DIDACTICS IN THE POSTMODERN CONDITION. FROM COMPETENCIES TO COOPERATION

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ABSTRACT

This article aims, in the first place, at establishing whether it is still valid to use the title "competencies" for ICT (Information and Communication Technology) as an assessment of its value. Should "competence" instead be replaced by the word "cooperation". The second aim of our article is to explain what the change from "competencies" to "cooperation" consists of. However, this implies that one accepts pedagogy not as a science, but as a discipline lacking proved theoretical background. Because its practice is based on didactics which connect daily life and the world of the school. Thus, didactics exists in learning environments where ICT has an integral role, which allows for general formation as well as mere competence. The final part of our article consists in explaining the results which would follow our findings.

Key words: formation, didactics, education ideology, learning environments, information and communication technologies.

The objective of our discussions

Recently Caballero, Prada, Vera and Ramírez, 2007, published a work called *"Politics and pedagogical practices of ICT in education."* Perhaps the moment has arrived to adapt the title, since for a decade and more, we have been hearing an insistence on competence, whereas we should change our expression into cooperation[2].

In reference book we find a brief reconstruction, not only of the concept of competence, but also more than a hint that ideas have evolved on what teachers could consider in the context of how they use ICT (Information and communication Technology). They suggest three elements of competence: basic, intermediate and advanced: ranging from basic knowledge of configuration and functioning of a computer and what IT can do, and the different kinds of licensing and use

[1] This article was originally a synthesis prepared by Sonia Cristina Sarmiento Gamboa to the Seminar for Education, Training, Pedagogy and Didactics, directed by Carlos Eduardo Vasco Uribe, within the inter-institutional Doctorate in Education, of the Universidad Pedagógica Nacional (Colombia) in the first half of 2007. Vargas and Gamboa discussed it and as a result we have the current version. Currently it is part of the book: Vargas Guillén, Germán; Gamboa Sarmiento, Sonia Cristina; Reeder, Harry P. *La humanización como formación*. Bogotá, San Pablo, 2010, 2da. Ed.; pp. 125-138. We thank the authors for their permission to this publication.

[2] The discussion that follows takes up a discussion about it with Guillermo Hoyos Vasquez, Ph.D. under the inter-institutional Education Doctorate, at the Universidad Pedagógica Nacional, Bogota, July 24, 2007.

of information permitted; the second level is: advanced techniques of what applications of a general nature can be performed in teaching situations and functions in which computers are legally allowed and how to use them; the third level relates to use of advanced technological sources, which could be quite a challenge in different areas of subjects of study and including one's rights according to the laws covering an author's rights.

We have no intention now of outlining the book, but we shall point out that the ICT competences we reduce them exclusively at computers, their applications and educational developments. It is quite some time since social representations of technologies be allowed only via mediation with inventors, such as seen in the social imaginary about *When destiny catches us up, 2001, Space Odyssey, the Matrix or Artificial intelligence*, which is well known. The structures of those technologies, at these examples, were not only shown to exist but that they affect the lives of everything living on our planet.

TV affects the young not only in their time-table in fact their biological cycle, but also their language and consequently their conduct. It is no exaggeration to say that TV effects the educational process, and not only that, but there is a certain aesthetic influence, which presents a challenge in teaching how to use TV. But there are two influences: one, like learning how to interpret and criticize messages, and the other, how to compose messages.

Gradually radio has been considered no pedagogical problem. We have become so used to it – analogically to naturalization of the writing at ICT- so that we no longer ask if it affects the subject's formation process, Nevertheless radio will be considered here as integral medium to proceed at subject's formation.

Finally we must say that ICT is a wider subject than the writers of the document we have quoted seem to allow[3]. We should also go into the question of what is exactly meant by

[3] The concern here is not to discuss the work. However, the indication can be left in the proposal that there are some aspects that merit further analysis. The list, at first glance, we can highlight is the following:

> a. Researchers take as a source to establish a balance of experience in using ICT in Colombia: the answer to an online form that was administered in the project. It is the question: do you realize what is happening in the country, or is aware: of those who reported the existence of the form or capacity at the quiz, or the interest of the actors to be included in the "sample"?
> b. So, then, is exposed the urgent need for investigations as referred: to become known and to use the criteria of internal validity and external validity, which are characteristic of much educational research, in particular, as social scientists -in general. What is surprising here is that researchers do not disregard the above criteria, but the financial group of the same (Ministerio de Educación and Microsoft Inc.) does not demand it.
> c. Of note is the lack of the intellectual field of education and pedagogy in the specific scenario of the use of ICT and pedagogical skills in Colombia. Only on the first of these, the researchers might ask: why research such as those made by Octavio Henao and his group, the Rocío Rueda, the Blessed Ballesteros, those of Antonio Quintana, Sonia Gamboa, those of Luis B. Sanabria not taken into account?
> d. Not clearly understood by professional investigators in a high percentage of the references fail to accurately indicate the sources, specifically the pages that refer. This, in effect, blocks read and, above all, the criticism of the approach. In this item the use of literature: to draw attention, p. 46, in a dizzying research field of ICT as studies are cited by the same authors of this work, more than a decade away. It is also unfortunate that cite appointment, p. 55, which may be consulted directly-funded study Colciencias -as any researcher knows the risks of decontextualized a source of misunderstanding, and so on.
> e. In terms of content, the matter should be discussed more thoroughly is the emergence of the category analysis, which are called competencies. In fact, they appear magically. Some say that "a category is not denied to anyone" (LATORRE RODRIGUEZ, Jose Francisco. "Carta de un positivista a un fenomenólogo"

"communication". If serious investigation into the roots of the matter occur, it would have sexual content, since stimulants and preservatives can thereby enter into the investigations. Subjects are not only communicated via computers, radio, TV and cinema, they also interact sexually. And speaking frankly, this affects the formation of learners. In fact the manner of communicating sexually in the XXI century is very different from that of the XX century.

Replacing competence with cooperation.

No matter what considerations come into the question: whether from governmental or academic authority, no matter what the level of education, competence is a gain to some and a loss to others, or it might have a social objective, not a political one, in Arendt's meaning (1993) that it is meant to make some outshine others.

Now, putting aside the subject matter or the organizational structures, there is a racial aspect and an aspect of whom one selects for what. With those criteria it is a matter of choosing the best. Those who lose: just too bad. We can also assert, that under that system, there is no remedy for the lack of requirements, nevertheless we base our selection procedures on them. It is the triumph of a society of the majority and of the intolerance of totalitarianism. Under different titles it is nothing less than Auschwitz and Westerbrok.

If pedagogy is considered as formation and not just instruction, in other words, if pedagogy centers on the person, recognition of him/her, creating conditions to help the person, the whole aspect changes. In the first place, it is evident that pedagogy is an end in itself and not a means thereof; secondly educators, starting with parents, and proceeding to educational institutions, various means of communication and the wonders of ICT, all of which can help in the formation of a person, even though its purpose is not to form them. Formation is a side-effect, whilst the person and the personality, are side effects of formation[4]. We could mention incidentally, that the "aims" and "purposes" of genuine formation have their real roots for success only if those being educated or formed share in transforming those roots.

How then is an atmosphere of formation created – not just a kind of learning – where a person begins to see the horizons of his being. Is it just in school, the educational project so to speak, empty of content? Does it lead to anarchy as a "way of life" at formation?

An indispensible move should result from competence instead of just cooperation. This is not a romantic ideal: "the sun shines on the just and the unjust" (Mt 5, 43-44). It begins with the first person, where each one takes responsibility for his own progress, a contentment in being as he is and with whatever his abilities are. As a life plan it is a strength and a joy for the community; since the accomplishing of one's life plan does not mean to impede that of other people.

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phenomenological". In: Cuadernos de Filosofía latinoamericana. Vol. 27 [94] 06, pp. 292 to 308). But since Ockham is known not needlessly multiply entities of reason. Well, this is a problem in this study: competence calls are only wishful basis.

[4] We owe this thesis to our colleague Guillermo Bustamante Zamudio, at his interventions at Formation and Subjectivity Seminar held on the second half of 2006 as part of the Inter-institutional Education Doctorate, of the Universidad Pedagógica Nacional with emphasis in Philosophy and teaching of philosophy. Surely, our interpretations differ from the thing itself, in consequence of our starting points intellectuals. Bustamante comes from more than psychoanalysis; our position, bowels phenomenological.

Cooperation refers also to the fact of action, in which each person plays a part. One can widen this idea and say that subjectivity itself is *a work of art.* In fact the person is reduced to a simple "oneself" (*man* in a Heidegger sense). So this *work* can be brought about only by cooperation, interaction with others. Cooperation is that of my subjectivity, as *a work of art,* with my fellows. We work with and on one another.

So *cooperation* is not "doing" for doing's sake, *facere*, that would lead to emptiness. On the contrary, it is a responsibility for one another and for oneself; it is putting one in charge of the intimate responsibility of being a subject and becoming oneself or to dissolve at the *se,* just mentioned. So we are dealing with the question about ourselves and the intimate correlation with others be a point of departure and a goal.

Pedagogy is not a science, it is real knowledge.

So the starting point of our thesis is the taking up of pedagogy as a formation project, in the philosophical sense of the word "formation", namely, a philosophical problem of sense, in which human beings give content to their sense of being; formation creates individual and joint projects or plans. These plans with their respective content can be fulfilled only within the worlds that the subjects experience. Only in the worlds that they know can they form genuine personal plans and in solidarity helping others to plan their life also.

At this context, formation consists in a fierce struggle where people interplay over values, over methods of earning respect for oneself and for others, and over how one should cultivate the tolerance required for building a personal understanding of one's world within the political context of others' interpretation of that world.

This implies that one's outlook goes beyond subjectivity and leads to the mutual building of a society of a political nature, or, in other words an inter-subjectivity. Thus is does not imply an irritating individualism, but it means creating space for recognition of others. So learners should discuss their varied understanding of themselves, and how to act with others; an outcome will be an abstract kind of political situation where learners debate with one another.

Formation is founded on cooperation among persons make visible and shares ideas in order to achieve common objectives together. The learning moves from seeing the plans of others, into taking them on as one's own. The others becomes "we". (Vargas, 2006).

Therefore *pedagogy* becomes a practice to be *acted*, based on a certain way of *making* things, a philosophy based on philosophy and social sciences, as auxiliary disciplines of education. These in their turn have their *rhetorical problems* (Echeverry, 2007), that is to say, how do we persuade others to accept values which lead to a fuller and worthy life for human beings? There is also the *anthropological problem* of searching for "alternative ways of living in community: how can one convince the State to encourage conformity in this kind of living and acting together, which leads to the full meaning of humanity". That is the foundation of *anthropological pedagogy.*

So formation should be a re-definition of the modern version into a postmodern version (Caballero, et. al., 2007)[5] This redefinition depends on:

- The *practically* property that consider *formation* as something to be *done*: its activities aim at persuading subjects of certain values.
- This *doing* in turn depends on certain contextual conditions, arising from one's particular surroundings.
- *Rhetoric* by persuasion not by proof.
- The transition from the primacy of subjectivity to intersubjectivity; of "others" to "we".

According to this approach, *pedagogy*, it is an art with *poietic* functions, far from being a science and pretend to be, is a way of building intersubjectively in interdependence, the identity of the first subject, then, that of the cultures with the various idiosyncrasies of peoples, societies with their different modes of production material and symbolic, of the States, with their parliamentary and political reasoning.

This knowledge is built by those who exercise practices and reflection by the auxiliary disciplines of education.

Pedagogy has no set systems because it is not a science but a way of acting[6]

Consistent with this approach, if pedagogy is not a science, it is not possible to make epistemology about its results. Pedagogic discourse is formed by the rationalization of experiences that happen in the classroom, in the exercise of the teaching of knowledge. The logic of science is not to study their practices or their rationalization.

From the epistemological tradition of Khun-Lakatos, we had the following criteria: objectives, method, validity, historicity and teachability. According to that system, historicity and teachability are realizable, because you can set limits at the pedagogical historical issue and its forms of release. In Pedagogy, method and validity depend, not only for the context that the practices go, but also on the nature of the groups -age, regions, symbolic capital- but also the life areas where we make pedagogy, that is, an enhancing elements of a psychological and social nature, like those of the postmodern era, which emphasizes the construction of new narratives; learners build their own life story rather than "tell" their life story, *intuito personae*, far from the rules of the past.

At the other hand, the practical and specific aspect of pedagogy is based on the interests on which it is founded; pedagogy "… identify its study face up to the possibility of action, and at

[5] They claim that "Perhaps, we could call this meeting [between traditional and regional knowledge on the one hand, and the technology for other] of modern rationality with that of the postmodern." Several issues remain to be discussed here, is there such a "modern rationality" and a "postmodern"?, Is there, in fact, a meeting or perhaps a relay, a theft? Although this part of that work is an interpretation in the light of the above by Vargas in the *Tratado de Epistemología*, if left to discuss whether their approaches are derived which researchers have surmised.

[6] There were attempts to make the practice epistemology from the thought of M. Foucault, but can be valued as a work failed, or wrong.

the same time with the social sciences, an united research of fundaments about question… "How can one convince learners of values which, if followed, make one worthier, and one's life more meaningful?" (Vargas, 2007).

The didactic (teaching skills) joins the world of ordinary life with the school world

The didactic is a way of making available the results of science; and this occurs when the results of science are used practically and are therefore teachable. Once they are defined, they require a methodology for making them practical according to the interests of the learner. That is what the "didactic" means, when it is applied to the knowledge of the sciences, arts, techniques or technologies shape the named didactic transposition.

Didactic from the beginning took place in school settings, glad to hear speeches and scientific knowledge, embodied in texts specialized groups were reported by some initial learning process, whose seminal structure remains in place in the cathedral schools, through techniques such as their *lectio, meditatio, glosas* and *questio.*

Later, didactic has been applied not only in the dissemination of science, but also in the non-scientific knowledge, practices, techniques, etc. Teachers used the methodologies available in their time to design techniques and dispositive of teaching (demonstrating, instructing, explaining, indicating, describing). These methods took account of the characteristics of the learner and the teacher and their attitudes to learning and teaching.

Didactic in the postmodern period devises a new paradigm of pedagogy: moving from the *teaching* to *learning*; from instructor teacher to guider teacher. At the postmodern condition, didactic evolves designing spaces in which learners (students) interact, with a willingness to learn, and others (teachers), with a willingness to teach. Teachers need to know not only their subject matter, but the way their students learn, their interests and the psychological and social factors which affect their learning.

Spaces for interaction designed require definite methodology, depending on those who interact: it is on them that the result of the interaction depends. In brief, the set of dispositive that conform interaction spaces have a didactic purpose, and have definite components which prove their didactic nature:

- Deliberate intention to teach.
- Study the motivation and background of the student.
- The teacher should know his material thoroughly.
- The student should want to learn.
- The thinking behind the learner's attitude.
- Structures experiences showing closeness or sympathy for what is being taught.
- The dispositive of teaching
- Checking knowledge by the student and follow up by the teacher.

The Didactic takes place in a learning environment

Elements creating spaces for designed learning purposes, are called learning environment. These are organized among other factors, as outlined thus, by:

- **Subjects**: who have the deliberate intention of teaching and learning, and who interact through language. In learning environment the face of the teacher can be hidden, making it more and more invisible, whereas learning –knowledge as a learning object- becomes more visible to the learner.

- **Materials:** which can be informative or explicitly contain the material which one wants to teach; or they can be interactive, whereby the learner learns what was intended to be cognitive process of learning.

- **Knowledge** not only of what the offered material are about.

- **Results**: checked by evaluation process.

In these learning environments, the insertion of technologies is considered to be structural elements from the *real world.* They are key factors of mediation of all processes occurring in these environments, as well as in the life-world, but not necessarily be evident.

Technological helps are visible even when subjects do not make use of them in their daily experience. Currently discusses the relevance of computer technologies in educational processes, but it is unclear that the books, the board, including speech-like experience, even as a theory, rhetoric, and writing are technologies that have been incorporated in such so are no longer new, and therefore not problematic.

Information and communication technologies in learning

Technology has always had effect on pedagogy, since formation becomes real if technologies are familiar to learners. IT and communication -computers, radio, TV, press, books- should be considered as helps in learning environments; not just because of the functional roles, but because they are involved in so many activities of daily life which depend on them and on their use.

Turning to computers in education, it is possible to develop environments for use them in such a way that their value becomes evident. Computers can have uses which other methods do not have, as follows:

- The distribution of texts in formats that can be edited or manipulated by users, this distribution is done at low cost and can even reach remote regions on time almost immediately.

- Reference to websites with further information, database and multimedia components facilitate their learning and the understanding of different themes.

- The simulation of phenomena in multimedia and interactive formats facilitate, also their understanding.

- Synchronic and no synchronic communication between persons, who interact at these learning environments: students, teachers, experts, visiting speakers, etc.

These issues relate to *educational informatics* approach (González y Vargas, 1999), according to which it makes use of technologies for information and communication processes, or for learners to exercise cognitive processes that are required to learn.

It is possible, also with these technologies, simulate mental processes of humans with computers. This fact is relevant to pedagogy, since it requires that models be made of such processes; moreover by interaction with "machines" which imitate the cognitive processes required for learning, students are involved in those processes, which can result in solid learning. This is called *computer pedagogy.*

What stands out as most important in these matters (educational informatics and computer pedagogy) is that one begins to realize that one must think of the educational environments, not now as activities centred solely on teaching, but on learning arising from experience. In consequence, as teachers would lose their role of teaching, would have to prepare for the role of designers of learning environments, also, students would have to have more than their willingness to learn, because in such environments may act as producers of knowledge, new knowledge gained from their learning.

ICT and formation.

What, then, has formation to do with ICT? How does didactic practice, which has a place for ICT, use them in formation? Let us reflect about these topics. Part of the change of emphasis *from teaching to learning* is due to the rise of ICT instruments. There is in them no "hero in the story". In fact the ideas of the author and of authority remain, and if not banished altogether, at least they are diminished. In a film, for example, the actor is as important as the director; the camera man is as important as the producer, etc. In a computer program is so important to the content, say academic or scientific, such as interactivity with programming or user intervention as possible initiating structure of content-for example in a blog.

Once replaced, even "beheaded", the notions of the author and authority within a didactic situation created by ICT, moves from one person speaking to several having a word, from a soloist into a choir with a consequent diversity of points of view.

A relevant and thought-out change is the change from logo-centredness to iconic languages; from a system predominantly textual to a diversity of methods and materials permitted by multimedia environments. This is a change predominantly to artificial intelligence in one's daily activities: a move from representation of representations to learning to servocontrol.

In these situations who is the one who speaks… who speaks or says what is spoken?

The problem, therefore, in terms of game and language terminology is to give entry to communication which goes further than mere speech or writing; as a means to preserve things in this new setting where persuasion avoids seduction, threats, intimidation or petition. But, even more than mere language, there are subjects related with authority, with authorship, with personal or collective meaning of sense. In fact, teaching disappears in such situations, for the teacher's is only one voice between polyphony. How, then, will the teacher maintain his

transformed role? He will maintain it from the fact that experience has given him more skill in arguing a case, and how to add discipline to learning. He is an authority in the scene, he gives meaning to the pedagogical system. He uses questions which apply to individuals and add to their formation. He has a true sense of discipline, which puts him in touch with the real world, he relates facts of a particular subject to the sum total of knowledge.

The function of the teacher changes by the presence of cooperation. The teacher creates conditions for discursive conformation -which is not only said or written, but which is also iconic, by gestures, multimedia- and which "post" hypothesis. These things come from experience and knowledge of subject matter, based on documentation, analysis, discussion, agreement or dissent on the part of the learner. So cooperation results in a certain conformity researchers from the learners, but also like a real persons: the teacher suggests the road to follow, or, if necessary, he gives it new interpretations, actually suggested by the learners themselves via their own critical judgment well thought out (Reeder, 2007).

So in this context, didactic in fact takes on a greater scenario increasingly democratic. Of course, we cannot idealize this expectation. In rhetorical discourse as well as in dialectic, and also in the surroundings created by ICT, they who have been trained via ICT have a greater chance those who have more natural ability or are accustomed to using those things.

However, interaction in ICT didactic environments -if the situations are clear to users- encourages a wider spreading of knowledge, achieved by horizontal sharing, encouraged by regulations set up by "community of equals". The change is from consumers to producers of information, of research practices, the objectivity of knowledge and the creation of a collective memory.

Conclusion

The *didactic in the postmodern condition* is assured by the equality of a formation which aims subjects by persuasion, by rhetoric -in its ancient and modern forms- to follow a jointly determined set of values. This project is carried out, intersubjectively seeks, among other objectives, the construction of regional identities, paradoxically, in globalized contexts (such as, in effect, experienced daily on the Internet).

The change of the paradigm of interaction in a teaching environments, to an atmosphere of interaction of learning environments among students and teacher, determines, in its turn, that the subjects have to choose their objectives and ways of learning, which results in an autonomy, and consequently in a freedom to follow one's individual and collective projects.

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