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Artículos Científicos

Las prácticas pedagógicas en la universidad: sujetos y saberes

The Pedagogical Practices in the University: Subjects and Knowledge

Práticas pedagógicas na universidade: disciplinas e conhecimentos

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Resumen

El objetivo de este trabajo fue caracterizar y explicar los conocimientos y saberes presentes en las prácticas de enseñanza de los docentes universitarios. A partir del análisis de las narrativas de los profesores en torno a sus conocimientos, saberes y experiencias en el campo de la docencia, se buscó aprehender las maneras en que los profesores universitarios construyen dichos saberes. Con base en una metodología cualitativa se aplicaron 40 entrevistas abiertas no estructuradas a docentes de la Universidad Autónoma de Occidente de la Unidad Regional Culiacán. La muestra se conformó con base en un listado de los atributos esenciales de los sujetos objeto de estudio, siguiendo el procedimiento que Goetz y LeCompte (1988) denominan como *una selección basada en criterios*.

En los resultados, los docentes reconstruyen sus actos docentes en un ejercicio reflexivo; es a partir de ello que se manifiestan los saberes disciplinarios como ejes de su enseñanza, mientras que los saberes pedagógicos permanecen al margen. Estos se hacen más bien presentes en los recursos y dispositivos con las cuales los profesores, en el ámbito de su acción pedagógica, desarrollan estrategias de acción que facilitan los procesos de enseñanza-aprendizaje.



Palabras clave: conocimientos y saberes docentes, docencia universitaria, prácticas pedagógicas, práctica reflexiva, saberes profesionales.

Abstract

The objective of this work was to characterize and explain the pedagogical knowledge present in the teaching practices of university teachers. From the analysis of the narratives of the professors around their knowledge and experiences in the field of teaching, it was sought to apprehend the ways in which university professors construct such knowledge. Based on a qualitative methodology, 40 unstructured open interviews were applied to teachers from the Autonomous University of the Western Region of Culiacán. The sample was based on a list of the essential attributes of the subjects under study, following the procedure that Goetz and LeCompte (1988) call *a selection based on criteria*.

In the results, the teachers reconstruct their teaching acts in a reflective exercise in which the disciplinary knowledge is manifested as the axis of their teaching, while the pedagogical knowledge remains on the margin, making itself present in the resources and devices with which the teachers, in the field of their pedagogical action, develop strategies of action that facilitate the teaching-learning processes.

Keywords: teaching knowledge and knowledge, university teaching, pedagogical practices, reflexive practice, professional knowledge.

Resumo

O objetivo deste trabalho foi caracterizar e explicar o conhecimento e o conhecimento presentes nas práticas de ensino de professores universitários. A partir da análise das narrativas dos professores em torno de seus conhecimentos, conhecimentos e experiências no campo do ensino, buscou-se apreender as maneiras pelas quais os professores universitários constroem esse conhecimento. Com base em metodologia qualitativa, 40 entrevistas abertas não estruturadas foram aplicadas a professores da Universidade Autônoma do Oeste da Unidade Regional de Culiacán. A amostra foi baseada em uma lista dos atributos essenciais dos sujeitos em estudo, seguindo o procedimento que Goetz e LeCompte (1988) chamam de seleção com base em critérios.

Nos resultados, os professores reconstroem suas ações de ensino em um exercício reflexivo; É a partir disso que o conhecimento disciplinar se manifesta como eixos de seu ensino, enquanto o conhecimento pedagógico permanece à margem. Elas estão presentes nos recursos e dispositivos com os quais os professores, no âmbito de sua ação pedagógica, desenvolvem estratégias de ação que facilitam os processos de ensino-aprendizagem.

Palavras-chave: ensino de conhecimento e conhecimento, ensino universitário, práticas pedagógicas, prática reflexiva, conhecimento profissional.

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Introduction

Tardif in 1991 published a pioneering work on the teaching knowledge that came up with an idea that was surreptitiously waiting for its revelation. Ludke (2010) comments on this:

The fine perception and careful description of this specific property of the professors, their knowledge, opened a perspective of studies and posture, even in relation to the teaching profession, with repercussion on the academic production, the programs of the training courses of teachers and the legislation itself regarding these courses and the teaching career (p. 194).

This important contribution to the study of the teaching profession has become a lively influence on teachers by advocating that they have their own specific knowledge. Tardif (2009) describes this knowledge as "plural, formed by an amalgam, more or less coherent, of knowledge from vocational and disciplinary, curricular and experiential training" (p. 299). In this work we are interested in knowing how the university teacher builds his knowledge based on the knowledge acquired in his disciplinary training and experience in his academic life. We believe that the knowledge resulting from their work in the classroom allows teachers to understand and master their practice.

At the beginning of their career, university professors are professionals who support their practice in the knowledge of their discipline. The educational institution is the place where they carry out their professional socialization. With the passage of time and the actions in the classroom, they integrate into their specialized knowledge a set of tools constituted by knowledge, experiences, attitudes and values that they acquire every day in the educational

environment. This is how in everyday work life appropriates the rudiments of the trade: the knowledge, the discourses of the teaching worker, the traditions of a specific educational center, different from another. In that way, the guild culture is formed within the school institution. In this regard, Fierro, Fortoul and Rosas (2002) point out:

It is the living organism that explains that the school is not only the sum of individuals and isolated actions, but a cultural construction in which each teacher contributes their interests, their abilities, their personal projects and their knowledge to a common educational action (p. 76).

The knowledge that is had regarding the pedagogical practices and the knowledge that the teachers put into play in their daily work in the university classrooms is reduced. The need arises then to resignify this knowledge that at present has taken great relevance in the investigation of teaching and learning practices, which entails a series of considerations. And among these, the following stand out:

Recognize the active role of the teacher and the strategies he uses in his practice, because it is through them that the teacher puts into play a knowledge that is linked not only to disciplinary knowledge, but is also linked to educational theories, models pedagogical, learning paradigms, and these are also related to curricula, curriculum and education conception (Jiménez y Rendón, 2014, p. 140).

According to Londoño (2014, p. 26), “the university professor, from his experience; from the possibility of thinking, reflecting and strengthening their practice; and to capitalize on their knowledge, right and wrong, build knowledge.” Hence the importance of knowing, in addition to the disciplinary competencies of the teachers, the pedagogical competencies inherent in the teacher's work, in addition to teaching, planning and evaluation of student learning.

Given the above, the main question of our research was the following: How do university professors build their knowledge based on the knowledge acquired in their disciplinary training and experience in their academic life?

Objective

The general objective of this work was to characterize and explain the knowledge and knowledge present in the teaching practices of university teachers. From the analysis of the narratives of the professors around their knowledge, knowledge and experiences in the field of teaching, it was sought to apprehend how university professors build such knowledge. University teaching as a field of study implies a look at the institutions of the higher level and their work in the training of professionals, so we consider it pertinent to investigate the teaching work and reflect on the underlying aspects of their educational practices. It is in them where the teacher applies his disciplinary, theoretical and pedagogical knowledge that are combined with a peculiar idea of his conception of education.

Teaching knowledge and knowledge

The term knowledge has different meanings. Stresses here, however, the definition of Beillerot (cited in Altet, 2012, P. 41), who formulates it as follows: "What for a subject is acquired, built, elaborated thanks to study or experience." And for greater conceptual accuracy it is equally important to distinguish between information, knowledge and knowledge. Legroux (cited in Altet, 2012, p. 41) points out that the information is "external to the subject and of social order"; knowledge is "integrated by the subject, and is personal." While, for Altet himself (2012), "knowledge is built on the interaction between knowledge and information, between subject and environment, within and through mediation" (p. 42).

Teaching knowledge includes a vast territory whose mapping varies according to the various disciplines that deal with its study. In that sense there is a plurality of teaching knowledge. We have, then, knowledge that is planned by the teachers and that guide the teaching actions, but also those produced by the teacher's experience: the improvisations of unexpected situations in class, the routines that allow to attend numerous groups and other situations that do not appear in any teaching manual. According to Altet (2012), researchers in the field of cognitive sciences have developed works on the thinking of teachers, including the models of information processing and the classification of Anderson on the types of knowledge: the declarative (know what), the procedural (know how) and the conditional or contextual (know when and where). Which make it possible to distinguish the different ways in which they assume teaching knowledge. They also allow describing the forms acquired by

knowledge in the planning stage and in this way to explain the mechanisms of teaching work in a routine action. Altet (2012) explains the consequences of the cognitive approach. On the one hand, he tells us, this approach has made it possible to define the decision processes of teachers. For the other:

It does not allow to know the nature of the underlying knowledge in the decision-making processes. It does not seem that algorithms, heuristic methods, norms of action and pre-established rational plans can account for the teacher's adaptability during the action against an always unique, uncertain and very complex pedagogical situation. The teacher cannot decide for himself (Altet, 2012, p. 43).

Tochon (citado en Altet, 2012, p. 43), It states that the teacher in his work uses malleable, analogical, intuitive or "abductive" reasoning, obtained from his experience, which enables the production of new ideas in unexpected situations. Shön (1987), in his model on reflexive practice, describes the above as reflection in action, which clarifies situations of practice that are uncertain, singular or conflicting. In this type of practicum are located those situations in which the existing professional knowledge is not enough nor does it accommodate each case.

Conceptualizing knowledge

According to Tardif and Gauthier (2012), in the culture of modernity three ways of knowing are conceptualized: 1) the subject and the representation, 2) the judgment and the assertive speech and 3) the argument and discussion. The first conception refers to subjectivity, "to a particular type of subjective certainty produced by rational thinking" (p. 322). This conception opposes founded subjective certainties such as faith, belief or prejudice. According to the same authors, the subjective certainty of knowledge acquires two forms: a) "the form of an intellectual intuition through which one can immediately seek and apprehend a truth" (p. 323), an example of this would be certain mathematical or logical truths (the whole is greater than the part); and b) "the form of an intellectual representation, resulting from a chain of reasoning or induction" (p. 323). This type of subjective certainty, moreover, we relate it to what Dewey (1989) describes as reflection:

Reflection does not only imply a sequence of ideas, but a consequence, that is, a sequential order in which each one determines the following as its result, while each result, in turn, points and refers to those who preceded it. Successive fragments of reflective thinking arise from each other and support each other; do not appear and disappear suddenly in a confused and troubled mass (p. 22).

As a result of a reasoning process, the representation is mediated, unlike the intuition that is immediate, so, Tardif and Gauthier (2012) affirm, here the subjectivity is considered as “the place of knowledge”, and therefore therefore, “to know something is to possess a rational subjective certainty” (p. 151).

For Tardif and Gauthier (2012) the true judgment is a knowledge, understood as “the discourse that rightly affirms something about something else” (p. 324). We are here in the field of discourse, in the assertion. In this conception only the discourses referring to facts can be classified as a knowledge in the strict sense, that is, it is limited to de facto judgments and leaves out value judgments and experiences. In this way, the judgment would also be “a place of knowledge.”

In their third conception of knowledge, Tardif and Gauthier (2012) relate this to the argument and discussion. This way of understanding calls knowing “the discursive activity that consists in trying to validate a proposition or action with the help of arguments and linguistic and discursive operations (logical, rhetorical, dialectical, empirical, etc.)” (p. 326). The argumentation, indicate Tardif and Gauthier (2012), is the place of knowledge, because knowing a thing is not only giving a true judgment about a thing, it is also necessary to argue why a judgment is true, which leads us to the need for the presence of the other subject receiving that argument, thus becoming a discursive exchange, an intersubjective communication. Thus, following this pair of authors, the criteria of argumentative validity are no longer limited to the contribution of reasons that demonstrate the validity of a speech, but rather “respond to the idea of communicational harmony within a community of discussion In that sense, the so-called value judgments can be subject to rational consensus” (Tardif y Gauthier, 2012, p. 237).

The three conceptions presented above, despite their differences, converge in combining the nature of knowledge with rationality demands. This is how the adequate presentation of a speech is not enough, but the presence of reasons or motives that validate

such speech. Similarly, it is necessary that the subject, in addition to knowing how to do one thing, explain why he does things in a certain way and not in another.

In that sense, for the purpose of investigating and relating the notion of knowing with the idea of rationality, Tardif and Gauthier (2012) raise the elements that must be taken into account with regard to teachers' knowledge:

1. From now on we will call only knowing thoughts, ideas, judgments, speeches and arguments that respond to certain demands of rationality. I speak or act rationally when I am able to motivate my speech or my action (with the help of reasoning, statements, procedures, etc.) in front of another actor who asks me about its relevance, its value, etc.
2. When the announcer or the actor to whom we are addressing, in order to motivate his thoughts, judgments, discourse and acts, he is able to state some reasons, regardless of his nature or his content, then we can say that the aforementioned requirements are They have respected.
3. In doing so, we will avoid imposing on the actors a preconceived model of what is rational or not; rather, we will start from what they consider rational, and we will endeavor to bring to light their own demands for rationality and their own conception of knowledge.
4. The best method available to the announcer or actor to access the requirements of rationality is to ask (or ask) about why; that is, to ask about the causes, the reasons, the motives of his speech or his action.
5. (...) One of the main research strategies that coincides with this vision of knowledge consists in observing the actors and / or talking with them, but asking them about their reasons for acting or running; that is, questioning them about the knowledge on which they rely to act or run (pp. 328-329).

These elements of research on teacher knowledge point out the characteristics of the proposal of Tardif and Gauthier (2012), away from a rigid model that prevents reaching the reasons and motives that guide and justify their actions. The subjects are endowed with rationality, that is, they have the capacity to act, to speak and to think, capacity with which they order the reasons that guide their practice. It constitutes an essential skill of the subjects with which they respond to the demands of rationality. This ability, once again point Tardif

and Gauthier (2012), should not be approached with a preconceived, positivist idea; "On the contrary, we must accept the fact that the competence of social actors comes from a dynamic, fluid rationality, which does not necessarily respond to the canons of logical and scientific thinking" (p. 334).

At this point it is worth mentioning that in this work the model of Tardif and Gauthier (2012) was followed to identify the knowledge of university teachers in the speeches issued around their pedagogical practices.

Methodological approach

Based on a qualitative methodology, 40 unstructured open interviews were applied to teachers from the Autonomous University of the West, Culiacán Regional Unit. The sample was based on a list of the essential attributes of the subjects under study, following the procedure that Goetz and LeCompte (1988) call a selection based on criteria. It was sought that teachers belonged to different degrees in order to contemplate the various fields of knowledge. An interview script was designed that collected the main research topics. The interview had a conversational tone, the script served as a guide to address the areas of interest. We chose the qualitative interview because of what Tardif and Gauthier (2012) mention below:

One of the main research strategies that coincides with this vision of knowledge is to observe the actors and / or talk to them, but asking them about their reasons for acting or running; that is, questioning them about the knowledge on which they rely to act or run (p. 330).

For the interpretation of the data collected in the interviews, the methodological reference was the perspective of analog hermeneutics (Beuchot, 2008). Taking into account that the information collected in the interviews are texts that "although they are elaborations of their authors, they are part of the communicative relationships that they establish with other actors or communities of actors, and to that extent they are social constructions that are part of the history of a professional community "(Bolán, cited in Roldán, 2016, p. 211). The constructions from the teachers' perspective make it possible to understand their practices, understand the action as discourse through the narrative configurations (Jiménez and Rendón, 2014). In that sense, Beuchot (2016) proposes an investigation of hermeneutic and analogical

education. Hermeneutic because it conceives educational interaction as a text that requires interpretation according to the context and the different codes implicit in the messages. With respect to the analog, the author acknowledges that the interpretation does not seek an exact interpretation, a unique vision, but must contain an acceptable opening, always taking care not to fall into an excessive relativism.

Results

With the data obtained in the field work, the initial training of university teachers was classified, as described below: 37.5% belongs to the field of social sciences and humanities (psychology, law, communication); 25% to engineering; another 25% are licensed in Administration and Accounting; and 12.5% belongs to the area of computer science. Half (50%) conducted postgraduate studies, usually in the areas of their initial training. Only two mentioned having studied a postgraduate degree in Education. The total claimed to have taken training courses (at least two during their career in the university), related to pedagogy, in diploma courses and the vast majority in individual courses. The contents of the courses, in general, were related to the competences, the didactics and the learning styles. Precisely one of the findings found was the importance that teachers give to training courses. In the interviews it was possible to detect that university professors use various pedagogical strategies taught in the courses. However, many of them consider the disciplinary knowledge and the keynote as the essence of their classes.

The interpretation of the teachers' narratives around their pedagogical practices in the university allowed us to build the categories and integrate them into a theoretical interpretive corpus that configures the research results section. The categories are presented as follows: University teaching, Pedagogical knowledge of the university teacher, Professional practice and teaching and Reflection as a permanent exercise.

University teaching

Investigating university teaching as a profession implies analyzing the speeches of teachers, taking into account that they, of origin, do not have a training to practice the teaching profession. In the interviews it was noted that teachers assume this condition and manifest it in a conscious way. A teacher affirms in this regard:

We, the university teachers, do not have a pedagogical and didactic training, that is, it is minimal. They do not train us to be teachers, they really train us to work, to be professionals, to respond to society and the problems that arise in the workplace

Higher level teachers, for different reasons, found in teaching a profession with which they are also engaged in different ways. In the narratives of the teachers diverse trajectories are manifested to get to practice teaching. A route detected is the invitation that university professors make to graduates, with whom they have a type of affective or labor relationship. In the various professional exercises personal relationships are established that sometimes affect the entrance to different jobs, in this case to university teaching. Another way to reach teaching is the administrative work that is carried out in an educational institution, and then, due to various circumstances, work is accessed in the classroom.

The jump from professional practice to teaching is also given in an intentional way. The teacher approaches the institution with the desire to enter the system, either directly submitting applications for admission or through evaluations that the institutions perform to obtain a place. Postgraduate studies are also a means of access to teaching, usually as part of the research teaching career. Likewise, they give professionals who are dedicated to teaching an added value that facilitates their insertion in educational institutions.

The pedagogical knowledge of the university teacher

Tardif (2009) he points out that the analysis of the teachers' work allows them to explain their relationship with pedagogy. For this thinker, the pedagogical research in general is based on abstractions, leaving aside situations of the context, such as working time, the number of students, the resources available, the subject matter and its nature, the present conditions, the relationships with peers and with specialist teachers, knowledge of agents, control of the administration, etc. These abstractions prevent the study of pedagogy from

being placed in the broader context of the analysis of teachers' work, as it is pertinent to carry out. Hence, Tardif (2009) points out that pedagogy as a category should be placed in relation to the work situations experienced by teachers. Consequently, said author defines pedagogy as:

The set of means used by the teacher to achieve their objectives in the field of educational interactions with students. In other words, from the point of view of job analysis. Pedagogy is the "technology" used by teachers in relation to their work object (students), in the process of daily work, to obtain a result (socialization and instruction) (Tardif, 2009, p. 86).

Technicity is inherent in work, says Tardif (2009), and therefore teaching is using a certain technology. Then, pedagogy would be the instrumental dimension of teaching, the concrete practice located in a work environment. In this regard, the same author states: "Just as there is no work without technique, there is also no teaching-learning process without pedagogy, although a pedagogy without pedagogical reflection is frequently manifested" (Tardif, 2009, p. 88). This conception of pedagogy allows us to understand the actions of the university teacher in the classroom and explain how university teachers generate pedagogical knowledge in their teaching practices based on their lived experiences.

Likewise, in this section the model of Tardif and Gauthier (2012) is resumed to investigate the presence of the notion of knowing, with the idea of rationality, in the narrative of teachers. In the discursive segment presented below, the existence of a full conscience of the teacher mentioned in the sense of her poor preparation in the teaching field is evident; However, his career in teaching, his experience in the classroom and the training received in his workplace allows him to reflect on his educational work:

D-C-3: Sticking to a pedagogical perspective, talking about Freud or Piaget or the great classics, well, no, I do not have them present in my class to say that today I will use this pedagogy or this technique, but I try to be in innovation , to be trying to make the students to the extent of their possibilities and mine enter into discussions, enter into dynamics that allow them to enter that process, to feel that process they are learning. And I also try to identify, as much as I can, the different styles that students have to learn, because that is very important on the part, I think, of the teacher, who also understands what

situations and what limitations they also have, as we have them We as a teacher to learn and teach.

In the previous fragment you can see the conception that the teacher has of teaching work from her own career and training. She mentions that certain learning theories are not present in her practice; however, he refers to the student's learning styles, which he values because they allow him to establish differences in his students and act accordingly. In this case, a knowledge related to the argument and discussion is presented, according to the model of Tardif and Gauthier (2012). In the teacher's speech there is the intention of validating a proposition with linguistic and discursive arguments and operations. The argument, mention Tardif and Gauthier (2012), is the place of knowledge. In the narrative of the teacher there is a rationale in her discursive argumentation when exposing the motives that guide her pedagogical practice.

In the same tonic, Contreras and Pérez (2013) place the experience at the center of the educational process. And in this way, the understanding of education from the perspective of experience makes it possible to approach the following:

Some dimensions of the pedagogical work of educators and educators that incorporate a knowledge with special qualities, a knowledge not always easily formulable, not exactly theoretical or easily theorizable, but essential as pedagogical knowledge; probably the essence of pedagogical knowledge itself p. 22).

From experience, the authors cited above understand what they have lived, the meanings they give to events, to different situations. "An experience is so far as it does not leave you indifferent: it implies you, it affects you, it marks you, it leaves you a mark. Experience is not something that happens, but something that you have "(Contreras and Pérez, 2013, p. 24). A sample of this pedagogical knowledge acquired by the teacher as a product of her classroom experience is presented below:

D-P-1: I have always called myself as a very improviser, although I arrive with the class prepared for a classroom, everything can change in moments, it always depends on the attitude of the boys. For me, I will always have the adaptation as a technique; improvise if necessary to be able to offer them what they are really needing at the moment. I work a lot depending on the internal

dynamics in class, sometimes I can bring the dynamics well prepared, but I get to the classroom and the young people are completely different from how I imagined them, that dynamic that I had prepared I have to adapt to the conditions that the boys have at that time.

That improvising in the classroom is a knowledge that the teacher has acquired through the experience in her diary to operate in the classroom. Here it is important to point out the following: first, the teacher prepares her class to teach it properly, however, upon arriving in the classroom, she realizes that the classroom climate is not adequate for what she prepared; We gathered, then, that the mere fact of consciously realizing that her teaching strategy is not going to work is the product of a series of failures that she had when she started working with a certain technique, is a situation that marked her. Second, she has a background of teaching strategies that she can implement when required; That knowing what and knowing when it is a product of their experiences, successes and failures in their teaching work, these experiences make up the pedagogical knowledge. In accordance with the model of Tardif and Gauthier (2012), the teacher not only adequately presents her speech, but also the reasons or reasons that validate it.

As we have seen, judgment and assertive speech is another conception of knowledge (Tardif and Gauthier, 2012). Below is a narrative segment that accounts for this conception:

D-P-2: I always try to adapt to the needs that I detect in boys. Not everyone learns the same, and I have that very clear from the beginning. All human beings have a tendency to learn differently, some of us learn more focused on the visual part, others learn from the auditory part, similarly others in the kinesthetic part. I always try to focus a lot on that, pay close attention to the boys under those circumstances.

In the previous case, the teacher gives an account of a knowledge. In this segment a judgment is established when she affirms that "all human beings have a tendency to learn differently", to immediately establish the reasons for their judgment, mentioning the different ways of learning. Following Tardif and Gauthier (2012), the discourse is located in the assertion. And in this conception, only discourses referring to facts can be classified as knowledge in the strict sense, that is, it is limited to de facto judgments and those of value are left out.

Professional practice and teaching

A large part of university professors work or have worked in the productive sector, which is why their educational practices contain elements of both their disciplinary training and their experience in the exercise of their profession. In this way, they emphatically express the importance of professional practice. A teacher expresses something related to this in the following narrative segment:

D-C-1: The books are very interesting, and we work a lot according to the books, but if I have what appears in the book and I also lived it in reality, in the work and professional performance, I try to expose those experiences. The book may also be limited. I hope that the boys take that experience and that when they talk to me and say: "Teacher, you remember what you told us, it's happening a little differently, how you lived it, how I do it." That is what really interests me, that experience that I can share with you.

In the previous segment, the ideas of Schön (1987) regarding professional practice are revealed, specifically when the student tells the teacher how he is living an experience about a case she explained in her class and now it presents you differently. Schön (1987) points out: there are situations where a certain problem is not initially clear and there is no agreement between the characteristics of the situation and the body of theories and techniques available to deal with the problem. It is common, continues Schön (1987), which in this type of situation refers to the expression of "think as a doctor, or as a lawyer or a business manager" to refer to the type of inquiry that competent practitioners undertake when they turn to knowledge available to solve those situations of practice in which the application of such knowledge is problematic. For Schön (1987) the resolution of problems not typical of practice, the so-called areas of uncertainty, have to do with professional art. In that sense, the existence of professional artists capable of making sense of situations of uniqueness and uncertainty can be recognized. However, there is no way to say what this art consists of; just express that rules are followed that are not yet explicit.

The theory-practice relationship is very important in the field of university teaching. When asked a teacher about the primacy of one over the other, he answered the following:

D-C-2: Both, I think they both hold hands because experience is needed to be able to teach a good class. Part of what I have done I have done in the private sector giving advice, and then I come and teach it in teaching. You can have a lot of theory but if you don't have practice like that you don't generate that area of experience that is required in a job.

In relation to the above, the theory-practice relationship was reiterated in different ways in the interviews. One of them refers to the relationship between the contents of study programs and practice in the workplace. It is mentioned, as an unavoidable task of teaching work, linking the contents with the business context and the need for a permanent update of the study plans and programs. For the teacher the reality is the world of work, so that "real situation" must be transferred to the indicative programs. The above is undoubtedly a cause of tensions, sometimes career paths determine unique ways of understanding disciplinary knowledge, which are intended to be included as such in educational programs. In contrast, other teachers link professional areas with other knowledge to enable reflection with the social conditions of the community (Escobar, 2014).

Reflection as a permanent exercise

Various authors (Erazo, 2009; Dewey, 1989; Shön, 1987; Perrenoud, 2007) point out that reflective practice is relevant in relation to teaching work. This is manifested in the link between professional action and knowledge, and impacts in various ways on the professionalization processes that respond to current qualification demands (Erazo, 2009, p. 55). The contextuality of reflective practice is manifested, according to Shön (1987), in the social nature of the tacit knowledge of teachers through the notion of "practicum". Shön (1987) states that, from the constructivist point of view, our perceptions, appreciations and beliefs have their roots in the worlds that we ourselves configure and that we end up accepting as reality. Shön (1987), in his model on reflexive practice, describes reflection in action as a process in which situations of practice that are uncertain, singular or conflicting are clarified. In this type of practicum are those situations in which the existing professional knowledge is not enough nor does it accommodate each case. In this regard, Perrenoud (2007) notes:

There is no complex action without reflection during the process; Reflective practice can be extended, in the general sense of the word, as the reflection on the situation, the objectives, the means, the resources, the operations underway, the provisional results, the foreseeable evolution of the system of action. To reflect during the action is to ask what happens or will happen, what we can do, what needs to be done, what is the best tactic, what orientations and precautions to take, what risks exist, etc. (p. 30).

For Dewey (1989), “reflective thinking resembles that fortuitous transit of things through the mind in the sense that it consists of a succession of things about which one thinks, but it differs from it in that mere mere casual occurrence in an irregular succession of 'anything' ”(p. 22). In this regard, the teachers in their narrative describe their classes as something planned that begins with a theoretical approach on the subject, by the teacher, to immediately enter into a debate with the students. A teacher expresses it as follows:

D-I-2: Yes. Well, depending on the unit, depending on the module, depending on the subject of what is going to be treated. In general, it is presented what is a theoretical framework, a few moments of academic instruction about the knowledge of theories or authors to later propose questions for discussion topics. Questions for them to generate knowledge, generate doubts and question each other. In order to discuss, we will be leading along with the group what knowledge is or arriving with the group so that they learn the concepts of the class.

In the previous segment we can see how the reflective dialogue involves the students, the teacher, the contents of the subject and the medium that is the language, where the reflexive question has a directive function: construct meanings, elaborate concepts, interpret, explain (Davini, 2015). In that sense, according to Dewey (1989), reflection does not consist only of a sequence of ideas, but of a sequence, that is, “a sequential order in which each of them determines the following as their result, while each result, in turn, points and refers to those who preceded it ”(p. 22). These segments of reflective thinking originate from each other and connect with each other. Dewey (1989) points out: "In all reflective thinking there are definite units linked to each other, so that a sustained movement directed towards a common goal ends up" (p. 22).

The reflections of teachers about their teaching practices and student learning lead us to consider that certain teachers have different theoretical conceptions that put into play in their teaching activities. In this regard, a professor expressed:

D-P-3: From my point of view I like to use what is, more than anything, metacognition, so that they understand what knowledge is, more than learning concepts, more than learning dates, names. That they really understand the thought and can apply it to their lives and make it their own. More than questionnaires, more than with pictures, with very traditional tools, to be able to apply them in a more experiential way.

The teacher's reflection on their practice is a permanent exercise that must be carried out with a view to improving and strengthening their work in the classroom. This gives rise to the teacher exercising teaching building new knowledge that allows him to face various situations in his daily exercise in the classroom. Perrenoud (2007) states that action in reflective practice implies a representation; It is taken for granted that the subject has knowledge of what he is doing and, therefore, may ask about mobiles, the forms and effects of his action. Perrenoud (2007) also asks: "What does reflection become when its object disappears, when its own action escapes the control of the actor?" (P. 137). The practices carried out by different professionals, call yourself an engineer or a doctor, the rationale implicit in a certain process, be it a calculation in the case of the engineer or an auscultation in the case of a doctor, makes the procedures carried out in the action remain hidden by "the partially unconscious nature of the activity" (Perrenoud, 2007, p. 137). The sequence of ideas carried out in a sustained reflection on the knowledge of the practical makes the unconscious flow of units manifest spontaneously. Perrenoud (2007) calls the above practical unconscious. The author links it with the works related to the pre-reflected action based on the explanation interview: Vermersch (1994) Vermersch and Maurel (1997); Piagetian theory of the practical unconscious and schemes: Piaget (1973, 1974), Vergnaud (1990, 1994, 1995, 1996), and the habitus theory linked to Bourdieu's work (1972, 1980; cited in Perrenoud, 2007, p. 138). In the same way, Perrenoud (2007) observes a convergence with the works on the transfer and the competences that allude to the processes of mobilization of cognitive resources stored in the unconscious. This process, says Perrenoud (2007):

It is nothing other than the operation of the habitus that, faced with a situation, carries out a series of mental situations that will guarantee the identification of the relevant resources, their eventual transposition and their orchestrated mobilization to produce an adequate action (p. 138).

The habitus, then, following Perrenoud (2007), would be the set of schemes or experiences that a subject uses in a given situation and that allows solving problems in the same way. A teacher expresses how from her professional experience she lives teaching:

D-P-2: Always what I know, what I have lived and what I have experienced I will put on the teaching desk. My boys already know that I am very descriptive - they call me a storyteller; the truth, what I am telling you is my experience, it is my experience, what I have had to live professionally and I always do it with the intention of leaving them something. Tell them: this is happening out there, this is how things are lived, what we are seeing in the theoretical, here in the book, is manifested in this way in reality. I will always try to make that link.

The specificity of the discipline is at the base of the teaching process implemented by the teacher. In this example, the work experience of the teacher has a great influence. She relates the contents of the subject with the cases she lives or lived in her work experience. Planning is based on these experiences that the teacher links with the theory and activities or processes carried out by professionals. With respect to the theory-practice relationship, a teacher expresses:

D-D-1: My area, which is criminalistics, as in every career there are theoretical charges, which are often criticized by students, as they complain about the theory. One thing he does is to insist that they reflect on the question that theory is important for anything; What happens is that some teachers do not approach the theory well, so that we do not make the student like it. Theory is the basic frame of reference so that we can go to practice. In practice the theory lands and is to make it valid as to what and for what, if nothing else is left in theory we will stay in what.

In this segment it is possible to observe an exercise in reflection on the action, in this case the students' criticism of the theory. In this regard, the teacher reflects to understand and integrate what has happened. Along these lines, Perrenoud (2007) expresses: "So, reflecting is

not limited to an evocation, but goes through a critique, an analysis, a process of relating to rules, theories or other actions, imagined or conducted in a similar situation." (p. 33).

Discussion

In the interviews, teachers expressed their knowledge, experiences and knowledge in accordance with the model of Tardif and Gauthier (2012), which shows the elements that should be taken into account in the investigation of teacher knowledge. Subjective certainties, judgments and arguments presented around their pedagogical practices were manifested with a rationality in thinking and speaking, with which they explain the reasons that guide their practice. We believe that in this recovery of teaching knowledge lies one of the strengths of our work. From that starting point, in the analysis it was possible to build the categories that address the panorama around university pedagogical practices. On the other hand, since its insertion in the field of university teaching, the profile of the teacher acquires certain peculiarities depending on his professional experience, which defines the ways of conceiving the discipline and with it teaching. According to Escobar (2014):

Discipline is understood as a system of symbolic relationships that can include physical workplaces and social relationships typical of those areas, languages, knowledge, practices, habits, attitudes, behaviors, power and authority relationships, including personal attributes such as discipline, demand, responsibility, creativity and proactivity (p. 299).

In the various narratives, teachers reconstruct their teaching acts in a reflective exercise. And from there, disciplinary knowledge manifested as axes of his teaching, while pedagogical knowledge remains untouched, until the interviewer questions about it, and becomes present in resources and experiential knowledge. With them, teachers in the field of their pedagogical action develop action strategies that facilitate teaching and learning processes. However, professional knowledge has a greater legitimacy in the university imaginary.

In the interviews, university professors describe pedagogical practices with a wide range of knowledge and knowledge, which are characterized by their complexity. In this situation, cognitive science research has proved insufficient to explain the various problems (Altet, 2012). Hence the relevance of the reflexive model (Dewey, 1989; Tardif, 2009;

Perrenoud, 2007), which makes it possible to understand the teacher's actions in uncertain, singular or conflicting situations. In the stories, the teachers also expressed ideas that expose the reconstruction of the experience in the classroom and the presence of pedagogical knowledge resulting from the reflexive process of their teaching work. This coincides with Tardif (2009), Perrenoud (2007) and Shön (1978). An important finding is that teachers do not interpret their experience and educational actions from educational theories. Thus, they call improvising an unquestionable pedagogical knowledge; hence the need to identify and interpret these pedagogical practices to convert them into explicit knowledge and recover them for practice (Contreras y Pérez, 2013).

In their work in the classroom, university professors give primacy to their disciplinary knowledge. Which motivates the interactions to be structured around the discourse of the profession. However, the teaching styles are heterogeneous and sometimes diametrically opposed depending on the educational program in question, so that it is not the same a kind of law that generally focuses on the discursive practice of the teacher, than one of psychology where Teachers generate different dynamics and devices for learning.

However, judgments should not be made a priori, stigmatizing a teaching focused on teacher discourse. Many times within this discourse, multiple decentrations are well supported by the teacher, which interest and encourage student learning. Hence the need to conduct research that includes the observation of teaching work in the classroom, one of the main limitations of this work. No doubt we agree with Contreras and Pérez (2013) when they point out: "We want to understand and share experiences of university teachers, as events open to new meanings; contribute to the pedagogy of higher education, such as knowing that it is nourished by teaching experiences, which make sense from their voices" (p. 342).

Conclusions

The interpretation of the narratives of the professors around their pedagogical practices from the reflexive perspective makes it possible to elucidate that the pedagogical practices of the professors are a consequence of a set of knowledge resulting from the daily experience of the teacher in the classroom and in the university environment, With deep traces of professional training. Likewise, teaching practices have an imprint of personal history and social experiences, which are linked to the contents and learning objectives.

The teacher who focuses his teaching on disciplinary knowledge tries to reproduce work practices in the classroom, where the discipline frames the actions in a training for work that conceives the work world as reality. The specificity of the discipline is at the base of the teaching process implemented by the teacher. In this way, the planning is based on the work experiences that the teacher links with the theory and the activities or processes carried out by professionals. However, the teaching styles are diverse, and so there are teachers worried about student learning that manifests itself in various aspects, such as detecting the class climate before starting activities, choosing in the immediacy of the action the right type of strategy for a specific learning environment and encourage reflective dialogue with students.

In this environment it is possible to perceive how the teacher generates pedagogical knowledge in his actions in the classroom from his lived experiences. The pedagogical knowledge of the university professors revealed in this work allows to elucidate that these are the product of a reflexive practice. In that sense, the experience is conceived not as the accomplishment of a routine task, but as a positive or negative action that leaves a mark with a meaning that has to be valued in a reflection on the action. The recovery of the pedagogical knowledge present in the narrative of university professors allowed us to see an unexplored territory, because, within the scope of this level, it is not valued as an indisputable knowledge that moves within the framework of disciplinary knowledge. To conceive teaching from a reflexive perspective is to retake the idea of promoting a rationality of practice that allows the university teacher to solve their daily problems in a professional manner. Reflecting the experience that is lived, exposing it through narratives, is a current task that teachers must perform.

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