Bringing in professional Experience to a
Discussion Mediated by a Blended-learning Environment:
How and *What* do Teachers Learn?

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Abstract

We discuss the results of a study aimed at shedding light on the influence that the sharing of professional teaching experiences may have on teachers' professional learning. The focus is on the uses that participants make of their notes about their lesson planning experience in an in-service blended learning course, and the mediation strategies undertaken by the tutor in the virtual sessions. The study suggests that bringing in professional experience, which is generally well accepted, appears to be irrelevant, or may show a modest impact on professional learning development. Specific expertise is necessary for tutors to be able to support the meaning making process and effectively help in-service teachers to move from the mere exchange of experiences towards the appropriation of the target concepts.

Key words
Professional development; reflective diaries; meaning making; mediation of learning in virtual environments.

Incorporando la experiencia profesional en la discusión mediada por un entorno *blended-learning*: ¿*cómo* y *qué* aprenden los profesores?

Resumen

Discutimos los resultados de un estudio cuya finalidad es profundizar en la comprensión de cómo la compartición de experiencias profesionales de enseñanza puede influir en el aprendizaje profesional del profesorado. El foco incide en los usos que hacen los docentes, en un curso *blended-learning*, de las anotaciones sobre su experiencia de planificación de las clases y las estrategias de mediación llevadas a cabo por el tutor en las sesiones virtuales. El estudio sugiere que incorporar las experiencias profesionales al proceso formativo recoge una buena aceptación general, pero puede ser irrelevante o producir un impacto modesto en el desarrollo del aprendizaje profesional. Los tutores necesitan de competencias específicas para poder apoyar el proceso de construcción de significados y ayudar efectivamente a los docentes para que logren progresar desde del mero intercambio de experiencias hacia la apropiación de los nuevos conceptos.

Palabras clave

Desarrollo profesional; diarios reflexivos; construcción de significados; mediación del aprendizaje en entornos virtuales.

I. Introduction

This case study addresses the need for a better understanding of how teachers' professional development benefits from sharing and reflecting on experiences throughout lifelong learning, particularly in education systems characterised by a non-collaborative culture. In the particular context of the Portuguese education system it is important to gain a better understanding of how teachers develop when instructional programs stimulate the sharing of diary notes about lesson plans. A study by the OECD describes Portuguese teachers as "autonomous", "functioning independently", especially in the upper grades, and immersed in a non-collaborative culture, similar to some other democracies in Europe and elsewhere. It is hard to find "developmental classroom observation, professional feedback, peer discussion and coaching opportunities […] an 'open-door' climate of willingness to share classroom practice" (Santiago, Roseveare, van Amelsvoort, Manzi, & Matthews, 2009, p. 34).

A review of previous studies concerned with teachers' learning indicates that considerable effort has been put into the "manner in which teachers could transform their individual experiences into more generalizable conceptions" (Shulman 2002, 2003, in Schulman, & Schulman, 2004, p. 258) but these studies lack attention to the subject specificity. Paying attention to teachers' voices has been an attempt to gain a deeper understanding of teachers' learning. Despite growing interest in the study of teachers' voices, little information and analysis is provided about the use of teachers' written reflections for the collaborative construction of knowledge in virtual collaborative learning settings.

Teachers' reflective diary notes, as well as portfolios, lesson plans and blogs have been recognized as potential facilitators of professional learning. Despite this, various studies show that, under some pedagogical circumstances, sharing previous experiences and knowledge might not add any significant improvement to the quality of in-service teachers' learning. Hopefully the study will provide clues about the explicit purposes of the in-service teachers when they share experiences about the elaboration and the use of lesson plans, and how the tutor helps them to make meaning from the previous experience towards the new content to be learned, the communicative approach to the planning of language teaching.

The present study was conducted as part of the research leading to a doctoral thesis. The data collection was carried out in a vocational training institution (in 2009) during a blended-learning course designed to improve the teachers' professional learning and teaching practice.

II. Theoretical frame of reference

The theoretical framework of the study meets the demands of the interpretive approach. The three main references are: (i) teachers' reflection on previous experiences as a potential facilitator for professional learning; (ii) a situated and collaborative approach to lesson planning; and (iii) mediation and distributed teaching presence in virtual environments.

a. Professional learning and teachers' reflection on previous experiences

Bringing in the in-service teachers' professional experience is generally well accepted and has been an object of inquiry in educational research concerned with project or problem-based learning (Darling-Hammond, Hammerness, Grossman, Rust, & Schulman, 2005; Putnam, & Borko, 2000). It may take the form of opportunities to reflect on teaching experiences, or "realistic problems" that are supposed to be representative of the professional situations that teachers cope with in their daily routine.

In the collaborative and situated approaches to teachers' education both forms are deemed relevant to professional learning because in-service teachers can relate the new goals and the new content they are learning to problems with which they are familiar. Reflecting with their peers in authentic learning situations provides "natural opportunities for learners to test and refine their ideas and to help each other understand the content" (Winter, & McGhie-Richmond, 2005, p. 120).

Sharing teaching experiences may include written descriptions for reflective purposes. New shared meaning may take place through a process in which teachers make meaning of their teaching and learning experiences by allowing others' points of view and negotiating meaning (Barkhuizen, 2011). The educational potential of sharing experiences stems particularly from the written form and its use to understand experience, to communicate with others and to solve problems in some way through an "interthinking" process (Mercer, 2001).

Although reflecting on professional experience is recognised to be beneficial to professional learning it should not distract researchers from defining the object of reflection and their approach to it. Three elements in the approach to the object of the reflection should be taken into account: (i) in-service teachers respond to an accepted pressure to share; (ii) this may affect teachers' choices of the content; and (iii) learning from sharing experiences is not a mere product of a "direct reading of the experience, it is rather the result of the mental constructive activity" (Coll, 2007, p. 157), and requires articulation and reflection on what we know (Jonassen, Davidson, Collins, Campbell, & Haag, 1995).

With regard to the criteria for selecting the type of professional experience that might have better potential for professional learning, different arguments can be found: (i) reflection on one's successes, and finding explanations for experiences that have a positive meaning, might be more beneficial to professional learning; (ii) the reflection may be action-oriented when it focuses on what to do and what works, and it may be meaning-oriented, when there is a search for understanding why the intervention has worked (Mansvelder-Longayroux, Beijaard, & Verloop, 2007, in Hoekstra, & Korthagen, 2011). Troublesome or negative experience is what often "triggers the process of meaning making" (Schön, 1983, in Hoekstra, & Korthagen, 2011, p. 78). Similarly, the opportunity to raise disturbing questions about educational issues - due to the challenge to the "taken-for-granted ideas" - tends to redirect the initial thinking (Barone, 2001a, 2007, in Latta, & Kim, 2010).

In brief, research should focus carefully on *what* teachers learn and *how* they learn (Darling-Hammond et al, 2005). Teachers may learn different things as a result of the many forms that the interaction of two factors may take: (i) the design, which includes the role that sharing experiences is expected to play in the construction of meaning; and (ii) the delivery of a course (e.g., how the tutor actually guides the reflection on in-service teachers' previous knowledge).

b. Situated and collaborative teacher education

Having focused on the *object* and the *educational potential* of reflecting about previous experience, the focus now is the *purposes* of learning from reflection.

The situated approach is currently a key reference in in-service teacher education concerned with the construction of teaching knowledge. In a situated and collaborative perspective, teachers learn through their participation in learning tasks that are considered authentic in the sense that they correspond to ordinary practices (Brown, Collins, & Duguid, 1989). The aim is to provide teachers with conditions to construct and reconstruct meanings connected with the social and cultural characteristics where teaching is undertaken (Coll, Onrubia, & Mauri, 2008) and allow them to take *mindful decisions* in context (Ball, 1995; Palincsar, 1999; Palincsar, Magnussen, Marano, Ford, & Brown, 1998, in Butler, 2005).

A central element of the situated approach to teachers' lifelong learning is that they share common features: they share a common educational background and similar professional experiences, and they belong to a specific community of professionals. These features play a role in the development of teaching knowledge through three main types of resource for the development of a *joint intellectual activity*. The first type of resource is offered by the experience they share and transmit to the novice teachers (Mercer, 2001). The second type of resource is the *collective identity* - an affiliation to their professional group of reference - that is built through their common history and by sharing knowledge, goals and practice. The third type of resource refers to the *reciprocal obligations* that are associated to the previously mentioned affiliation, and the respective responsibilities and roles.

Bearing in mind that learning is "a process of transformation of participation", in which both experts and learners contribute and learn different aspects of the use of the content to be learned, the explicit purpose of learning activities is connected "with the history and the current practices of the community" (Rogoff, Matusov, & White 1996, p. 390). In this situated perspective, both in the educational and professional sense, the context, which is provided by the community of teachers, is "intrinsic and constituent of the learning process" (Clarà, & Mauri, 2010, p. 121).

c. Mediation of meaning in virtual and collaborative environments

We now focus on the central role the mediator plays in the development of the process of construction of meaning within a community of professionals as learners. Tutors guide the process of meaning making and sense making about content which is complex, culturally elaborated and organised. From the interactivity approach to the study of teaching and learning, the focus is on the interaction and communicative interchange among the teacher, the learner and the learning task and its content (Coll, Colomina, Onrubia, & Rochera, 1992; Coll, 2007; Stahl, Koschmann, & Suthers, 2006). Thus, tutors help learners to learn by providing external help - a process of educational influence - which is centred on the learner's construction of meaning, (Coll, Onrubia, & Mauri, 2008). Without this support learners would find it hard to achieve good quality learning. Nevertheless, there are fewer CSCL-Computer Supported Collaborative Learning studies on teachers' roles or pedagogical arrangements than on students' behaviour and learning outcomes (Lakkala, 2010).

The mediation of the online tutor and the underlying model of teaching practices cannot be separated from the harnessing of the potential of technological affordances. The main features of the online tutor's mediation may be defined in terms of structured and structuring guidance, with flexibility, managing the online support according to the perceived learners' needs, on the basis of a nonlinear conception of the learning process (Goodyear, Salmon, Spector, Steeples, & Tickner, 2001; Garrison, & Cleveland-Innes, 2005). In this view, the online tutor's roles are basically: (i) helping to keep the focus on the core content, making a summary that incorporates and rephrases the participants' contributions; (ii) editing and updating distributed learning resources; (iii) providing personalised online assistance to improve each participant's construction of meaning; (iv) using online techniques to assess learning outcomes and processes; and (v) managing institutional matters (Goodyear et al, 2001).

In the interactivity perspective, the tutor's mediation comes between the content - session planning - and in-service teachers as learners in order to make them receptive to learning (Kozulin, 1998). The main focus of the mediation intervention is the relationship between the learner and that content, within a process that is guided by the expert. Similarly, previous studies concluded that producing spontaneous narratives does not guarantee that the learners reach the high conceptual levels tutors expected (Priemer, & Ploog, 2007; Krajcik, Blumenfeld, Marx, & Soloway, 2000; Lehrer, Carpenter, Schauble, & Putz (2000), Lipponen, Rahikainen, Lallimo, & Hakkarainen (2003); Mandl, Gruber, & Renkl (1996), Muukkonen et al., 2005, in Lakkala, 2010). The predominance of written asynchronous communication in CSCL-Computer Supported Collaborative Learning settings and the permanent availability of the record of participants' interactions "allows for greater interaction, and reflection on decisions" (Winter, & McGhie-Richmond, 2005, p. 120).

III. Study aims and research questions

The case study aims to characterize how teachers use their diary notes in a learning process in an in-service blended learning course for secondary school language teachers.

The study approaches its aim by inquiring about *how* in-service teachers and tutors participate, and *for what purpose*, when the diary notes are shared throughout the performance of a complex task (producing guidelines for the preparation of lesson plans).

The research questions are:

(i) When do participants share diary notes?
(ii) What are the main features of the diary notes?
(iii) If the in-service teachers make the purposes of their notes explicit, how do their purposes relate with the main line of debate (performing the task)?
(iv) How do tutors manage the discussion on the diary contributions throughout the performance of the learning task?

IV. Method

The case study is the object of the research since "the case study is not a methodological choice, but a choice of object to be studied" (Stake, 1994, p. 236) and is focused on the construction of teaching knowledge as it unfolds throughout the joint activity in a course with a specific instructional design. The qualitative and interpretive nature of the case study allows the identification of the specific ways by which tutors and learners share and jointly construct meanings, and how they make use of those meanings when they act in culturally organized contexts (Erickson, 1986).

a. Participants

All the 12 participants (11 women; 1 male) are secondary school teachers: 10 in-service teachers ('D', 'E'…'N') and 2 tutors (A and B). They have a university degree and three or more years of experience as professionals or/and as volunteers in mother-tongue and/or additional language teaching to adults and children.

b. Learning environment

The learning environment was designed by the institutional guidelines for an in-service blended course, considered as innovative by the state professional institution. It had two interrelated components: a face to face component (3 sessions x 6 hours) and a virtual component with a minimum of 12 hours of activity. The innovative features of the course, such as the blended learning environment and the importance attributed to sharing experiences, however, contrast with a few more traditional features associated to the approaches to professional development that are short-term and do not provide much support during implementation (Harris et al., 2012).

The techno-pedagogical design of the course - the general structure of the course, the content and the sequence of the tasks, the guidelines for the pedagogical use of the face to face and online sessions (Coll, Onrubia, & Mauri, 2007) - offers an opportunity to understand how teachers learn when they reflect upon their professional experience. Six key characteristics of the techno-pedagogical design seem relevant to the purposes of the case study: (i) the pedagogical component stresses the importance of learning new concepts meaningfully, by sharing and reflecting on previous teaching practices; (ii) the collaborative tasks are considered by the institution to be similar to the routine teaching planning tasks; (iii) the outcome of the tasks is expected to be used and adapted in the professional context; (iv) specific rules define the conditions for participation in the learning tasks; (v) a set of recommendations about mediation by the tutors are based on a socio-constructivist approach to teaching and learning; and (vi) all the participants are teachers which allows a deeper analysis of *teaching presence* as a process of mutual educational influence. The blended learning format follows the recent general tendency to adopt blended learning as a means to reduce costs and to facilitate the management of personal time and activity during the training period (Dede, 2006, in Brooks, & Gibson, 2012, p. 2).

A complex task was selected on the basis of five criteria: (i) it requires mobilization and systematization of the new concepts worked out in the previous sessions of the course; (ii) it is a collaborative task; (iii) participants are expected to follow the rules through making critical comments grounded on the recommended readings; (iv) participants are encouraged to share professional experiences related to lesson planning, to comment and to ask for contributions; and

(v) its final product - guidelines for lesson planning - is expected to be used in the next task (drawing up a lesson plan) and in lesson planning in the professional setting. On the basis of a previous mutual agreement, the task was introduced in a face-to-face session by Tutor A and then was performed in the virtual forum with Tutor B through two interrelated phases. In the first phase the debate should unfold through the discussion of critical approaches to a poorly-structured lesson plan, which provides an explicit opportunity for using the newly learned concepts, reconstructing previous professional knowledge and making contributions to improve the lesson plan. The second phase is focused on the joint construction of guidelines for adult language learners.

The task started with a face-to-face session for the presentation of the rules, and should be undertaken during a 24 days period, which in fact took place during a total period of 42 days, until two days after the course closure. In-service teachers were expected to send a minimum of two posts on a weekly basis, and one post should be grounded in the recommended theoretical readings. Tutors' intervention should follow the guidelines by stimulating the participation of all the in-service teachers, by encouraging them to ask questions and to share opinions on session planning, and to give some kind of contribution to the construction of the product of the task.

As mentioned before, the diary notes traverse the whole learning process as an optional task that is expected to trigger reflection and the debate on both previously studied and new concepts. The guidelines for writing the diary notes were designed by the researcher and provide the following linguistic cues:

"*Writing the notes in the teacher diary is a task for the in-service teachers who are maintaining their teaching activity in parallel to the course. It requires your reflection on the daily teaching, notes about critical anecdotes, sensations, decisions, changes in decisions and intervention; it also requires description of recent events. Please write down what occurred, who was (in)directly involved, provide information about the context, the didactic situations related with the content of the notes, the tasks, the resources. Each teacher will decide which diary content he/she is willing to share. You should take into account the diary's potential use in deepening and clarifying many of the conceptual and operative issues that are part of the subject "Planning and teaching methods to teach Portuguese to learners at the Beginners level". If you are not familiar with writing diary notes, you might choose some of the following expressions in order to construct your text and be easily understood by other participants: 'I became aware of…'; A situation/ a specific behaviour drove my attention to…'; 'I'm concerned/ frustrated about…';'I felt that…'; 'I've changed my mind because…'; 'I found it very interesting to me because…'; 'Now I finally understand why…'; 'I wish I could …'*".

The diary notes could be shared at any moment in the virtual discussion, in accordance with the rule that required each in-service teacher to justify the selection of his/her notes by making explicit use of the recommended thematic readings. Tutors would be able to collect "evidence" of the reflection based on both professional experiences and theoretical references and, particularly, of the expected progressive appropriation and use of the newly learned concepts when reflecting on concrete decisions and intervention concerning lesson planning in the professional context. The diary notes and the example of an ill-structured lesson plan were presented with the explicit intention of stimulating meaningful contributions and facilitating the online discussion.

c. Methodological approach

The methodological references for the data collection and analysis are: (i) the naturalistic approach that totally excludes the manipulation of variables; (ii) interactivity, which allows the observation and the analysis of the dimensions of the complexity of participants' contribution regarding the content (lesson planning); and (iii) within the interactivity frame of reference, the *Distributed Teaching Presence* approach as a process of educational influence is considered a process of adjustment of the participation of the tutor and the learners to the learning process. This process takes place under the tutor's guidance with the learners' contributions (Coll, Engel, & Bustos, 2009). This approach to *Distributed Teaching Presence* develops an earlier approach by Anderson, Rourke, Garrison, and Archer (2001, p. 5): "the design, facilitation, and direction of cognitive and social processes for the purpose of realizing personally meaningful and educationally worthwhile learning outcomes".

The unit of analysis is the *fragment of the individual contribution* of the participants and it is defined as the "minimum expression of the participant's statement that gains significance in the context" (Coll, Onrubia, & Mauri, 2008, p. 46).

The main sources of information were the participants, the electronic register of their posts and attachments in the virtual forum and the instructional norms.

d. Data collection

A set of guidelines was produced for data collection and to support in-service teachers who were not familiar with writing diary notes. Data were collected through video and tape records in the face-to-face session, and through electronic records of the posts and attachments to the virtual forum sessions (Table 1).

Period of data collection: 42 days (25.05.2009 - 05.07.2009)	
Contributions to the task undertaking	
Data collection in the introductory face-to-face session	Data collection in the virtual forum of the task
Record: video and tape records of the participants' contributions during the whole session; no diary notes	Record: electronic records of all the posts and attachments with diary notes

Table 1 - Data collection

A total number of 37 contributions (posts) from the tutor and the 10 in-service to the virtual forum were collected.

e. Data analysis

An adaptation of the protocol (see Table 2) was produced for the analysis of the data of the joint activity during the task. The protocol adopts three dimensions of *Teaching Presence* (Coll, Engel, & Bustos, 2009): (i) *Participation management (P)*; (ii) *Task management (T)* which is centred on the instructional norms and how participants should approach the performance of the task and the final product of their collaborative activity; and (iii) *Meaning management (M)*, which allows the analysis of the meaning making process throughout the threaded posts in the virtual forum and the contributions to the face to face session of the task. It provides information about the participants' intervention, contributions and communicative interchanges related with the content. These interchanges might consist of making statements about their own ideas, asking other participants to comment on previous contributions in the posts and the attachments, making evaluative comments, asking questions, summarizing, among others. We agree with the core importance that Coll, Bustos, and Engel (2011) attribute to the management of meanings in Teaching Presence, based on the assumption that it is equivalent to a process of mutual educational influence that takes place among participants.

Within the scope of the present work we consider: (i) the sub-category (P_an) for the announcement of a spontaneous participation within the *Participation management* (P); (ii) three sub-categories of *Task management* (T): (T_fr) for an intervention that consists of reminding the learners of the instructional norms of the task in the discussion line 1 (L1) or in the discussion line 2 (L2); (T_pp) for the request for details about how the participants are approaching the task; and (T_vc) for an appreciation of the participants' approach to the task and the extent to which their intervention meets the demands of the task. The following table shows the coding categories used to analyse the management of Meaning (M) making process.

Dimension: *management of Meaning* (M)	
Code	Descriptor
M_sp	Presenting, of one's initiative, own meanings, or meanings presumed to be their own, that extend the focus, the subject or the semantic scope of the <u>meanings presented previously</u>.
M_sf	Presenting, of by one's initiative, meanings related to external sources with a certain degree of expansion (by developing, extending, deepening).
M_rf	Reference to one or more sources of meaning (references to books, articles, web pages, specialized journals…).
M_doc	Presenting meanings through annexed documents, their own or from someone else's.
M_it	Identifying topics of debate and inquiry.
M_re	Recalling literally, or almost literally, the <u>meanings previously presented by other participants</u>.
M_vf	Favourable appreciation (manifestations of agreement and acceptance) of <u>meanings previously presented by other participants</u>.
M_vc	Critical judgements (more or less formal and disagreeing statements) about <u>meanings previously presented by other participants</u>.
M_ed	Expressing doubts, questions, misunderstandings or insecurity about one or more topics in debate.
M_ie	Identifying and/or correcting mistakes or misunderstandings (true or not true) in the meanings previously presented by other participants or by oneself.
M_pp	Asking other participants for specifications, clarifications or explanations about meanings previously presented by them.
M_rpp	Responding to another participant's request for specifications, clarifications or explanations about the meanings previously presented by the person who is responding.
M_rq	Asking other participants to present meanings or comments about the meanings presented by the person who is asking.
M_rqo	Asking other participants for new meanings or comments about the meanings presented by <u>a participant other than the person who is asking</u>.
M_rrq	Responding to a participant who is asking for new meanings or comments about the <u>meanings presented by the participant who is asking</u>.
M_rrqo	Responding to a participant's request for new meanings or comments about the <u>meanings presented by a participant other than the person who is asking</u>.
M_si	Making summaries, or reviews, by incorporating own previous meanings and others' meanings.
M_pn	Presenting own meanings, or meanings presumed to be their own, related to professional experiences, in a narrative form.
M_pr	Presenting own meanings, or meanings presumed to be their own, related to professional experiences, in a reflective form.
M_pf	Making reference to one or more external and social sources of meaning (the lyrics of songs, tales, and institutional application forms) which may be adapted as learning materials for the students.
M_sf_pr	Presenting, of one's initiative, own meanings, which relate to both reflection on professional experience and external sources of meaning, with a certain degree of expansion (by developing, extending, deepening the approach).

Table 2 - Descriptors of the codes for management of Meaning dimension (adapted from Coll, Engel, & Bustos, 2009; Coll, Bustos, & Engel, 2011)

Validity was controlled through a sequence of coding procedures: applying the criteria for coding the fragments of Meaning in the post and the attachments, reviewing the coding decisions by peer evaluators, then by incorporating the agreed changes and a final overall evaluation with 90% of agreement. In order to obtain an iterative assessment of the coding and the coding changes, every option was kept recognizable with a set of colours and signs.

The in-service teachers' notes were organized within the hermeneutic unit with *Atlas.ti*, the tool for the content analysis of the fragments, and the 118 fragments were coded according to the categories defined in the protocol. The analysis is focused on the fragments of the notes that contain meanings related to the lesson plan and its use within two different lines of discussion: the main line of discussion about the task (L1) and a parallel line of discussion (L2) which is not explicitly related to the task.

V. Results

The results are organized according to the research question sequence. None of the in-service teachers who shared diaries had previous experience of writing professional diaries; one had short previous experience in his teacher training programme.

Results for Question I

In the results for Question I - *When do participants share diary notes?* - we found that in-service teachers only share diary notes in two moments: in the virtual sessions and after the course, when three in-service teachers showed a few notes during the interview.

Results for Question II

Question II - *What are the main features of the diary notes?* - allowed the identification of the following main features. (i) a total of 9 diaries were shared by 30% of in-service teachers in the virtual forum of the task; (ii) two main *spaces of communication* were used by the in-service teachers: electronic attachments and posts to the virtual forum; and (iii) the *structure* found in 6 diaries is similar to the suggested structure and is spontaneous in 3 diaries as described in the following table.

In-service teachers sharing diaries	Diary - basic structure similar to the guidelines	Diary - spontaneous structure (continuous text like)
'E' (4 diaries)	1st attachment (1)	attachment (1); post (2)
'J' (3 diaries)	post (3); plus references	
'L' (2 diaries)	attachment (2); plus iconic symbols ("smile") representing emotions	

Table 3 - Space of communication and structure of the diaries

The in-service Teacher 'L' reused his previous document in a second post by adding notes. He displays two paragraphs that are graphically separated to differentiate distinctive anecdotes, as illustrated in the example (Table 4):

Diary of a Teacher	
Date - Notes	Observations
Course Nº 4; 09 a.m. - 01 p.m.: Today the marks for Language Level 2 were released. None of the students has got a negative mark. One student has got 20 as the top mark. So motivation is high. The session plan was modified. The students knew (…) 26/05	☺
Course Nº3; 07 p.m. - 10 p.m.: Today the session became special because of a sad incident. One of the students took away some material (…) 27/05	☹

Table 4 - Structure of the diaries - examples of the diaries of in-service Teacher L

Within the Meaning management dimension of Teaching Presence, the *genre of the narrative* was identified as descriptive (M_pn), reflective (M_pr) or directed inquiry (M_sf_pr).

Example 1 illustrates the sub-category *descriptive narrative (M_pn)*:

"*Today I reused the previous session plan. The learner who had taken away some materials apologized to me and, at the end of the session, everybody was calm*" (in-service Teacher 'L').

Example 2 illustrates the sub-category *reflective (M_pr)*:

"*Then the learner apologised to me because he had failed to give the correct information to his peers. He felt so guilty. It appears to me that the cultural issue here is very important. In his country of origin the level of educational demand is very high. This episode changed my mind and I now think that I should change my strategy* […]" (post (094), in-service Teacher 'E').

Example 3 illustrates the sub-category interpretive narrative (M_sf_pr):

"I'd like to share something I've read. I really wonder a lot if we take it into account when we make a lesson plan and then the class doesn't run as we expected…'making a lesson plan is so important as to be able to abandon it' […]" (post (012), in-service Teacher 'G').

Narrative genre	In-service teachers and respective diary notes		
	E	J	L
descriptive narrative (M_pn)	Diary 1		Diary 1 / 1st block
			Diary 2 / 1st block
reflective (M_pr) and/or directed inquiry narrative (M_sf_pr)	Diary 2 Diary 3 Diary 4	Diaries 1, 2 & 3	Diary 1 / 2nd block Diary 2 / 2nd block

Table 5 - Narrative genre of the notes in the (9) diaries

Summarising, the reflective or inquiry directed approach is predominant, although some descriptions were identified as the factual basis for the reflection, while other blocks of narrative description do not progress into a reflective narrative.

Results for Question III

With respect to the Question III - *If the in-service teachers make the purposes of their notes explicit, how do their purposes relate with the main line of debate (the performance of the task)? -*, the discussion of the notes, as an autonomous line of discussion, represents 30,82% out of the total number of 146 fragments that were coded in the *Meaning* dimension, in both discussion line 1 (task) and line 2 (diary notes). None of the diary notes were shared with the explicit purpose of contributing to the task, and 55,55% were shared in the virtual forum without any explicit purpose at all. Two explicit purposes are identified in the notes posted on the forum (Table 6): (i) letting other participants know about some anecdote, with, or without an announcement ("*I'm posting my diary notes*"; "*Here you have one more note*"); and (ii) asking for feedback ("*I'm waiting for your comments*"; "*Please give me critical feedback*").

Categories of purpose	Who (in-service teachers)	When (weeks 1 to 6)
1. Simply sending notes with / without announcement	J (3) L (2)	Week 6 Weeks 1 & 3
2. Asking for critical feedback (S_rq_L2)	E (4)	Weeks 3 & 6

Table 6 - Categories of the general purposes for sharing the notes

The in-service Teacher 'I' did not share his professional experience ("*very little*" in his own words) in a diary, but he shared a specific planning experience to give the critical feedback that was requested by the in-service Teacher 'E' (diary posted in Week 3).

Partici-pants	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6
'E'			1(M)/L1			1(T)/L1; 4(M)/L1
	3(M)/L2					4(M)/L2
'J'				2(T)/L1		15(M)/L1
						9(M)/L2
'L'	3(M)/L2		5(M)/L2			3(M)/L1
Tutor B	4(T)/L1	2(T)/L1	10(T)/L1	7(T)/L1	4(T)/L1	7(T)/L1
	3(M)/L1	4(M)/L1	7(M)/L1	13(M) /L1	3(M)/L1	2(M)/L1
	4(M)/L2					

Table 7 - Distribution of the scores in dimensions (P), (T) and (M), in discussion lines 1 and 2

The diary notes are the focus of communicative interchange in Week 1, but they were shared without an explicit purpose and received no feedback in the remaining weeks. The communicative interchange in Week 1 is extended in Week 3 through the reply of in-service Teacher 'L' to other participants' comments on his former notes. In brief, all the in-service teachers (10) explicitly attributed importance to sharing their planning experiences in the forum, whether they did it by sharing own notes (30%) or/and by giving positive feedback on others' notes (70%).

Results for Question IV

With regard to research Question IV - *How do tutors manage the discussion with the diary contributions throughout the performance of the learning task? -*, as mentioned, the results arose from the analysis based on the interactivity approach. The intervention of Tutor B varies throughout the six weeks period of the joint activity in the virtual forum. The table shows the distribution of the fragments of the Tutor's contributions.

Total	Distribution of the fragments of Teaching Presence - Tutor B		
	(P)	(T)	(M)
Week 1 6 contributions 16 fragments (13,55%) 4(P); 5(T); (M)	4(P) 25% /16 1(P_fr); 2(P_an); 1(P_doc)/L1	5(T) 31,25% /16 4(T_fr)/L1 1(T_vc)/L2	7(M) 43,75% /16 1(M_sp); 1(M_doc); 1(M_rq)/L1 3(M_vf); 1(M_rqo)/L2
Week 2 2 contributions 7 fragments (5,93%) 1(P); 2(T); 4(M)	1(P) 14,28%) /7 1(P_fp)/L1	2(T) 28,57% /7 1(T_fr); 1(T_vc)/L1	4(M) 57,14% /7 1(M_sp); 1(M_sf); 1(M_rrq); 1(M_pp)/L1
Week 3 8 contributions 21 fragments (17,79%) 4(P); 10(T); 7(M)	4(P) 19,04% /21 1(P_fr); 1(P_an) 1(P_vr); 1(P_pp)/L1	10(T) 47,61% /21 2(T_fr); 1(T_vc); 7(T_pp)/L1	7(M) 33,33% /21 1(M_vf); 3(M_sf); 1(M_ie); 1(M_re); 1(M_doc)/L1
Week 4 12 contributions 44 fragments (37,28%) 21(P); 7(T); 16(M)	21(P) 47,72% /44 1(P_fr); 5(P_pp); 2(P_fp); 4(P_an); 1(P_vr); 3(P_vc); 2(P_pr)/L1 1(P_pp); 2(P_fp) /L4	7(T) 15,90% /44 2(T_fr); 1(T_pp); 2(T_an); 2(T_ve)/L1	16(M) 36,36% /44 3(M_sp); 2(M_rq); 1(M_it); 3(M_doc); 2(M_docr); 1(M_vf); 1(M_vc)/L1 1(M_vc); (M_rrq);1(M_ie)/L3
Week 5 6 contributions 19 fragments (16,10%) 11(P); 5(T); 3(M)	11(P) 57,89% /19 3(P_fr); 1(P_pp); 2(P_an); 3(P_vc)/L1 1(P_fr); 1(P_vc) /L4	5(T) 26,31% /19 1(T_fr); 1(T_pp); 1(T_fp);1(T_vc)/L1 1(T_vc) /L4	3(M) 15,78% /19 1(M_sp); 1(M_doc); 1(M_si)/L1
Week 6 3 contributions 11 fragments (9,32%) 2(P); 7(T); 2(M)	2(P) 18,18% /11 2(P_an) /L1	7(T) 63,63%/11 3(T_fr); 2(T_fp); 2(T_vc)/L1	2(M) 18,18%) /11 1(M_doc); 1(M_sp)/L1
37 contributions 118 fragments	43(P) - 36,44% 7(P_fr); 8(P_pp); 5(P_fp); 11(P_an); 6(P_vc)	36(T) - 30,50% 13(T_fr); 9(T_pp) 3(T_fp); 7(T_vc)	39(M) - 33,05% 7(M_sp); 3(M_sf); 7(M_doc) 2(M_ie); 4(M_vf); 3(M_rq); 2(M_docr); 2(M_vc); 2(M_rrq) 1(M_si); 1(M_re); 1(M_it)

Table 8 - Weekly distribution of the fragments of Teaching Presence in interventions of Tutor B - Participation (P), Task (T) and Meaning (M) management

The analysis of the distribution of the fragments in tutor B's interventions (Table 8) shows that only in Week 1 is his intervention related with the diary notes (L2), within the dimensions of Task and Meaning management respectively. The distribution of the fragments of Meaning management, in discussion line 2, in the interventions of in-service teachers, was identified as follows:

Table 9 - Weekly distribution of the fragments of Teaching Presence in interventions of in-service teachers - Participation (P), Task (T) and Meaning (M) management

Diary notes were shared in weeks 1, 3, 4 and 6, as an autonomous discussion theme. Additionally, the authors of the notes (in-service teachers D, E, F, G, I, J, L) received feedback from the other participants during the joint activity only in Week 1. In the tutor's initial participation (Week 1) four features were identified: (i) a positive appreciation (T_vc_L2) of the learners' approach to the diary notes (discussion line 2); (ii) a positive appreciation of the appropriateness of these contributions in the framework of discussion line 2 (M_vc_L2); (iii) a reminder of the instructional guidelines of the task (discussion line 1), focusing on the management of the norms (T_fr_L1); and (iv) asking for contributions to the task (M_rq_L1).

In the period between the end of Week 3 and Week 4 the intervention of tutor B showed three features: (i) a positive appreciation of the contribution of meanings (M_vf) through the diary notes; (ii) a reminder of the norms for performing the task; and (iii) request for contributions to the task, the main line of discussion (M_rq_L1). *Example*: in tutor B's post (011) he addresses the previous posts from in-service teachers 'E' and 'G'.

(M_vf_L2) "*So far I find it very interesting how you debate the different approaches to the daily difficulties as well as some of your suggestions to overcome them and to develop the knowledge about language and the motivation of your students*";

(T_fr_L1) "*Nevertheless I remind you that we must move forward and choose the content and the formative intentions […] according to the guidelines from the recommended readings*";

(M_rq_L1) "*I'm most interested in receiving your work, as planned for the first week of the course (which is almost over), and in starting to read your critical comments on the example of session plan we have under debate*".

In weeks 3 and 4, five features were identified in Tutor B's intervention: (i) he asks for detailed information about the learners' approach to the task (T_pp_L1), in the forum and in a personal e-mail message; (ii) appreciates the learners' approach to the task (T_ve_L1); (iii) he brings meanings of his own to the debate on the task content (M_sp_L1); (iv) he reminds the in-service teachers of the instructional norms for the task (T_fr_L1); and (v) contributes with meanings of his

own in an attachment (M_doc_L1) which is a structuring document to bring together the collaborative contributions.

Only one contribution (in-service Teacher 'J') incorporated both reflective professional meanings and meanings from the theoretical frame of reference (M_sf_pr), in discussion line 2, as an explicit justification of a teaching action he had described in his diary.

VI. Discussion

The cross analysis of the data shows that, in this study, in-service teachers tend to be focused on getting feedback on their planning experiences, rather than making conceptual bridges between reflection on their planning experiences and the newly learned concepts. These results appear to correspond to the action-oriented type of reflection (Mansvelder-Longayroux, Beijaard, & Verloop, 2007, in Hoekstra, & Korthagen, 2011). Under the described conditions, no notes were shared in the introductory face to face session of the task. Tutor A focuses his mediation on reviewing academic concepts. Tutor B uses in-service teachers' diary notes as a strategy to facilitate debate about lesson planning but at the end of Week 1 redirects the use of notes as a line of discussion that is of little use to the joint construction of meaning within the task. By drawing a line between the debate about the notes and the debate about the task, Tutor B seems to abandon the representation of the *meanings of the diaries as a starting point* for the guided construction and reconstruction of meanings. His intervention also follows an academic-type intervention that tends to privilege explaining, rephrasing, clarifying, and summarising the participants' contributions related to the theoretical readings. Tutor B did not guide the meaning making process through *how* and *why* questions about the experiential narratives with the explicit purpose of bridging them with the meanings of the target concepts.

Apparently the in-service teachers tend to adopt one of two types of mode for sharing experiences and reflections: the mode *receiving social recognition and approval* and the mode *making evidence of academic knowledge*. Assuming that the *genre* exists in the text as a narrative, and that it exists as a representation of the world (Bruner, 1997, p. 155), the "descriptive" narrative (coded as "M_pn_L2" in this study), and the contentment ("*smile*") of the in-service teacher about the "*good marks*" for his adult learners may illustrate his epistemological framework. Therefore, sharing diary notes by describing anecdotes without a conceptual framework offers an important clue for the tutor to adjust his guidance in a reconstruction of the teacher's beliefs towards the construction of the new content.

This study shares theoretical and methodological features with some other studies, concerned with *teachers as learners* (socio-constructivist epistemology of teaching and learning, interactivity, teaching presence, computer supported collaborative construction of knowledge, situated view). Nevertheless, it goes beyond in the sense that the proposed methodology allows the identification of key elements that are ignored in some studies, or are approached on the basis of taken for granted assumptions, or, still, on the basis of a "black box" design, in which researchers draw the analysis to the conclusions without presenting a detailed characterization of the interactive processes.

The added value of our study stems from the openness of micro approach to how teachers undertake an authentic task, to the explicit contextual clues they provide through their statements during and after their participation in the course, as well as the elements of each in-service teacher decisions about how to solve complex situations. There are no taken for granted appreciations of teachers' previous knowledge, or linear analysis of the knowledge construction. Unlikely pre-established intervention objectives, as it happens in design based research for testing a new teaching programme, or for improving teaching practice towards objectives that were previously defined by others than in-service teachers, the methodology of data collection and data analysis in this study captures non expected issues of the knowledge construction and of its uses. The analysis grasps the nature of participants' statements in the context of the task undertaking, and in external contexts where they are expected to make use of what they have learned. With such procedures, associated to detailed research questions, it is possible to go into further detail in the characterization of the management of meanings academically referenced and professional experience referenced, whenever in-service teachers justify their contributions based on their experience at the workplace, or on their knowledge as learners in an in-service course (as a continuation of the academic approach).

The set of two interrelated methodological features in this study allows an integrated perspective of the factors that might influence teachers' professional learning in terms of observable outcome, of how it is perceived by in-service teachers and by their tutors. The first methodological feature is the interactivity and teaching presence categories of analysis that allow a deeper comprehension of teachers' construction of meanings, considered as interrelated with the guidance and support provided by online tutors during the whole period of the task undertaking. The adopted teaching presence categories of analysis are useful to structure the comparison of the following features of the construction of meaning related with: (i) the in-service teachers' explicit purposes for their intervention in different moments in the forum; (ii) the previously defined purpose of the task and the rules for participation; (iii) the previously defined purpose of sharing diary notes; (iv) the explicit purposes of sharing diary notes. The analysis of these elements is particularly helpful in identifying the elements that seem to be more meaningful to each participant in his/her contributions to the collaborative task.

The second key methodological feature is the triangulation of different sources (tutors and in-service teachers), and of the same sources in different moments of the task undertaking. This methodological issue provides the researcher with information about in-service teachers' needs which may not necessarily be related with learning as a process organised by tutors and according to the institutional guidelines. Some teachers would rather show a different priority by using the reflection opportunities in terms of seeking feedback and approval for their interventions at the workplace.

VII. Conclusions

In general, results are in accordance with the conclusions of previous research with respect to: (i) the central role of the online tutor in a techno-pedagogical design based on a socio-constructivist frame of reference; (ii) starting the learning process by interchanging professional experiences does not guarantee the (re)construction of shared meanings within the conceptual scope of the task content, nor higher order levels in meaning making. The results concerning the features of

tutors' guidance and how they respond to the use of professional experience by the learners suggest that Meaning management, within the *Teaching Presence* approach, requires highly developed skills. These skills are central to helping learners to effectively overcome the gap between the background knowledge and the demands of the new content to be learned when this gap is wider than expected. Becoming more able to make an early identification of teachers' learning needs, and becoming more skilled in the guidance process, will allow tutors to improve the meaning making process from professional experience which is significant to in-service teachers in a given institutional context.

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