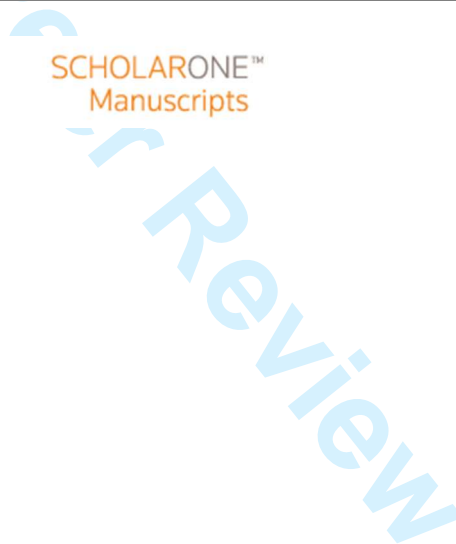




Lesson Study and Practical Thinking. A Case Study in Spain.

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LESSON STUDY AND PRACTICAL THINKING. A CASE STUDY IN SPAIN

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Abstract

Purpose - The purpose of this article is to explore Lesson and Learning Study as a form of ongoing teacher training which allows teachers the opportunity to reconstruct their practical thinking.

Design/methodology/approach - This document begins with a theoretical introduction in which I explain the nature and dimensions of practical thinking, its importance for the professional development of teachers, followed by the lesson studies themselves, outlining the case of a teacher involved in a research group based on this type of ongoing training.

Findings - With the subtle differences and changes proposed for the Spanish context, Lesson Studies can be a valuable tool in terms of encouraging reflection and the critical questioning of personal values, beliefs and assumptions about teaching, whilst also enabling the reconstruction of teachers' practical knowledge, in particular their hidden beliefs, habits and emotions.

Originality/value - This article offers a new approach for lesson studies as a method of training which can improve practice through the reconstruction of the practical thinking of those involved.

Keywords: Ongoing learning, reflection, practical knowledge, educational practice, learning and lesson studies, beliefs and emotions.

Type of article: Results of research based on a case study.

Introduction

After almost three decades of research in this field, areas of expertise such as psychology, pedagogy and ultimately neuroscience have demonstrated that the knowledge which teachers use in action is of great importance in training, exercising a high degree of influence on their ways of understanding and acting. The study presented below is based on research/action carried out by 15 Infant School teachers from "La Axarquía" region in Malaga. The people who made up this debate and discussion group meet regularly and try to find answers to some of the main questions which come about as a result of their daily practice within the context of *Learning and Language Study* (hereinafter LLS) as a method of action. Moreover, an external team consisting of three experts from the University of Malaga are also involved in this group.¹

Within this framework, my aim, using the works of relevant authors on practical thinking and its dimensions as my reference points, was to carry out research, studies and analysis in order to understand how this experience affected the reconstruction of the practical knowledge of one of the teachers participating in this learning experience, which I would achieve by focusing on a specific case but without losing sight of the process shared by the group.

1. A change of direction in teacher training

The teaching profession is now generally in an ideal position to carry out procedures dealing with the need for change. Indeed, many studies believe that the figure of the teacher needs to be "reinvented" in order to allow them to tackle the large range of practical problems and new teaching challenges which come about throughout their careers (WAGNER, 2010; DARLING-HAMMOND, 2005; PÉREZ GÓMEZ 2010). This position is shared by ever more teachers who, based on their day-to-day work in the classroom, bemoan the existence of "teacher malaise". This growing malaise is quite possibly due to the current economic climate, which has led to different European countries slashing the resources they put into education, with this, in turn, reopening the debate on quality and the importance of education in the development of a country.

Given this panorama, current discussions on the most important objectives in teaching are far removed from the traditional view of the teacher as an agent who possesses knowledge ready for transfer to his or her pupils. There is an emerging vision of the teacher as somebody who tutors learning by generating interest, curiosity, imagination and creativity, combined with provocateur knowledge, culture, arts, humanities and science. It is clear that this approach can only be

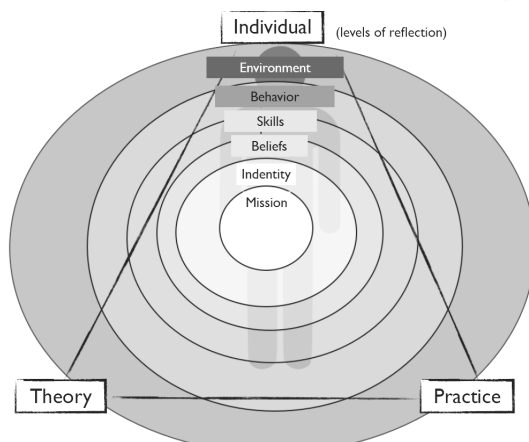
¹ These three experts currently work in the Department of Didactics and School Organisation of the University of Malaga, where they work both in teaching and in research: Encarnación Soto Gómez, Head Professor of the University of Malaga; María José Serván Nuñez, Auxiliary Professor of the University of Malaga; and Rosa Caparrós Vida, Associate Professor of the University of Malaga and Infant Education adviser in the Teachers' Centre in La Axarquía, Malaga, Spain.

developed if we radically change our way of teaching and learning (PÉREZ GÓMEZ, 2011), with this in turn reflecting the urgent need for new teacher training models which will affect the day-to-day actions of our teachers.

In this regard, in the 1990s SHÖN (1992, 1998) and ARGYRIS (1993), after showing that education is characterised by singular aspects (unpredictability, complexity, uncertainty and values) which means it cannot be dealt with from the prevailing model of technical rationality, offered us, on the basis that teachers need to build up sophisticated knowledge which allows them to adapt their teaching at any moment to the diverse characteristics of pupils and to ever-changing classroom conditions, the opportunity to discover a new, different approach to training based on reflecting on day-to-day work. This approach was recently taken up by KORTHAGEN (2008, 2010), whose realistic teacher training model is a pioneer in terms of placing the teacher as a person and his or her levels of reflection within the theory-practice dichotomy. It was also one of the first to set a training model (ALACT) based on levels of reflection, which were represented as onion layers in his famous diagram adapted from the Bateson Model.

These layers represent six different levels of reflection (see figure 1). They range from those reflections which are most external to the subject, such as reflecting on the environment or behaviour, through to the most internal, intrinsic and personal level in which the subject reflects on his or her own identity and mission: *essential reflection* (KORTHAGEN, 2010; KORTHAGEN & VASALOS, 2005).

The relationship between these spheres of reflection and the teacher's practical



thinking assumes that the teacher's reflection on his or her most internal levels is closely related to the reconstruction of practical knowledge. Indeed, just as in the reconstruction of practical thinking, the essence of reflection is to transform the unconscious components of teaching into conscious ones, thus creating sensitivity towards the most relevant demands of educational situations.

2. Why practical thinking?

As stated by CLANDININ and CONELLY (1984), teaching practice is both the expression and the origin of practical thinking. The teacher's professional knowledge is generated and projected in action. Practical knowledge is that which governs the interpretation and action of teachers in practical contexts. It consists of a repertoire of images, maps and artefacts which provide information and logical associations, and which is impregnated with beliefs which are, however logically and irrationally, built and organised in systems throughout life (PÉREZ GÓMEZ, 2010). This type of

knowledge is often implicit and is wrapped up in layers of emotions and feelings. It is for this reason that automatic, unconscious responses which seem to diverge and even contradict our more rational and conscious thinking are activated in certain personal, social and professional actions and exchange processes. This explains its importance in the sphere of pedagogy and teacher training, since it would appear to be one of the reasons why many teachers, even though the most important learning theories have developed towards models of constructivism and enactivism, continue to reproduce the behaviourist model which is impregnated in their repertoire of actions and learnt unconsciously during their extensive experience when they were pupils.

2.1. Dimensions of practical thinking

"The more we analyse and discover the secrets of brain function, the more we need to refer to the detailed knowledge of the contexts and biography of each individual." (PÉREZ GÓMEZ, 2012)

Practical knowledge is based on tacit models² (*gestalt* by KORTHAGEN, 2008; *habitus* by BORDIEU, 1995) and declarative models³ (*theories* by KORTHAGEN, 2008) which shape teachers' actions and cognitive models and procedures, and which increase in complexity and are reconstructed as the subject extends his or her context of relations and experiences and participation in critical culture. This practical thinking contains the following dimensions which I propose to analyse:

- **Declarative thinking or theories:** This is a form of conceptual thinking. It can be broken down into three different dimensions and is closely related to understanding external context (connectivism) as being key to individual and social construction (and reconstruction):
 - *Critical culture:* This is the scientific, theoretical and academic thinking which the historical question has undergone.
 - *Social culture:* This refers to that which is "politically correct", a culture which predominates in society and in the particular context of the subject and which, in consequence, is assumed as "that which must be done or which we wish to be done."

Only those components of critical and social culture which the subject interacts with and which he or she forms or incorporates become *Personal Values*. These values establish the personal and/or professional mission and are part of the questioned, clarified and elaborated convictions.

- **Tacit thinking or gestalt:** These are intuitive action and interpretation models which are both necessary and useful for managing behaviour. They are

² Tacit models correspond to a kind of knowledge which, often unconsciously, guides human behaviour. According to KORTHAGEN (2008), they appear in the form of personal clusters of needs, concerns, values, meanings, preferences, feelings and behavioural tendencies, all joined together inseparably in the most inner layers of the brain.

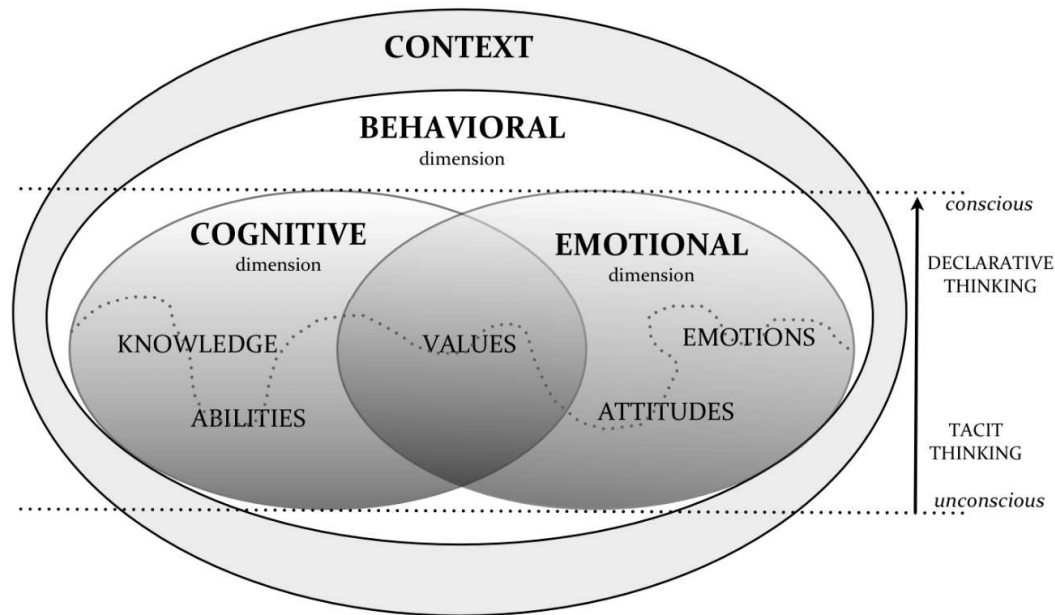
³ Declarative models are those which individuals acquire through scientific knowledge. It is therefore a type of propositional knowledge which is generic, abstract, true, fixed, eternal and objective.

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3 constructed from the cultural (social and critical) matrix of the community in
4 which we live through personal experiences. They shape, filter and bias all future
5 experiences and encounters (enactivism). We can distinguish the following
6 dimensions:
7

- 8 - *Unconscious knowledge* (beliefs, intuitions, etc.) refers to knowledge without
9 empirical foundation which shapes our ways of acting, sometimes without us
10 realising it. "These are beliefs about the structure of reality which we count
11 on continually even though we have not thought about them." (MARINA,
12 2011; 125).
- 13 - *Emotions and feelings*, which can be described as personal reactions to
14 situations which encourage and value the information. *These are perceptions*
15 *which are accompanied by ideas and ways of thinking* (DAMASIO, 2010; 174).
- 16 - *Personal implicit values* refer to the assessments which each individual makes
17 automatically with regards to external situations and his or her own
18 reactions, and which make up the implicit goals which everybody proposes in
19 life.
- 20 - *Skills* or procedural knowledge. This comprises habits and routines as
21 unconscious action protocols which were also acquired through continual
22 repetition.
- 23 - *Attitudes* or relatively stable dispositions of the behaviour which leads the
24 subject to act quickly in a specific way before other people, groups, ideas or
25 objects.
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31 These dimensions from both scientific knowledge and practical knowledge are
32 resources for action, for practical thinking. In consequence, teachers' behaviour is
33 conditioned by all these dimensions, acting as the middle ground between the
34 individual's resources and the demands of the environment (see figure 2).
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37 Summarising the above, the most significant difference between practical
38 knowledge—necessary for complete teacher training—and theoretical or
39 disciplinary knowledge—present in the majority of current training programmes—is
40 that practical knowledge includes aspects of knowing, doing and being which are
41 difficult to formalize in terms of academic disciplinary knowledge. Indeed, there are
42 dimensions of real professional knowledge in the work of teachers (emotions, habits,
43 beliefs, attitudes, paradoxes, dilemmas, intuitions, impressions, expectations, etc.)
44 which do not belong to any discipline and which cannot be captured or
45 communicated as propositional knowledge (POLANYI, 1983). It is these dimensions
46 which are incorporated in practical knowledge as dispositions toward action. Their
47 formation and constitution in teachers is not so much the result of the cognitive
48 capture or transmission of theoretical models, but comes rather from either
49 experience and the thinking which accompanies it or from the different formative
50 models, where it can connect to the experiential knowledge of teachers, creating
51 other personal links with these experiences and knowledge.
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3. Some possible alternatives for the formation of practical thinking

Given this concept of practical thinking, based on the works of IMBERNÓN (2007: 52) and PÉREZ GÓMEZ (2010: 44), some alternatives for the formation of practical thinking in teachers could be as follows:

- Develop and encourage a culture of communication and greater professionalisation through the exchange of experiences, thus providing new perspectives on the critical culture of the individual involved. Encourage cooperation, debate, correlation of shared resources, comparison and fluid dialogue between the different agents in charge of pupils' education.
- Change the context, organisation and power relations between teachers, since training by itself is ineffective unless accompanied by such changes.
- Reconceptualise ongoing training to ensure it is not a burden on teachers but rather a complementary process which forms part of their profession, with theory and practice feeding off each other.
- Conceive the curriculum more as a set of relevant disciplinary or interdisciplinary problems and situations which challenge the capacity of learners to understand and act, rather than a set of juxtaposed disciplinary fragments.

All these factors come together to form the training model which I conceive as ideal for the necessary reconstruction of the practical thinking of teachers. In other words, a model which can offer teachers areas in which to analyse and debate possible alternatives in order to improve teaching through access to the theoretical references and experiences of others, constantly reformulating their own projects, methods, scenarios, tasks, relations and forms of assessment.

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3 In this regard, IMBERNÓN (2007: 86) proposes action-research as a potent
4 procedure to carry out the reflection necessary for this change, thanks to the
5 cooperative action it involves and the teamwork in which teachers orientate, correct
6 and assess their problems and make decisions to question, improve and analyse the
7 educational and social practice which their position demands.
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10 ***4. Lesson studies as a training model***

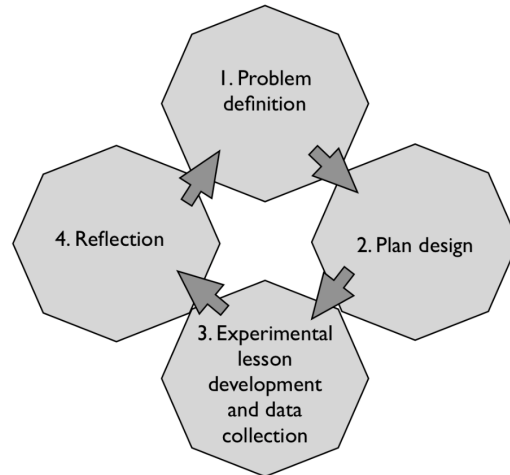
11
12 As is well known, Lesson and Learning Studies is a form of ongoing education which
13 was developed in Japan. According to Lewis (2009), they offer a professional
14 development approach which has been used extensively in this country for many
15 decades and which is related to the continuous improvement of teaching. For this
16 author (2009: 96) one of the greatest potentials of this methodology is the
17 opportunity it offers for observation of classroom life by a group of teachers who
18 compile information, particularly with regards to learning, which is subsequently
19 analysed cooperatively". These observed lessons are called "experimental lessons." It
20 is designed in a group, although it is usually put into practice by just one of its
21 members whilst the others observe. For this reason they are considered a gateway to
22 shared teaching research by groups of teachers. The groups usually consist of 4-6
23 components who meet regularly over a long period of time (4-12 months) (LEWIS,
24 2009; MISCELLANEOUS, 2005).
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30 MARTON proposed an alternative to, or modification of, Lesson Study, which he
31 called Learning Study. Compared to Lesson Studies, the goal of Learning Study is to
32 construct innovative learning environments. Learning Study, whilst maintaining the
33 focus of its attention on pupils' learning, also has the goal of pooling the valuable
34 experience of teachers (Miscellaneous Authors, 2005) in order to create a bank of
35 common meanings in the education area, thus allowing cooperative work and
36 agreement by the different collective groups which make up the education system.
37 Learning Study is therefore strongly related to the need to reconstruct the practical
38 thinking of teachers, and for this reason I shall focus more in depth on this
39 approach. However, since Learning Study involves an enriching modification of
40 Lesson Study, and, moreover, since the literature which deals with this topic uses
41 the two terms indiscriminately, I shall refer to them as: "Lesson and Learning
42 Studies" (LLS).
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47 This training model provides a powerful research base for teachers, since its
48 methodology is cyclical, its goals are set out in advance and the need to meet in
49 groups can help avoid a situation in which teachers find themselves "lost" in the
50 process.
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52 Lesson and Learning Studies are particularly notable for their fundamental goal,
53 namely to change the whole training and development system, along with the large
54 number of schools in Japan which have signed up to this method, and the
55 outstanding success it is enjoying in the United States, Germany and Singapore.
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As with action research, Lesson and Learning Studies follow a cyclical process. The current outline (see figure 3) has been adapted from the one presented by LEWIS (2009). Its collaborative sense means teachers involved in Lesson and Learning Studies can break down their own practice based on group reflection and contrast (DUDLEY, 2005; CERBIN and KOPP, 2006; PÉREZ GÓMEZ, 2008; ELLIOTT, 2010 and MISCELLANEOUS, 2005).



5. Methodology: Monitoring of an LLS group and case study as the essence of empirical research

The empirical part of the research lasted 7 months. Over this time I became aware of two simultaneous and converging realities:

- The first one referred to the aforementioned Lesson and Learning Study group.
- The second corresponds to the case which my study focuses on: A teacher who is part of this group.

During data collection, I focused on action research before, during and after the participation of the teacher in the group through observations and/or interviews in which I asked her about particular scenarios which I had observed or the type of planning she had carried out. I obtained information on her practical thinking through four group meetings; two in-depth interviews (one before the first cycle of Lesson and Learning Study, and another one after), three personal reflections written by the teacher herself (before, during and after the Lesson and Learning Study), and finally, as indicated above, I had the opportunity to contrast all this information through observation of her work in the classroom, allowing me to see first-hand this personal part which results from practical thinking and which directly affects the action (20 class sessions).⁴

⁴ Spanish teachers

The teaching career in Spain is far from ideal since very few hours are set aside for ongoing training. Indeed ongoing training is not compulsory, but rather is carried out in teachers' free time through a Teacher Centre (CEP) which offers courses in different formats (training in schools, work groups, work days, symposiums and conferences). Teaching time is five hours in the morning, five days a week. Additionally, one or two afternoons every week are set aside for teachers' meetings and cycle coordination meetings.

Apart from the classes, Spanish teachers are obliged to see through any bureaucratic processes and paperwork which may come about. Although these processes vary from school to school, there is generally a huge amount of paperwork which needs to be completed, which has created great displeasure amongst teachers.

5.1. A peculiar Lesson and Learning Study group

The Lesson and Learning Study group which I focused my analysis on is a very particular group since it is made up of fourteen female teachers and one male teacher working in infant education in different schools in the province of Malaga, in southern Spain. All the teachers started from the same point, sharing a methodology based on classroom projects whilst showing concern about the possible foundation deficiencies of this way of working. For this reason, the first questions at the start of this group process were not related to improving the teaching of specific curriculum content, as is common in Japan and other developed countries where this initiative is developed, but rather to improving a working philosophy and classroom design.

In this manner, taking into account the possibility of overcoming the barriers to observation (it should be remembered that Spanish teachers observation time in the classroom, making it impossible to develop synchronous observation as occurs in Japan), they were obliged to introduce the following minor changes in the different stages of the Lesson and Learning Study:

- Design, development, observation and analysis of an "experimental project" instead of a lesson.
- Asynchronous observation (via video recordings of two classrooms) of two "experimental projects" developed simultaneously by all teachers in the group. These teachers shared their experiences through diaries, which provide a form of simultaneous communication via a social network.

5.2. The research cycle as a key process

The development of the LLS cycle gave me the opportunity to witness and analyse the entire duration of school year 2010/2011.

- *Phase 1.* The first phase of the Lesson and Learning Study was dedicated to analysing their teaching practice in a collaborative manner through their recounting of teaching experiences, forming small groups to work on the fundamentals of the different project work areas which they had extracted from their narrations of teaching practice. This allowed them to establish areas which would be useful for a joint approach in both the design stage and during observation and analysis, which became known as "core design and observation". These were as follows:

1. The pupils' eyes and ears. The group proposed further analysing the emerging nature of the classroom projects. As a result, they would design activities for pupils' eyes and ears, analysing and reflecting on the role of teachers in the classroom projects methodology.

The ratio is usually about 26 students per classroom in infant education and 30 in primary education, although these figures often vary depending on the number of teachers available.

2. The role of family involvement, since they all agreed on the importance of this group being present throughout their children's learning process.
3. The way to encourage the development of relevant learning and basic skills among pupils.
4. The teacher's own reflection on the whole teaching-learning process.

- Phase 2. The second phase began with the group design of the "experimental project" in which they developed a resource bank for use by the teacher responsible for developing the project. The intervention of the external agents in this stage was fundamental, since, given the reluctance among some to plan a project which was supposedly based on the needs and interests of pupils, they proposed considering the idea of flexibility to children's demands as a variable. This idea finally led to the need to design powerful activities which encourage pupils to rethink.

Since this project was based on teachers' initiative, they needed an activity which would provoke the interest and involvement of pupils. To this end the group decided that this project would begin with an activity known as "My Treasures", in which the children, with the help of their families, would prepare a box containing objects of relevance to them, in order to later share with their classmates at a class assembly. The teacher would act as a model, presenting his or her own box of treasures at the assembly and then asking pupils to prepare same themselves. Another of the activities agreed upon by the group was "The Book of Our Life". Each pupil would work on a book containing the different activities carried out during the project with regards to his or her personal history. Both activities would take into account the past (pregnancy, birth, etc), the present (the physical self, fears, etc) and the future (what I want to be when I grow up, etc). Different strategies to involve families in the process were also proposed, such as their participation in the classroom assemblies.

It is notable that during the design and reflection stage prior to the action, the teachers' discourse included words which referred to emotions, feelings and intuitions, thus demonstrating the ever-increasing importance of emotional intelligence in both school teachers and pupils:

If we knew what we could give to children in emotional terms, we would rescue all those moments in which we could contribute self-knowledge, self-assessment and empathy. For this reason I think it is fundamental to take into account this type of intelligence when considering the project to be designed (Teacher's intervention, design meeting, November 2010).

Disagreement amongst some of the components with regards to the similarity of the design of a textbook project also allowed focus to be shifted towards powerful activities, based always on flexibility, analysis-based meaning and the reaching of conclusions for improvement:

I get the feeling we are trying to do something we enjoy, converting it into something similar to a textbook. I do not like the sound of this, and it makes me feel very uncomfortable. (Teacher's intervention, design meeting, December 2010).

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3 - Phase 3. The third phase, consisting of the development, recording and observation
4 of the classroom project, started once the design of the "experimental project",
5 understood as the core methodological areas of a classroom project, was complete.
6 This phase counted on use of the group's social network (Mixxt), which was set up
7 as a place to come together online and to record coordination throughout the
8 process. This media was initially used to share descriptions of practice and reflect on
9 the proposed core areas, whilst in this stage it helped counteract the fact that direct
10 observation by the other members was not possible. In consequence, given the
11 intense dedication of these teachers and the fact that the members of the group are
12 some distance from each other, the use of forums and the exchange of work
13 documents and diaries using this network meant the number of presential meetings
14 could be reduced.
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19 - Phase 4. Once the recordings from the two "experimental projects" which were
20 carried out at the same time in two different classrooms by two different teachers
21 had been obtained, it was time to watch the videos and analyse them in line with the
22 common observation cores which had been established in the first stage. In
23 consequence, strengths and weaknesses and improvement proposals were analysed
24 for each of these cores, to be taken into account in the next cycle. These analysis
25 sessions were marked by the contrasting of views and sharing, producing a
26 multitude of looks useful to consider the wide range of perspectives that can be
27 teaching.
28

29 Perceptions which went from fascination for pupils' emerging participation, through
30 to realisation of the benefits of having families participate in class.
31

32 Indeed, some participants used the opportunity to exchange events which occurred
33 at the same time in the different classrooms, thus showing the emerging, flexible
34 nature of the project. Specifically, one component highlighted the fact that using the
35 boxes in the classroom had given pupils more opportunities to get involved and had
36 also, amongst other aspects, allowed her to work on the value of caring for things:
37
38

39 *In my class they looked after their boxes and things as if they were treasure (Teacher's*
40 *intervention, design meeting, December 2010).*
41

42 Another teacher said that the family visits had been of no use to the children in her
43 class, as they showed little interest, although it had been beneficial for the mothers,
44 giving them the chance to open up when talking about giving birth.
45

46 The presence of the external agents was also fundamental in this stage, since they
47 were able to redirect the dialogue towards the goal of the LLS, encouraging them to
48 consider the children's rather than just the teacher's perspective, and reminding
49 them that the aim was to collect evidence of learning. This led to different
50 impressions; one teacher specifically commented that, despite her initial resistance
51 to the directing role of the teacher, the children had indeed become hooked,
52 showing great interest, empathising with the teacher, laughing and letting their
53 emotions and feelings out. The teacher who was recorded also carried out her own
54 self-reflection:
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3 *I thought I was a bit of a pain. I intervene too much, which is one of my own criticisms.*
4 *Moreover, in this project I have had to ask myself many questions, and I have seen many*
5 *changes in myself. I have changed many aspects which I previously believed to be more*
6 *important than they actually were. (Teacher's intervention, analysis meeting, June 2011).*
7

8
9 The last meeting dedicated to analysis was very important, since the external agents
10 decided to present the experience of an alternative school located in Barcelona,
11 called "El Martinet". This school works through learning environments based on a
12 philosophy and structure in which there is an absence of work strategies, something
13 which was at this moment unquestionable for the members of the group:
14

- 15
16 - *Meeting questionnaire.* The first aspect of the methodology which they
17 questioned was the meeting. One of the members of the group referred to it
18 in the following statement:
19

20
21 *I thought that we did these things (meetings) for them (pupils), but now, having*
22 *thought about it, I can see that it is a control strategy. (Teacher's intervention,*
23 *analysis meeting, June 2011).*
24

25 On the other hand, another teacher said that the meetings are, to some
26 degree, a safety strategy:
27

28 *At the end of the day, we do them because they provide us with security. In the past*
29 *we took refuge in textbooks, but now I look to other things, since the meeting*
30 *provides me with security. Who knows whether in the future I will find refuge in other*
31 *things... (Teacher's intervention, analysis meeting, June 2011).*
32

33 Another teacher questioned whether the work of the meeting had to take
34 place in free time. This generated an extremely interesting exchange of
35 opinions, which concluded with the questioning of some of the most implicit
36 beliefs of teachers: the school model in which they were socialised from a
37 very young age.
38

39
40 *We are so socialised and educated in the teaching culture which we have*
41 *experienced, we come from schools which are so unwieldy and transmissive that,*
42 *despite our attempts to be alternative teachers, the past continues to be a huge*
43 *encumbrance (Teacher's intervention, analysis meeting, June 2011).*
44

- 45 - *Reflection on the projects and learning environments.* The issue of class
46 methodology was also much discussed in these analysis meetings:
47

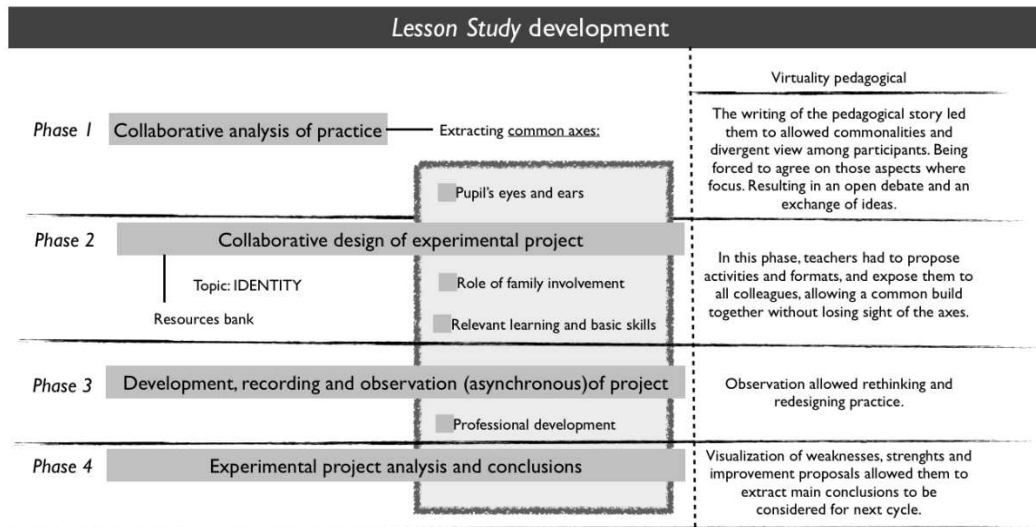
48
49 *I believe that the project provides us with a school which is far freer and which*
50 *respects the different rates and rhythms of pupils. Moreover, within the*
51 *programme, we establish the meeting as a place for listening, where children*
52 *interact with each other, learn how to listen, respect others, wait their turn, and*
53 *so on. In short, they learn to live in a micro-society (Teacher's intervention,*
54 *analysis meeting, June 2011).*
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56 There was somewhat of a turning point when one of the teachers
57 commented that she was setting aside more and more time in class for work
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based on learning environments, and a group of teachers shared their experience of a visit to the Science Museum, which had a hands-on area where children could experiment with the materials.

This in turn led to a proposal to consider designing areas which are conducive to thinking and investigating in time for the next cycle.

By way of synthesis, figure 4 shows the development of the lesson study with a brief description of the stages and a pedagogical analysis of each of them.



6. Results: The specific case of a teacher

The start of research into the different dimensions of practical thinking translated into the thinking and action of this teacher began with analysis of the different evidence. To do this:

1. I drew up a table⁵ in which I listed the most representative evidence with one or several of the dimensions presented in the theoretical part.
2. This categorisation of evidence was very useful as a record of the aspects most present in the thinking of the teacher during this stage of her personal and professional life.
3. This task helped me to identify two possible areas of change:
 - a. Reconsideration of the teaching methods, in particular the primary role of the assembly and the introduction of corner work, as key elements for future projects.
 - b. Awareness and modification of habits of excessive intervention in pedagogical relations with learners.

⁵ See chart in ANNEX

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2
3 However, before analysing the activities which have proven to be key and
4 meaningful in the professional development of this teacher, I shall briefly describe
5 the evolution of her practical thinking in those parts of the curriculum that emerged
6 as most significant within the change process.
7

8
9 In my first observations I found that her action in the classroom was formed
10 basically by the combination of two methodological structures implemented
11 independently of each other: project work⁶, which was the methodology she rated
12 most highly, and corner work⁷. Nevertheless, as we shall see below, this teacher's
13 discourse, in principle, contained the fundamentals of both ways of conceiving
14 teaching and learning in the classroom. I could see that she considered project work
15 to be the most important part of her day-to-day activity, since it is here where she
16 focused most of her attention. In my opinion, she considered corner work to be
17 "extra free time" which could be used to create materials for the project being
18 worked on at this moment, or which gave her time to carry out some bureaucratic
19 administration processes.
20
21

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23
24 *My day-to-day work in the classroom involves both project work and corner work (...). For me, corner*
25 *work is also an important part of my work in the classroom, but the difference between this*
26 *methodology and project work is my lack of influence (In-depth interview, 10th June 2011).*

27
28 *Day by day I was able to see that corner work involved making use of each mini-area which had*
29 *been created in the classroom to carry out different types of activities (building, painting, symbolic*
30 *playing, library, etc), with the children moving about independently. However, I saw very little*
31 *pupil work during this time, since, according to the teacher, it was not fundamental for the*
32 *project. Rather, she considered it a "time-out", where each pupil could do whatever he or she*
33 *desired (External observation diary, 2nd February 2011).*

34
35 The potential from covering this practical thinking in training can be seen in the
36 evidence such as that set out above, which show that it indeed governs behaviour
37 and action, regardless of that which is declared; in this case, it was clear that the
38 teacher, from her "knowledge in action" (SHÖN 1992, 1998) believed project work to
39 be the central aspect of her practice, perhaps as it is where she most strongly felt the
40 achievement of the main objectives set by most teachers before a class: the
41 acquisition of content. Or simply since it was the moment of the day when she led
42 the group and everybody followed her, as shown in the following metaphor which
43 she described in one of my interviews with her:
44
45

46
47 *For me, project work is like making a large fabric, in which I am the needle and they are the*
48 *threads. The thread is placed through the eye of the needle, just as they introduce themselves*
49 *inside me, since they are part of me on a personal level. I move with them in the direction they set,*
50

51
52
53 ⁶ This way of working is based on the constructivist approach, focused on promoting a scientific, cooperative spirit in
54 children, thus allowing them to understand and intervene in the real world through a process of searching, checking and
55 creating.

56
57 ⁷ The Corners Method is another type of methodology used in the classroom, involving potent learning areas through which
58 pupils pass and experiment with the materials they find. The teacher had initially distributed her classroom into five potent
59 areas: symbolic play corner, building corner, art corner, library corner and puzzles corner.
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3 *but at the same time I set the direction within the context of the fabric.* (In-depth interview, 10th
4 June, 2011).

5
6 Once I had a clearer idea of day-to-day life in this teacher's classroom, I decided to,
7 building on the previous week of observation and analysis of the experimental
8 project of the Lesson and Learning Study group, interview her based on what I had
9 observed in her classroom, only to find that her thinking had more questions than
10 answers. For example, when I asked her about her feelings and emotions during the
11 assemblies (highly present in the day-to-day of the project) and what she thought
12 about when she organised them with her pupils, her answer was full of uncertainty,
13 whilst at the same time showing a widely held belief amongst teachers of how they
14 conceive their figure:
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18 *For me, the assembly is very important because it is the time and place where I personally pick up*
19 *most information. But it is also the source of other dilemmas: Am I directing the conversation too*
20 *much? Is my participation always necessary? What kind of judgments are made in these*
21 *discussions?* (In-depth interview, 11th February, 2011).

22
23 The possession of control over what children learn during the school day was
24 another belief which emerged in this case. A widely held belief which teachers
25 seldom reassess: Is it possible to know what children learn? Is so much control by
26 the teacher necessary? In the specific case of this teacher, all these questions can be
27 answered in a single word: safety. Teachers are afraid of "letting go" or "going with
28 the flow", and hence assume the role of group leaders in the belief that the class
29 cannot progress without their instructions.

30
31 This is true in the case of this particular teacher, although she also has her doubts
32 about the attitude and predisposition she should have in project work with pupils.
33

34
35 *I have a lot of doubts about how the projects we propose will be received. Indeed I have often*
36 *questioned whether they are necessary, in other words I ask myself whether they should be the*
37 *teacher's decision, or whether the pupils themselves should decide what to research (...). It is not*
38 *possible to draw up a project for each child, or is it? What would it be like? I am also constantly*
39 *asking myself how far the project should go, because, obviously, once the project is underway you*
40 *have to deal with problems as they come up, and these problems in turn lead to others (...).*
41 *Moreover, I also think about things which have not been included or are beyond me.* (In-depth
42 interview, 11th February, 2011).

43
44 In this extract we can see how one of the most widely questioned beliefs is the role
45 the teacher plays in the choice and development of the projects. There is a certain
46 level of tension between what she observes in her colleagues in the cycle and that
47 which she tries to share and what she feels when introduced in the dynamics of this
48 method.
49

50 The question of corner work also appeared in this first interview, and it proved to be
51 another aspect of her practice which created some concern:
52

53
54 *The question of corner work also concerns me. I want take it a step forward in terms of making it*
55 *more dynamic, since for me this task remains outstanding; I don't use corner work as a reward,*
56 *but rather I set aside a specific time each day for them to play in the corners. However, I would like*
57 *to make this time more enriching, perhaps by restructuring my way of methodologically*
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3 *organising the projects before using them in the corners?* (In-depth interview, 11th February,
4 2011).

5
6 When hearing her speak, I could see how some of her most implicit beliefs appeared
7 in the shape of insecurities and fears. The teacher herself had questioned these
8 beliefs when reviewing her practice, thanks to her participation in this Lesson and
9 Learning Study group, although she had not yet dared to reassess her action, as this
10 was a task which she said was still outstanding. We could say that these beliefs had
11 passed from unconsciousness to semi-consciousness through this teacher's
12 reflection on action, but these had not yet been completely rebuilt in the
13 development of the action.
14
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17
18 Once those areas which are situated on the edge of awareness had been located, I, as
19 a consequence of the reflection and the change, started with analysis of the
20 significant key activities of the LLS group and of the most important moments for
21 the teacher within these activities, which made this reconstruction opportunity
22 possible.
23
24

25 26 **6.1. Significant key group activities**

27
28 Throughout the LLS cycle there was a series of activities and tasks which
29 subsequently proved to be very significant for the teachers in the group. Specifically
30 I refer to those activities which, given their collaborative and reflexive nature, were
31 key in the practical thinking reconstruction process. I focused on these when
32 analysing the repercussions of this experience in the specific case of this teacher:
33
34

- 35 ▪ The original drafting of the account of the professional background of the
- 36 participants.
- 37 ▪ The pooling of design and observation approaches based on the interests and
- 38 concerns shown in the accounts.
- 39 ▪ The collaborative design of the experimental project.
- 40 ▪ The recording and asynchronous (self-)observation of the project.
- 41 ▪ The analysis of the observations in accordance with the previously designed
- 42 observation approaches.
43
44
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46 47 **6.2. Significant moments for the teacher within these activities**

48 - *Initial drafting of the account of the professional background of the participants*

49
50 Throughout her account, the teacher talks a lot about her feelings of worry,
51 confusion, anxiety and frustration with regards to her practice:
52
53

54 *Sometimes I have found myself lacking in initiative and creativity, repeating the same things and*
55 *dragged along by the experiences of others* (Description of the teacher's practice, 2010).
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3 *At first, despite my great interest, I felt lost and worried. The support of my colleagues was*
4 *fundamental to me at this time. Had it not been for them, I would have lapsed back (into working*
5 *with textbooks). (Description of the teacher's practice, 2010).*

6
7 This pre-LLS activity brought to light some beliefs about teaching methods, perhaps
8 rooted in her previous experience, which reveal the power of emotions such as fear
9 (MARINA, 2006; TIZÓN, 2011) as conditioning factors in many strongly held beliefs:

10
11 *Although I usually programme long-term and weekly, I often forget about the programme and*
12 *follow other lines, depending on interest or daily events. This could be called improvisation. It is*
13 *something which concerns me and is one of my biggest fears. (Description of the teacher's*
14 *practice, 2010).*

15
16
17 - *Pooling of the design and observation approaches*

18
19 The reflections allowed her to discuss her most implicit pedagogical creed with the
20 LLS group and to extract, along with the other members of the group, the principal
21 areas of research translated into core observation and analysis.

22
23 *I think it is important to stop and think about which activities are relevant to children and which*
24 *are done simply because they seem relevant to us (Teacher's intervention in an LLS group*
25 *meeting, January 2011).*

26
27 - *Design and development of the experimental project*

28
29 The collaborative design stage of the project allowed this teacher to recover specific
30 forgotten aspects of the school curriculum such as motivation and emotions. In fact
31 this teacher intervened in one of the meetings in order to highlight the importance
32 of getting families involved, as a way of generating motivation and excitement for
33 learning:
34

35
36
37 *I believe that family involvement in the school is fundamental. Parents have a lot to give to the*
38 *children, and establishing a link between school and family is very positive for the child*
39 *emotionally. (Teacher's intervention in an LLS group meeting, May 2011).*

40
41 - *Recording, asynchronous (self-)observation and analysis of the project.*

42
43 The analysis stage of the Lesson and Learning Study group was very important for
44 this teacher, since, thanks to the classroom recording, she had the chance to observe
45 herself in action, and saw for herself many of the aspects of her teaching practice
46 which, in her opinion, confirmed what she had been questioning. Perhaps the most
47 significant aspect is her role in the classroom.
48

49
50 *I intervene and direct far too much, I suppose I can be a bit of a pain. I have included this as a*
51 *criticism... I'm not sure whether my way of looking at things is good or bad... (Intervention of the*
52 *teacher in a Lesson and Learning Study group meeting, May 2011).*

53
54 The opinions of her colleagues and the confrontations present at the LLS group
55 meetings were also key to this awareness. Indeed, observation of the projection of
56 the practice of one of her colleagues, who was developing a project similar to her
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own, made her question certain aspects of corner work, something which perhaps would not have happened had it not been for the collaborative work method.

Seeing my colleague's practice has made me realise very specific things, particularly how he allows things to flow. I've noticed how he lets things flow (...) whilst I intervene far too much. With regards to corner work, this is fundamental, and it is here that I have realised I need to improve. (In-depth interview, 10th June 2011).

However, the potential of pedagogy as a driving force for reflection, questioning, awareness and improvement of the practice of LLS was not due solely to these group meetings, in which they worked on different aspects of practice through different phases. The presence of external agents from the university was also fundamental. The presentation of the alternative school "El Martinet" led some participants, including this teacher, to question certain aspects they had previously considered fundamental, such as the value of the assembly or the importance of giving pupils "freedom" to develop their autonomy.

I'm trying not to get worked up about it, but it's true that I have to do things differently, and think of another way of organising everything. Ultimately I think we are on the right track, because firstly we are reflecting on what we are doing. The question of assemblies is essential for us, because it is our way of observing. The assembly was of great use to me in terms of the activities decided and suchlike, but I wonder whether this way of working in the classroom makes me neglect what is best for the pupils (Eli's intervention in a Lesson and Learning Study group meeting, June 2011).

6.3. Analysis of practical thinking after the formative experience of the Lesson and Learning Study

After this experience of observation, comparison and reflection within the Lesson and Learning Study group, I once again studied and analysed the practical thinking of this teacher, and found that she now held it in high regard, or at least this is what she said. The paragraph below is taken from a written reflection which shows how, after the experience, the corners are conceived as potent learning areas which allow pupils to develop an endless range of skills, attitudes and aptitudes in a way never envisaged previously.

I have come to realise the importance of corner work above all else (...), but I still do not know how to approach it (...) since there are so many difficulties in terms of timetable flexibility. Whilst it is very nice to see the corners as a fundamental part of work, we must remember the limitations which exist, such as Religion, English, etc. .. How can I make them compatible? I think it would be better to introduce corners as a fundamental part of the project, and to work on the project not every day but at specific times, whenever it is necessary and no more. (Second in-depth interview, 10th June 2011).

Another key aspect refers to awareness of her habit of intervening excessively in relations with pupils. Through observation of her recordings and the recordings of her colleagues, along with their comments, exchange of opinions and shared reflection, she was able to reassess her habits and reconstruct her practical knowledge with a more permissive orientation, allowing more room for the initiatives and different characteristics of each learner.

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3 With regards to the project, the conclusion of this first Lesson and Learning Study
4 cycle was also marked by a reassessment of how classroom life is conceived and,
5 although she could not put this into practice since the school year was about to
6 finish, she did state her intention to reassess them for the next school year:
7

8
9 *I think it is essential to listen to them (the pupils) when doing project work. For instance, if, at the*
10 *start of the year, pupils say that they would like to carry out research into dogs, why should we all*
11 *(colleagues in the cycle) have to do work on space? The issue of "ideas networks" is something I*
12 *would like to develop further. This would involve agreeing on a design at the start of the year,*
13 *which would then be used to establish what we are going to work on. I would like to develop this*
14 *further since I think it would be a step forward in terms of the projects, and much better than*
15 *simply proposing it ourselves, although I do not necessarily think this is wrong (...). I really believe*
16 *that it should come from them, and I do not mind how long a project lasts when dealing with a*
17 *question or whether it is necessary to carry out several projects at the same time, even though I*
18 *used to find this frightening. I would in fact like the classroom to be a project of projects, resolving*
19 *real conflicts, questions, subjects, etc., whilst ensuring that they are familiar with the topics*
20 *(Second in-depth interview, 10th June, 2011).*
21

22 23 **7. Conclusions**

24
25 This empirical study ended with the school year. Behind us we had a long cycle of
26 Lesson and Learning Study marked by reflection, discussion and comparison within
27 a peculiar group which had a special way of conceiving classroom life.

28
29 In June 2012, one year on from this experience, I came across this teacher again at an
30 infant education workshop which is organised in the area every year, allowing infant
31 school teachers to share the projects and work carried out in their classrooms during
32 the school year with members of the education community. Indeed she appeared as
33 a speaker at a workshop entitled: "Researching subjects which interest us". At this
34 moment I realised that this declarative "reassessment" had indeed brought changes
35 in her practice, since the teacher had begun the school year trying to listen to pupils,
36 going along with their different questions and suggestions, whilst forgetting about
37 the pressures of having to do the same as her colleagues. She even shared a personal
38 experience from her past, where she sought to balance the criteria required by
39 educational legislation and this new need to adapt to the interests, peculiarities,
40 strengths, weaknesses, motivations and expectations of the group.
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46 The opportunity she had to engage in dialogue, analysis and shared proposals
47 regarding her own teaching, and the fact that she worked on action plans, discussed
48 day-to-day events and theorised about practice within the LLS group (Lewis, 2009),
49 have undoubtedly been key to promoting the "reconstruction" of something as
50 primitive as her role in the learning process of pupils. Indeed, we have for many
51 years conceived the teacher as a figure who transmits, contains and propels a
52 curriculum consisting of abstract, fragmented academic and disciplinary areas, and
53 the pupil as a passive recipient of knowledge through techniques such as repetition
54 and memorisation. This is closely related to the transmissive methodology we have
55 experienced since we were small, when we were still in the process of development
56 and our neurons made the first synapses which, with the passage of time, have
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3 penetrated the deepest layers of our brain, only to see the light through certain acts
4 which are considered unquestionable. (SOUSA: 2006, 9).
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8 As we have seen, the two core areas of observation and analysis have been key to
9 this questioning, and, in turn, to the contrasting of the incoherences or relations
10 which exist between practical and declarative thinking. Indeed she mentioned this
11 in one of the interviews:
12

13 *In the Lesson and Learning Study group I am reconsidering many of the things I do, in particular*
14 *since I had to write the history of my teaching life and also since I saw myself in the classroom*
15 *(...). It makes you question what you are doing and whether you should change it. (In-depth*
16 *interview, 11th February 2011).*
17

18 Both the teacher's accounts and the video and social network have been useful,
19 innovative, basic tools for reflection on her own practice in a context of cooperation,
20 discussion, correlation, contrast and fluid dialogue, as provided by the LLS.
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23 Finally, given that Lesson and Learning Studies form part of a long cyclical process
24 of reflection and action, the real impact of this type of training on those involved
25 will not be known until a reasonable time has passed. For this reason my work
26 concludes with, a series of doubts and questions resulting from this fascinating
27 subject, which I trust will help shape future research: Which dimensions of practical
28 thinking are most influential in the way we conceive teaching and being a teacher?
29 Is it possible to reconstruct the most primitive, unconscious practical thinking
30 through conscious strategies?
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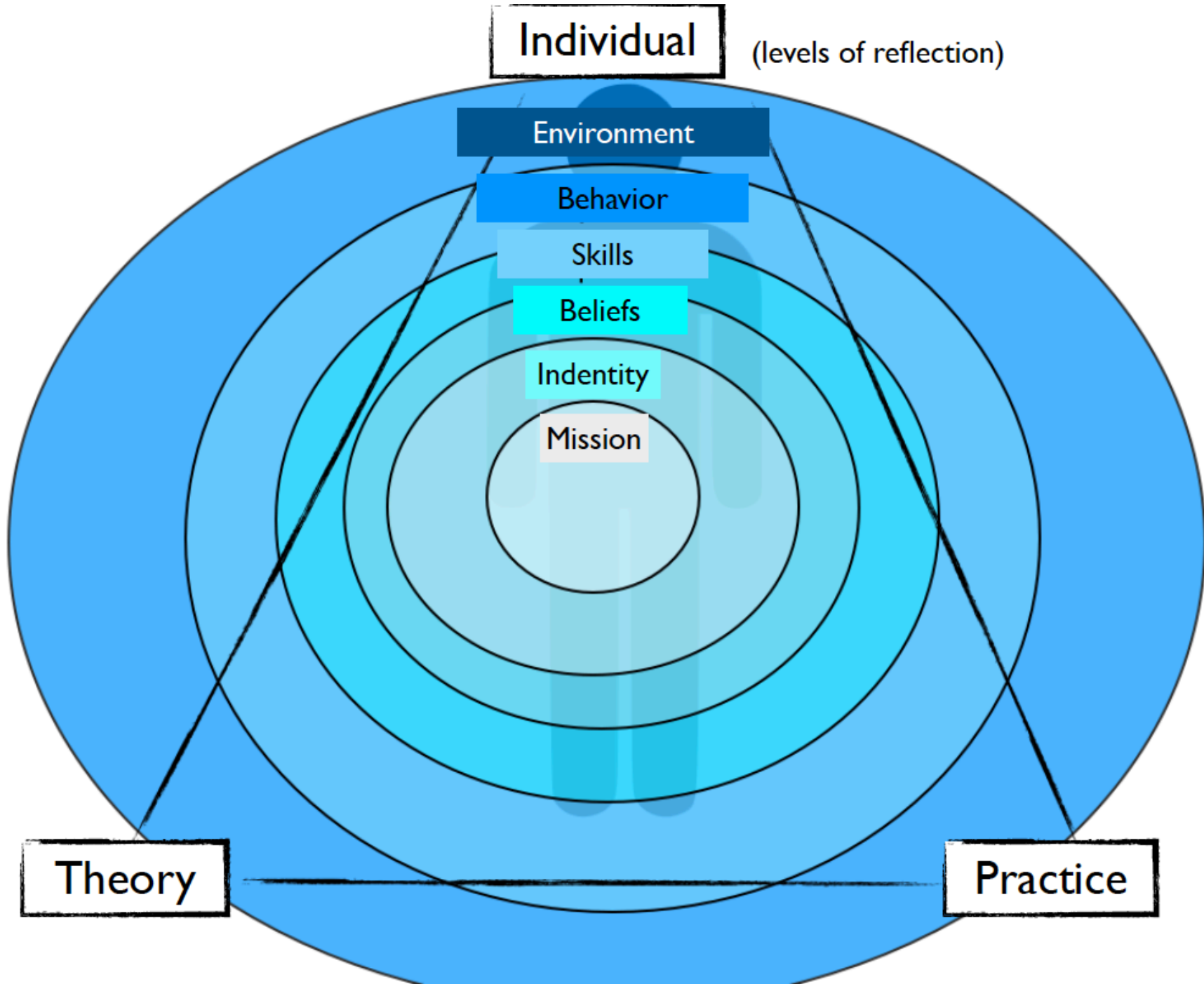
For Peer Review

Annex. Representative chart of the analysis procedure used for the case study.

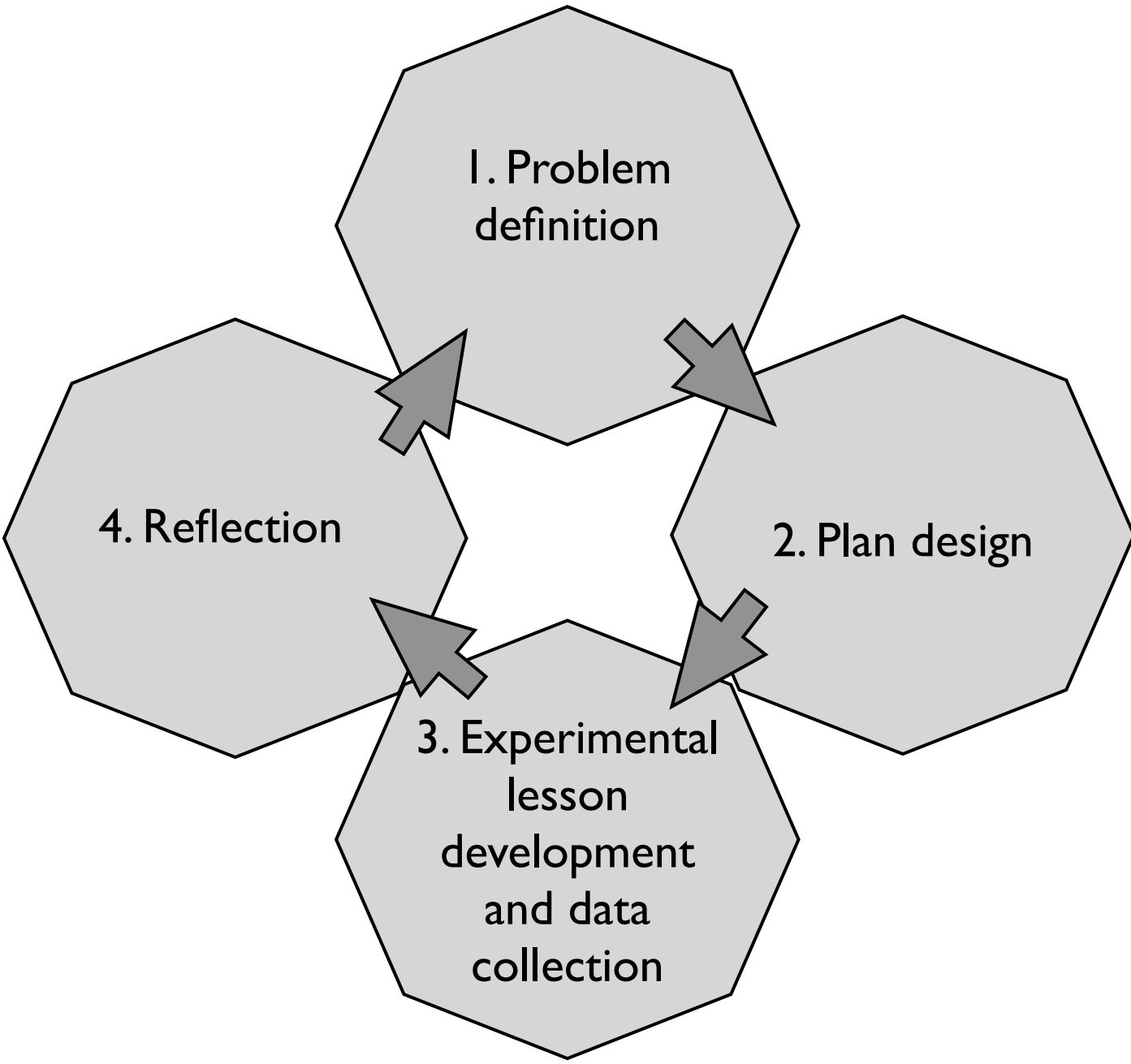
Methods		
	Evidence	Dimensions/Interpretation
1st interview (11/2/2011)	"I conceive the corners as a workspace, a place for manipulation and expression"	CRITICAL CULTURE: Prevailing academic thinking on the cornerwork methodology.
1st interview (11/2/2011)	(On how to manage the corners) "What you say is true: I allow them to do what they please. But life is not like that, you can't just do what you want whenever you want. This makes me ask myself, should I draw up some guidelines or not?"	BELIEF: Conception of the school as a representation of reality, of life. BELIEF: Directing teacher role (the teacher is responsible for making important decisions).
1st interview (11/2/2011)	"I think the symbolic corner is fundamental. The same is true of the assembly as a place for communication in which the pupil develops as he or she wants, since it is a place which is not occupied by toys or other kinds of material."	BELIEF: Directing teacher role (the teacher is responsible for making important decisions). SOCIAL CULTURE: The importance of the meeting as a key strategy in working on basic communication skills.
External observation diary	The distribution of the materials in the corners is stable and long lasting, with the teacher being in charge of its management.	BELIEF: Directing teacher role (the teacher is responsible for making important decisions).
1st interview (11/2/2011)	"The library corner is fundamental. It is a personal decision because I love books. I love reading, and this is one thing I am trying to convey to them."	SKILLS/HABITS: Stories as essential resources in the classroom in order to practice reading. BELIEF: Directing teacher role
Reflection (March 2011)	"Throughout the day... We talk, express ourselves, resolve conflicts, recount, reject, narrate, represent, read, seek out information about the meeting..."	BELIEF SOCIAL CULTURE Disciplinary distribution of the content worked on in the classroom. Fragmentation of the school curriculum.
	----- We add, subtract, represent, take on roles, express ourselves in symbolic play...	
	----- We artistically express ourselves, experiment, practice, perfect art techniques, know and acquire artistic culture in the art corner...	
	----- We build, solve, compose, complete puzzles in constructions...	
	----- We read, interpret, write, decode, search, design, analyse, seek out information in the library and desk corner...	
	----- We observe, establish responsibilities, associate and experiment in the nature corner."	
1st interview (11/2/2011)	"For me, the assembly is very important because it is the time and place where I personally pick up most information. But it is also the source of other dilemmas: Am I directing the conversation too much? Is my participation always necessary? What kind of judgments are made in these discussions?"	BELIEF: The teacher's responsibility is to have control over what children learn. EMOTION: Fear (insecurity) of not being able to control everything that happens in the classroom.
Identity project exhibition (June 2011)	"We always start by asking questions, but as this involves a lot of work, we always introduce powerful activities in line with the children's level in order to engage them."	ACADEMIC CULTURE SOCIAL CULTURE 1. Directing teacher role 2. The children do not have sufficient ability to propose a project topic (BELIEF)
External observation diary	The two projects being carried out in the classroom at the same time were proposed by the teachers in all the infant school classrooms.	BELIEF: The pupils cannot or are not able to propose topics.

External observation diary	"I have noticed that in this classroom cornerwork is conceived as extra free time which the teacher uses to prepare things for the project."	BELIEF: Spontaneous work, not guided by the teacher, is useless. Learning as a group activity led by an adult.
2nd interview (10/6/2011)	"I do not promote cornerwork for what I want to achieve or what we want to research, since I do not believe it to be an important part of the classroom."	SOCIAL CULTURE BELIEF Cornerwork is somewhat secondary because it does not focus on the objectives of teachers
2nd interview (10/6/2011)	"I have come to realise that corner work is more important than anything else (...), but there are a lot of problems with regards to timetable flexibility."	SOCIAL CULTURE Conception of the school day as broken down by a timetable.
2nd interview (10/6/2011)	"With regards to corner work, this is fundamental, and it is here that I have realised I can and should improve."	Humble, positive ATTITUDE/PREDISPOSITION towards the idea that there is a lot to learn.
2nd interview (10/6/2011)	"It should really come from them. I do not mind how long a project lasts when dealing with a question or whether it is necessary to carry out several projects at the same time, even though I used to find this frightening. It must be a topic they can relate to."	EMOTIONS Fear of not being able to control everything that happens in the classroom.
Content		
1st interview (11/2/2011)	"In all the corners I saw there was: symbolic play, artistic expression, constructions, mathematical logic, library... I wonder whether the materials I have are working or not."	BELIEF Fragmentation of learning in curricular disciplines. ATTITUDE Insecurity given change to non-directing role
1st interview (11/2/2011)	"I have grave doubts about how interested the children will be." Whether or not they will get involved.	EMOTIONS Fear of lack of motivation, little involvement.
1st interview (11/2/2011)	"In my practice other content has many purposes, such as "learning to learn". To see the school as an essential tool in terms of access to culture and information."	SOCIAL CULTURE A particular vision of the school as a tool to access culture and information
Reflection (2/3/2011)	"We can work on pure mathematics, oral and written language, critical and artistic expression, motor, social and cognitive development, emotions... all the necessary content, but in a natural way, created from need and in a fun-based way both through playing and involvement and by taking responsibility when carrying out proposals and projects."	CRITICAL CULTURE SOCIAL CULTURE "political correctness"
External observation	"Much of the content and many of the topics worked on in the assembly are proposed by teachers. The teacher has usually thought about what to work on during the week."	BELIEF (the teacher is responsible for making important decisions)
External observation diary	"The teacher listens to the pupils, but focuses on what he or she had intended to work on."	ATTITUDE/WILLINGNESS to listen to pupils and be open to what they say." Only taking note of those things which allow him or her to continue with the original idea.
Teaching role		
Description of the teacher's practice (2010)	"Although I usually programme long-term and weekly, I often forget about the programme and follow other lines, depending on interest or daily events. This could be called improvisation. It is something which concerns me and is one of my biggest fears."	BELIEF: Directing teacher role (the teacher is responsible for making important decisions). EMOTIONS: Afraid to improvise unplanned activities and tasks.

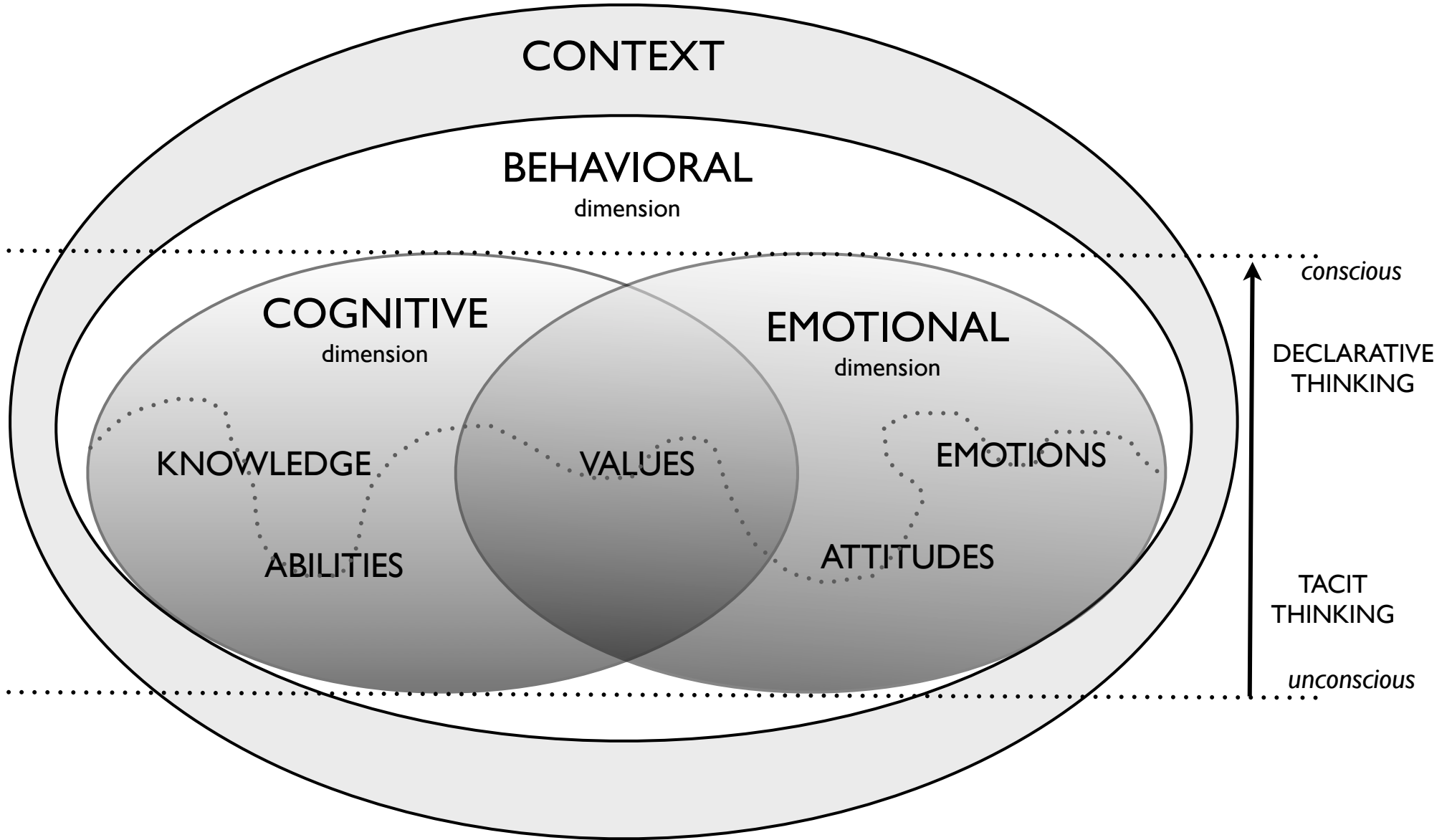
1st interview (11/2/2011)	"Cornerwork is an ever-changing process for me. I am in a search process."	Humble, positive ATTITUDE/PREDISPOSITION towards the idea that there is a lot to learn.
1st interview (11/2/2011)	"I try to listen and pay attention to pupils and use them as my guide."	ATTITUDE/WILLINGNESS to listen to pupils and be open to what they say."
1st interview (11/2/2011)	"I get frustrated with those families who do not get involved. I need to learn to live with this situation and not let it become unhealthy."	Conformist ATTITUDE to certain problems in the classroom.
2nd interview (10/6/2011)	"Seeing my colleague's practice has made me realise very specific things, particularly how he allows things to flow. I've noticed how he lets things flow (...) whilst I intervene far too much."	BELIEF: Directing teacher role.
Intervention in a Lesson and Learning Study group meeting (May 2011)	"I intervene and direct far too much, I suppose I can be a bit of a pain. I have included this as a criticism... I'm not sure whether my way of looking at things is good or bad..."	BELIEF: Directing teacher role (the teacher is responsible for making important decisions). Humble, positive ATTITUDE/PREDISPOSITION towards the idea that there is a lot to learn.
Outline of the identity project	"Participation in this group has led to me re-evaluating many things, rediscovering myself in many aspects. It's very emotional and satisfying."	EMOTIONS AND ATTITUDES. Satisfactory feeling of professional growth.
Classroom environment		
1st interview (11/2/2011)	"The classroom environment affects many things, not just the role of the teacher or the type of families, but the circumstances which surround you, the school itself, the problems you come across..."	KNOWLEDGE Each group has its own peculiarities which it is impossible for the teacher to predict.
1st interview (11/2/2011)	"With regards to the children who do not get involved at the assemblies. At least I have hope that they are thinking about what we are talking about. Then I do not mind leading the assembly with 80% of the class".	Conformist ATTITUDE towards certain issues in the classroom which, in her opinion, she cannot control.
2nd interview (10/6/2011)	"A key aspect is that the classroom should be a nice, pleasant place, as this leads to a more positive outlook."	BELIEF in the classroom as a comfortable, pleasant place
2nd interview (10/6/2011)	"If there isn't a good spirit in the group, if they don't get along well... everything you do will ultimately fail."	CRITICAL CULTURE/VALUE The importance of good relations between teachers and pupils



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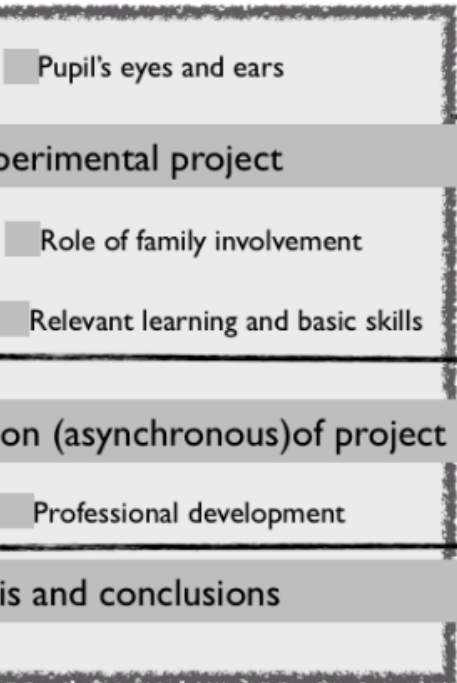
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Lesson Study development

Virtuality pedagogical

Phase 1 Collaborative analysis of practice

Extracting common axes:



The writing of the pedagogical story led them to allowed commonalities and divergent view among participants. Being forced to agree on those aspects where focus. Resulting in an open debate and an exchange of ideas.

Phase 2

Collaborative design of experimental project

Topic: IDENTITY

Resources bank

In this phase, teachers had to propose activities and formats, and expose them to all colleagues, allowing a common build together without losing sight of the axes.

Phase 3

Development, recording and observation (asynchronous) of project

Professional development

Observation allowed rethinking and redesigning practice.

Phase 4

Experimental project analysis and conclusions

Visualization of weaknesses, strenghts and improvement proposals allowed them to extract main conclusions to be considered for next cycle.