

René Pedroza Flores

Action Research in Educational Reflective Practice



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Educación



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*To my sons:
Hegel, for his critical and reflexive spirit.
Rodrigo, for his libertarian and rebellious spirit.
Hecy, for her creative and loving spirit.
Mirrors of my conscience.*

INTRODUCTION

Current educational reforms promote education based on skills and constructive learning, creating changes in educational practice. Emphasis is placed on student-centered teaching, self-learning, strategic educational management, cognitive diversity, compensation for equity, incorporation of communication and information technologies, the acquisition of thinking skills, the mastery of different types of knowledge, forms of assessment based on performance, innovation and improvement of educational practice as an intervention process in the pedagogical relationship and the academic management models.

Of those aspects, in this book we are interested in working with that related to the competencies of educational practice, because now a days the task of teachers and directors become relevant in terms of knowledge, skills and attitudes required to fulfill the goals of school projects. Competency-based performance is linked to the policies of quality assessment.

Competencies linked to quality assessment are part of the accountability. An audit and behaviorist view of learning is assumed.

Given this trend that dominates educational practice, following Elliot, the possibility of addressing the skills in educational practice from the perspective of professional self-reflection focused on teachers', administrators and managers' performance is assumed.

The professionalization alternative proposed in this book relies on the theoretical contributions of John Dewey, Wilfred Carr, John Elliot, Donald Shon and other authors that are recovered through the movement of self-reflexive practice worked by Kenneth Zeichner. The professionalization of teachers is conceived as a personal change of those who intervened their practice through the action-research method.

The aim is that teachers look at themselves in their performance, to be self-aware and reflect on the meanings of their teaching to emancipate themselves from bondage and experiences that limits their educational practice and in this sense constructs new meanings.

Professionalism of educational practice in terms of teacher professionalization as researcher of their own practice, contributes to raise the quality of

teaching and in turn enables educational intervention processes through and arduous activity of quality inquiry. In this sense, professionalization consists on the domain of self-reflection competency.

Self-reflection on Habermas is a process of self-education which involves the self-constitution of the individual and the self-understanding of the species from the knowledge and social interactions present in the emancipatory interest. The notion of self-reflection on Habermas is taken up for the study of educational practice, teachers must self-train from a critical view of their own constitution and from a transcendental value of their performance with a human vision based on self-understanding. The emancipation of teachers is dual, on one hand they must liberate themselves from the empirical, tradition and improvisation and on the other hand from the educational system, educational policy and social conditions that permeate their practice because their work has to do with the formation of a critical conscience of society.

Self-reflection involves the mastery of knowledge, skills and attitudes to improve, change and transform educational practice. It is required to apply the research process linked to action. For these reason, the professionalization proposed uses the action research method.

Action research start out from practice without forgetting theory, it proceeds by circles that are qualitatively different as it spirally progress. In this sense, the assumption that theory and practice are going to be qualitatively different as the research of educational practice advances is provided.

Action research model is proposed as a method of teachers' professionalization oriented to the self-constitution and self-understanding in the construction of emancipation to intervene theoretical concepts and practical performance assumed by professors.

Teachers' emancipation proceeds by leaps, as self-understanding progresses, they unravels the meanings of their intentions and resignify their actions.

The book is organized in two major sections. The first headland: Educational practice from reflexive competition consists of six points where the conceptualization of educational practice, behavioral tendency of skills, educational practice reflexive movement, teachers' reflection for intervention, the existing approaches for educational intervention and the content of reflexive competence in the educational practice intervention are discussed.

The second headland: Action research in educational reflective practice, discusses the relationship between practice and theory as a virtuous circle and appoints the process of action research contemplating the stages of

problem identification, diagnosis, problem foundation, course of action, intervention model, implementation, contingencies and theorizing.

The book closes with a final reflection where the idea of teachers' professionalization as a process which creates virtuous circles in educational practice based on the application of reflexive competence alongside action research process is emphasized.

Educational practice from reflexive competition

EDUCATIONAL PRACTICE

It is important to define the concept of educational practice assumed in this book, considering that the purpose is to understand teachers' professionalization in educational practice from the teacher as researcher of their own practice. Therefore, the concept of educational practice that arises is located in a practical-theoretical process that involves intentional intervention for professionalization.

For the above, studies addressing the professionalization of teaching through reflection are the only ones considered. The purpose is to analyze educational practice from a critical and reflective practice that is different from the pragmatic, instrumental or technical positions in vogue.

Wilfred Carr is the obligatory reference to define educational practice from a reflexive and critical conception. In his book "A Theory for Education. Towards critical educational research", realizes the philosophical sense of educational practice. Carr writes early in his book an entry of Hegel about the temporality of the individual and of philosophy: the individual is a child of his own time as philosophy is its own time learned through thought.

Carr refers Hegel's to size philosophy of education as a historical self-consciousness in the face of philosophical self-understanding. In other words, to understand that philosophy of education is its own time learned through thought, where educational philosophy and the history of educational philosophy goes hand to hand.

Carr's conception of educational philosophy opposes to continuing dualism between knowing and doing in the field of education. In the study of education has been common to try to break the links between theory and practice. Theory is presented as an abstract shape outside the ordinary world and practice itself is considered as a bunch of beliefs distant to the perfection that can only be captured by thought.

The Platonical heritage of a "superior order" and the Kantian "brightness of the transcendental self", says Carr, accompanies the idea of breaking up the relationship between theory and practice, it is denied that theory is permeated by practice and practice builds theory.

Theory is a prerequisite of self-reflection, it is enough to remember the quote that Carr makes about Eagleton:

“Theory is nothing but a practice imposed by a new form of self-reflexivity. Theory is precisely a human activity that reflects on itself, limited to a new class of self-reflexivity. And by absorbing this self-reflexivity the whole activity transforms itself.” (1996: 63)

In education, this means that educational theory does not remain impervious to the orientation that it makes to educational practice because theory itself is oriented by practice. Educational practice implies the study of educational theory. Both, practice and theory are part of the same thing. All educational theories are at the same time theoretical and practical.

This postulation is essential to overcome the divorce between conception and action falsely cultivated in teachers' communities. There are educational practices that are supported by this divorce, on one hand there are the pragmatic ones that reprises theory as a tool that guides action and on the other hand there are the empiric ones that reprises theory as a reference against everyday classroom problems and technique applied to theory as a rigid model. These educational practices shares an a-historical sense of control and efficiency. They seek to regulate behavioral patterns under theoretical scientism assumptions presupposed for educational performance.

Educational practice from the critical perspective of Carr is different from the pragmatic, empirical and technical. Educational practice is historical, it is a daughter of its time because it learns through thought the meanings of its own historical development; it is intentional because it is an activity undertaken consciously under schemes of self-referential thought; it is social because it is an activity that is learned from experience and thought patterns of others and that can be mobilized as inherited from the philosophical and historical self-consciousness itself. According to Carr, educational practice is defined as: “An intentional activity, developed consciously, that can only be intelligible in relation to patterns of thought, often tacit and in the best case partially articulated in terms of which one give meaning to their professional experiences. Therefore, they can only carry out educational practices by its ability to characterize their own practice and to get insight into the practices of others on the basis, generally implied, of a set of beliefs about what they do, of the situation in which they act and of what they try to achieve. An educational practice always presupposes a theoretical scheme that is at the same time constitutive of this practice and the mean to understand other educational practices.” (idem: 64-65)

This is the conception of educational practice that is taken up in this book. An historical, self-reflective and social educational practice for human understanding. Taking this concept brings conceptual commitments that needs to be elucidated. The main commitment identified and from which others emerge is the next one: if educational practice is a daughter of its time, then it is necessary to identify in which time we are in order to determine what kind of educational practice we're talking about, from which social context we refer it, from where we thought it and from which philosophical framework we reflect it.

The answer may detach from the current demands placed on teachers' professionalization for educational practice.

In the global scope, the emphasis is placed on the cognitive dimension of learning, which underpins the competency-based education. The influence of cognitivism is registered in proposals such as the aligned learning of Biggs (2005) and that of thinking skills development considering Marzano's (1992) dimensions of learning.

In general terms, cognitivism proposes the development of a vicar and intentional learning (Bandura: 1982) in an environment where interest and motivation from the student arises, where they can be attracted to develop their cognitive skills, where they can decide to commit with their tasks (internal system), where the teacher can be able to set objectives and strategies (metacognitive system) and where he can process relevant information (cognitive system) for the construction of knowledge. To achieve this, constructive alignment must be applied, which means to align teaching from planning to evaluation (Biggs: 2005)

This requires having a clear taxonomy of objectives that delineate the content of learning and orientate the formation paths of the students.

Action-learning and the development of learning skills involve a change in teaching, a reflective educational practice. The teaching must be based on the reflection of the problems and solutions presented in the content, methods, learning environment, evaluation methods, and ways of interaction. Reflective educational practice change the way we teach. The teacher assumes a critical attitude towards their performance and implements actions to intervene the learning process. An action-teaching based teacher, according to Biggs, is characterized by:

- "Teaching so that the structure of the topic is presented explicitly.
- Teach to elicit a positive reaction from the students, by example, asking questions or propounding topics instead of teaching to expose information.

- Teaching based on what the students already know.
- Teach and evaluate to stimulate a positive working atmosphere in which the students can be able to make mistakes and learn from them.
- Emphasize the depth of learning rather than the coverage amplitude.
- In general and more important to use methods of teaching and assessment that support the goals and stated objectives of the course.” (2005:36)

This action-teaching accompanies the current competency based teaching approach. For educational practice this has meant aligning to the idea of competence.

In the present context a bifurcation is identified in the conceptualization of competencies for educational practice: One path intends to address the structural needs of society in globalization, this is the choice that raises skills linked to labor market. Another path is located in the field of education, which seeks the emancipation of teachers from the conceptions that limits their performance. The first path is that of technical professionalism and the second one is related to reflective professionalization.

Technical professionalism of educational practice is based on behaviorism, it aims to provide behavior guidelines for teachers and professional development is conditioned by pre-established competences. Technical professionalism is characterized by its a-historical character and its uncritical portability. Reflective professionalism in educational practice is based on self-referentiality, which conceives teachers as action researchers and professional development as a result of self-reflection. This reflective professionalism is characterized by the dynamism that educational practice acquires as a result of action research.

In both forms of professionalism it is possible to work with competency-based education but on different conceptual frameworks. Technical professionalism maintains an idea of competencies based on behaviorism while on the other hand, reflective professionalism privilege professionalism based on self-reflectivity. The conception of competence differs from one model to another. In this book, reflective competence model is chosen, this model is sustained by the action research method.

Educational practice in competency-based education from a reflective model that uses the method of action research is not new, 20 years ago, Elliot in his book “Action Research for Educational Change”, raised the question. He argues the possibility of creating a new model, an alternative to the behaviorist approach.

"I criticize the behavioral preparing model based on competition and manifest that a system based on trust and control does not have to depend on it. I also develop an alternative methodology to describe the quality of professional activities such as teaching and indicate how action research can be the base of a non-behaviorist way of training" (Elliot, 2005: 142)

Elliot's model of reflective practice for teachers' professionalization can serve to the purposes of educational quality given by the current policy of the Evaluating State from a non-behavioral framework of quality assessment. It is not about controlling educational practice by pre-established models, neither about evaluating based on indicators that homogenize conducts and behaviors.

Teachers' quality assessment could be given alternatively from the educational practice signification processes.

"In regard to the teaching profession, we need a research program capable of generating a non-behavioral model of development of the skills structures that are essential to the professional capacity of teachers to self-determination, while facilitating quality guarantee to politicians, the model could light in a new way the significance of theoretical knowledge regarding the practices of novice teachers and advanced beginners as well as the significance of reflective practice for the development of the teaching competence." (Idem: 160)

Elliot emphasizes the importance of the significance of reflective practice as a way to gain the skills and as a professionalization mechanism for those skills. This way of responding to the demands of technocratic rationality, contributes to the professionalization of teachers as researchers of their own educational practice.

Teachers' educational practice, since educational reforms developed in the last two decades has diversified in a set of tasks that implies to the professor the performance of multiple roles within whichever educational institution. It has to serve as teacher, researcher, tutor, consultant and project manager of the school. The diversity of roles represent for teachers a challenge in the construction of skills. Each role implies for the teacher to play different competences, by example, as teacher it must attend pedagogical, disciplinary and didactical aspects. As Pérez says:

"Teacher training should include a set of knowledge, attitudes and skills required for independent and effective classroom intervention. Thus, the teacher must be able to respond to the demands of disciplinary and interdisciplinary knowledge, to the needs of diagnosing the learning situation of the individual and the group, to define and accommodate particular curricular

proposals to the specific and changing situations of the classroom and educational center, to formulate and experiment with methodological teaching and assessment strategies adequate to the diversity of students, to design and develop instruments, techniques and didactic materials, to organize time and space, definitely, teachers must be prepared to rationally design, develop, analyze and evaluate their own practice" (Pérez, 2007: 18)

Each role implies for the teacher to stake a body of knowledge, attitudes and skills. In order to group the tasks and competences of teachers, three essential roles are identified in educational practice:

- A) Teaching. Educational practice comprehend disciplinary, pedagogical and didactical competences within a theoretical-philosophical framework.
- B) Management. Practice for educational project management involves competences for educational management, competences for learning management and competences for scholar management within a socio-educational framework.
- C) Investigation. Research practice on teaching and management involves reflective and self-reflective competences within an ethical and epistemological framework.
- D) Of the three clusters, the focus is placed on the skills related to research from the reflection and self-reflection tradition. (Cfr. Punto 3)
- E) Before addressing the issue of reflexivity and the skills for research, it is important to identify some of the problems that arise in educational practice and that comprehends various aspects:
- F) Communication. It tends to prevail a linear communication in which the idea of authority prevails more than that of listening to the other.
- G) Authoritarianism. Imposition through hierarchy and not through reason is a common issue.
- H) Improvisation. The dynamics of classroom performance and educational project management are often determined by the immediacy, there is no time for planning, design, evaluation and feedback. This disrupts the learning process in face of weakness in the usage of teaching strategies, evaluation models, didactics and pedagogical methods.

Anyway, there are so many problems that demands solution. Here educational practice conceived as a reflective process based on action-research becomes relevant because it allows to influence reality through designing, implementation, evaluation and by providing feedback to the educational practice intervention methods.

THE CONTEXT OF COMPETENCY-BASED EDUCATIONAL PRACTICE. (THE BEHAVIORAL VIEW)

Educational practice is part of the pedagogical model of educational institutions because it represents the application of educational purposes. In other words, the scope of educational practice is structured in two different and complementary dimensions among themselves: formal planning and professional performance. The formal planning has to do with philosophical and social purposes, with pedagogical and didactical resources and the determination of subjectivities in the psychoeducational field; professional performance is different in nature and has to do with processes and interactive relationships that go beyond the formal framework by being implied in structured and occult practices.

From the point of view of educational sociology, pedagogical models maintain a close link between social transformations and educational intentions, this from the formation ideal set through academic career and egress profiles, which means that pedagogical patterns are transformed or changed in so far as society changes.

By changing the pedagogical model also change teachers formation and educational practice, theory and practice are articulated; on the one hand, formation theory has to do with the ideal of a new man, on the other hand, action in practice is focused on the realization of that ideal. Therefore, every change in society changes educational practice and teachers' formation, appearing pedagogical models configurations where some may become dominant without eliminating relevant aspects of the others.

Pedagogical models in postwar industrial society and globalization postindustrial society maintain a sustention on economic rationalism and tends to respond to economic and labor requirements consistent with the development achieved in production and service processes in the light of technological innovation. Particularly, in contemporary postindustrial society links between education-formation-work-economics and technological innovation are presented, this links sustain competency based pedagogical model, subsuming the industrial society efficiency pedagogical model.

Teachers formation and educational practice are prescribed on the instituted, this are constituents of the educational ideal. Now a days the

competency-based educational ideal prevails, which involves a process of positive discrimination of knowledge according to the needs of professional market. The concept of formation passed from the efficiency pedagogical model to the professional one. The orientation of formation moves from rationalism and psychologism to didactical and sustainable study. Something similar happened to educational practice, it went from a directive conception based on control and formal authority to an instrumental conception based on reduction and arbitrary selection of knowledge transmuted to competences.

Delving into educational practice, the predominant teaching model defines the teaching work from within professionalization based on teaching skills. Teachers' professionalization is understood as a didactical and pedagogical technicization where practice is driven by that conception developing the key competences for didactics and pedagogics.

Educational practice in the context of changes from professional pedagogy that Arnold (2002) defines as the science of skills development is interpreted as a technical and didactical mechanism of information transmission that feeds key labor qualifications that tends to train creative, independent, responsible and reflective subjects able to adapt to economic dynamics requirements.

This conception of educational practice raises the teachers' role as a professional educator whose task is to serve as a didactic analyst, didactic reductionist and didactic operator. This conception sets the trend, there exists a different movement, outside this technical logic, that is going to be treated in the next chapter. The underlying formation purpose is the configuration of a new self-regulated man from an initial programming. Initial programming and self-regulation, on the dominant proposal, is the role that teachers must play on educational practice.

For initial programming, based on Arnold, teachers' acts as didactic and reductionist analyst, they decides what is worthwhile or not to learn and simplifies the study. On self-regulation, teachers must act as operators, they must determine measures to ensure independent action and encourage initiative.

Educational practice of professional teachers who tends to the configuration of the self-regulated man, is contained on the primary order cybernetics because it requires an external impulse to work. External impulse by itself is determined by competences preconfigured outside educational practice. Professional teachers only reproduce that impulse with didactics as a teaching engineering resource. For this reason, the subject that is formed as a

result of this practice leaves its creative and reflective potential anchored to the operation of the technical and economic system. Something similar happens to its reflective capacity, it is conceived as a way to correct possible mistakes while its sense of responsibility is determined by externality, that is to say that in fact professional teachers who tends to the configuration of the self-regulated man are beforehand responsible of their performance.

Arnold's writing is not an isolated case within competency based education literature, there are similar or derivatives studies of these approaches on the global arena. It is the boom era of competences as a renew way to delimitate what is taught in the face of the information production dynamics.

Competencies are an arbitrary cut of knowing that seek uniformity in the learning processes, its generalization has been such that Arnold (2002) proposes Professional Pedagogics as the competencies development science. He considers this new science as something potentially superior to pedagogics as it can be appreciated on the next quote:

"Professional pedagogics, in its competencies development science quality, is not merely a special discipline from pedagogics. It covers much more than that and is different. While it is true that professional pedagogy question itself for the subject and the development of its competences, social, enterprise and technical aspects also play an important role." (p.15)

Arnold overestimates professional pedagogics without sink into professional pedagogics principles as a science, he does not comparatively support why this new science is superior to pedagogics itself. The subject is of interest in this new science only as a mean and not as an end in itself, is who's formed on the basis of qualifications determined by the didactic operationalization that presupposes reduction and technical configuration under the slogan: Not everything that exists has to be taught or learned! This phrase is complemented by another: Which contents are worth of being learned? Both speak about the normalization of contents, coded and dosed through technical didactics.

Technical didactics normalize and codify the competences that has the properties of transferability, applicability and portability. The subject brings the competencies and applies it according to the context, being able to transfer them to different situations. Competencies, in this sense, are the melting pot of education transformed in merchandize.

Competencies have, from its duration, another property, they are instant and disposable. Bauman (2005) writes that in liquid modernity, education is tied to a volatile world of instant and erratic change. Knowledge is not immune to the immediacy condition, its behavior tends to be compared

with software programs volatility and it circulates as reloaded versions of Hollywood movies. Therefore, education takes the same lines, the idea of education as a treasure is abandoned, education is something never-ending, it's a long and winding road.

In this pilgrimage, educational practice transforms itself, the subject that is built into the liquid modernity does not intend to promote knowledge based on formation (*Bildung*), instead he opt for the education pillars established by the UNESCO. There is a cult to permanent education, to education for life and work. Baumann says that in this race against time, what men and women seeks are advisers to tell them how to march in a liquid world, they are not seeking for knowledge masters. In professional pedagogics, advisers are recognized as mediators, spiritual guides that orientates the apprenticeship into the reservoir of potentialities hidden on the deepest corners of human personality. Advisers or mediators are what lamps are to miners.

Educational practice on permanent education is not exempted from volatility, in fact, it is inscribed within liquid modernity. Teachers assumes themselves as pedagogues of professional education, they acquires pedagogic competences to accompany their students on the learning process.

The task for the professional pedagogue is limited to action, which entails the transfer of general and specific qualifications within the despecialisation process. In that matter Arnold says:

"In view of the expiration quota of technical knowledge and of the trends to professional work despecialisation, the question about if professional formation is not required to bet more for the transference of general qualifications not linked to specialty (...) It also counts the capacity to acquire autonomously specific qualifications (...) Professional school teachers are going to be more demanded in its pedagogue role, namely, in its capacities for initiation, motivation, and socialization of self-organized knowledge so as the advisement and accompaniment of students formation and qualification." (60-61)

Several aspects of this quote excels, the first one is that in liquid modernity we are in face of a different kind of appropriation. In its moment, Marx treated workforce appropriation thinking that it reaches its limits through Fordism techno scientific rationality of timing and moving control and incentive policy. Now, an efficiency rationality that tends to think appropriation is present. Physic automatism moves to mental automatism. It is not about sustaining man as an apex of the machine, it is about being a cyborg machine, an automated organism in its movements and self-organized in its thoughts.

A second aspect of the quote is the teachers' role as professional pedagogue, its practice is orientated to knowledge despecialisation, its action is focused on presenting general competencies as a substitution of the thinking and meditating labor around humanity; this action is complemented by the development of specific competences as substitution of scientific knowledge. Regular and scientific knowledge are transmuted into general and specific competences. The new appropriation is radical and is focused on unlearn and unspecialized scientific knowledge.

A third aspect is that one related to the self-organization of knowledge through competences. The subject is capable of self-regulation because it is programmed to adapt himself to a circumstantial world. It is not about questioning ontological, ethical, esthetical or scientific issues but transferring the world a new survival mechanism for the best suited (competent). New reloaded Fordism rationality is complemented by pedagogic Neo-Darwinism.

In this kind of approach, reflection is a competence that understands the value of professional performance; therefore it goes through all competences, it is identified as the base competence. It involves circularity among the intended subject. Reflection as competence is the mechanism through which teachers performs the learning process consistent in the cutting and operationalization of contents based on the presuppositions of technoscientific educational practice.

EDUCATIONAL PRACTICE WITHIN REFLECTIVE MOVEMENT FRAMEWORK

The issue of teachers' reflection in educational theory is not reduced only to competences contemporary context, it has been a regular concern in matter of teachers' formation that has shaped the international reflective practice movement worked by Zeichner (1982).

Zeichner says that the ideas of reflective professionalism and reflective teaching are not isolated from educational reforms and teacher training around the world. There exists different contributions that shaped the international reflective practice movement.

In that movement, according to Zeichner, there has been a confusion about the meaning of reflection, the problem has gone so far as to left the word without content.

The paradox about the actual competences movement is that the problem assumes another dimension, reflection is understood from a technical conception that represents the opposite to the meaning by which the idea of reflection was raised in its beginnings.

Reflection technical conception conceives the teacher as a theory consumer untied from practice and social context. It relegates good teachers' experiences and marginalizes knowledge acquired through practice as essential inputs for reflection. In the face of this, Zeichner raises the idea of thinking the teacher from within the reflective teaching framework:

"The concept of teacher as a reflective professional recognizes the richness enclosed by good teachers' practices. From the perspective of the particular teacher, this means that the process of understanding and improving the teaching practice itself has to start from the reflection about the own experience and that the kind of wisdom that derivate from other experiences is in the best case impoverished and in the worst illusory". (1982:3)

Teachers reflection about their own experience is clouded and braked by the insistence of the technical approach that centers it attention on the knowledge produced outside educational practice. The idea of a scientific educational practice dominates in face of the idea of an emancipatory educational practice. (Carr: 1996)

Zeichner presents a balance of North America educational practice, he says that there are four ways in which we can use the concept of teacher as a reflective professional that alienate the idea of emancipation.

- A) The teacher as a reproducer of practices established by others. This is an eminently technical conception that relegates teachers' theory and practice from scientific rationality.
- B) The practical teacher. This is also a technical approach in which teachers are reduced to experts in didactic and pedagogic skills, far from participation on the determination of educational purposes.
- C) The teacher locked in his own castle. This is an individualistic approach where the reflective teacher is placed as an agent isolated from the social context, only focused on reflection about himself and his students.
- D) The isolated teacher. This is an individualized reflective educational practice approach that does not conceive reflection as a social practice. This approach encourage the idea that every practice is unique, ignoring that educational practice is actually a social practice that sustain structural and contextual relationships.

This characterization on the way of understanding reflection is not exclusive from North America. The same situation applies for Mexico where reflection is technical and individualistic. Reflection is reduced to the classroom as part of the learning teaching process.

Reflection in educational practice is much more than a pedagogic action method, it is a constituent part for the appreciation of the world. Reflection in educational practice contributes to the comprehension and intelligibility of reality, to the permanent search of an unfinished world.

To Freire (2010), the milestones of educational practice are associated to the need of inventing knowledge creation situations, what demands comprehension of actions based on reflection. This means that educational practice is something invented, it is a process, a project and not a destiny.

Educational practice as project is based on the liberation metaphor (Zeichner: 2003), because it reflects about the origins, purposes and consequences of actions performed on the classroom, school and society. The ideas of instrumental rationality are surpassed, reflection has the purpose of building free mans, participant of the social and educational horizon. A free man means growth in the knowledge about oneself to be a person guided by the human rights philosophy.

Reflection on educational practice drives to the creation of better teachers and persons, which is translated on better quality learning. Quality here understood as the realization of a universal rights and democratic rights based life. Apprenticeship quality involves the cognitive, affective and psychomotor development dimension integrated to the quality life improving dimension.

Both dimensions are inseparable from learning because it prevails the idea of human development in the concept of learning quality, getting over by this the technical conception of learning development that makes emphasis on the acquisition of an instrumental academic formation, relegating the human needs expression to a particular moment and context.

Educational practice is self-reflective because it encompasses action (what is done? how it is done? why it is done? for what it is done?) and implication (the purposes, in the individual and collective, of the action). Because of these reason, educational practice from reflectivity has two complementary dimensions: teachers improvement dimension and quality life improving dimension.

Teachers' improvement dimension is defined as the teachers' professionalization task, it is formed by three process: the logic construction process of disciplinary, pedagogic and didactic knowledge, the psycho-affective emotions control process and the psycho-motor process for the management of skills for the execution of tasks and actions.

Human development dimension is defined as the cultivation of freedom within teaching, it is shaped by three process: The process of philosophical and social construction of human knowledge (the representation of the meaning of life), the socio-affective process of realities and possibilities construction (otherness design) and the skills management socio-motor process (the possibility of emancipation).

Thinking educational practice with its dimensions from the reflectivity approach involves to fathom the meanings, to intervene reality and bring new meanings to the teacher task. This demands the development of a specific competence, the reflective competence (Cfr. Punto 6) that accompanies the action-research process (Cfr. Punto 7).

TEACHER REFLECTION ON INTERVENTION PROCESS

Teacher reflection about its own educational practice is an intentional, deliberative and methodic intellectual activity. It is intentional because it supposes an action based on a pre-established goal. It is deliberative because a practical-theoretical determined approach must be assumed and it is methodic because it demands a rigorous process for its development.

Teacher reflection about its own educational practice involves two incorporated aspects that makes a whole: pedagogic experience and beliefs. Durán says (2005) that experience has no limits in didactics planning instruments, nor is done in the classroom with scientific attitude, nor projects in advance its results, considering this, teachers' experience is the daily action that is made with meditated purposes and that represents a mechanism for the construction of teachers' disciplinary, pedagogic and didactic knowledge.

Pedagogic beliefs are the cover of teacher experience, they are teachers' tacit or implied conceptions. Prieto (2007) defines it as the teachers' trend that drives them to teach in a very specific way.

The teacher when reflecting about the aspects of his own educational practice has the purpose of altering his daily performance and knowing his alter ego before the mirror of his own conceptions, representations and actions. This means, from constructivism, that the teacher is formed by himself through the process of self-reflection because as far as he unveiled the mysteries of his practice, he makes actions. For this, teacher reflection about his practice drives him to intervention in order to make changes in pedagogic experience and conceptions which can contribute to innovations and transformations on the learning and teaching processes.

Educational intervention based on the reflection about the dimensions of educational practice (teacher improvement and human development) covers a wide field of performance that involves individual, institutional and social spheres where individual, institutional, social, didactic among other aspects converge (Fierro:1995). In this sense, educational practice articulates theory and practice in the set of social, interpersonal, pedagogical and didactic relationships that redefines the teacher in the construction of subjectivity, experience, representations and actions.

The reflection that mediate for educational practice, considering the dimensions and aspects of educational practice, manifest itself in several ways considering the emphasis to a certain educational practice conception and taking into account the reflection time. In this matter a bunch of educational practice reflection typologies exist, Ponce (2002) makes a state of the art models to intervene reflectivity levels. By its importance, the next table is presented:

Chart 1. Reflection typologies

| Author | Kind of reflection |
|--|---|
| Sparks-Langer y Colton (1991) | Cognitive Critical Narrative |
| Brubacher, Case y Reagan (2000) | Technical Practical Critical |
| Carr (1996) Educational practice approach. | Common sense Techno – scientific Practical |
| Krol (1996) Narrative approach | Descriptive Effective Metacognitive Flexible writing |
| Hernández, Fonillosa y Chrysos (1996) Narrative – linguistic approach. | Non descriptive language Theoretical explanation Contextual explanation Ethical, moral and political explanation |
| Perry (1990) | Quick Regular Revisionist Researcher Theorist |
| Prieto (2007) teaching practice approach | Technical Descriptive Dialogic Critical. |

Despite its nuances there are similarities between the authors, the reflection varies in relation to the conception of educational practice and with

base on its duration. The following reflection types prevail: cognitive-descriptive-common sense. This reflection has to do with knowledge and skills necessities to identify performance aspects based on the experience acquired through heritage. Techno-scientific, which refers to the instrumental aspect based on pedagogic, didactic and disciplinary progress. Practical-descriptive, which refers to reflection as part of science applied to practice. Dialogic-writing, which refers to the deliberative exploration of the possible alternatives. Critique, which refers to moral, ethical, social and normative aspects. The times quoted by Perry are applicable to the set of typologies wrote on the table.

This reflection typologies shows the intentionality and deliberative sense of educational intervention, that is to say that educational intervention may have as a purpose reflection own times and scopes. This is accompanied by a methodological process that defines the sense of educational intervention, where this process transforms itself into another kind of reflection.

Educational intervention demands a rigorous methodological process, the constant is the reflection about the construction of the practical-theoretical relationship. In this sense, reflection is all time present with different qualities from what reflected. Reflection qualities are associated with the cognitive process that goes from mere comprehension to theoretical formulation. Considering action-research as an intervention method for educational practice, reflection is very present from comprehension of what observed to theoretical formulation based on experience (Cfr. Punto 7)

EDUCATIONAL INTERVENTION APPROACHES

Intervention approaches are associated to the kind of educational practice intended to modify. It means that there exist as much approaches as educational practice intervention models exist from an emancipation conception. In this plurality a common point exist among the different intervention approaches. Its general purpose is to manifest the need to influence with intentional actions a particular reality. Intervention is an activity realized with awareness of why it is done, what it is done, how it is done and what is expected to achieve by incise the reality intervened. Castañeda defines intervention in an integral way:

“It is a way to look, conceive, understand and explain a particular phenomenon, focusing and emphasizing the look on a partial area of the phenomenon, that is to say that the different approaches implies a partial understanding of the studied object, this partial understanding comes from disciplinary configurations which define and privilege certain aspects, components and relationships as they read reality through particular interests and functions. Approaches includes a comprehensive dimension from which a logic methodology to orientate intervention emerge.” (2004:2)

From this quote several intervention aspects appear:

- A) Theoretical-disciplinary approach that delimits and defines attention to reality.
- B) Methodological process to observe, analyze and explain reality.
- C) Logical action that modifies, transforms or innovate a particular reality.

This three aspects, theory-methodology-action follows the same direction and give sense to intervention. This traits are implicit in the components of intervention:

- A) Subject. Teacher that assumes the construction, direction and results of intervention.
- B) Reality. Situation or occasion that is conceptually demarcated, that is to say that it mediates a reading about reality from where de diagnose emerge.

- C) Project. It is the engine that drives actions, in other words, it refers to the scopes to be achieved in order to overcome the condition of a particular reality.
- D) Participants. It refers to the participant community that brings sense, with its actions, to intervention.
- E) Space. It is the environment in which actions performed by the subject and the participants occurs.
- F) Time. It is the rate at which actions occur.
- G) Mechanisms. It refers to the instrumentation of intervention based on reality prevailing conditions.

The components goes hand to hand with the traits on an educational practice intervention. I.e. a teacher wants to intervene his practice on the classroom because he had observed that he have problems in the way he communicates with his students. He identifies that the way he treat his students is authoritarian, then he proceeds to reflect about his performance and delimits situations, having as a result a situational diagnose of what is happening. With this, the teacher assumes consciously a position of that reality in order to intervene it. He can determine the scopes of intervention, apply a techno-didactic method to assertive communication or he can resignify his understanding and subjectivity about what does it mean to be a teacher. Depending on its scope, the dynamic for intervention will change, it is not the same time for a technical intervention than for a subject redefinition.

In this decision the teacher is not alone, its reality is formed by a specific community that inhabits a particular space and time and that accompanies and is protagonist of the re construction of a reality diagnose with communication problems.

In that example components and features of intervention goes hand to hand, besides that and it's what matters the most, from the intervention goals will depend its scope.

The intervention approach is not something minor, it has to do with the bunch of components and features assumed. The approaches can be classified depending on the emphasis of the practice intended:

- A) Teaching practice intervention approach: Is that oriented to the improvement, change and innovation of teacher's performance.
- B) Directive practice intervention approach: It is oriented to the improvement, change and innovation of directors' practice within the school center.

- C) Scholl project management intervention approach: Is that corresponding to all institution actors that participates on the realization of the project.
- D) Learning management intervention approach: It refers to the actions undertaken by students in collaboration with the teacher in order to secure the resources necessities for learning.
- E) Teaching management intervention approach: It covers the actions taken by the teacher in order to secure the didactic and emotional resources within teacher's performance.
- F) Permanent and continuous formation intervention approach: It refers to the activities aimed to design, application and assessment of teacher's, directors and workers formation.
- G) Intervention approach for the usage of new technologies applied to education: It comprehends the planning, organization, design, application and assessment of the specific project corresponding to the incorporation of new technologies to the scholar center.

Another classification arises from educational practice intervention extent and depth (Carr: 1996):

- A) Technical approach: Essentially attends didactic skills and the disciplinary knowledge the teacher possess. Its concern is instrumental.
- B) Practical approach: Attends the teaching action from deliberation as matter of moral sense. Its concern is ethical.
- C) Critical approach: Attends the reflection around teacher's work considering the socio educational context and placing historically the performance with the purpose of showing how dominant rationality could limit teachers' work. Its concern is emancipation.

Another classification similar to the previous exists but this one is made from the kind of reflection that predominates in the study of educational practice (Prieto, 2007):

- A) Technical reflection approach: Subject and pedagogic skills knowledge.
- B) Descriptive reflection approach: Pedagogic skills, knowledge of interpersonal relationships, teaching-research relationships and personal relationships.
- C) Dialogic reflective approach: Pedagogic skills, interpersonal relationships.

- D) Critical reflective approach: Subject knowledge and pedagogic skills.

Another classification form educational conception:

- A) Humanistic approach: Oriented to the potentialities of human qualities.
- B) Behaviorist approach: Oriented to the development of observable behaviors.
- C) Constructivist approach: Oriented to the creation of meaningful learning.
- D) Competency based approach: Oriented to the development of knowledge, skills and attitudes.

One more approach derives from the disciplinary work contained on the curriculum and study programs:

- A) Social sciences approach.
- B) Natural sciences approach.
- C) Humanities approach.
- D) Technology approach.

This approaches are grouped based on the emphasis, extent and depth on the educational practice intervention, they are not mutually exclusive. In the educational intervention process different approaches interact and complement each other, how to relate the approaches depends on the conception and goals the teacher have around intervention.

Educational intervention here proposed is that of emancipation through the virtuous circle of knowing, signify and transform. Knowing in its present circumstances the formed subject, signify the sense of the formation task, unravel the meanings, representations and implications of the teaching task and re-signify it, that consist in giving the practice new self-conscious meanings; to transform means to build the ethical and philosophical horizon of the formation to emancipation.

EDUCATIONAL PRACTICE REFLECTIVE COMPETENCE

The methodological process of educational practice intervention requires the reflective competence. Domingo defines reflective competence as “a learned activity that requires a methodic, regular, instrumented and effective analysis; the reflective competence is only acquired through hard and voluntary training, the reflective competence is a methodic posture before practice and it requires a methodological attitude and an intentionally form whoever is practicing it” (2009:35)

The reflective competence for educational intervention is a process that covers several moments: educational practice observation, problematic situation identification, diagnosis, foundation, postulation, intervention model design, methodic strategy of application, results assessment and final report.

For the acquisition of the reflective competences for educational intervention it's required to have a bunch of competences that are necessary for the mastery of the educational intervention process in all its phases:

- A) Observe educational practice itself. Observation is considered as a fundamental tool from which educational practice description arises, what demands the realization of different activities: auditory or visual capture with the usage of material and electronic resources: systematization of information through textual registries and with the usage of codes; transcribe situations just as they happened, which requires the application of ethical principles and to realize the importance of observation. For the development of the competence related to observation it is necessary to build the next features of the competence:

Features:

- Learning to observe educational situations in a systematic way.
- Planning the process of observation: What? How? When? Why?
- Develop information recollection tools.
- Make registries and codify information in a systematic way.
- Respect scientific observation ethical codes.
- Overcomes educational practice problems.

- Make use of technological resources in order to realize observation.
- Assess the importance of own educational practice.
- B) Identify educational practice problems. Based on observation registries it is possible to know and assess the way educational practice is done. At first time, by watching ourselves at the mirror, emotions could change and a negation may arise because it is possible that a contradiction between a positive belief about educational practice and reality emerge: the idea that I am the best teacher or the best director could fall before the observed and registered.

The identification of the problem does not represent merely an educational practice cognitive advance, it is also an advance in the psycho affective field that drives us emotionally. The features that accompany this competences are:

- Organize the observation registries in a methodic way.
- Find relevant aspects of the own practice within observation registries.
- Recognize oneself within observation registries.
- Interpret its actions made within teaching and management.
- Avoid self-complacency and assumes a critical – reflective attitude.
- Choose and define an educational practice problem.
- Argue based on observation.
- C) Realize a diagnose of its own educational practice. Identifying the problem is not enough, a testimony about the way the problem is presented must be given. The moment when the situation and condition of educational practice problem is revealed is argued based on experience. This demands to work with different features linked with diagnoses:
 - Determine the diagnose object based on educational practice problem.
 - Select the methodological strategy to diagnose.
 - Use different techniques and instruments for the diagnose.
 - Argue based on educational practice testimony.
 - Make a diagnose report.

- D) Theoretically argue educational practice problem. The theoretical part is a very exciting moment because the own theoretical constructions are displayed to contrast them with conceptual formulations inherited from theory.

The moment of contrast between natural categories and inherited categories is complemented with the possibility of building, from the articulation between both categories, the experience specific conceptual framework that in certain sense is part of the investigation around educational practice originality.

Features:

- Identify different conceptual and methodological approaches related to the educational problem worked.
 - Analyze thesis from several authors related to the worked problem.
 - Synthetize different authors' main contributions.
 - Compare natural categories with other authors' categories.
 - Conceptually argue the problem investigated.
- E) Raises the postulation that guides the intervention model. There are different alternatives to intervene an educational practice problem. Choosing one alternative represents the assumption of an answer to improve, change or transform educational practice.

The importance of the postulation resides in that it is the moment where the intervention model take form, where conceptions, conceptualizations and experiences are gathered together.

Features:

- Conceptually argue the impact pretended with the intervention model.
 - Gather different referents within the intentionality of the intervention model.
 - Identify the expected goals.
- F) Design the educational practice intervention model. The intervention is structured attending a process that goes from planning to assessment. The scope, strategies and impacts pretended are defined.

The intervention model presupposes a rigorous theoretical sustentation and a precise method in order to contrast the results with the intervened problem.

Features:

- Determines the scope and timing for the intervention based on educational practice conceptualization.
- Defines the subject of intervention.
- Identify the intervention model components.
- Theoretically argue the components of the educational practice intervention model.
- Assess the necessary resources for educational intervention.
- G) Establish the methodological strategy for the application of the intervention model. It is necessary to consider, the stage, the situation and contingencies that may arise at the time of application. All this with the purpose of designing the methodological sequence for the instrumentation of the intervention model.

Features:

- Considers the positive conditions for intervention.
- Builds the sequence for the intervention operation.
- Determines mechanisms and guidelines for the subjects involved on the intervention.
- Assess the contingencies of the intervention process.
- H) Follows and adjusts the intervention model as it is applied. The intervention model must consider feedback because the idea is not to control reality but to build subjectivities, for that, we must be aware of the contingencies and directions the model takes.

Features:

- Establishes strategies for the accompaniment of the application model.
- Realizes observations and registries within the implementation process.
- Analyzes each application model with the purpose of adjusting theoretical and methodological aspects of the intervention model.
- Makes a logbook around the adjustments done.
- I) Assess the educational intervention results. This is a significant moment because it is when the contribution of the research and

intervention experience is address. It is also a moment to assess what has been done compared to the past, of verifying the theoretical contributions in relation with inherited theory. In spite that generalization is not pretended, it is possible to make theoretical and methodological contributions around the educational practice intervention model design.

Features:

- Compares educational practice during, before and after the application of the intervention model.
 - Identify the own theoretical and methodological contributions within educational practice.
 - Theorize experience around the intervened problem.
 - Justify the scope and timing of the educational intervention.
 - Assess the changes achieved within the own educational practice from the intervention model applied.
 - Argue its participation within the knowledge state around the educational practice problem intervened.
- J) Write the intervention final report. Finally, the report demands the mastery of certain competences for writing.

Features:

- Write clearly, concisely and accurately the final report.
- Socialize the results within the academic community involved in the process.
- Apply the corresponding rules for a humanistic and scientific work.

Action Research in Educational Reflective Practice

THE RELATIONSHIP BETWEEN PRACTICE AND THEORY IN THE VICIOUS AND VIRTUOUS CIRCLES

It is unpostponable to delve into the relationship between practice and theory within educational reflective practice from the methodological approach of action – research because in this relationship signification and re-signification of the teaching action are built in its different roles within the institution.

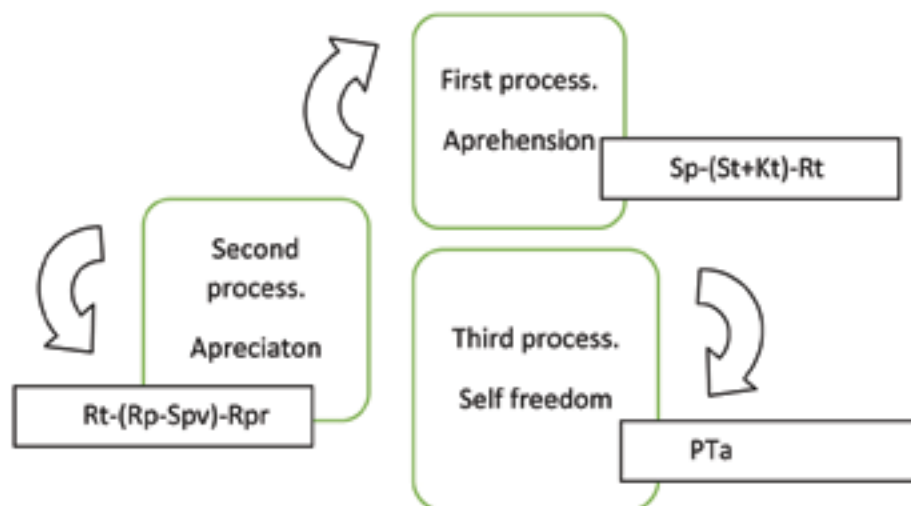
Educational practice supposes a circular movement between theory and practice; practice is not conceived without theoretical sustentation and vice versa. In spite that, theory is not always recognized within practice, the recognition depends on the kind of circular movement that may be vicious or virtuous. The vicious circular movement lacks of re-signification because in educational practice improvisation, tradition, technicality and reproduction aspects prevail. The circular virtuous movement possess re-signification because in educational practice a continuous self-reflection is present.

In both circles qualitative leaps between practice and theory are present, however they are not constructed in the same way: In the vicious circle the qualitative leaps construction is spontaneous, immediate needs push to seek for solutions to contingencies presented without pretending the emancipation to more traditional canons; in matter of the virtuous circle, the qualitative leaps construction is planned and organized, it is constructed through qualitative methodologies, its goal is that of reflective conscious emancipation.

In the generation of virtuous circles the existence of a triple process between practice and theory is identified. The triple process that drives to the articulated re-formulation of the practice – theory relation through a bunch of logic operations and conceptual considerations is to know, assess and emancipate. Each has different purposes: The first process is that of apprehension and meanings construction $Ps-(Ts+Tc)-Tr$ (learn); the second process is that of development and assessment of significations and re-significations $Tr-(Pr-Pvr)-Prv$ (assess); and the third process is that of reassessment, synthesis and contribution Pta (emancipate).

Graphically it's represented like this:

Scheme 1. Theory – practice relationship process



In the illustration, the three process are represented, in each one of them different moments, separated with points and represented with letters are observed. In each process practice and theory are always present, being qualitatively different, this quality is noted with the adjective that practice and theory assume. The name of the acronyms that received the practice – theory relationship figures are the next:

Scheme 2. Theory – practice development figures

| |
|---------------------------------------|
| Sp - Signified practice |
| St - Signified theory |
| Kt - Known theory |
| Rt - Recategorized theory |
| Rp - Resignified practice |
| Spv - Signified practice valorization |

| |
|---|
| Rpr - Resignified practice reevaluation |
| PTa - Self freedom |

The first process is formed by three moments. The first moment is Ps and it's defined as a signified practice. It consists in learning the significance of educational practice within context (everydayness), text (teaching action) and pretext (subjectivity and intentionality). Considering that the dynamics between context, text and pretext is given from objects, subjects and inter-relationships that permeates the teacher.

Signifying educational practice is a process of semiosis because it is about qualities, existence of thinking. This approach is sustained on Pierce theory, particularly with the argument that reality and knowledge are in the same universe. The teaching practice can only be known if the meanings that constitute it are learned. The teacher is an observer of himself, knows the meanings of its actions by unravel its intentionality through driving himself into the subjectivity field.

The second initial process is Ts and it's defined as the signified theory. It consists in categorizing experience, in working through observation registries and with other sources for the identification, reflection and understanding of the conceptual aspects derived from experience.

Experience is caught in its complexity, in the teacher's subjectivity interactions in relation with others (intersubjectivity) and in relation with himself (Intrasubjectivity). It is about to observe educational practice just as it is in order to singularize teacher's practice through interpretation, knowledge as understanding of teacher's educational practice significations.

In the second moment of the initial process we can also find Tc which is defined as the existent theory around teaching practice constructed categories, it is the theoretical dialog input, it is to inquire about how much is known or unknown about own singularity.

In the third moment of the initial process is found Tr, it is the re-categorized or resignified theory. Theory is conceived as a process not as something finished that goes from action to conceptualization and vice versa. It is a comparative continuous between Ts and Tc with the goal of resignify knowledge within reality. This postulation retakes aspects of Anselm Strauss and Glaser Grounded Theory. Patricia Gaytan locate the authors' postulations in the next way:

“For the interactionism field, where Strauss is located, the subjects are keepers and constructors of the social so that it is possible to know social reality from the people who makes it in such a way that its actions are explicable through sense and meanings understanding. This meanings could be explicit and understandable to social actors or it could be accessible to the investigator through discourse and facts analysis. It is possible to objectivize the subjective, that is to say that it is possible to unravel the meanings of practices, beliefs and valuations from the cultural environment in which constitutive situations of the sociological interest arise.” (2008:6)

In the process of objectivizing the subjective, that Gaytan points, resides meanings construction, it mediates the conceptual work between Ts and Tc moments that are similar to what Strauss and Glaser call substantive theory and formal theory. The first one associated to the empiric and the second one to the developed in a particular knowledge field.

Textually both authors says:

“By substantive theory we understand the development of an empiric or substantive sociological research area, just as the care of the patients, race relationships, professional education, delinquency or the investigation towards the organization. By formal theory we understand the development of a formal or conceptual field of sociological research, just as the stigma, formal organization, socialization and of the congruence of the status, authority and power, rewards systems and social mobility. Both kinds of theory may be considered as midrange” (Glaser quoted by Gaytan, 2008:7)

In educational practice theorization the substantive part is placed on intuition and experience and the formal part on specific knowledge fields' reflection. For this reason, signified theory is the printing of new meanings to the ones recognized through self-reflection.

The second process is shaped by three moments. The first one is Tr. Signified theory is objectivized in the design of an educational practice intervention model. It consists in building the solution to the problem – in case a technical conception of educational intervention is assumed – or in working with the unconscious of the educational practice – in case a teaching clinical conception is assumed – which means to raise awareness within the teaching practice, or from self-reflectivity approach which seeks to emancipate the teacher from its own inherited instrumental and ahistorical educational practice. In the three cases, teachers' professionalization to improve and transform development is the goal.

The second moment of the second process is Pr, resignified practice. It is the practice that has been intervened with new meanings. It represents the moment of educational practice punctual revitalization. Technical and subjectivity tracking of all actions is done in order to overcome the problematic and recognize the new meanings.

The third moment of the second process is PVR, it is defined as the assessment of educational practice resignification. As it is an intentional and conscious process, it is evaluated continuously in order to adjust the meanings.

The second process end with Prv and it is defined as the assessment of educational practice resignification.

The third process is Pta, it is defined as the synthesis of theory – practice relationship through the described processes. It represents the input moment, the contribution to the knowledge field from the studied singularity as an intentional and objective educational practice.

Once exposed the content of the theory – practice relationship and located all the different moments the signification and resignification subject goes through, a question arises: How to present action – research work from the way practice and theory is unfold and from the links within this relation? The answer is matter of the next section.

THE INQUIRY PROCESS

A methodological approach, based on intervention to improve, change and transform educational practice in a double subjectivity and pedagogical framework is presented. In this sense, intuition and experience are the starting points to identify educational practice problems, to advance through different levels of reality apprehension in such a way that conceptual elaboration is just an articulation between natural and inherited categories, which make possible to land in an intervention model argued in theoretical discourse and experience in order to apply it and then return to its conceptualization without forgetting any required adjustment.

Educational practice research is a circular process that goes from practice to theory and vice versa. Its purpose is to intervene the teaching action in order to professionalize it through improvement, change and transformation. This process begins with the observation registries and advances to the assessment of the applied intervention model, it is methodologically sustained on action research in order to understand and intentionally intervene knowledge, signification and educational practice resignification.

Several action research proposals exist, in spite of its differences all of them agree with the idea that it is cyclic. The cycle begins with planning, it goes through action, observation and reflection. With reflection a cycle ends but another with the same phases but different interpretations begins (Blandez: 200); Carr: 1996; Carr y Kemmis: 1998; Gimeno y Pérez: 1992; Goetz y Le Compte: 1998; Goyette y Lessard: 1998; Kemmis y McTaggart: 1998; Elliot: 1990 y 2005; Latorre: 2005; Lewin: 1946; Marduchowicz: 2001; Stenhouse: 1991; Woods: 1987 y 1998)

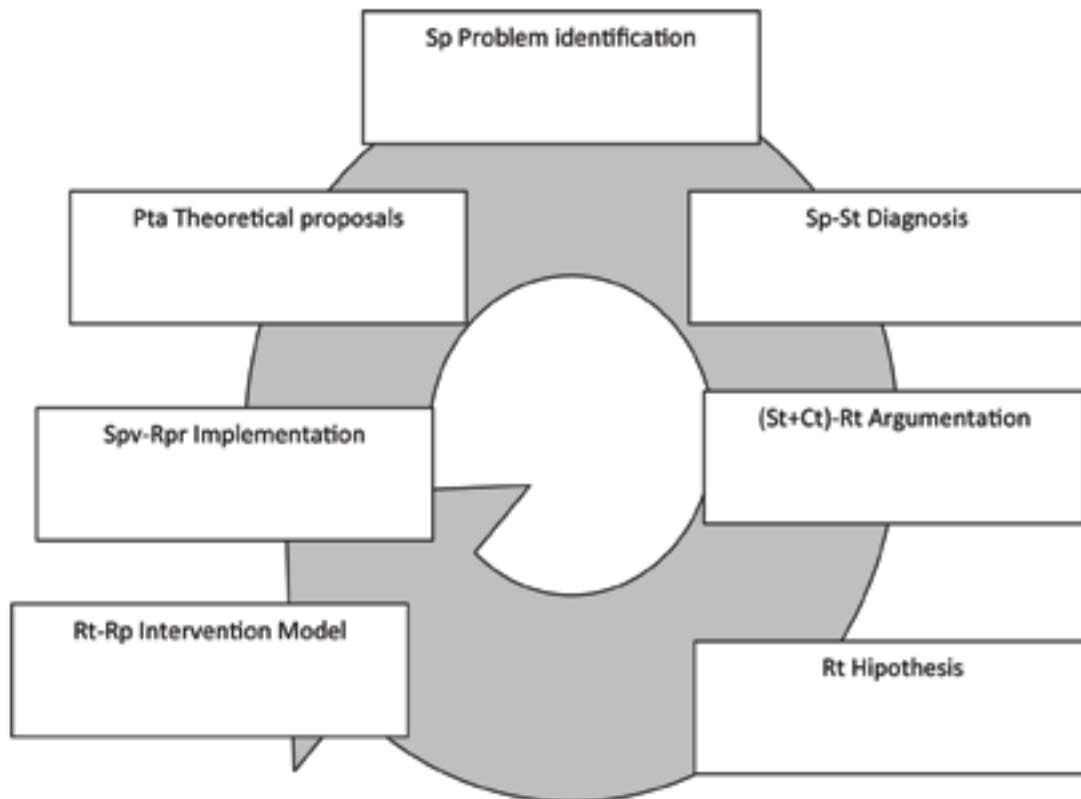
The ensemble of qualitative leaps between practice and theory previously described through the circular methodological process of action research. The action research cycle proposed contemplates 6 phases:

- A) Problem identification.
- B) Diagnose.
- C) Course of action.
- D) Intervention model.

- E) Implementation, contingencies and adjustments.
- F) Theorization.

When arriving theorization the cycle restarts. Graphically, the assembly of both aspects is the next one:

Scheme 3. Methodological process



What is fundamental about the cycle is the recognition of the intersubjectivity within teachers' pedagogical relation intentionalities and that it is possible to mobilize those intentionalities with theoretical accompaniment from the construction and articulation of categories derived from action and inherited categories derived from literature related to the studied problem (Bertely: 2004; Croll: 1998; Choynowski: 1997; Fierro et.al: 1989 and 1999; Porlán y Martín: 1992; Postic y de Ketele: 1992)

This knowledge construction logic implies a different planning to which usually practiced in a research process. The usual, without wanting to start an epistemic controversy is to separate the project from the research development, two different and linked moments appear: the first one,

conception, delimitation, problem selection, theoretical treatment and methodology. The second process is related with the construction of the explanation and all it represents.

In the action research method, project and development are part of a unit. What exists is an action plan where the idea of the project as a cycle of the research development is included. This represents a double split conformed by research-action-research. The first split is that of the research – action way, an investigation that starts with observation and registration and lands into a planned action based on a conceptualized intervention model theoretically and empirically argued; the second split is that of the action – research way, both aspects are qualitatively different from the first ones, in this case the action is the application of the intervention model and the investigation is the theorization of the practice, it is the conceptual and methodological contribution.

The idea of action plan supposes to assume an epistemic self-conscious of participative action, to rethink teaching not as an action but as a emancipation process from traditional educational practices placed on the instrumental or pragmatic field.

The teaching practice represents an act of self-conscious from the teacher in respect with its educational labor, it is to think in order to intervene and contribute to the transformation of the teaching knowledge, in matter of educational philosophy, the educational responsibility derived from ethics, the pedagogical relationship, didactic development, the knowledge about academic disciplines, the usage of new technologies applied to education and the assessment of the everyday school.

In order to achieve that emancipatory goal, the action-research method that includes the qualitative leaps of the theory – practice relationship is proposed. The phases of the inquiry process are: Problem identification, diagnose, course of action, intervention model, implementation, contingencies, adjustments and theorization. In the bunch of this phases, the reflective competence from where analysis and intervention is made is very present.

PROBLEM IDENTIFICATION

The research method begins with the perception about own educational practice, it is an initial approach to knowledge through registries. It begins with observation, which permits to know educational practice daily quality. This self-knowledge principle feeds itself with the obtainment, production and reflection of the information emerged from experience and observation registries.

Through the registries and experience we can see our own teaching action and understand the pedagogical obstacles that limit us to the improvement, change or transformation of the practice. Therefore, we are in conditions to identify the problem.

The problem identification is presented as the starting point of educational practice self-knowledge, it refers to the subject as teacher and the intentionality beneath the action. For its realization, we start with a narration around experience and with a general lecture around the obtained information.

In the narration, references from educational practice are shown and described, the problem constituent elements are identified and it ends with an inclusive question that recover the need of resignify the obstacle found within educational practice. A couple of examples, one of the teaching practice and other from directors' practice.

Teaching practice example, the narration around the problem identification once the transcription and analysis of the registries has been made will be like this:

I realized that my classes are usually repetitive in the kind of strategies that I use to evaluate. I constantly resort to the development of individual exercises or work per team, regardless of the topic. In recent observation records and class diaries, this practice is clearly identified.

It is noteworthy that for both, exercises and works, I do not consider specific criteria for evaluation, I rely solely on the results and this has generated dissatisfaction among students because they feel they are not evaluated fairly. My attitude, as I perceive it now has remained inflexible.

The only assessment I have been applying has been summative and even when I thought I was evaluating in a continuous way, actually I was once

again evaluating in a summative manner. As proof I quote what described in an observation registry:

“Professor: If you analyze the documentary work around abortion and delivered it in the established date, you will get 10 points as global rate. The work must include all documental research elements”

I observe that I did not explained or detailed the value of each element the work must include. I perceive that the lack of specific criteria difficult my understanding of the students achievements. What I’m evaluating is a product, not a process, I’m not attending the formation needs.

What is the reason for which I only practice a single assessment strategy without thinking in diversity or the contents goal and why my lack of consideration to stablish clear and precise criteria according to learning intentionalities and my disposition to teaching?

As it can be appreciated, we found through the narrative a description around a teaching practice. Information around assessment is presented and the problem constituent elements identified through the inclusive question. The elements are assessment, diversity, criteria, intentionalities and disposition to teaching strategies. The problem cannot be identified without précising the elements that signify it: in other words, the assessment strategy problematic can only be identify if the intentionalities are understood. We found in this a circularity between the problem and its constituent elements: they are self-referential and mutually constructed.

A directive practice example:

From observations made around several meetings and based on interviews made to professors, I realize that my way of working discourages the community from participate in the proposed activities.

I register that discourage comes from my authoritarian way of assigning tasks, I did not take into account the opinions made and I even censor them. I maintain a leadership based on authority, which is reverted in the realization of school center project goals.

By example: in 2nd July meeting I presented a proposal in order to make the academic performance diagnosis of the last three generations. This encourages the enthusiasm arising several questions, however, when I clarified that the model and methodology were already preset, the questions reduced and the interested in participate were minimal.

Before that situation, in the interview made to one of the professors, he said that they were unmotivated because I limited the proposals. In other occasion, I called to the realization of a teaching formation program whe-

re I only talked about the formal elements of the program. The assistance were very poor. In other interview, the comment was that the formation needs and opinions from the students were not considered.

Whit this bunch of observations I ask myself: what competences do I need to develop in order to promote a leadership that legitimates everyone work and to achieve the school project goals?

In this example, we can observe leadership, motivation, atmosphere and school project goals as constituent elements.

For the writing of the narrative it must be first considered the problem identification methodological process, which requires to reflect and interpret arduously. Several operations are made step by step: it starts with the transcription and moves to the relevant aspects identification, those aspects are interpreted and the constituent elements unravel, the inclusive question is asked and finally we land on the teaching or directing practice problem.

With the purpose of representing the problem identification process it is recommended to consider the moments illustrated on the next frame:

Chart 2. Problem identification

| Transcription | Relevant aspects | Significant interpretation | Constituent elements | Inclusive question |
|---------------------|---|-----------------------------------|-----------------------------------|---|
| Textual description | Relevant aspects identification: relationship between what registered and discovered. | Relevant aspects meaning unravel. | Significant chain identification. | Question articulated with constituent elements. |

This proposal contrasts with those present on specialized literature. Commonly, from transcription it goes directly to interpretation and then natural categorization. (Bertely, 2004; García y Dueñas, 2006)

In order to understand the problem it is necessary to understand its elements and in order to know those elements it is necessary that the narrative moves from the apparent to the intentionalities that contain significations.

Once done the previous travel we are able to build the narrative. This represents going back to the previous phases but with a qualitatively different purpose. The narrative is sustained by textual references extracted from transcription, the constituent elements are argued based on significant data and interpretation. The task of signify the teaching practice is not up to the problem as a whole but to its constituent elements.

The identification problem narrative follows a dialectic way: first, the story is broken into parts and then the global interpretation that reveal the problem as a chain of constituent elements is constructed. The problem is closed with an inclusive question that articulates its own elements.

On identification problem practical work, the didactic I recommend is to work by columns the quoted points. Working in pair of columns, start with columns 1 and 2, then 2 and 3 and so on.

First pair of columns:

| Transcription | Relevant aspects |
|---------------|------------------|
| | |

The first column is for the transcription of the registries or other sources of information, the second one is for the relevant aspects, this aspects has to be with the competences intended to improve. Let's remember the previous examples, particularly the teaching practice one.

In that example the relevant aspects related to the way of assessment were:

- Repetitive classes in regard to the assessment strategies.
- Lack of assessment specific criteria.
- Students' inconformity.

Second pair of columns:

| Relevant aspects | Significant interpretation |
|------------------|----------------------------|
| | |

Once done the previous it is time for the second and third column where significant interpretation is worked. Based on the teaching practice example, the interpretation is:

I observe that I did not explained or detailed the value of each element the work must include. I perceive that the lack of specific criteria difficult my understanding of the students achievements. What I'm evaluating is a product, not a process, I'm not attending the formation needs.

Third pair of columns:

| Significant interpretation | Constituent elements |
|----------------------------|----------------------|
| | |

Based on interpretation, columns 3 and 4 are worked. In the third column the interpretation made is wrote and on the fourth column the constituent elements identification is done. Following the example, the

problem constituent elements are: weakness around planning for assessment and lack of assessment strategies.

Last pair of columns:

| Constituent elements | Inclusive question |
|----------------------|--------------------|
| | |

Finally, the problem constituent elements are wrote on the fourth column and the inclusive question on the fifth. Following the example, the question is:

What is the reason for which I only practice a single assessment strategy without thinking in diversity or the contents goal and why my lack of consideration to stablish clear and precise criteria according to learning intentionalities and my disposition to teaching?

Once done the job for each one of the columns we proceed to the writing of the problem identification. What done in each column is taken up and in order to show evidence of what described it is recommended to extract textual pieces of the transcription made on observation registries.

In resume, in order to identify the problem it is crucial to consider the next actions:

- A) Reflect around my teaching experience.
- B) Make observation registries.
- C) Sustain based on testimonies derived from perception, intuition and information.
- D) Work by pieces the experience narrative.
- E) Build the global narrative.
- F) Close the narrative with an inclusive question.

DIAGNOSIS

Once identified the problem we are capable of presenting its manifestation through the diagnosis. The diagnosis is defined as the recognition of what is significant within educational practice. We work around the constituent elements through the registries, where the subject emerge as a meaning, then we pass to a self-referential field between teacher – spectator, teacher – actor and teacher – maker. The actor, spectator and maker is the subject of educational practice: he registers, act within the registry and makes the registry itself.

With the diagnosis, the signified practice is deepened. Through self-reflection, the scope of the problem and its elements is dimensioned and the subject expression is treated through its actions and representations. Through diagnosis we wonder about how a situation occurs or when does it happened certain relation? The questions allow to make evident the educational practice meanings that will be treated during the action-research process.

As a strategy for the realization of the diagnosis, it is suggested a similar logic to that of the problem identification, start with the parts and then arrive to the global discourse.

The phases of diagnosis methodological process are:

Chart 3. Diagnosis

| Problem constituent elements | Significant interpretation foundation | Relevant aspects testimony | Articulation between arguments and testimonies. |
|---------------------------------|--|---------------------------------------|---|
| Each of the identified elements | Coherent and consistent significations understanding | Information registries textual brands | Discourse interpretative axis |

Unlike the problem identification here we are not working column by column because it is proposed to work with the components of each constituent element. These elements are three:

- A) Foundation: Argumentation around the meaning of each one of the identified problem elements.

- B) Testimony: It refers to the textual footprints (generally understood as evidence by other research methods) extracted from the records.
- C) Articulation: Relation between foundation and testimony.

Continuing with the teaching practice example. Let's remember that weakness around the planning for the assessment, the lack of assessment strategies and undiversified assessment strategies were identified as the problem constituent elements, for that reason the meaning that I give to them must be treated in the diagnosis. The meanings must be extracted from observation registries and the construction of the narrative implies to consider the articulation between meanings and testimonies.

Makin a little exercise with the problem first constituent element: weakness around planning for the assessment, I realize that the learning goals are not aligned with the assessment strategy, which discourage the students from participating in the scholar tasks.

Once made the signification, I locate in my practice passages that sustain this signification, supposing, I found that in 2010 30th of august I wrote:

Professor: If you analyze the documentary work around abortion and delivered it in the established date, you will get 10 points as global rate. The work must include all documental research elements"

Student 1: Professor, what are you going to evaluate us of what we have worked with that?

Professor: Don't worry about that, just get the job done.

Student 2: What happen if we do not? Because we don't understand the reason for that work.

This brings evidence about the mentioned signification, the goal of the assessment in relation with the learning goals is not clarified and from the identified testimony we proceed to the writing of the diagnosis,

Once done the phases analysis process we proceed to the reconstruction of the whole. This diagnosis proposal contrasts with those of specialized literature. Its contribution relies in the way of understanding the significance of educational practice.

Resuming, the diagnosis is a moment of reflection and understanding that has as goal to argue, articulate and bring testimony around the construction of the educational practice conscious characterization. For its writing and development it is recommended to take into account the next aspects:

- A) Set off and retake what realized on the problem identification.
- B) Analyze the observation registries.
- C) Argue based on testimonies.
- D) Orient through questions like what, how or when.
- E) Don't make positive or negative judgments.
- F) Avoid interpreting based on theoretical categories.
- G) Build discourse interpretive axes.

THE PROBLEM THEORETICAL FOUNDATION

The problem theoretical foundation consists in working with natural categories and specialized literature related to the educational practice problem. In this phase, the sense of the Strauss and Glasser grounded theory is retaken. The purpose of this authors is to build theory from papers obtained within natural contexts, we add, as other authors do, the need to contrast those papers with existent theory, in this a critical horizon for the theoretical foundation of the educational practice theory mediates.

On the natural context is located the seed for theorization and on inherited or existent theory we found or not the reference to other ways of conceptualization made around the problem we are working with. This means a deep work. It is a process that contains several actions: location of natural categories within the problem identification and diagnosis, the search for references within inherited theory, conceptual understanding around others authors contributions and the articulation between natural and inherited categories.

The task of identify natural categories could be a chaos because of the scope and depth of the aspects we are interested in. In order to overcome this problem it is recommended to retake the inclusive question as a stage for the determination of the orienting axis of the theoretical search determination. This will facilitate the task because the inclusive question contains two fundamental aspects for theorization: the constituent elements and its articulation. Both aspects determine the interpretive sense of the theoretical construction and for that the others authors reference determination.

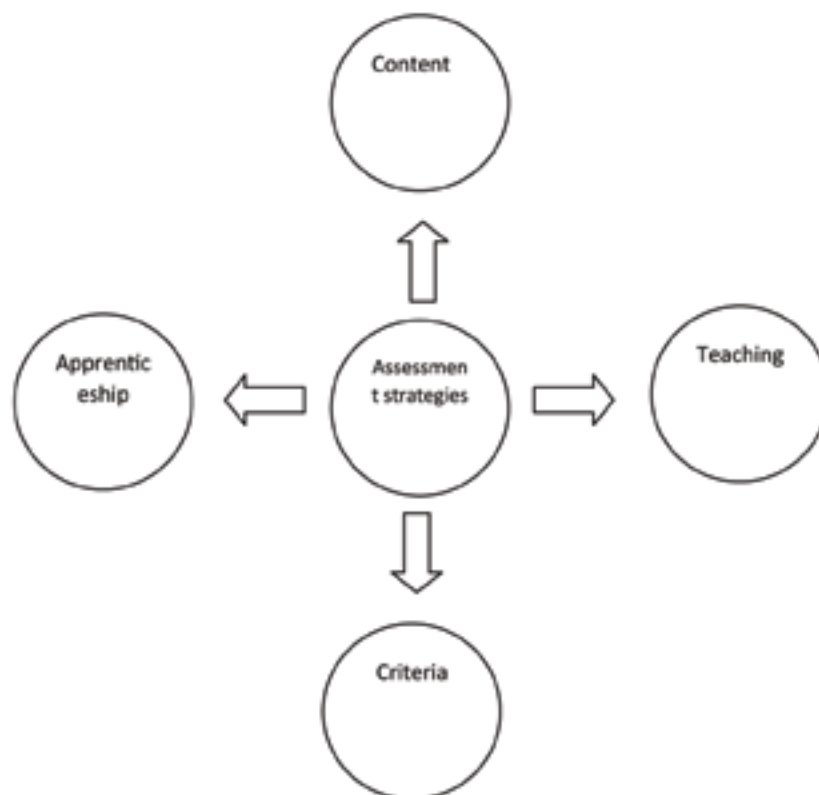
Let's remember the example established on the problem identification around the inclusive question:

What is the reason for which I only practice a single assessment strategy without thinking in diversity or the contents goal and why my lack of consideration to establish clear and precise criteria according to learning intentionalities and my disposition to teaching?

From the underlined constituent elements we established an inclusion relation between them with the purpose of articulate them in such a way that

the assessment strategies are associated to the teaching disposition that pretends learning intentionalities from diversity and content goals from which the criteria for the assessment is derived. Graphically, that inclusion relation is represented like this:

Scheme 4. The assessment



Once determined the inclusion axis, it is time for the search of theoretical references. In order to avoid confusion it is recommended to make a question that helps to select the bibliography: What approaches or authors worked with the assessment strategies considering the learning intended to achieve from the usage of several resources, assuming the diversity of expectations and establishing clear and precise assessment criteria?

Later it is necessary to work with the critical framework, for that it is suggested to work with the conceptual aspects by phases:

Chart 5. Categories

Natural categories

| Thesis | Arguments | Sequence | Conclusion |
|--|---------------------------------|--|--|
| Central idea on which reflection is placed | Reasons that sustain the thesis | Arguments and counter arguments relation | Unification of ideas around the thesis |

Theoretical categories

| Thesis | Arguments | Sequence | Conclusion |
|--|---------------------------------|--|--|
| Central idea on which reflection is placed | Reasons that sustain the thesis | Arguments and counter arguments relation | Unification of ideas around the thesis |

The same structure is considered for both kind of categories. The main postulation is located within each author or proposal. Around the main postulation are located the elements that sustain it, whether they are empiric or conceptual references the arguments could be with or against the main postulation. In both cases it is necessary to register everything and finally it is important to board the author conclusions, it could be with a new formulation or just with another way to present the facts.

Once the natural and inherited categories analysis and the synthesis is done it is time for the construction of the narrative. The result is the construction of the resignified theory with which the missing phases of the action research will be worked.

For its development it is important to consider:

- All actions taken so far.
- Analyze every natural category for itself and in relation with the others.
- Analyze what is significant of each natural category.
- Analyze every theoretical category for itself and in relation with the others.
- Compare arguments and conclusions between natural and theoretical categories.
- Build the resignified theory narrative.

COURSE OF ACTION

With the resignified theory we pass to what Latorre call the solution approach. This is a very important moment because here is present the pedagogical obstacle rupture.

The course of action is linked to the intervention model, it is conceived, following Elliot, as a statement that questions and establish an intentional action. This intentional action must be based on resignified theory. Following the teaching practice example and considering Elliot, the postulation is:

While my disposition to teach is not committed with the assessment strategies design and my teaching continue with isolated and disarticulated assessments, the students will not be encouraged, their performance will be low and my own will not contribute to the improvement of teaching. For that it is necessary to intervene my teaching practice by constructing a teaching model that considers congruence between contents, activities and assessment.

The intervention model I propose is sustained on Bloom and Biggs contributions. Both authors says that in order to train good students it is necessary to consider congruence since objective planning to the assessment strategies. From Bloom I recover its objectives taxonomy linked to the assessment strategies and from Biggs I recover its aligned teaching model.

In order to intervene my practice I consider an aligned teaching process that will start with the contents taxonomy design in order to determine the kind of knowledge we will work with. Linked with this kind of knowledge a didactic sequence and a teaching strategy will be established. Tasks aimed to encourage students and assessment strategies that contemplate criteria in function of contents and tasks will be designed.

It is important not to forget that the postulation is linked to the problem identification, the diagnosis and the theoretical foundation. For the course of action construction it is recommended to:

- A) Reflectively consider previous sections, mainly the diagnosis and theoretical foundation.
- B) Globally think the problem and reflect around the course of action we will take in order to overcome the didactic obstacle.
- C) The intentional action must be established as a question.

INTERVENTION MODEL

The intervention model must be dynamic and open, through it the teaching practice resignification must be concretized. Within it, the teacher as subject mobilize its certainties and significations. Intersubjectivity here plays an important role in matter of subjectivity deconstruction, this allow us to mobilize the practice statement with intersubjective work.

The intervention model supposes planning and technically controlled improvisation which permits the construction of a new signification chain by signifying the practice performance: the teacher exists in relation to its intervention model.

We are in a moment for design, for giving shape to the course of action based on the study program and inherited theory knowledge. For this, it is required a theoretical and a processual definition activity: what? (It refers to the theoretical conception of the action) and how? (It refers to the action intentionality)

Going back to the teaching practice example:

Here, by asking what we are referring to theoretically assemble, based on an aligned teaching model, the assessment strategies considering the existence of three kinds (Diagnostic, normative and summative) where each one has different purposes sustained on learning theories; I will design based on the theoretical assemble a bunch of each kind strategies, pointing the corresponding criteria.

With the how question, objectives, actions, goals and times are established. For this case it could be: First I apply strategy "a" with content "b" in order to assess the correspondence between the assessment and the learning process required for that assessment, then I would apply strategy "c" with criteria weighing "z" in order to assess the correspondence between activities and weighing and so on.

The educational practice intervention model could be integrated by different elements according to the course of action. Some are suggested here:

- A) General considerations: Data related to the intervention space: apprenticeship unit, formative phase, characteristics, etc.

- B) Contextual aspects: Subjects characterization: Students, teacher and relations between them.
- C) Intervention model theoretical conception: What is theoretically intended to achieve.
- D) Actions that accompanies the theoretical conception: Intentionalities to be developed.
- E) Objectives: Intervention purpose.
- F) Necessaire resources: Physical, didactic or pedagogic.
- G) Teaching model: The kind of approach that is going to be implemented.
- H) Methodology and strategies: Ways of boarding the resignification.
- I) Activities: Implementation of actions from the students and the teacher.
- J) Continuous assessment: Way of knowing if the intervention is fulfilling its purpose.
- K) General observations: Possible obstacles and problems.

IMPLEMENTATION, CONTINGENCIES AND ADJUSTMENTS

This phase represents a complex work because intervention is simultaneously implemented along with the continuous assessment in order to attend the contingencies. On the one hand, planning and each intervention model element process is considered and on the other hand it implies a self-reflective, analysis, resignification and reconceptualization work.

The assessment phase is the most difficult one, it is a feedback work that implies to constantly go back to previous phases. It is necessary to return to the registries, the problem identification and the diagnosis. Now, in a valorization way new postulations are proposed.

The return moments are similar to the first ones but qualitatively different:

- Problem identification.

Through the registries and other sources obtained since implementation, the significant elements, interpretation, constituent elements and the way of answering the inclusive question are assessed. Once again, the elements are treated separately to then jointly construct the approach. The elements are grouped this way:

Chart 6. Problem identification assessment

| Transcription | Relevant aspects | Significant interpretation | Constituent elements | Inclusive question |
|---------------------|---|----------------------------|----------------------|--------------------|
| Textual description | Assessment around the significance and the way signification is done. | | | |

Now is all about of identifying the resignification within educational practice, the way of overcoming the pedagogical obstacles.

- Reassessment as a way of diagnosis.

Intervention is diagnosed through the revalorization of the postulations and testimonies and the articulation between them. The final objective is the next one:

Chart 7. Diagnosis revalorization

| | | | |
|----------------------|---|----------------------------|---|
| Constituent elements | Significant interpretation foundation | Relevant aspects testimony | Articulation between foundations and testimonies. |
| Problems elements | Significations, testimonies and discourse interpretative axis assessment. | | |

This is the time to share testimonies of the improvement, change or innovation achieved. It is also the time to adjust the intervention model before de contingencies.

- Conceptual foundations.

Frontiers between normal science (Theoretical categories established within specialized literature) and natural categories are delimited in order to size the contributions from strong thesis, arguments, sequences and conclusions.

This is represented in the next table:

Chart 8. Categories revalorization

Natural categories

| | | | |
|--|-----------|----------|------------|
| Thesis | Arguments | Sequence | Conclusion |
| Central idea, arguments, counter arguments, sequences and conclusions assessment | | | |

Theoretical categories

| | | | |
|--|-----------|----------|------------|
| Thesis | Arguments | Sequence | Conclusion |
| Central idea, arguments, counter arguments, sequences and conclusions assessment | | | |

It is the moment to present the theoretical contributions derived from the intervention model.

- Postulation.

It is conceived as an axis that problematizes the action and that has as a result possible postulations around other significations or a reference point to the possible solution.

- Intervention model.

It refers to the adjustments realized from every aspect worked previously within the assessment process in order to contribute with a specific model for the problematic treated.

THEORIZATION

Finally, based on everything realized from the application of the intervention model to the contingencies and the adjustments made, we proceed to work in detail with the theoretical contributions.

The contributed theorization is the synthesis between practice and theory, it includes the cleavage forms of both aspects during the action-research process.

In the teaching practice example we have been working with, the theorization will be made around the next aspects:

- Design contributions, assessment and implementation of the aligned teaching model.
- Contributions around the ways of assessment.
- Design contributions around the implementation of assessment strategies.
- Design contributions around learning tasks.
- Contributions around the motivation of the students from the assessment contents and tasks.
- Design contributions around the implementation of criteria for the assessment.
- Contributions for the emancipation from a traditional teaching.

Final reflection

A close connection between practice and theory exists along the different phases of the action-research process. At the beginning, three processes of this connection were treated with its moments: First apprehension and construction process Sp-(St+Ct)-Rt; second development and assessment process (assessment) Rt-(Rp-Rpv)-Rpr and third, revalorization, synthesis and contributions process PTa.

The first process is that related to the problem identification (Sp), diagnosis (Sp-St) and foundation (St-Ct)-Tr phases; the second one is integrated by the course of action (Rt), the intervention model (Rt-Rp) and the implementation (Rpv-Rpr); and the last one is integrated by the theorization and the contributions (PTa)

In this connection between the practice – theory relationship processes and the action-research phases, signification is known and educational practice actions resignification constructed.

Communication exists between action and research that could be read from Pierce contributions. We agree with Elizondo (2006:41) by pointing that in Pierce work we can read a signification theory that could be assumed as a knowledge theory, as a concepts and symbols inquiry logic. In this sense, Elizondo says that Pierce pragmatism could be considered as a method to unravel the meanings. This could be read directly from Pierce:

“I understand pragmatism, says Pierce, as a method to unravel the meanings, not all the ideas but only those that I call “intellectual concepts” (...) This intellectual concepts are the only sign-burdens that are denominated as “concepts”. Essentially, they carry with them some implication related to the general behavior of a conscious being or an object and it refers to the possibility that such conduct could exist under certain circumstances. But pragmatism sustain that the total meaning of an intellectual concept statement is located in the affirmation that, under every imagined circumstances, the subject of the predicate will behave in a general manner” (Pierce quoted by Elizondo, 2006, p.106)

The meanings of intellectual concepts are implicated in the behavior of a conscious or unconscious being, what implies that the conduct will be

realized under certain circumstances and it will be recognized through the inquiry of its meanings. In this we found an anthropological answer of what man is. To Pierce, man is a sign and that sign is conceived as a communication mechanism that transmits certain meaning to the inquirer. Man, defined as a sign could be known by the interpretation of its actions or as Barrena and Nubiola says, man is an historical subject with all it represents, where its future is a map of open signs for its interpretation. Literally, this authors says:

“The subject is a bunch of possible relations that are updated in time and that require for its expression from an organism with a temporal existence. The sign-subject is an historical and incarnate being, culturally determined. This characteristics from the human being, its aperture, temporality, incompleteness and continuity enables man to growth. The man as a sign is immerse into a universal and infinite semiotic process by which that sign is giving to others. Signs growth, they need of something previous and are open to the future” (Barrena y Nubiola, 2006:4)

This subject conception is retaken by the possibility of finding its characteristics within educational practice. The teacher is an acting subject that manifest himself through conducts, behaviors and relations. For this reason, through that connection between practice and theory meanings and its resignifications could be known in an open process to the future. Action-research is not finished with the achievement of an improvement, change or transformations, it is a semiotic and universal continuous of actions and intentionalities.

The teacher in its task of inquiry about himself is a dynamical subject in permanent search of the significations that precede him. This idea is similar to that expressed by Ibañez: “Only an investigator as a subject in process can pursue a truth that always escape from him” (1985:269)

The teacher as investigator of its own practice is a subject in construction. In this construction the subject defines itself in relation to its significant and the significant is what represents one subject to another: the significant give birth to the subject of its signification (Lacan: 2007). Miller (2006), says that the subject is an effect of the significant which means that the significant speaks about him before he speaks.

Educational practice subject represents a product of the significant that before him represents another significant. In this relies the importance of the study of educational practice through action-research: the construction of the subject from its significant and its relation with the other as another significant.

Educational practice professionalization is a resignification process whose purpose is to emancipate the teacher from its traditional chains.

To professionalize the teacher means to assume an unfinished and compromised conscience with the educational philosophy of a critical educational theory that sustain the practice-theory relationship.

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Scientific and humanistic spirit, Rene Pedroza pen writes: "The world changes and opens like a flower in light of new forms of learning and knowledge. The legacy of cognitive thinking as the only way of explanation of human events is part of the annals of dogmatic spirit (...), cognition is not everything, it is accompanied by affection, feelings and emotions; the teacher is a human being who has a profession that gives knowledge and love...".

Rene Pedroza Flores is an outstanding scientist, born in Mexico City in 1961. A student of social life and specialist of the human mind, has dedicated his research work in the field of education, sociology and psychology. This product, his books include *Brief Therapy Mindfulness. The Educational Change*, published in three languages: Spanish, English and French in 2015. He has also published *Education for Educational Practice of the XXI Century* (2014); *A Method for the Educational, Emotional and Creative Practice* (2014); *Education and University from Complexity Globalization* (2009); *Departmental Academic Model in Institutions of Higher Education* (2002); *Flexibility and Professional Skills in the Latin American Universities* (2006) and *Society and Science. A Distant Relationship. Artificial Satellites Projects in Mexico* (2004).

Other books written by Dr. Pedroza highlighting its scientific work in the field of humanities and social sciences are *Career and Professionalism in Industrial Design* (2015); *Think Better Practice to Practice: an Experience of Teacher Training in Higher Level Middle UAEM* (2014); *University Social Responsibility* (2011); *Compensation for Higher Education in 10 countries in Latin America policies* (2010); *Flexibility and University Organization* (2008); *Academic and Curricular Flexibility in the Institutions of Higher Education* (2005); *The Complexity of the Social Sciences in the Information Society and the Knowledge Economy: Objetual Reversal and Informational Development in Latin America* (2005).

Rene Pedroza is doctor of Social Science and Master of Mental Health and Social Clinic; member of the Mexican Academy of Sciences and distinguished scientist with Level II of the National System of Researchers in Mexico. As a specialist in mental and social health science concerned with the individual possesses the International Certificate in Clinical Hypnosis by the Milton Erickson Foundation of Arizona, USA; Also the International Certification Brief Strategic Therapy Clinical Hypnosis Center for Arezzo, Italy. It is certified in Brief Family Therapy and Collaborative Brief Therapy and Ericksonian Hypnosis by the Milton Erickson Institute of the Mexico City and the Autonomous National University of Mexico. In the area of psychology in the field of Strategic Brief Therapy and Ericksonian clinical hypnosis, Dr. Rene Pedroza has been trained by leading psychologists and mental health specialists among them Jeffrey Zeig, Giorgio Nardone, Matthew Selekman, Rubin Battino, Jorge Abia and Rafael Núñez.

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