strategy (<1%) was “recognizing teachers’ concerns” (RCG). In this strategy the facilitator responds to a participant’s concern or demand that is not related to the problems, tasks, or topics discussed in the PD sessions, but that appears during the sessions. The facilitator recognizes the importance of the teachers’ concerns or demands and/or mentions documents or material that he can provide in relation to these issues. This creates a situation in which participants feel cared for and heard:

T: *Moral dilemmas is a strategy*

F: Yes, a strategy for moral education and education of criteria for socialization, but it has nothing to do with cooperative learning

T: Ok, ok!

F: *There's a book (...) with a lot of moral dilemmas in terms of resolution of usual conflicts in secondary education. (...) I can give you the book title later, I'm not sure about the title now, I'll tell you later (...) it's a very good book (...). But now we've changed the subject ...*

(Session 4, IS1)

4.2. Presence of the discourse strategies in different moments of the PD process

The analysis of the joint activity revealed that the sessions of the PD process were developed through two main groups of IS: (i) IS that referred to the negotiation and the establishment of agreements between the participants on how both the content and the process of joint work itself would be specified; and (ii) IS that referred to the design, analysis, and re-design of the new cooperative learning practices that the teachers would be introducing in their classrooms. The first of these groups was clearly dominant in the first session in the PD process and typically also appeared at the beginning and the end of the remaining sessions; as a whole, this group of IS took up 10.44% of the total time spent in the PD sessions. The second group of IS, in contrast, constituted the core of the remaining PD sessions and took 72.78% of the total time of the PD process. These two groups of IS account for two different foci in the PD process that appeared in two different moments of the process, and that altogether conformed the vast majority of this process: a focus on the process itself, in which the participants talk and agree on how the process will develop, and a focus on the design, analysis and revision of the new practices that the teachers are trying to introduce in their classrooms. So, it is worth analyzing whether the discourse strategies that the facilitator uses to promote a positive socio-emotional dynamics among the participants are the same or show differences in these different moments. Interestingly, the presence and frequency of the different discourse strategies in these two main types of segments showed some important differences (see Table 2).

According to Table 2, in the segments that referred to the negotiation and the establishment of agreement between the participants on how both the content and the process of joint work itself would be specified, three strategies were clearly predominant in the facilitator's discourse: showing a sense of humor (HMR), understanding and normalizing (NORM), and showing respect and courtesy (RESP). The first one accounted for around 35% of the strategies used by the facilitator in this type of segment, and the other two strategies accounted for approximately 20% each. Thus, these three strategies considered together constitute 75% of the strategies used by the facilitator. Additionally, three of the nine strategies identified in the whole process did not appear at all in this type of segment, namely: linking participants' interventions (LNK), valuing positively (POS), and recognizing teachers' concerns (RCG).

We present below an excerpt from the facilitator's speech (taken from the dialogue recorded in the first session) that illustrates the

Table 2

Frequency and percentage of appearance of the different discourse strategies in the two types of segments identified.

	Segments referring to the negotiation and agreement on the content and the joint work		Segments referring to the design, analysis, and re-design of the new practices	
	frequency	%	frequency	%
HMR	26	35.13	80	18.31
NORM	15	20.27	84	19.22
RESP	15	20.27	82	18.76
NAM	7	9.46	61	13.96
ATTR	5	6.76	20	4.58
LNK	0	0	56	12.82
POS	0	0	30	6.86
RCG	0	0	4	0.91
Total	74	100	437	100

prevalence of these strategies in this type of segment. The excerpt is part of a longer intervention of the facilitator, in which he argued the need to incorporate cooperative learning into the different curricular areas, while acknowledging the difficulties that would arise in the process:

F: *Someone says "yes, yes, we already work in teams", and "yes, we do a collaboration game in the tutorial class of whatever". And what about the math class?*

T: *In the math class we must work.*

F: *"Math class is time to work! Nooo, in math class noooo" (HMR) (laughs). Oh, then not. Kids must be taught to work in teams on topics that are relevant within the school. In the elements that are important within the school. Hey, this is very relevant, but the kids cannot find it in their end-of-term grades. Well, it must be in their end-of-term grades. We'll talk about this later, later. Not now, huh? Not now because it is very complicated, it is a bit complicated, but we will talk about it, it will come out, we will get there. (NORM) So, what I'm proposing, what I'm proposing, look ... (he plays a video) Well, I swear it worked five minutes ago. Excuse me for a moment ... Why is this not working? Excuse me, I think I haven't done it right ... (a teacher helps him) Thank you, Albert! (RESP) (video starts) It is related to this, in the human towers, the smallest and weakest is leaning on the others and the hands of all those below push ... And it works in a way that, it's everybody's hands that are pushing and this is what allows (inaudible) that the weakest remains. Huh? And it's what brings everyone to the top. It's called "Pinya" (the throng that supports the base of the tower), isn't it? We call it "pinya". But sometimes, when we try to do things by relying on others, there are problems. What we are proposing (inaudible) we will get there, we will get there, that there are these ... disappointments, problems. The key is not that when you propose a cooperative learning activity there's a lot of noise, that there's a kid who doesn't participate, another one doesn't want to do it, it doesn't work ... The key is not that it works, but to start over. This will happen, huh? Somebody will say: "What you proposed doesn't work at all", and then there are only two options: Either we (inaudible) and forget about it, or we start doing it differently to start and get to the top (video ends) and until the end, huh? My point is that these ideas are difficult, complicated, we will find it difficult to bring them to the classroom. In secondary education, I know that this is difficult in secondary education. (NORM)*

(Session 1, IS2)

The presence of the different discourse strategies used by the facilitator differed substantially in the segments that referred to the design, analysis, and re-design of the new cooperative learning practices that the participating teachers would be introducing in their classrooms. In this type of segment, and as shown in Table 2, the facilitator used all the strategies that had been identified and did so in a much more balanced way. Thus, no strategy accounted for 20% of the strategies used, and up to five different strategies had a major presence, all of them accounting for 13–19% of the strategies used, namely, the three strategies that were predominant in the previous type of segment (HMR, NORM and RESP), and two additional strategies: using the teachers' names as if they were students participating in the new practices (NAM) and linking participants' interventions (LNK). Specifically, LNK accounted for almost 13% of the strategies used in this type of segments, although it was not used in the other type of segments. Furthermore, the strategy of valuing positively (POS) also went from not being used at all to a percentage of almost 7%. These are the strategies that increased the most in relative terms.

Below we present a fragment of discourse corresponding to this type of segment, which illustrates the more varied use of strategies by the facilitator, with the appearance of strategies such as NAM, LNK and POS, and also HMR and ATTR. In this dialogue, taken from session 5, the facilitator and the teachers were discussing the best way to implement a cooperative structure to ensure equitable participation by the various

students in a team, after detecting that different teachers had developed the same cooperative structure differently in their classrooms:

F: *There is an idea that is important, which is that typically, in the structures of extracurricular activities, what's important is the result, how it ends. Not here, not here. Here, where the problem is correct because Marta did it alone, if we grade it we would give six points to the whole team, because it's correct, but the other four points, which correspond to the cooperative interpretation, they wouldn't have them; and in this other team, in this team ... (laughs) the end is not so well written, there are some spelling mistakes, it took more time ... but Ferran is actually able to explain it just like her, and just like Jaume, and for all of it, for each element, they would get a nine.* (NAM).

(...)

T: *I have two concerns: first, what if there are four questions, as Andreu said*

F: Yes

T: *This thing you said that when the four students [of the team] are talking among them there's one of them who leads ... you said that one day it's one of the students, another day it's another one ... Could it be one student each question?*

F: *Andreu, answer him, (laughs) Andreu, Marta and you, come on, come on* (LNK). *Now they are the experts in the 1-2-4* (ATTR)

T: *Should I repeat it again, Andreu?*

T: Yes

F: *Ajjjjjj, now, I liked it* (POS)

T: *You asked four questions ... He said that when four students discuss, at the end there's always one of them leading, and then you stipulate that the one who talks has to agree with another one, in pairs (...) He said: "today you stipulate that it's one [student who leads] and tomorrow, in another task, you stipulate that it's another one". My question was, you can do this for each question, you can do this much faster, can't you? (Talking to the facilitator)*

F: *No, talk to him* (he looks at Andreu) (LNK)

T: Ok

F: *It's the same as with the kids, the same as the kids, the same as the kids* (laughs) (HMR)

[The teacher raises his first doubt about whether all the students in the group can or should participate, and when; some teachers give their opinion; finally, the facilitator intervenes]

F: *The problem is ... Two things: they all have to speak, but each one has to speak in the turn in which we agree that they can speak, because if they don't take turns, the kids that have little to say, when others speak, they never have anything to say. I don't, I don't know if I made myself clear ...*

T: Yes, yes

F: *The kids that have little to say, if their turn is always the last one, when it arrives ... they never have anything to say (...) I continue where you left off, and you, Andreu, and you, Marta* (LNK)

(Session 5, IS2)

5. Discussion and conclusion

Our first research question referred to identifying the specific discourse strategies that the facilitator used to promote socio-emotional dynamics that could support collaboration and shared construction among the participants. Our analyses allowed us to identify nine strategies of this type: showing a sense of humor (HMR), understanding and

normalizing (NORM), showing respect and courtesy (RESP), using the teachers' names as if they were students participating in the new practices (NAM), linking participants' interventions (LNK), valuing positively (POS), establishing alliance (ALLI), attributing competence and responsibility (ATTR), and recognizing teachers' concerns (RCG). Of these, HMR, NORM, RESP, NAM and LNK were the strategies that were used the most in the facilitator's discourse.

It is important to highlight the specific nature of these strategies, i.e., the fact that they focus specifically on aspects related to the socio-emotional dynamics of the PD process. These strategies can be differentiated from other facilitators' discourse strategies, previously identified in the literature, aimed at the construction of meanings about the teaching practices that are the focus of this process, such as questioning, revoicing, modeling, reconceptualizing, clarifying, challenging teachers' ideas, making connections or summarizing (e.g., Collet, 2015; Onrubia et al., 2022; Reichenberg & Boyd, 2019; Zhang et al., 2011). In this sense, our results support the importance of considering these two aspects in the study of facilitators' discourse strategies explicitly and in a differentiated way: the construction of meanings about the teaching practices under analysis, and the construction of the socio-emotional dynamics among the participants.

Some of the strategies we identified in our study had already been found in previous studies so, in this sense, our results confirm previous results. This is the case for showing a sense of humor (HMR) (identified by Zhang et al. (2011) as "joking"), valuing positively (VAL) (validating participants' ideas, van Es et al. (2014)) and showing respect and courtesy (RESP) ("general appreciation", Alles et al. (2019)). In other cases, the strategies we found showed specific forms of facilitators' use of language that allowed us to translate into more concrete terms certain general recommendations or suggestions made in previous studies. Thus, strategies like establishing alliance (ALLI), and attributing competence and responsibility (ATTR) specify forms of offering non-judgmental feedback and reducing hierarchical relationships (Alles et al., 2019; Finkelstein, 2019). Understanding and normalizing (NORM) specifies a distinctive form of copying with teachers' negative feelings and emotion (Jaber et al., see Vedder-Weiss et al., 2020; Schneeberger McGugan et al., 2023; Vedder-Weiss et al., 2020). Other strategies that we identified had not appeared as such in previous studies, and therefore suggest new avenues to explore in this field. The two strategies that we consider most relevant in this regard are using the teachers' names as if they were students participating in the new practices (NAM) and linking participants' interventions (LNK). Regarding the latter, van Es et al. (2014) pointed out the importance of distributing participation, inviting different participants to share their ideas. LNK is clearly complementary to this recommendation and, from the perspective of the socio-emotional dynamics, underlines the importance not only of opening up participation to various interlocutors but also of presenting the different contributions as linked, promoting that they all are seen as necessary and relevant to a shared construction.

An aspect that seems especially noteworthy, in conceptual terms, in relation to the strategies we found, is that they can be associated with the two main dimensions for the construction of positive socio-emotional dynamics that Lefstein et al. (2020) pointed out, and that stand out in the review of the literature on this issue: the mutual trust between the participants and the egalitarian inclusion of them in the process of reflection and joint work. Thus, strategies like showing a sense of humor (HMR), understanding and normalizing (NORM), showing respect and courtesy (RESP), and attributing competence and responsibility (ATTR) can be considered especially useful for promoting mutual trust between participants, establishing a positive emotional relationship between them (Lowenhaupt et al., 2014), and addressing the conditions and emotions of vulnerability and insecurity that teachers can feel when they expose their practice to examination or face the incorporation of new practices (Beisiegel et al., 2018; Hunt, 2016; Jaber et al., see Vedder-Weiss et al., 2020; Schneeberger McGugan et al., 2023; Vedder-Weiss et al., 2020). In turn, strategies like linking participants'

interventions (LNK) or valuing positively (POS) contribute primarily to the egalitarian inclusion of all participants, promoting that everyone's ideas are valued, and that the interaction is oriented towards thinking together, thereby promoting the horizontality of the relations between the participants and the teachers' agency (Haneda et al., 2017; Robertson et al., 2020). The strategy of using the teachers' names as if they were students participating in the new practices (NAM) can also contribute specifically to this last dimension, promoting that the different teachers have a shared experiential base in relation to the classroom practices they are reflecting on and helping them feel that they are all able to contribute to the description and analysis of these practices.

This relation between the strategies that we identified in the facilitator's discourse and the two main dimensions involved in the construction of collaborative socio-emotional dynamics among the participants is also relevant in relation to understanding the results regarding our second research question: whether the presence of these facilitator's discourse strategies vary at specific moments in the PD process.

Indeed, we found that the presence of these strategies varied between two main moments in the PD process. On the one hand, in the group of interactivity segments (IS) that referred to the negotiation and establishment of agreements between the participants on how both the content and the process of joint work itself would be specified, which comprised the first session of the process and appeared later at the beginning and end of each of the rest of the sessions, three of the discourse strategies identified were clearly predominant: showing a sense of humor (HMR), understanding and normalizing (NORM), and showing respect and courtesy (RESP). On the other hand, a greater variety of strategies appeared in the group of IS that referred to the design, analysis, and re-design of the new cooperative learning practices that the teachers would introduce in their classrooms, which constituted the core of the PD process from the second session onwards. Moreover, in this second group of IS, the presence of these strategies was much more balanced, with the appearance or increase in use of strategies like using the teachers' names as if they were students participating in the new practices (NAM), linking participants' interventions (LNK), and valuing positively (POS) in these segments.

We interpret the differences in the presence of strategies between the two groups of IS as a differential emphasis by the facilitator on the two dimensions that contribute to the creation of positive socio-emotional dynamics in the collaboration process at different moments of this process. Thus, at the beginning of the process, when the joint work process itself and its content is being negotiated, and the relationship between the participants is being built, the facilitator prioritizes the use of strategies focused on supporting the construction of mutual trust. Subsequently, he incorporates strategies more linked to egalitarian inclusion when the joint activity focuses directly on the reflection on the teachers' practice and on the decision-making needed to review it (and also, in the case of the NAM strategy, when he has been able to build a certain amount of knowledge about the teachers he is working with, which is necessary for using this strategy).

In this context, it is important to emphasize that the promotion of egalitarian inclusion in the segments focused on the design, analysis, and redesign of the new cooperative learning practices does not result, however, in the disappearance of the strategies more oriented towards promoting trust and a positive emotional relationship between the participants, but it is combined with them. Hence the presence in this type of segment of a greater number of strategies, and a greater balance in their use. In short, at the beginning of the process, the facilitator primarily uses strategies focused on promoting mutual trust among the participants, and later, when he begins the work of reflection and redesign of the teachers' practice, he uses strategies aimed at achieving egalitarian inclusion of the participants in this process and, at the same time, aims to maintain the mutual trust between them.

These results can be connected with the proposals of some authors

who focus on instructional consultation processes (Rosenfield et al., 2014). They point out that, in these processes, a specific entry and contracting phase can be identified. This is distinct from the subsequent process of identification and analysis of the problem and the design and implementation of the instructional intervention to be carried out. In the entry and contracting phase, the consultant presents and clarifies with the teachers the framework and characteristics of the intervention (e.g., the process to be followed, its conceptual bases, or the collaborative nature of the relationship between consultant and teachers). Therefore, the focus of this phase is the process of intervention and joint work itself. This phase differs from the subsequent process of identification and analysis of the problem and the design and implementation of the instructional intervention to be carried out, which focuses on the teaching practice situations to be reviewed. The initial phase can be particularly useful to begin constructing a working relationship between consultant and teachers that the teachers perceive as supportive and that is founded on mutual trust (Newman & Rosenfield, 2019). Truscott et al. (2012), in their Exceptional Professional Learning (EPL) proposal, also emphasize the need for the consultant/PD facilitator to initiate the creation of a relationship of trust with the teachers before starting the sessions that are focused on the content that is the subject of the consultation/PD process.

In this framework, our results support the claim, previously suggested by Lowenhaupt et al. (2014), that the initial phase or moment of a PD process requires a specific focus on creation of trust. Our results also show some specific discourse strategies that facilitators can use for this purpose and underline that the facilitators' assistance to build trust must be maintained throughout the PD process, and is subsequently complemented by the promotion of egalitarian inclusion among the participants.

The identification of this pattern in the evolution of the facilitator's use of discourse strategies shows, in our view, the importance of considering the temporal dimension of the PD processes to understand how facilitators can promote socio-emotional dynamics favorable to collaboration and joint construction in these processes. The relevance of this temporal dimension has been pointed out in some recent studies in the field (Alles et al., 2019; Collet, 2015). However, with the aforementioned exceptions and to our best knowledge, it has rarely been analyzed in detail and must be further explored. We consider that looking at the facilitator's activity and discourse while considering this temporal dimension is necessary from a socio-cultural perspective and can be useful to better understand how facilitators can keep a balance between, on the one hand, the acceptance of teachers' practices, their experience and knowledge, and their representations on teaching practice, and on the other hand, their assistance in promoting the revision of this experience, knowledge and representations, and the introduction of changes in their practices (Finkelstein, 2019; Heineke, 2013; Ippolito, 2010), thus promoting the teachers' professional autonomy (Collet, 2015; LeeKeenan, 2020; Molle, 2013; Wood et al., 2017).

Our results should be interpreted considering the limitations of the study carried out, particularly the consideration of a single case and the exploratory nature of our analyses. Single case studies, such as the one we have presented, do not allow for direct generalization of the results obtained. However, when the analyzed cases reflect expert practices, as in our study, the results do offer relevant exploratory hypotheses that can be examined and contrasted in subsequent studies, through new case analyses or through quantitative methodologies that allow for statistical generalization.

With the above cautions, we consider that this study offers some potential practical implications for facilitators of PD processes such as that analyzed. These include: (i) using specific discourse strategies aimed at the construction of positive socio-emotional dynamics among the participants; (ii) explicitly promoting both mutual trust and egalitarian inclusion; (iii) giving priority to the construction of trust in the initial moments of the process (e.g. by showing a sense of humor, respect and courtesy, understanding and normalizing and attributing

competence and responsibility); (iv) supporting trust throughout the process, without taking it for granted after initial trust is established; (v) promoting, in the moments of the process focused on the design, analysis, and redesign of the teaching practices, the egalitarian inclusion of the participants (e.g., by helping them to have access to shared experiential knowledge of the new practices and to connect their interventions to better shared understanding of these practices).

Subsequent studies should contrast the strategies identified (especially those that are more novel with respect to previous studies) and deepen the analysis of how these strategies are organized and distributed over time and in relation to the joint activity of the participants. We emphasize, in any case, the need for continuing research in the field, searching for a better understanding of the specific discourse strategies that facilitators use to promote socio-emotional dynamics that allows for a dialogical orientation aimed at a shared understanding and improvement of the teaching practices of participants in PD processes.

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Declaration of competing interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

Data availability

The authors do not have permission to share data.

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