

TRIADIC THOUGHTFUL TABLE

Space to Generate Reflexive Thoughts During Initial Training Teaching Practices

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Abstract—Initial training teaching practices create teaching and learning procedures in three different subjects: tutor (university or college professor), guide (school teacher) and student (teacher in training). This article proposes and characterized the triadic thoughtful table (TTT) as a production and obtaining information technique that generates reflexive procedures. 4 qualitative triads study shows the impact that TTT has over teacher professional identity, triadic relationship, hierarchy break up and the conscious recognition of the reflection importance to develop teaching practices.

Keywords—Reflection, triadic thoughtful table, initial teaching practice; pedagogical practice; teacher training.

I. INTRODUCTION

The term reflection has become very popular, not just because of the educational area, but in formal learning contexts, not formal and also informal [40], [41], [2]. This has taken to the indiscriminate use of the concept that has overshadowed the sense and functions given by Dewey in its beginning [10] and Schön [32]. According to this, it is imperative to comment that in this article, reflection is seen as an active exam, persistent and caring of every belief, or way of knowledge [10], located and activated starting from problems experienced [27], that allows inner subjective and objective conditions' development [5], [17], promotes the change of their actors and contexts [41], conscious acts `considerations [32] and question suppositions and practices that seems to be comfortably natural [24], [42].

This text collects some discoveries from stage 2 of research project called "Science teachers thoughtful procedures during initial training educational practices", for that reason it has been proposed as an goal, offer the implementation of triadic thoughtful tables (TTT) as an strategy to generate thoughtful procedures during initial training educational practices.

At first, in order to explain the need to generate thoughtful procedures at initial training educational practices, literature review is used, and difficulties presented within the relationship of the three subjects involved in them: tutor (university or college professor), guide (school teacher) and student (teacher in training). In front of that problem, they have analyzed the Brandenburg [3], [4] thoughtful table proposal including its limitations for triadic functioning, there for TTT is proposed and characterized as a possible alternative to implement at practical procedures and related researches.

On second place, methodology, some results and the analysis of the job created with four different training level triads are presented. They reveal TTT's potential for thoughtful procedures study, during initial training educational practices. Finally, some challenges and perspectives are set out for the following research stages.

II. THOUGHTFUL DURING PRACTICE PROCESSES OF INITIAL TRAINING

Cornejo [7] expresses that thoughtful in, about and for the practice is a crucial element for researches in education and politics of teaching professional development. In a deeper sense, Schön establishes that thoughtful allows professionalizing teaching, since it contributes to generate knowledge in and about and not just action application and theoretical procedures to solve educational problems, which are wrong and disappointing due to context's complex, uncertainty and instability, where teaching practices are developed [32], [12].

However, literature review presents evidence to conclude that so far educational practices for teachers under initial training are supported by their belief and the knowledge of common sense and experience [32], [12]. Besides, they have been characterized by their instrumental sense for the design of linear classes and the strength of weakness and emptiness related to disciplinary contents domains. [5], [27], [39]. Therefore, it is indispensable the change in the practices of education students, since, first experience has an essential impact with the teacher educational development [9], [11], [28], [41].

For Zeichner [41], a way to talk about the difficulties is consideration and change in relationship between persons that take part in the procedure, who in general, visualize working apart. The root of this disconnection is presented in the practice models adopted by most of universities that instruct teachers; where you can find professors in charge of communicating theoretical knowledge mentioned at pre grade curricular matter, on the other hand, is school teacher who joins teachers in training practices. Made studies [1], [8], [13], [14], [16], [18], [23], [34] show that in most of cases, university professors do not know specific practices in a classroom that a teacher student has to face and teachers ignore curricular matter under future teachers are studying, for that reason, he or she does not know theoretical and methodology statements that rule his or her practice.

On the other hand, tutor teacher, a university professor in charge of accompanying actions and student decisions during his professional practice, in most cases he does not know the context of the practice center and the guide professor [6]. So, directions given to future teacher are going in different directions since he has relationships with persons living different realities without any connection among them.

Researches centered in triadic relationships during initial training practices processes, show clear lack of quality on relations and superficial view of the practice, but at the same time this can be assumed as an expand transformation potential of triadic association. Mainly in Chile, Romero-Jeldrés and Maturana-Castillo [29] researched about triadic relationships of 32 students of Primary Education Teachers, found that 81,9% of them, felt their guide teacher as a professional anti model and considered that tutor teacher as a support to contents organizations, evaluation tools creation and also to help them stablish a proper environment for teaching.

Labra, Montenegro, Iturra, y Fuentealba [22] say that triadic associations in Chile keep differences between must be, be, theory and practice. According to this, Joram [20] ensure that there is epistemological disagreement with the triad in relation to the knowledge needed to work as a teacher. According to this, teacher initial training need to exceed limits proposed

by rational technique, it implies a new epistemology focused on essential dimension thoughtful of educational practice processes [32].

III. THOUGHTFUL TABLE

Brandenburg [3] proposes reflexive table as a production technique and also a way to obtain information for reflexive procedures researches, during initial training educational practices. It is created with the purpose of promote and makes thoughtful easier, based on experience and it also support three diagnosis factors:

Identification of issues among information expected to be learned and what real education students learn during their studies years.

Current creation of trainings with minimum dialogue and interaction between tutor teacher and training teachers.

Dependence that training teacher has with interventions, orientations and knowledge of his tutor teacher

Reflexive table is a periodic space for dialogue where practice students and tutor teachers take part, teaching and learning work together to create transformation opportunities for, suppositions, practices, theoretical frames and procedures, they are possible to identify, challenge and fit together because of systematic thoughtful about experiences, share spaces and students development relations [3].

A reflexive table is developed within university context, following ALACT model [21], where jobs for tutor teachers and teachers under training are established. In figure 1 internal stage that students made and at the same time the external stage corresponding to practice tutor corresponds.

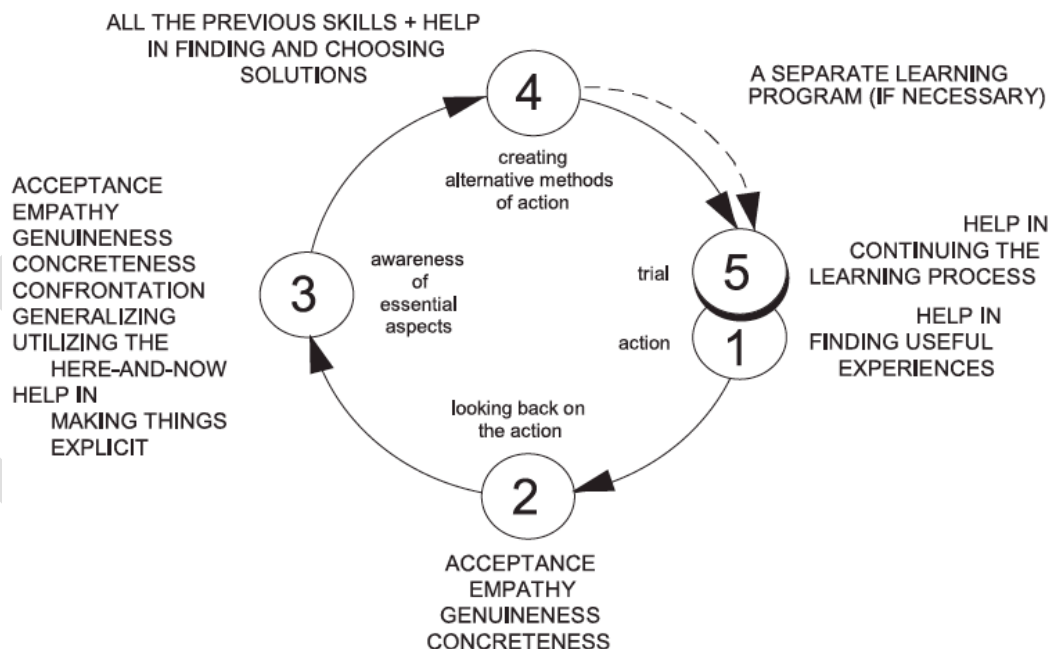


Fig. 1. Model ALACT of thoughtful practice: Cycle Internal/External [21, p. 130].

Brandenburg [4] says that reflexive table main characteristics are:

Provides opportunities to tutor teachers to understand experiences from support environment with colleagues

Students generate discussion when they ask for questions related to their own practice experience.

Tutor introduces each session, reminds methodology of ALACT stage and does not leads discussion.

Every student has the opportunity, but not the obligation of generate problems.

At the beginning of the class, it is undetermined what you are going to learn, but by the end of the class they are going to be very clear.

Every opinion is respected but they can be under discussion, depending on the table members` point of view.

Internal and external ALACT stage are followed.

Reflexive table can be analyzed from three categories that are on table I [3].

TABLE I
THOUGHTFUL TABLE'S ANALYZE CATEGORIES [3]

Co Learning Space	Tutor Job Challenge	Imperative and Silence Voices
Events during thoughtful table, where all the parts discuss practice actions, help their classmates to recognize central aspects and new strategies for future teaching experiences.	Events during or after thoughtful table where students or tutor talk about the tutor job during thoughtful table and consider its functions for teachers training.	Events during thoughtful table where parts discuss and analyze some situations where there are notorious leadership from some of the members and long silence moments from others.

IV. TRIADIC THOUGHTFUL TABLE (TTT)

Brandenbrug´s thoughtful table [3], even though it was designed and applied in initial teaching practices, it also has many different characteristics that are not equivalent to triadic work, so against hierarchy that research Project has “Science teacher’s thoughtful processes during initial training teaching practices”

First of all, the way how ALACT model is used [21] keeps hierarchy figure in thoughtful processes, since, it always brings to center the training that a teacher receives, and does not pay attention to the possibility of allowing an interchange of jobs between tutor and teachers, being teachers who develop external stages. Zeichner`s terms [41] maintain that epistemological status on practices that put thoughtful limits to up right relation contexts.

At second, thoughtful table works from a triadic relation system (teacher under tutor training), leaving aside the jobs that the guide school teacher makes, where the education student makes his own professional practice. Besides, making the thoughtful table in an university space puts limits on the school context considerations and sets institution`s hierarchy [38], in this last case, they focus their attention on what universities want instead of practice centers needs [25].

At third place, Branderburg [3] shows some difficulties on reflexive table when you have to work with a group of students when they are making their professional practice and a tutor teacher some teachers in training use their word, they domain thoughtful table, but they even empower the space, this is because they feel uncomfortable with their way, others defend their opinions, they do not feel identify with the problems they talk about or the way they talk about them, or the rhythm they work is not suitable for them. Brandenburg [3] found that in some cases absence at thoughtful tables is about 50% (12 to 24 persons)

In order to change this stage, it is needed to understand that even in schools or universities empirical and theoretical knowledge is taught and they receive the same value and space. Zeichner [41] proposes the creation of a third space, where university and school culture can be together, as well as theoretical and empirical knowledge.

Following Russell y Martin [30], quality during educational practice depends on the relation between tutor teacher, guide teacher and teacher under training, for this reason it is so important for researchers to develop new techniques. In this sense TTT is proposed as an independent space from school or university context, where tutor teacher, guide teacher and teacher under training who get together to transform through careful thoughtful processes [10] and conscious [32] their own suppositions, practices, theoretical frames and procedures [3].

Creation of this space implies epistemological breaks up, in order to make culture and knowledge come together in a less hierarchy way. This way TTT becomes into a transformation role that helps modifying and increasing potential to teach and develop new knowledge [15]. It might represent synergy created through persons, social interaction, objective and subjective.

Incorporating TTT represents a different way, without prejudice, of thinking about practice procedures and also wanting to open it, in order to identify contradiction, based on this schools and universities would have to recognize to each one of persons involved in learning such as expressions partners and who ever demands different competitions.

TTT can not be applied on ALACT model [21], since it is expected that any of the persons of the triad should be in the center in a specific moment, but in another moment, the center of thoughtful process can be occupied by another member of the triad or by three of them. Besides, ALACT model works and transforms teacher in training actions, while TTT tries to find thoughtful potential of the three parties.

We have developed TTT in our research following next protocol:

Creation and preparation of a research team with an equivalent amount of tutor teachers (2), guide teachers (2) and teachers under training (2). None of them should be part of the samples.

Selection of the triads that were going to be studied (4) and identification of its point of view in relation to: teacher identity, education practices, thoughtful about practice, jobs during practice procedure and relations with the other persons of the triadic. This process took place during stage 1 of master research projects, through deeply individual, which result summary will be later presented.

Creation of an instrument with ten situations (questions, classroom problems, differences between teaching career and teaching system) related to the questions asked in individual interviews (teacher identity, educational practice conception, thoughtful about practice, jobs during practice processes and relation within persons in the triad) in which each member of the triad can fell invited to participate, plan and re plan their posture and possible solutions (Index 1)

Invitations to members of the triad to participate in thoughtful table, but in a different place than in schools or universities classrooms.

Once the triad is together, a researcher will orientate to the table: (i) explains TTT objectives, (ii) establishes non hierarchy interactions as main requirements, it means that every point of view will have the same value. (iii) in every situation the three parts must

contribute to the solution, (iv) they manage time, so they decide how long they are going to have conversations about each situations and (v) they can resign to solve those situations that can be considered as aggressive or are against their integrity. Afterwards, the researcher gives the contents to each member and leaves the place so he does not interrupt triadic function, restrict questions or answer and of course not to generate group interviews, which could be more related to researcher intentions than to the triadic intentions.

When a triad declares that has finished analyze situations, the researcher enters the place where members are together and ask them, what does TTT brings to their personal and profesional development?

V. METHODOLOGY

Quality methodology is equivalent to thoughtful processes complex and depth [7], [10], [32] because “it is a systematic activity orientated to comprehension in deep about educational and social phenomenon, to education practices and scenaries transformations, taking decisions and also towards discovering and developing a knowledge body” [31, p. 123].

The sample has been taken from four triadic of initial educational training from Biology Education from a University from Metropolitan Region, Santiago, Chile. Triads are from different educational level, first triadic (TT1) corresponds to initial practice from first training year, second (TT2) is related to intermediate practice from second year, third (TT3) to intermediate practice from third year and fourth (TT4) corresponds to professional practice of fourth year.

Data production and recollection tools correspond to TTT, that were validated by different point of view of the research team and afterwards, were sent to expert to analyze them. A new element was created for each triadic because each one of the triad corresponds to different levels and mainly because of the results given by individual interviews of stage one, it gave opinions and situations related to each person’s experience.

In every TTT analytic induction was used by analyzing meaning context [35], following stages that Gomez Mendoza [35] collected from different authors: a) previous analysis or floating reading; b) material creation (transcription using Express Scribe software), c) analysis unit selection: theme, d) open initial codification and e) results extraction.

At the same time, stage one results were taking in consideration, some regular patterns were found for each triad actor [36], [37]. Table II shows differences in the way how teacher professional identity according to each one of the members of the triad. In a similar way, there are differences in the conception of practice and thoughtful.

TABLE II
SUMMARY OF FIRST ORDER INDIVIDUAL INTERVIEWS ANALYSIS, FROM STAGE ONE OF THIS PROJECTS [36], [37].

DIMENSION	TUTORS	GUIDES	STUDENTS
Identity	Commitment	Vocation	Vocation, Conflict, Unsecurity
Practice	Objective-Social	Subjective-Social	Subjective-Individual
Reflection	Technique-Emancipator	Technique	Critic
Triadic Relations	Student	Student	Tutor, Guide
Triadic Learning	Bidirectional	Unidirectional	Unidirectional

Roles	Known	Unknown	Familiar
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It is important to mention that the interview shows that there are no relations between the three parts of the triad: tutor interacts with the student, guide teacher interacts with the student and the student interacts with tutor and guide teacher. This part is important to mention before developing TTT because in most of cases guide teacher a tutor did not meet before it.

For example, here there is a part of the answer of TT1 guide teacher, when she was asked about practice student tutor teacher:

“I have never met that person, I have no idea who he or she is (2), to begin with!, so I consider that this is already a problem. I really don't know how this person looks like, if he is a man, woman (3) [...]” I also have to see to tutor teacher, because if I see him tutor teacher will grade things that honestly have no relation with a class I have to discuss it with him. Or sometimes she is going to evaluate something that was not taught, or maybe she is asking for topics that do not correspond or maybe she is going to be very relax that everything is going to be fine” [...] “As I mentioned I have never seen her, she has never told me “I am going to watch the student; no never!” [...]” she should have introduce herself and tell: need this from you, what do you need from me? And that never happened” (TT1 Guide teacher during her individual interview)

Besides of that, guide teachers do not know their duties within the teacher in training's practice process and on the other side, only tutor teacher recognizes that in initial training teaching practices , each of the actors can learn from others (bidirectional). Guide and in training teachers mention that in such a processes, only the student that is in practice, learns (one direction).

VI. RESULTS AND ANALYSIS

From the stage proposed by Gómez Mendoza [35]: previous analysis or floating reading; it was possible to identify general actions of TTT in relation to fourth aspects shown in Table III.

TABLE III
SUMMARY OF TTT'S GENERAL ACTIVITIES

Aspect	TTT1	TTT2	TTT3	TTT4
Lider of the table	Tutor	(no clear lider)	Guide	Student
Best agreement between	Tutor and Guide	Tutor and students	Guide and student	Tutor and Student
Best disagreement between	Guide and Student	Tutor and Guide	Tutor and Student	Guide and Student
Generation of stress and misunderstandings	Tutor	Guide	Guide	Student

It was also seen that TTT's characteristics allow leadership to be taken by any one of the actors or by none of them, like in case TT2. There are coincidences between TT1, TT3 and TT4, in relation of the person that acts as the leader and who generates stress and misunderstandings, it means, the member of the table who is always offering another point of view or different alternative to face situations and even more important, that job could have been taken by anybody in the table.

On the other side, triadic associations during TTT's development can accomplish different jobs depending on persons involved. For example, relation between Guide and Student presents more disagreements in TTT1 and TTT4, but more agreements in TTT3. Relation between tutor and guide is more dynamic, talking about agreements in TTT1 and more disagreements in TTT2. It means that relation between Student and Tutor presents more agreements in TTT2 and disagreements in TTT3.

What has been mention above is outstanding since, it keeps difficulties within triadic relations of teaching practice processes [30] and even more important, TTT allows dialogue, conversation and experience analysis, also consideration of different points of view, agreements and disagreements, stress and misunderstandings.

As follows, we proceed to analyze some parts of TTT that give an speech in favor of the purpose of this article: proposing the use of TTT in order to generate thoughtful procedures during initial training's educational practices.

This part of comments has been selected considering five analysis categories: Learning from other (s), identity with educational practice, triadic relations, TTT's hierarchy categories and its own importance.

A. Learning from other(s)

TTT's dynamic offered different areas to make each one of the members express what they have learn from others during the practice procedure that they share. Specially, there is an outstanding recognition from guide teachers towards students in practice teaching points of view, as we can see in the following part of TTT1:

"I was disappointed with students in practice, and ... and I haven't (2) Charlie and me have had fun, I have learnt from him. I have ... a good relationship, it is easy to get along with Charlie. Personally I have learnt from him and that makes me feel happy. For me that's the most important aspect." [...] I like him and he also helps me a lot" [...] "I feel more confident with you in the classroom because you are a big support" (TT1 Guide teacher)

Besides of trusting more practice students, support feeling and learning is shared by TT2 guide teacher:

"I learn more from practice students than they learn from me I believe. I think that ... it is very important, I feel myself supported when they are, I think it is a moment to feel someone you trust in the classroom, a moment of looking at myself and say "I am in their same situation and even I am here for 20 years, I was also a practice student and I had the same fears and questions" that's what I learn from them, always try to do my best and wonder myself if I am doing a great job" (TT2's Guide teacher)

TTT allows to identify that practice procedures go in two directions, that is something that individual interviews had never provide, this is because in stage one of the Project, was said that in the relation between Guide teacher and Student, only the Student was who learn something. Now it is very clear that Guide teachers also learn from their students.

B. Identification with teaching career

During TTT, some spaces were found, where actors mention how the practice procedure impacts their identity in relation of teaching career. One particular case, explains how professional practice made the difference between continuing studding, since those experiences activated and ensured his whishes of becoming a teacher.

“I had my school teachers as a reference, in fact, what I always pointed out was that I did not want to be like them, but I have spent some time, this year, with more active teachers, I have learnt that most of the teachers are not like the teachers I had at school and that makes you richer because :::: if I ever thought about resigning to be a teacher, now I will never do it. I know that there are excellent teachers and they really want to be teachers” (TT2 Teacher in training)

Something similar happens with tutor and guide teachers, who in this triadic dynamic, mention other dimensions related to teachers identity through practice:

“Practice is a procedure that I have: it is complex because I am related to it as a tutor and also involves guide teacher and student. I have :: it is a dynamic procedure, very different, there is no one like the other” [...] “ I feel blessed because it is very special to participate in practice procedure, I feel that my current background and being able to understand other kind of situations is because of practice procedure. I have [...] I have learnt to hear, observe and pay attention to all and others, to wear someone else` shoes. I thing that professional practice makes you more human” (TT3 Tutor teacher)

I really liked the idea of humanizing, actually teaching is beautiful, but it is not for everybody” [...] “Teaching is beautiful but it is not for weak persons, that`s why who are teachers must prove that we are beyond vocation, it is because we are sure about what we want, of what you are and what I can achieve, in other words, believe what we are saying” (TT3 Guide teacher)

Tutor teacher mentions how complex practice procedures can be, being like theoretical statements [26] and at the same time, they show the potential of working with others in different contexts that allows them to work in a better way in different situations and become “more human”. This last point calls everybody`s attention, even guide teacher expresses that teacher profession is on top of vocation, it has to be with conviction.

C. Triadic relations

In TT2, some different and stressful situations happened between tutor teacher and guide teacher, they definitely had more disagreements than agreements. However, TTT allowed actors to find each person`s contributions, during practice procedures, and respect from other`s persons points of view:

“I thing that he has contributed, I thought that he was going to because we had the chance to talk the three of us about practices, and ::::: so, knowing tutor teacher`s, student in practice`s opinion and mine, makes us confirm if we agree” (TT2 Guide teacher)

In this same situation, teacher expresses:

“I totally agree that you make yourself richer with this Project, because, for example, I (“, now I understand why tutor teacher gives me some advice and this is the time to clarify those points. Also in this situation, it is possible to understand what guide teacher expects from me and she wants me to do and sometimes, just for being innocent, you do not do them. [...]I had never being asked by to have: how did I do it? And that is very important for me, since I realize that I am not there just to take notes but I am part of what she does with kids” (TT2 teacher in training)

This is just one example to show, that in thoughtful tables we can find important spaces for each of the parts of the actors and also make them understand what others think, mainly because the student in practice can analyze how their teachers look at them when they express their opinions about their work.

D. Hierarchy inside thoughtful triadic table

TTT's main characteristic is the break-up of epistemological of practice procedure hierarchy [41], this can be seen in the following statement given by a tutor teacher, once she was asked about her feelings being part of the table:

“We were saying that it was a pleasure to be all three today. It was nice, pretty nice, because: we felt the three the same way. Right?! As colleagues, we didn't have to think about hierarchy” (TT1 tutor teacher)

We found a similar situation in another TTT, in this case tutor teacher and teacher in training talk about how important is to create spaces with the characteristics presented in this article.

“The three of us were in a place without hierarchy, I didn't feel the way I used to feel with my classmates, everybody talking a common language, the way this kind of projects offers” (TT3 Tutor Teacher)

“There are several visions, in order to discuss ideas” [...] “I like conversation instances, because we are able to expose all our points of view from different edges and I can learn a new experience that I can use next Thursday during my practice day and also makes me have a wider vision::: I like it”. [...] “I like this kind of spaces and I totally think that they are needed and they give me the opportunity of share ideas, times and moments! (TT3 teacher in training)

E. Importance of Triadic Thoughtful Table

A Tutor teacher expresses how calm he feels after TTT, since he considers it extremely important to generate reflection about experiences related to teaching and make this profession stronger and also create changes in teaching processes.

“It makes me feel calm knowing that I am not alone, knowing that there are more persons focused in the same topics that we all are missing, we need to think more and ::: we need to share more experiences and make them stronger” (TT3 Tutor Teacher)

On the others side, TT4 gave value to TTT as a needed circumstance because it creates different activities closer to professional commitment, it means, we need to exceed technical rules [32] which belong to institutional practices, this is to create two directions when ones practices gets more difficult than your own.

Tutor teacher: “I totally believe this is a needed space, if they were permanent, the student gets more benefit from them, and face to face instance is relevant because it is necessary because face to face makes the whole difference”

Student: “” I also think, as well as tutor teacher, that it is needed, because I spend a lot of time with my guide teacher, but at the end it is the same than being in classes. Now we have a more personal situation, this is relevant to confirm is you are doing a good job or not and also knowing what are your mistakes and confirm if my tutor and guide teachers are satisfied with my performance”

Tutor teacher: she is going to leave very happy! Her teacher told her something very cute!”

Student: (smiles)

The smile mention above it is something very important, as it is seen in the paper, just watching the tape lets you observe how satisfied the student is with her professional practice, because after two years she has done a great job and she has learn a lot. This is all thanks to TTT.

VII. CONCLUSIONS

TTT allowed its own actors to know each other and realize what they have learnt from each other and what others can obtain from them, even if they have different jobs.

Besides, it became clear that all the initial training educational practice processes move and change into a better way teacher`s professional identity [11], making models and prospective for teachers in training clearer.

TTT work activities and the space where the three persons share non hierarchy conditions, allowed interaction and participation among all of them, giving special value to all points of view and experiences from different contexts [38]. An essential aspect was breaking with hierarchy point during practice process [41], [30], it was valued and appreciated by most of TTT actors because it allowed them to feel among colleagues and being able to recognize and distinguish among others, offer solutions, questions and new alternatives to situations already presented.

This was given because there was a very carefully preparation of TTT before it started to be used: all the interviews were made deeply to each person starting from their experiences in practice and their theoretical postures about teacher`s professional identity and also about what practices they made in the classrooms; afterwards, the interviews were reviewed in detail to configure ten situations in the orientation tool for TTT.

This last point is clearly fundamental during development and approaches of TTT since it has to allow everybody involved to feel identify with situations exposed, and they are invited to give their opinion and to agree or disagree with other two persons` opinion [3]. Also, situations must be directly connected with the answers given by members of the table during individual interviews, but written in a way that they do not make others feel ridiculous, or that do not go against their integrity.

The four triads of this article showed evidence to ensure that TTT becomes in an important place to generate a thoughtful environment during initial training educational practices, because it allowed each member feeling as an important part of the process with a speech that helps and teaches others [26] and they can be improved from others [5]. TTT also let other make questions about the practices [24], [42] and conscious about its posture and actions [32]. Let`s see what a tutor teacher expresses at the end of TTT:

I have been more than 10 years doing this and I had never had the chance to hear thing such as what Lea said now. Eh ::: we going through life so fast and even you try to make a reflection, but what do we call reflection we think? And it calls my attention because I used to say: I didn` t do this, I did this, this was great, this was wrong, but after all these years!!!, did I understand me?

After listening to her student (Lea) in a non-hierarchy space, this teacher consider her actions for the last 10 years of experience as a practice tutor teacher and even more important, she questions her acts in front of what she has called reflection. It can be said that the careful and persistent test that Dewey [10] talks about has been working for her.

TTT has allowed to produce important information to analyze reflexive procedures, however, we still have many question without answer: Which are reflexive dimensions and characteristics for triadic associations during their teaching practices for science teachers in training? Which are reflection dimensions in, about and for tutor teacher practice, guide teacher and teaching student during initial training for science teachers? Are there differences in dimensions and reflection levels in, about and for science teacher in training, depending on their learning level: beginner, intermediate, professional? If the answer is affirmative, which are they and what are their characteristics? What's the reflexive profile in, about and for science teachers` initial training?

Those questions have been considered in three and four stages during this research Project, through group interviews in each triad and interviews, its analysis requires a detailed examination that gives answers to all questions expectations.

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INDEX 1: TTT1`S TOOLS

Situation 1

To begin, each teacher will tell other members what they like the most about being a teacher.

Now each one is going to comment what they think it is more complicated about being a teacher. How would you improve those problems?

Situation 2

There is a folder on the table, you are going to find a paper with the sentence “TEACHING PRACTICE” you have to write all the words that relate with that main sentence. Make sure that you explain why you wrote that word and how you are going to relate them with “TEACHING PRACTICE”

Situation 3

A teacher during an interviewed says that her jobs as Practice Tutor Teacher are what are listed. What other jobs could she make in order to continue improving her job as Tutor Teacher? Do you agree with what she says?

- To orientate or give advice about her job
- To listen to practice student’s experiences

Situation 4

In another interview, a Practice Guide Teacher said that her jobs are the ones that are listed. What other jobs could she make in order to continue improving her job as Guide Teacher? Do you agree with what she says?

- To promote students participation in the classroom
- To allow students to identify themselves with being a teacher

Situation 5

A student was also interviewed. There are some of the jobs that he recognized during his Initial Practice process. What other jobs would allow them to develop teaching abilities?

- To propose activities during classes
- To observe teachers and students work.

Situation 6

If Charlie would have had to make a class next week, plan how that class could be created by the three of them, what would they expect to happen during and after classes.

Situation 7

In the previous process, how can a relation between theory and practice can be established?

Situation 8

Andres is a Biology and Science teacher who has to teach 35 students about heat and temperature concepts. Due to the big quantity of students and the topics to talk about are several, he decides to tell students all concept definitions and talk immediately about gas laws. The definitions that he made students write are as follow:

Heat: hot energy that makes the body feel hot or cold.

Temperature: is how to measure the heat in a body

If we had to help Andres to became a teacher who “Uses an EPISTEMOLOGICA teaching practice that guarantee learning of science in a school context considering knowledge of and about his discipline”, what aspects he should re consider for his class? Mention scientific, teaching and practice aspects.

Situation 9

Eduardo, teaching first year student, is making his own teaching practice in a 5^a grade class, he begins his class greeting in a very respectful way to his students, and he writes on the board the title of the topic of the day. "Fractions, comparisons and equivalences". He stops and faces the class and ask the students "what does the word comparison mean? And they begin to answer all at the same time, he hears them and finally answers "when you compare one thing with the other, right?" and kids answers "yes teacher" and he says "very good, I can see that you have paid attention in class".

He goes back to the board and keeps writing the topic of the class. Kids copy in their notebooks what Eduardo is writing, first definitions and then some exercises about comparisons and equivalences. The he asks Diego "1/4 is more, less or equal to 1/2?" other kids rise their hands and say "it is more teacher because 4 is higher than 2". Eduardo realizes that kids do not understand fraction concept, but he can't go back to explain them again, otherwise he will be late with academic calendar.

What would you recommend to Eduardo to make him improve his teaching practice?

Situation 10

Each one expresses to all the other table members what they have learnt once they are involved with teaching practices (as a tutor teacher, guide or student)