Teacher education pedagogies and methodological constructs: or about different ways to approach teacher education[1]

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Summary

This paper plots the methodological constructs identified in different teacher education pedagogies deployed in teacher education settings of Higher Education Institutes in the province of Catamarca. The focus is on showcasing how future teachers are aided -from the methodological constructs of mentors- to make pedagogical decisions and broaden their potential for action during the educational path.

The research was conducted from a qualitative approach. Three Higher Education Institutes representing different socio-cultural contexts and educational traditions were selected on the assumption that distinct pedagogies would be found; not only structured on the basis of stereotypical training, but also on the specificity of the disciplinary field. Seventeen semi-structured interviews were carried out and were accompanied by classroom observation of teacher educators in different areas, from distinct disciplinary backgrounds and varied seniority.

The qualitative analysis of the data enabled the reconstruction of three typologies that explain the modes in which teacher education is pedagogically configured in the institutes under study as well as the dominant methodological construct that sets up each pedagogical approach. Thus, the pedagogy of 'modeling' teaching is based on methodological constructs based on the transmission of disciplinary contents and the instilment of behavior patterns; the 'traditional' view is built on methodological constructs elaborated on the basis of disciplinary logic; and the 'eclectic' approach is materialized in methodological constructs based on the synthesis of heterogeneous components or constructions grounded on pedagogical abstention.

Key words: Methodological Constructs - Teaching - Teacher Education Pedagogy.

Introduction

This study explores the methodological constructs identified in different pedagogies of teacher education programs in tertiary level. The main focus is to examine how future teachers are assisted to make informed decisions and widen their possibilities for action during the educational path grounded on the different methodological constructs of teacher mentors. The departing assumption is that institutionalized teacher education prescribes a mode, a manner, an ideal model of teacher, and that the formative process is aimed at enabling the student to learn the script and repeat it on stage. In this line, the educational process is viewed as a set of complex activities so as to recognize those elements that characterize the decisions of teacher educators at the time of generating a methodological proposal. The material and symbolic components that take part in such decisions outline the distinctive features of the pedagogy of teacher education and the methodological constructs generated within its framework.

In order to delve into the pedagogical configurations of teacher education, the category *teacher education pedagogy* proposed by Cristina Davini (1995) has been taken as reference; which adheres to a rationale that entails the elaboration of criteria for action and specific strategies for teacher education via the recovery of experiences, specialization lines and contributions to the field oriented to the construction of a shared pedagogical project that outperforms uncritical reproduction, routine and spontaneity. The goal of such pedagogy for teacher education is that throughout the formative process the students be able to develop specific skills and competences, examine learning schemata and construct knowledge for the execution of tasks proper to the teaching profession. From this perspective, in the formative process there is an intention to generate teacher training devices that enable the articulation of strategies to suit a global pedagogical logic committed to the desired professional profile and the characteristics of the tasks prospective teachers will face; strengthening the development of critical judgement in the different dimensions and contexts in which teacher education takes place. In this vein, to focus the attention on the pedagogies of teacher education implies to account for the day-to-day processes through which the student teachers are performed in the institutional device, especially through the teaching practices deployed by mentors. This way, the performative potential of the formative device is materialized in the curriculum in action experienced in the classroom.

Likewise, this study is anchored in the idea that teaching a specialized activity requires an exercise of methodological construction; a theoretical category proposed by Gloria Edelstein (1996) that refers to the methodological as an object that is governed by a particular rationale in its construction. The author proposes the notion of methodological construct as a possibility to overcome the

mechanistic conception of the teacher as an executor of pedagogic techniques and methods. To Edelstein, it is not possible to think of valid methodological options for different knowledge fields, nor of the homogeneity in their matrices. In her view, a methodological construct is not absolute but relative, and it is composed by taking into consideration the discipline, the subjects who are in condition to appropriate it, and the particular contexts in which the formative process takes place. Similarly, Díaz Barriga deems the methodological aspect as the central theme of the didactic debate posing that 'the methodology of teaching is constructed in the synthesis of the conceptual elaboration and the educational experience marked by the creativity and sensitivity of the teacher' (Díaz Barriga, 1997: 116). Departing from the construction of a methodological proposal, the teacher endeavors to create the conditions for the learner to learn.

By reference to the propositions by Edelstein (1996) and Díaz Barriga (1997), in the framework of the process of teacher education, the methodological constructs are understood as those proposals *created* by teachers in which they put together a group of strategies and actions in accordance to their conceptual stance, experiences, and capabilities -technical, artistic, reflective- with the intent of promoting learning. The methodological constructions would then acquire singularity by means of the abilities of the teacher to recognize and bring together the potential of the group of learners, the specificity of the subject matter knowledge, the characteristics of the context, the personal, institutional and political timing and intentions that pervade the teaching and learning processes.

From our viewpoint, the key element of the notion of methodological constructs resides in the creative potential of the teacher. The creative act occurs as the result of the decisions made at the moment of assembling and combining actions and strategies. Within this framework, a strategy is considered as the capacity of anticipating and elaborating alternatives through an appraisal process (Yuni and Urbano, 2003) that is allied to the ability of coordinating actions and modifying them as needed to achieve a goal (Flores and Vallés, 2002). The strategy works on the feasible, the uncertain, and the unpredictable. It is forged by setting diverse and everchanging scenarios. It implies a game of multiple alternatives, the possibility of anticipating different situations and thinking of likely responses and courses of action that will not be clearly defined in their details but will be assembled and constructed in the here-and-now according to the situation and the events that may arise (Souto, 2009). In this sense, Litwin asserts:

> The strategy that the teacher selects is not a mere sum of activities or the elaboration of instruments as the result of particular knowledge, but a complex theoretical-practical reconstruction that is carried out for the students to learn. This means, on the teachers' part, a reconstruction of the relations among the contents from the problematics of learning (Litwin, 1997:65).

The possibility of creating involves the teacher executing a set of actions. The *action* lies in the aptitude of the individual to make the difference (Giddens, 1984). In this sense, we recognize the capacity for action and reflection of teachers and students as agents in Higher Education Institutes and support the need for the educational institution to generate multiple paths for agency so as to widen the potential for action of the future teachers to act upon unknown scenarios. Thus, we appeal to Giddens (1984), who asserts that human social activities are recursive. That is, social actors do not generate activities, but constantly recreate them through the same means by which they express themselves as actors. According to the author, human conduct has two components: competence and knowledgeability. The former relates to the agents' potential to decide upon their actions and their choices to act in another way; the latter concerns the agents' knowledge about themselves, their actions and society. From this perspective, to *act* does not denote the intentions of the agents to do things, but their capacity to do things; it entails a flow of actions purposively perpetrated by an acting self, in the sense that the individual could have behaved in any other way in each phase of a stream of conduct. To be able to act in another way means to intervene in the world or to abstain from intervening, thus exerting influence upon a process or a specific state of affairs.

Methodology

The study is based on *semi-structured interviews* and *classroom observation* of teachers in different teacher education programs at Higher Education Institutes in the province of Catamarca. These institutions are representative of distinct social contexts and formative traditions: two institutes are located in Catamarca city center (one of strong transmissive imprint; the other belongs to the Artistic Area), another in the town of San José de Piedra Blanca[5] (oriented to matters related to rurality and cultural diversity), and another situated in the department of Belén[6] (concerned with the professional teacher education rationale fostered in the eighties).

The selection criterion can be explained insofar as the object of analysis, the methodological constructs released by teacher educators, alludes to actions situated in particular cultural scenarios and formative intentions which vary according to the discipline rationale, the potential of the learners and the educational stance of the institution.

Seventeen teachers from different fields of education were interviewed. We worked with teacher educators in Mathematics, Social Communication, Philosophy and Educational Sciences, Economics, Biology, Computer Studies, Chemistry, Music, and Physical Education. Their ages ranged between 25 and 58. Most of them worked at high school as well as at tertiary institutions, and their seniority in higher education was a minimum of two years. Most of the

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teacher educators were in charge of three courses, although some of them ran ten, twelve and as many as fifteen courses.

The aforementioned sample was defined on the basis of the representativeness criterion and institutional agency. As work on the interviews progressed, even when the teachers were in charge of different courses and fulfilled their duties in different areas and dissimilar teacher education schools, no additional or significant data were generated, and that was the reason why the sampling was brought to an end in the understanding that the theoretical saturation of conceptual categories had been attained.

The information collected from the interviews enabled the understanding of the ideas, beliefs, and notions of the instructors in relation to teaching, the aspects they take into account to construct their methodology and didactic strategies, their criteria to select contents and the skills they aspire to develop in their students, as well as the experiences they value as successful in relation to the processes of knowledge appropriation and construction. In the interviews, a checklist of 16 skills[6] was also included; which was designed with the aim to know the educators' opinions in regard to what skills student teachers should necessarily develop, which are the most important and which ones are dealt with in their teaching practices.

Once the teachers were interviewed, some of their classes were observed. This technique of data collection enabled me to record the actions performed by teachers and students; describe the methodologies employed by the former and recognize the room for choice of the latter in respect to their educational process.

To know how teachers design their methodological proposals, an analysis of the syllabi and the proposal of practical classes was accomplished. As far as the syllabi were concerned, attention was centered on the intentionalities and decisions explicit in the rationale, the skills that students were intended to develop as stated in the objectives, the procedural contents, and the methodology of work. Finally, the correlation between the activities proposed in the assignments for practice classes and the skills being aimed at in the objectives was examined.

The software Atlas-ti was used to assist in organizing the gathered data within a hermeneutic unit called *teacher records* which comprised the interviews to the teachers, the records of the observation, the assignments and the syllabi. The organization of the information was assembled through four matrixes. In the matrix called *typologies of the pedagogies of teacher education and the methodological constructs identified in them*, the gathered information was triangulated according to the different methods of data collection and organized into analysis dimensions, namely: educational traditions; recovery of experiences and contributions made by other colleagues and/or knowledge areas; conceptions (about pedagogy, teacher education, curriculum design, teaching, the relation between theory

and practice); methodological constructs (aspects taken into account in the design, activities the teachers propose, strategies deployed, resources, actions performed by teachers and students, characteristics of the students from the teachers' point of view, the educators' stance, the intentionalities stated in the syllabi, the methodologies valued as significant).

Through the semantic analysis of discourse and the exploratory procedures oriented to the recognition of *key words*, We was able to problematize the concepts of the pedagogy of teacher education and the methodological constructs, recognize connections between the different factors that intervene in the teaching practices, observe regularities at the moment of realizing methodological constructs, and distinguish the different types of methodological constructs generated in the higher level institutes in the province of Catamarca province.

In the following section, the main findings are presented; a task for which We resort to low inference descriptors construed from the discourses of the teachers and the class records.

Types of pedagogical configurations of teacher education

From the qualitative analysis of the data, there emerged three categories that allow the identification of the modes in which teacher education is pedagogically shaped in the province of Catamarca: modeling, traditional and eclectic.

The pedagogy of the model-based view is related to a mode of constructing the educational path that is teacher-centered. The tutor in this case is the model for prospective teachers to follow in order to develop their future careers righteously. It also involves the intention that student teachers be able to cultivate values and attitudes consistent to those ways of behavior their instructors deem fundamental for the teaching profession.

In respect to the pedagogy of the traditional approach, the conduct of instructors recalls those modes of action and beliefs attached to the academicist tradition. Teacher educators prioritize the disciplinary knowledge of the future teachers, they place themselves in the center of the teaching process and endow themselves as the experts who know and transmit knowledge. Thus, the instructor-student relationship is authoritarian –marked by the superiority of the educator not only because he is the one who possesses knowledge, but also because that knowledge is considered to be the only truth.

Finally, the eclectic approach to teacher education integrates notions, stances and methodologies that are associated with different educational traditions and conceptions of teaching that coexist in the beliefs, thoughts and actions of teachers. The main feature of this pedagogical configuration is that the modes of reasoning and arguing instructors use to support, explain or justify their actions are not consistent with what they actually do in their teaching practices. In other words, there is an

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explicit tension between what instructors *say* about the educational processes and what they *do* in their classes.

Within the framework of these configurations, it is possible to distinguish different types of methodological constructs elaborated from particular perspectives and aspects, which will be described below.

The teacher educator as a model to follow: instruction and the instilment of the professional moral

In this section, the model-based pedagogy for teacher education is described. This pedagogical configuration is characterized by the presence of formative conceptions linked to academicist and normal school traditions. The first stresses the transmission of knowledge about the subject matter, and even when the importance of pedagogic knowledge is admitted, time during the classes is devoted to the treatment of subject matter contents to the detriment of other types of knowledge. The mode of knowledge transmission is based on the notion that instruction should be characterized by the instilment of contents in addition to restrictions for students to choose among different options. On these bases, the unique (and best) alternative is the one proposed by the instructor.

Now, the modeling function of the teacher educator goes beyond the dissemination of disciplinary knowledge, and entails forging the professional moral of prospective teachers. Teacher educators that advocate this view maintain that their students should base their behaviors on the model they are prescribed. It is at this point when the normal school tradition comes into play insomuch as instructors place great emphasis on the inculcation of behaviors with the conviction that the moral shaping of future teachers is learnt during the formative process and is the essential condition to attain better results. The comments of one interviewee as regards how teacher education should be and how it should be implemented illustrate this point:

> On the one hand the mastery of the subject matter, and on the other hand teacher qualities. I aim that the student be able to express, develop, and support the topics on the blackboard (…) One is neatness, the other is responsibility … above all, responsibility, in the sense of submitting assignments in due time and form (…) managing disciplinary knowledge obtained during the teacher education program and being responsible, and I don't know what else could be missing to require of a student. (Gastón, Maths teacher)

In this pedagogical configuration, teacher educators assume that during the formative process it is fundamental for prospective teachers to master the subject matter knowledge and develop the skills to be able to pass it on to their future students. It is asserted that this transmission of knowledge is possible if and only if the students possess a theoretical domain of the discipline. However, it is believed that locus of responsibility for the development of those skills related to the transmission of knowledge, that is to say methodological-didactic knowledge, lies with the teacher educators in the field of general education.

In this context, what prevails is a view of teaching as a process of instruction. The teacher educator has the central role in the teaching process, and is an essential actor-model for students to learn. The teacher educator constantly orchestrates the process through questions and the control on the activities students should perform. The most valued ability to develop in students is the *domain of the subject matter knowledge to be taught.* It is thought that as long as the students master the disciplinary knowledge, they will be able to undertake the other processes related to teaching.

As for the importance given to the development of disciplinary knowledge, we inquired about how this ability is enhanced by the methodology of teacher education. The responses coincided on pointing out that the student can learn the subject matter knowledge as well as how to transmit it by imitating the instructor (in these situations the model-based tradition of teacher education emerges). One of the responses epitomizes this idea.

> I believe it is led by example, I'm not modest in this sense, I know I have had a good formative process. That is, I have taken over responsibility for my own education as a teacher by properly studying for exams, mastering the subject matter knowledge, being responsible, neat, and all that…and that is what I try to infuse here. I try not to be absent, to demonstrate by setting the example, to develop as many contents as possible, to teach what is planned. I only test what I have taught in class; there are no weird items or surprises neither in the mid-term papers nor in the final examinations. That is to say, if students come

to class, pay due attention, and write down notes, there is no reason for problems to arise (Gastón, Maths teacher).

As regards the didactic-methodological proposals, classes generally adopt the lecture mode, and the strategies are based on the explanation of the theme by the teacher and the resolution of assignments with different degrees of difficulty. This is the way Gastón described his methodological proposal: *'I have no trouble telling you that I develop the one hundred percent of the themes (…) some criticize lectures but…I believe that, some people think of that process in which the student carries out research and engages in discovery learning, it requires much finer monitoring and I think there is no time for that here'.* In such a situation, work on bibliographical materials or sources and resources other than the ones predetermined by the instructor are not considered.

In the context of teacher education pedagogy, these methodological proposals are characterized as *methodological constructs based on the transmission of disciplinary knowledge and the instilment of ways of behavior.* They are founded on the combination of strategies oriented to the development of intellectual capacities and practices based on the treatment of theoretical concepts. The most widely used strategies comprise the presentation of the theme (lecture), explanation, didactic questioning, and practice activities. In most cases, these strategies are supported by the use of the blackboard, and less frequently by technological devices.

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Learning is teacher-directed through oral instructions and the core of the lesson is the transmission of subject matter knowledge. Activities are stated by the teacher according to the pre-determined contents stated in the syllabus and are usually carried out individually. During the classes, the teacher constantly makes questions in order to guide students to notice errors, relate new content to prior knowledge, and check understanding.

On their part, students are expected to solve the assignments proposed by instructors and share the answers to the activities by justifying their decisions. Though students usually work individually, they bear in mind the comments made by the instructor and their peers at the moment of resolving an activity. The primary end of the assignments is to consolidate the contents. As students need a benchmark for the resolution of activities to evaluate their performance, this is accomplished by comparing results with peers and by the remarks the teacher persistently makes during the class. When a student makes a mistake, the teacher facilitates noticing by means of questions and the use of the blackboard. The public nature of this procedure allows for the review of knowledge.

The classroom dynamics evidences the isomorphism processes between teaching and the formative process, since the way in which students are asked to work consists in the reproduction of those educational situations for which they are being trained in the program. The instructor uses activities for the students to place themselves in their future role as teachers; however, by focusing the explanation on theoretical concepts, there is little room for the exploration of other variables that intervene at the time of dealing with content. Hence, it is the instructor the one who gives instructions and suggestions about what should be taught at high school and the way it should be done. This way, students are deprived of reflecting and analyzing the diverse dimensions that pervade teaching practice (the context, the particular characteristics of students, norms, and resources, among others).

It is patent that the teacher education programs in this study are fundamentally theory driven. The totality of the interviewees valued the mastery of disciplinary knowledge as the most important capacity. In this sense, every time the instructors ask students to solve an activity, explain the answers orally and justify their choices; the underlying purpose is to confirm the degree of control over the subject matter.

In this type of knowledge transmission process, instructors subdue students to their own knowledge and principles. Hence, students are denied the possibility of learning by themselves and the myth of manufacturing materializes, since teacher educators overestimate their own knowledge and skills and expect students to construct their modes of teaching by matching the styles of teacher-experts. Instructors uphold they are the role model to be followed primarily because they accomplish their work and organize their teaching practices on the grounds of an

instrumental rationale. Nevertheless, in my opinion, this rationale is doubtfully experiential.

Traditional pedagogy: the teacher educator as a lecturer of disciplinary knowledge

In this type of pedagogical configuration, the concept *traditional* relates to the movement called *traditional education*, which arose in the context of modernity between the 15th and 18th centuries. In this pedagogical movement, educational practices are teacher-centered, encyclopedist, and linguistic abilities are given primacy over concepts or reasoning. Learning is considered a repetitive process and subject matter knowledge is paramount in teacher education.

The teacher is defined as *a lecturer of disciplinary knowledge* because the recurrent behavior during the class consists in lecturing subject matter content. The instructor has permanent control over the contents and activities students engage in. Transmission is a one-way delivery of chiefly disciplinary contents while students are expected to passively understand such contents in the way and in the sense they are passed on to them.

In this line, the *methodological proposals* are organized upon a deductive logic pervaded by an applicationist perspective of the relationship between theory and practice, insofar as the former conditions and circumscribes the latter. Therefore, the didactic proposals consist

in first knowing the theoretical rationale, and then analyzing the situations linked to what has been taught. The student may only produce disciplinary knowledge once it has been explained by the tutor. One of the teacher educators expressed:

> I work a lot on reading and the production of students' own knowledge. I mean, departing from the readings I select, then students work on a series of activities. The first half of the term -in the case I am in charge of an annual course- I work on readings and then I always establish relationships among contents. Assignments are always based on the readings dealt with during the first part of the term. (Karina, teacher of Philosophy and Educational Sciences).

During the classes observed, the teachers explained a theme or read aloud a fragment from the dossier of materials they had selected as bibliography. Then they resorted to questioning to check understanding, they resumed the explanation and informed how the topic was to be tested. Occasionally, when students failed to answer a question, the teacher gave clues to obtain the desired reply or provided the answer if needed. As an example, extracts from the classroom observation records of Practice Workshop I, Musical Arts Teacher Education Program, are cited:

> The teacher reads one of the titles in a file on research methodology that is being used as a source to develop a project of institutional observation. The teacher reads aloud: 'defining the context in which the phenomenon occurs' and then explains that this procedure should be done 'otherwise we are tempted to invent, the thing assembled at the very last minute'. Next, she reads another subheading in the file 'determining the subjects, establishing criteria'

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and clarifies that the criteria are related to the students' stance (…). She states that a critical view 'means to state the criteria to analyze something' it is not what students think as when one says 'I guess, I understood', but a critical view is supported by a rationale. She goes on, 'every stage of the project should be properly justified. If you intend to use a technique, you should know why and if it is going to serve your purpose'. Subsequently, she inquires what 'tabulation' means and she herself explains the concept (…). She stresses that 'I'm going to assess these topics in the mid-term test the way I explained them'.

In relation to the objectives of this approach to teacher education, there is an emphasis on the development of intellectual abilities. Throughout the classes, I noticed that student participation was limited, and the majority of the students just tried to answer the teachers' questions. Consequently, the student is not viewed as a reference at the moment of designing, implementing, and assessing methodological proposals. Precisely, the distinctive features of the student as subject are not taken into account to design the methodological proposals.

In contrast, teachers make their methodological decisions upon the subject matter knowledge. Thus, the methodological constructs of this approach to teacher education are labeled as *methodological constructs elaborated on the basis of disciplinary logic.* Recitation, explanation, and questioning are the techniques deployed in the classroom as excluding teaching practices. Teacher-students interaction is realized through close questions made by the instructor (these questions are

oriented to the repetition of previously dealt contents or linked to the topic being taught), and questions to check understanding. The student is given a receptive role or a passive observer role, whose primary function is restricted to responding to the questions or the activities proposed by the teacher.

Teachers seek to transmit content so that students can be able to repeat it in observable and measurable terms. What matters is that students should be able to demonstrate, especially in assessment instances, that they have assimilated a set of contents –disregarding the internal processes by means of which they have learnt or their possibilities of transferring those contents to concrete situations.

The process of transmission does not involve a dialogue between teacher and students, but a process of rote memorization in which there is a teacher/transmitter that passes content onto students/recipients for them to incorporate and then apply to their future teaching practices. In this applicationist relationship between theory and practice, the latter is revealed as the procedural implementation of conceptual contents.

Eclectic pedagogies: tensions between modes of *thinking* and *acting in* teacher education

This approach is dubbed 'eclectic'[8] due to the identification of cases in which teacher educators combine ideas and methodologies of work from different formative traditions that coexist in their systems of beliefs, thoughts and actions;

which explains why tensions between what they say and what they actually do in class arise. The main aim of teacher educators is that students should be able to *assimilate* certain contents; however, what differs in this case is how the assimilation process is facilitated, what strategies come into play and what activity types are used.

In the framework of this research, assimilation is thought as the outcome of an active process carried out by learners in which they integrate the object or the notion to be known to their schemata (Davini, 2008). It is to be noted that what makes a difference among all the cases grouped in the category of eclectic pedagogies for teacher education lies in the actions students perform as the result of the strategies used by instructors.

With regard to the processes of transmission and assimilation of knowledge, two modes are identified: one oriented to the *passive assimilation* of knowledge and the other concerned with *active* assimilation, each unfolded through different methodological constructions. The following section aims to describe the aforementioned eclectic pedagogies.

Pedagogic eclecticism orientated to the passive assimilation of knowledge

In this pedagogical configuration, it is observed that even though some teacher educators use expressions or concepts linked to a view of teaching as a facilitating process, the strategies they use, the activities they design,

and the actions they do during the classes evidence that the predominant conception about teaching is as a process of instruction centered on the teacher as the transmitter of disciplinary knowledge. Yet, teacher educators admit that subject matter knowledge per se is insufficient and prospective teachers should develop the skills to teach disciplinary content as well.

Concerning those aspects to be taken into account in the design of their methodological proposals, the teacher educators in this study mentioned: the contents, the characteristics of the course, students' interests, resources, and the time available to carry out the different activities. This is the way Sandra poses it:

> The potential of a topic to be exploited through resources that could be more accessible to the youth (…) the group of students, bearing in mind their interests. Although I deal with the same topics in three different courses, interests vary, and then I should tailor the topics to suit those learner interests. Consequently, in Math I'll give examples connected to sciences, in P.E. I'll pose examples linked to the practice of physical education or a sport. (Sandra, teacher of Philosophy and Educational Sciences)

Nonetheless, when the same teacher was consulted about how she pondered, in the framework of her pedagogical proposals, the development of those abilities valued as important, she manifested that in general the class dynamics did not vary much. These are some of her expressions:

> The teacher comes in, explains, the students take down notes, then they read, that is roughly the scheme of work. My methodology maybe

quite traditional, I uphold expository instruction in my classes. As a rule, you are not going to find variants in my classes (…) Assignments are usually like this: first I present the topic -I have opted to deal with brief readings, two or three pages at the most, otherwise it is no good (…) Having a theoretical framework as reference, students watch some videos and analyze them from that theoretical perspective so as they do not just comment how beautiful the movie is.

In respect to student participation during the classes, it is directed by the questions the teacher asks so as to evaluate whether the explanation has been clear, identify prior knowledge or transform answers as triggers to initiate or proceed with the explanation of a theme. Generally, the answers are written on the blackboard and they become useful tools to organize the lecture, but they do not provoke problem-solving situations that may prompt students to revisit and reconsider their knowledge. The most commonly used type of questions belongs to the category 'control or confirmation of knowledge'[8], and the strategies that prevail are lectures, explanation, and reading. As for the didactic resources to be counted on in this approach, the teacher uses the blackboard while the students use the bibliographical materials.

Yet, even though students perform the activities the teacher assigns, they are silent most of the time. While the teacher explains or reads a paragraph, some students write down notes, others follow the reading in silence, some contribute with ideas, and others are apparently distracted (they gaze out the windows, peek at their cell phones, converse with their mates, read notes

from other courses, scribble a sheet of paper). The following is a scene from a Music Didactics class belonging to the third year of the Musical Arts Teacher Education Program:

> The students are sitting around two big tables while the teacher is sitting at the head of the table on two chairs –one nested on the other. He explains the possible didactic strategies the students may employ in a school situation. The students just listen. The teacher addresses the topic 'abilities and competences' and asks students to read the previous assignment which has already been corrected. The students do as they are told, but do not make any comments. The teacher points out the abilities the students developed or the abilities he intended them to develop through that assignment. Students remain silent.

These methodological constructions have been categorized as *inarticulate*, due to the fact that the strategies used by the teachers fail to clearly link the content, the profile of the students, the formative intentionalities, the context, the resources, and the timing. The activities only contribute to the recognition, identification and memorization of conceptual knowledge, primarily encouraging the development of intellectual capacities. This type of methodological construct promotes the passive assimilation of the knowledge explained by the teacher. The intentionality of the explanation is to transmit the disciplinary knowledge so that students incorporate a series of contents by listening. Students do not explore other possibilities to assimilate knowledge apart from the presentation and explanation of the teacher and the contact with the selected bibliographical materials. This enhances what is known as *inert knowledge*[10].

These modes of methodological work substantiate the weight of the traditional pedagogies in the current practices of teacher educators. The contradictions between what teachers claim and what they do in their classes place them in a boundary between what they know should be done or what is established as correct or desired from the perspective of curricular prescription and current pedagogical discourses, but they fail to transfer that knowledge to their educational practices. There is no articulation among the situation, the characteristics of the students, and the implementation of strategies. To illustrate this point, despite the fact that during the interviews the teachers mentioned that the students disliked reading in class, this was the excluding activity they put forward.

Eclectic pedagogies orientated to the active assimilation of knowledge

In this type of pedagogy for teacher education, teachers' actions during the class generate a mode of working that facilitates a more active construction of knowledge on the part of the students. Such teachers highlight the need to work in line with the capabilities and potential of students and the characteristics of the context in which the teaching practices occur. They sustain that it is fundamental for students to understand the meaning and relevance of what they learn during the formative process.

In respect to the methodological proposals, in contrast with the conception of teaching as a process of instruction, in these cases students have a more a central role. Teachers ensure students interact with other agents of the educational system or carry out activities in contexts different from the classes or institution they normally attend to. In order to accomplish this, teachers propose activities such as the elaboration, expansion and analysis of interviews; tasks with different levels of complexity; field-work; elaboration of reports related to the activities students perform; musical compositions; and the design of vignettes about a particular theme, among others.

As the criteria on which instructors found the design of methodological proposals, they argue that the axis of organization is composed of the contents of the course, the students' interests and prior knowledge, the main characteristics of the learners, and available didactic resources. Nevertheless, the dominant role of the teacher prevails: it is the teacher who sets forth activities and in some cases mandates how they should be solved, constantly verifying that the learners carry out the tasks as pre-established. The actions teachers frequently engage in consist in the explanation of topics, the elaboration of questions to relate new content to the learners' background knowledge and as a way to confirm whether the learners have understood the presentation. A classroom event from a Statistics class corresponding to the third year of the Math Teacher Education Program is described below:

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The teacher and three students are sitting at a big table. The teacher explains a topic by drawing graphics on her notebook which she then shows the students sitting opposite her. During the explanation, she constantly relates the theme to previous contents. The students show understanding by means of gestures. The materials have been designed by the teacher, who summarized the textbook bearing in mind the contents students should 'necessarily' know. The instructor reads a problem, solves it on her notebook and then shows it to her students. Teacher and students compare their solutions to the same problem. The students permanently take down notes, and once the teacher is done with the explanation, they start solving the assignment individually; if doubts crop up, students talk among themselves or appeal to the teacher's counsel. As far as the students are concerned, the teacher's notes are well-organized and exhaustive.

These configurations are called *methodological constructions based on the synthesis of heterogeneous components.* The concept of synthesis refers to the analysis and combination on the teacher's part so as the students can develop different theoretical concepts and skills. This type of methodological constructions emerges in the framework of teaching practices in which the instructor assumes his role as the facilitator of practice. These educators resort to presentation and explanation to guide, suggest and support the learners in the resolution of different situations originated as the result of the pedagogic intervention. They use Socratic questioning as a strategy to achieve student participation and activate background knowledge. During the classes, the instructors generate interaction among students to get to know their opinions about the theme and how it has been dealt with, and diagnose recall and comprehension skills. After the presentation of the topic, teachers usually make a synthesis.

The activities involved in this type of methodological constructs strengthen the development of multiple abilities: *intellectual and practical* (reading and analysis of texts related to different educational situations; design of vignettes about a specific topic; analysis of audio-visual materials; classroom observation, analysis and elaboration of reports; laboratory experiences; construction of a herbarium; analysis of newspaper photographs); *information management and information use* (design, development and presentation of research projects; design and analysis of interviews; blog construction; production of radio programs); and *expression and communication skills* (development of group work, oral presentations, debates and argumentation).

In this approach to teacher education orientated to the active assimilation of knowledge, it is possible to identify a type of configuration called *methodological construct based on pedagogical abstention.* In this category, reference is made to one of the instances in which the teacher explains the contents and then proposes activities without intervening during their resolution. In order to be able to solve the problem, students should deploy their intellectual, practical, expression and communication skills. The following extract represents an observation record from Musical Language II, Musical Arts Teacher Education Program:

During the class the teacher allows every student to compose music by using the available musical instruments and bibliographical materials. The students work individually or in pairs and consult the teacher or other peers when doubts arise. The teacher does not intervene except upon the students' request (...) the students have already chosen the melody to work on and they are using some instruments such as the guitar, the piano, and their voices to compose. Some are working in dyads, others individually. A student is playing the tune on the piano and writing it on the stave; the rest is doing so on the guitar, through the use of the voice, or both (…) a student approaches to clarify a doubt and the teacher assists her by playing the piano. She understands what she must do and goes on working. Some students decide to leave the course and tell the teacher they will bring the assignment accomplished by the next class. The rest keep on working, another student encounters a difficulty and looks up the rules of harmony in the bibliographical materials. The students proceed their work on their productions, sometimes it seems they get tired, they chat or get distracted and then resume the task taking turns to use the piano and the other instruments.

It is worth pointing out that even though oral presentation and explanation are the most frequently used strategies by the teachers, these are characterized by a logical order, a conceptual precision and the permanent construction and integration of different resources. Likewise, in the framework of such presentations students' knowledge is recalled not as a trigger or link to other concepts the teacher needs to deal with, but as concepts the teacher brings together and incorporates in the presentation for the students to understand new theoretical concepts.

Even though the teacher's voice is a permanent presence in the classes, the students are intended to engage in tasks that involve the use and articulation of theoretical frameworks, the exercise of intellectual abilities such as the identification and integration of concepts, and practical abilities that entail, for example, writing and composing reports. In addition, oral communication is enhanced when students explain how they have solved the tasks by resorting to an appropriate use of the language and the development of social skills embodied in teacher-students interaction.

Usually, once students have finished a task, they are required to report how they have solved it to the rest of the class. This pooling of ideas, coupled with the contributions made by the teacher, fosters self-monitoring and self-evaluation of the interpretation and application of theoretical concepts. Similarly, as most of the clarifications are grounded on students' background knowledge, these instances of review and presentation of knowledge allow students to restructure their previous understandings of theoretical concepts and broaden their existing knowledge about the topic.

In these cases, the methodological proposals enhance the active construction of knowledge, for teachers move farther from the idea that students are passive recipients of knowledge. In contrast with habit formation and rote learning in which student participation and reflection is minimum, in this model of instruction students mobilize their abilities,

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operational skills, background knowledge and motivation to actively assimilate knowledge through observable activities (solving practical and mathematical problems, designing a class project) as well as reflective activities (identifying and defining concepts).

In our view, the eclecticism that arises in educational processes is –far from a linear or accumulative interpretation of knowledge- a component part of the ecology of multiple knowledge systems. This heterogeneity of notions expressed through discourses and practices recalls opposing epistemic stands; and it is a constituting feature of the magma of educational beliefs that support explicit theories, the guiding scripts of action, and teaching practices themselves (Yuni & Díaz, 2007).

Creating, agencying and applying: tensions in the processes of teacher education

In this study we purported to expose the types of methodological constructs generated within the different approaches to teacher education and identify the role of agency as the ability to make decisions on the part of the students. Bearing in mind the theoretical definitions of the concept *methodological construct* initially described, it can be asserted that the *singularly creative act of articulation* of the disciplinary logic, the potential of students and the particular contexts as put forward by Edelstein (1996) or the *synthesis of conceptual elaboration and the educational experience* marked by the creativity and sensitivity of the teacher as pointed out by Díaz Barriga (1997) are not the outstanding qualities of the practices of the teacher educators in this study.

The methodological constructs released by some teachers at the teacher education institutes in Catamarca are sketched as particular proposals in which a set of didactic strategies are combined with the purpose of transmitting fundamentally disciplinary contents, which are treated as *knowledge to be taught as objects of teaching* of the subject area. During the classes the teachers deal with disciplinary contents as objects the students should learn to be able to teach in the rest of the levels of the education system.

Despite the fact that knowledge of the substantial structures of the discipline is an essential constituent of a methodological construct to enhance understanding of theoretical frameworks as scientific knowledge and contents to be taught, in the cases under study there is no evidence of a methodology of work from the dimension of the discipline-specific epistemology linked to scientific knowledge, since attention to research processes and validation of knowledge to the interior of the field is not observed. Rather, what is salient is a content-driven methodology rooted in the transmission of knowledge on the part of the teachers from 'their singular' interpretation and theoretical stance.

It has also been observed that in the teacher education programs based on specific disciplinary knowledge,

prospective teachers are not introduced to how knowledge is created, the processes that validate such knowledge, the criteria on which data measurement is grounded, and the paths taken by the discipline from its findings to the conclusions. This will certainly equip students with more useful tools to gain an understanding of that disciplinary knowledge as an object to be taught. The emphasis on dissemination is oriented to quantity, that is, covering the minimum content requirements rather than presenting the substantial structures of the discipline. In this sense, particularly within the framework of the teacher education models known as modeling, traditional and eclectic oriented to the passive assimilation of knowledge, the methodological constructs fail to stand as structures that plan a medium- and long-term process, but they encompass isolated activities implemented throughout the classes around conceptual contents that must be first learned in order to be taught.

What makes the difference among the three types of methodological constructs is the extent of consistency with the pedagogical strategies the teachers combine at the moment of transmitting knowledge. The manner in which the methodological constructs are delineated is based on the relationship between theory and practice and the notion of application as the articulating factor. To apply (from Latin *applicare*, attach to, join, connect) means to bring things in contact to one another[11]. It is precisely the logic of putting theory into practice that prevails in the formative processes of teacher education. In traditional pedagogy, this rationale underlies the presentation of activities as procedural practice of the theoretical concepts. In the modeling pedagogy, practice emerges as a simulation of feasible teaching situations in which the teacher is the expert or model whose teaching style and skills should be imitated by prospective teachers. In the case of eclectic pedagogies, theory is put into practice through the methodological proposals of educators. Contact with practice is facilitated by transfer of knowledge to other resources and educational situations; which enables students to deploy different abilities, apart from the intellectual capabilities. These methodological proposals offer the possibility of producing or thinking alternative courses of action beyond the boundaries of theory. Therefore, even though theory somehow enlightens practice, in this case the application of theory is not accomplished *upon practice* but *theory is brought in contact with practice* paving the way to design or interpret the conceptual contents meant to be taught from different angles.

Theorists of the educational field point out that context is a crucial element in the structuration of the pedagogic act in order to generate a methodological construct. Context is consequently defined as a whole which embraces each one of the components that influence teaching practice. Notwithstanding, in the cases under study the context is not a factor teachers take into account when planning

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their methodological proposals. Through their discourses and actions, allusions to context are restricted to the educational level or the course, there is a rhetorical link in general and abstract terms, as a reference framework the students should bear in mind when they think or design a didactic proposal or activity. However, the context is not a core aspect these teacher educators consider in their own methodological proposals.

The presentation of contents on the part of the teachers is a common ground among the different methodological constructs. Two types of explanation predominate: those based on the disciplinary area and those for teaching purposes (Litwin, 1996). The former are devised on the conventions of the discipline, for instance, what the relevant questions are, and what is accepted as evidence. The latter enable the clarification of concepts, procedures, events, ideas, and types of problems that favor comprehension but can be redundant and reflect the pedagogical conceptions of teachers.

Didactic strategies are defined as modes of anticipation and articulation of activities elaborated by the teacher in the pursuit that a particular proposal may contribute to the formative process of the students. Nevertheless, all the activities analyzed -irrespective of the discipline, the context, the students and the approach to teaching- are marked by explanation, presentation of contents, and didactic questioning. One of the recurrent situations during the classes observed is that even though

the students did not participate or did not respond to the teachers' proposals, the instructors went on with the presentation, explanation or assignment as if nothing was wrong.

The preeminence of these strategies reinforces my conviction about the need to incorporate methodological variants and promote teaching practices aimed at mobilizing the creation and ingenuity of teacher educators considering the potential and challenges of the contexts in which they act. If students are not in contact with other modes of disseminating knowledge during their formative process, they are unlikely to generate alternative courses of action during the exercise of their profession. Notions such as the teacher is the source of the accurate interpretation of contents, learning should necessarily be mediated by the explanation of the teacher, and the teacher is the sole constructor of the methodological proposal, deter the engineering of strategies that may ensure student participation and the materialization of alternative methodological proposals.

Pertaining to the actions students perform in class, the methodological constructs prevent agency, this is understood as the capacity to make decisions about one's own learning and broaden the possibilities of action during the educational path. Both the teachers and the students in the study manifested that the locus of decision-making lies with the teacher. The choices students are allowed to make are limited to opt between individual or group work,

choose the order in which they sit for exams (though the order is already specified in the curriculum), or agree with the teacher on testing dates. Student participation is far from being an encounter, a genuine invitation to think, but it is mere participationism (Gibaja, 1991).

Another vital dimension for the realization of a methodological construct is the recognition of the possibilities of the students as a source for the elaboration of the pedagogical proposal. It was observed that throughout the educational paths of teacher education, students are assumed to enter the program with deficiencies: while their weaknesses are identified, their strengths are ignored. At this point it is worth mentioning that participating in the educational process implies thinking of transmission as a process that departs from the recognition of the other, not from their deficiencies but from the abilities they have achieved and the ones they have the potential to develop. In all likelihood, this deficient view of the students brings about teacher-centered practices and thus expository teaching is the pervading strategy. If the aim is to promote a competent and autonomous educational process, it is crucial to change the ways of recognizing *the other* assuming the learning situation and the capacities of the students as a challenge rather than an obstacle that impedes the development of alternative modes of teaching with greater responsibilities and mobilizing dares. Otherwise, learning is constructed as an individual process in which the learner travels along a mechanical path that is predetermined and without possibilities of modification, jointly defined by the teacher educators, the institutional decisions and the prescriptions in force at the moment of designing the pedagogical proposal.

In the light of this exposition, it is necessary to reconsider what *mastery of knowledge* means in the context of teacher education. Disciplinary aspects are brought into focus at the expense of belittling pedagogical knowledge, the student in the formative dynamics, and the creative facets of teaching. The data presented suggest that to teacher educators, the specificity of the tertiary level is given by the emphasis on disciplinary knowledge as the organizational unit of knowledge, practices and educational skills. In this respect, the stress on the conceptual domain of the discipline in which the future teacher specializes should not thwart a reflective education model that enhances the analysis of epistemological and methodological stances and the possibility of decentralization in order to offer students personalized horizons of creation and education.

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Notes

[1] Original work in Spanish.
[2] PhD in Philosophy and Educational Science, University of Granada, Spain. Professor and Researcher at School of Humanities, State University of Catamarca, Argentina. Former Director of the PhD Program in Human Sciences (Education), State University of Catamarca. Researcher at CONICET, Argentina (National Bureau of Scientific and Technological Research). Author of numerous publications.
[3] PhD in Human Sciences, State University of Catamarca, Argentina. Professor / Researcher PhD Program in Human Sciences, School of Humanities, UNCa. Researcher at CONICET, Argentina (National Bureau of Scientific and Technological Research). Author of numerous academic articles.
[4] MA in English Language Teaching and Applied Linguistics. King's College, London. Member of the Research Group on Education and Cultural Studies. School of Humanities. Mar del Plata State University.
[5] Located 20 km from Catamarca capital city.
[6] Situated 320 km from the capital city, in the western region of the province.
[7] They were mostly excerpted from the National Curriculum Guidelines for Teacher Education, as approved by Resolution 24/07 of the Federal Bureau of Education.
[8] According to the Dictionary of Philosophy by Ferrater Mora (1994) *eclecticism* relates to 'select', 'choose', 'decide', and is generally transcribed as eclectic school. The eclectic tendency opposes dogmatism and radicalism in favor of tolerance and conciliation. It seeks criteria that allow the justification of one's own decisions, and the stances adopted from other outlooks; the search for harmony among apparently opposed views that are considered concurrent in essence.
[9] Control of knowledge questions are oriented to checking the knowledge students possess and provoke the recovery of information the students have previously learnt. Confirmation questions lend themselves to close yes-no answers.
[10] Knowledge the students possess but they are unable to transfer to new situations.
[11] Definition extracted from http://www.etymonline.com/

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