DISCLAIMING THE TELLING MODEL IN FAVOR OF A STUDENT-CENTERED TEACHING AND OF LEARNING HOW TO LEARN CRITICALLY^{1,2}

(Abandono da narrativa, ensino centrado no aluno e aprender a aprender criticamente)

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Abstract

In this paper, I propose the disclaim of the telling model as the classic teaching model in favor of a student-centered approach, with active participation of the students in collaborative activities, aiming at learning how to learn and at a critical meaningful learning. In addition to my large experience as teacher and author (2000, 2004, 2005, 2006), this text reflects mainly the works of Postman and Weingartner (1969), Carl Rogers (1969), D.B. Gowin (1981), and Don Finkel (1999). The proposals and arguments are not new, but they may motivate those who can and are willing to change their teaching practices.

Keywords: disclaming the telling model; student centered teaching; learning how to learn; critical meaningful learning.

Resumo

Neste trabalho proponho o abandono da narrativa como modelo clássico de ensino e argumento em favor de um ensino centrado no aluno, com participação ativa do aluno em atividades colaborativas, voltado para o aprender a aprender e para a aprendizagem significativa crítica. Além de minha larga experiência como professor e autor, o texto reflete principalmente as obras de Postman e Weingartner (1969), Carl Rogers (1969), Gowin (1981) e Don Finkel (1999). Não são propostas nem argumentos novos, mas podem servir de motivação aos que queiram, e possam, fazer mudanças no ensino.

Palavras-chave: abandono da narrativa; ensino centrado no aluno; aprender a aprender; aprendizagem significativa crítica.

The telling model

The standard teaching model, which has been accepted without any further questioning by

teachers, students, parents, and by society in general, is the one in which the teacher, basically, teaches by lecturing and telling students what they are supposed to get to know. Don Finkel (1999) describes this way of teaching as Teaching as telling, whose counterpoint is Teaching with the mouth shut (op. cit, p.9), an expression he uses do make problematic our unexamined assumptions about good teaching.

However, how should we call into question a model with such a high degree of acceptance?

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² This paper is dedicated, to D.B. Gowin a great teacher who long before Finkel's proposal used to teach with the mouth shut. What wonderful classes were those given by him at Cornell in the seventies.

Let's see. In this model, often based on a textbook, the teacher writes – a way of telling – on the chalkboard what students are supposed to copy in their notebooks, study (memorize), and then reproduce it in evaluative instances. Sometimes, he/she repeats on the chalkboard texts from the students' textbook while students, nevertheless, still copy them so as to not forget them when they study those contents later on, usually on the eve of tests or exams.

Many teachers, of course, do not limit themselves to just reproducing on the chalkboard what is there in the textbooks: they present diagrams, synopses, examples, explanations, demonstrations. Then, according to this teaching model, they are doing a good job as teachers. Nevertheless, students still copy everything they can in order to study and get prepared for the evaluations.

Other teachers, who are considered good teachers – and even outstanding ones –, make excellent speeches and captivate their students with their clear and meticulous explanations of some given topics. These students leave the classroom with the good feeling of having understood what the teacher has just so wonderfully explained. In case this topic is approached in the test the same way the teacher has explained it, students might achieve very good results in this testing situation. Nonetheless, if the test questions involve applications of what the teacher approached in class to novel situations, results might be quite poor. In this case, it is quite common to have students complaining that the content has not yet been "given" in class.

The model is still the same even when the teacher uses Power Point slides in his/her presentations and he/she stimulates his/her students to copy the electronic files in their pendrives. Notwithstanding, students still will have to learn by heart that information so that it can be reproduced in the tests.

Apart from testing instances, how much will remain from what students have learned from good telling classes in a few months? Or in a few years? Are these telling classes an efficient model for teaching and learning? *How many could pass those exams (without any subsequent preparation) five years later?* (op. cit., p. 3)

In the classic teaching model, disregarding whether the teacher writes on the chalkboard, explains everything orally, or uses Power Point, he/she is *telling*. Don Finkel (1999, p.2) proposes the concept of class as a telling event: Our natural, unexamined teaching is Telling. (Capitalized to suggest an archetypal activity.) The fundamental act of teaching is to carefully and clearly tell students something they did not previously know. Knowledge is transmitted, we imagine, through this act of telling.

Finkel affirms that the telling model seems natural to everybody, that is, to students, teachers, parents, principals, and also for those who do not have kids in school, or who do not have any association with schools, and that, for this reason, is not questioned. However, it should be: Transmitting information from the teacher's head to the student's notebook so that he/she can transfer it from the notebook pages to his/her head in order to pass the exams is an inadequate educational goal (p. 3). This model has been designed for the learning of specific short-term information. After some time, very little remains of this type of learning. On the contrary, education should seek for long-term relevant types of learning that could change forever our understanding of the world, by broadening, deepening, and sharpening it (p.37). We could add critique to these objectives, that is, a critical awareness of the world (Moreira, 2005).

Telling, for this author, constitutes an inefficient means to motivate comprehension (ibid.), though it appears in first place in the list of what teachers do. For him, good teaching creates circumstances that can lead to relevant and long-lasting learning. In education the prominence is

learning, and not teaching. Learning is the main goal while teaching is a means to achieve this goal (p.43).

Nowadays people talk a lot (again!) about *student-centered teaching*, about *the teacher as a mediator*, and about *learning how to learn*. If we agree with these directives, we will certainly agree with Finkel that telling is not the best way of teaching and, thus, we will have to reconsider our "good teacher" model. Along these lines, Finkel proposes the metaphor *Teaching with the mouth shut* (p.45), which he uses to bring controversy to classic assumptions of what good teaching means.

If teaching is a means to facilitate learning and if the telling model has not been effective to attain this objective, why don't we discard it? We just have to think about what remained from all the information we received in school to conclude that the narrative model is ineffective. It is as if some of the disciplines we had in school never existed. Nothing is left of them. Others, such as physics, some people seem to take pleasure in stating that they have not learned anything about it. Why, then, don't we shut up and let the students talk?

Considering the fact that students study and memorize the teacher's narrative, give the right answers in tests and exams, and get a passing grade in evaluations, why do they so quickly forget knowledge acquired the year before? Why does it happen that, after they pass the highly selective entrance exams to the university, they come to the introductory college disciplines of physics and calculus, for example, as if they have never heard of the previous knowledge required to learn them? They enter these disciplines as if they know nothing. The answer might be quite simple: their learning has been basically mechanical, or rote.

Rote learning

Rote learning (Ausubel, 2000; Moreira, 2006; Masini and Moreira, 2008; Valadares and Moreira, 2009) is the one in which new information is internalized in a literal way, without cognitive interaction with prior knowledge, and without being incorporated to the cognitive structure. It constitutes simple memorization, with no comprehension. It can be reproduced literally and then applied to already known and routine situations. It can be useful to memorize specific information that should be reproduced in a short term, as in school evaluation instances. However, when this information is not much used, it is quickly forgotten.

In opposition to rote, or mechanical, learning, *meaningful learning* is defined as the one in which a cognitive interaction occurs between new knowledge chunks and specifically relevant prior knowledge that already exists in the learner's cognitive structure. New knowledge is internalized in a substantive and non-arbitrary way. Substantive means that it is not verbatim, or non-literal. Non-arbitrary indicates that the new knowledge gains meaning not because it interacts arbitrarily with any existing knowledge, but with some specific knowledge in particular. Meaningful learning is learning with meaning, comprehension, transfer and application skills to novel situations.

Meaningful learning and rote learning do not constitute a dichotomy, which means that learning is not necessarily either meaningful or mechanical, or rote. The two of them are located at the opposite ends of the same continuum, and in school practice learning is located somewhere along this continuum. The problem of the telling model is that it, most invariably, leads to a type of learning that is situated in the rote learning area of this continuum.

However, if there is a continuum between mechanical and meaningful learning, couldn't the student initially learn in a somewhat mechanical way and, then, he/she would progressively start attributing meanings to the new knowledge and, then, gradually, incorporate it to

his/her cognitive structure until meaningful learning is achieved? This can really happen. Nevertheless, it seldom occurs. Meaningful learning is progressive, though this does not mean that it should start mechanically. It also does not imply that progressiveness happens naturally.

The problem, though, is that the telling model is associated with a behaviorist evaluation that permeates schools. As a reference to the organization of teaching, behaviorism, which dominated at the time of educational technology, has been discarded, at least at discourse level, in favor of constructivism. In a behaviorist approach, the teacher quite clearly and precisely defines his/her educational objectives, that is, those behaviors the student should be able to present after being exposed to teaching, as well as the actions and things she/he should be capable of doing or saying. When the expected behaviors occur, the learner is approved in that study unit, receives positive reinforcement, and enters a new modeling stage at the end of which he/she should exhibit other behaviors and attitudes that have been previously defined. Nevertheless, the fact that the learner complies with these objectives by exhibiting them does not imply comprehension and attribution of meanings to the contents he/she has studied. Learners may display those planned and desired behaviors without understanding the meaning of what they have studied. They may be able to apply this new knowledge only to already familiar situations, that is, they can repeat applications that their teacher has explained in class, or that are described in their instructional materials.

This description of behaviorist evaluation is not overstated. Skinner, has certainly proposed something a bit different, but in educational practice his approach leads quite strongly to rote learning. As it has been stated before, schools in favor of constructivist methodologies and theories have discarded the behaviorist approach. However, it might be closer to reality to say that the behaviorist approach has been discarded at discourse level, since, in practice, what predominates is the telling model, which is very close to behaviorism and, especially, to the behaviorist patterns of evaluation: right or wrong; yes or no; the student knows or does not know; student displays or does not display a certain behavior; everything or nothing. This means that evaluation is much more a kind of dichotomist measurement that does not considers the progressivity of constructivist learning.

Even when teachers and methodologies are constructivist, evaluation procedures, in general, end up having a behaviorist bias: students, parents, principals, lawyers, want teachers to have objective written records – proofs – that show whether the student "knows" or "does not know" a given content or topic

Student-centered teaching

Student - centered teaching is the one in which the teacher works as a mediator, and it is characterized by students who express themselves a lot while the teacher speaks just when needed. Letting students talk implies the use of strategies that favor interaction, discussion, negotiation of meanings among themselves, oral presentation of the product of their collaborative activities to the whole classroom, openness to criticism, and expression of their thoughts and suggestions concerning their peers' activities. The student has to be active, instead of passive. He/she should learn how to interpret and to negotiate meanings. He/she must learn to be critical as well as to take critical responses to his/her work. Receiving a-critically the telling of the "good teacher" does not lead to critical meaningful learning, or to relevant learning; it does not guide students to learning how to learn.

These ideas are not new. Carl Rogers proposed them in his well-known *Freedom to learn*, in 1969, the same year Postman and Weingartner published *Teaching as a subversive activity*. Nevertheless, in schools, teachers go on narrating to tell students what they must know and what they have to reproduce in testing situations: it does not matter if these evaluation tools are applied

to pass the finals and go to the next grade, or to enter the university. And everybody – students, teachers, parents – thinks this is the common standard in schools, without even questioning how much students learn there, or if they learn in a meaningful and critical way, or whether they learn for citizenship and for their own lives.

Disclaiming the telling model implies a quest for ways of teaching in which, metaphorically, teachers talk less and tell less while students speak more and participate in their own learning in a critical manner. The telling mode (or reading, if we translate the term *lecture*, as it was used in the late Middle English period, or the way it is used today in English to designate expository classes) is a methodology of the days of former centuries: it does make us feel in the 21st century.

When we center teaching, or that is to say, education on the student, this does not necessarily mean the use of Rogers' non-directiveness, but it indicates that education is being organized so as to take into consideration the student as responsible for his/her own learning. The student is the master of his/her learning.

Thus, a lesson is neither the time and place for depositing, according to Freire (1987,1996), as we do with a bank account, knowledge chunks in the student's head, nor evaluation instances are tools for checking out how much has been stored and in what shape the deposits are. As relevant as these knowledge chunks might be, the learner must perceive this relevance and must show intentionality to learn. Human beings learn meaningfully, when they have adequate prior knowledge and when they are willing to learn. Maturana (2001) says that teacher, educative material, and new knowledge are external disturbances of an internal system that is an autopoeietic system, which regulates itself and can make structural changes, though never organizational ones because of these disturbances. That is, human beings can generate modifications in their structure, but not in their organization. So, it is she or he who decides what sort of changes should be made. Piaget (1976), in addition, also talked about self-regulation and organization. Ausubel (2000) believed that the learner has to be predisposed to learn. The first behaviorists already stated that the person should present a learning set or a readiness for a given behavior.

This means that we knew for a long time that the students are the ones that decide whether they want, or not, to learn meaningfully. Why then should we insist upon a teacher-centered learning that is far from the student? Why should we deposit, or pour over them, chunks of knowledge we, teachers, want students to learn? It is a delusion to think that this works. Or, worse, it might express an intentionality for it not to work.

Student-centered teaching, as we have already mentioned, does not have to, or should not be, interpreted as a way of teaching in which the student is totally free to learn only what he/she wants. Teaching, curriculum, learning, and context or milieu are the commonplaces of education (Schwab, 1973). An educative event always involves a teacher (teaching), a given piece of knowledge (curriculum), some students (learning), and happens in a social environment (context). That is, there is always a curriculum, understood here as the intended learning outcomes (*The Intended Learning Outcomes* of Mauritz-Johnson, 1967). However, this curriculum should not be defined as a series of predetermined contents that must be told to the students, or deposited inside them. Students must be granted options and we must deal with the contents in situations that make sense to them, and are relevant and meaningful to them. It is always them that decide whether they are willing to learn something meaningfully.

The grasping of meanings

D.B. Gowin (1981) proposes a model for teaching episodes that seems to fit quite well with

what was presented in the last section. His model, from a meaningful learning perspective, can be represented as suggested in Figure 1.

In this model, the teacher, who already masters those meanings that are accepted in the context of the subject matter, introduces these meanings to the students through potentially meaningful curriculum materials. This presentation, however, does not imply that the teacher narrates such contents. Quite the contrary, it implies that he/she brings about these meanings to the students by using various strategies so that students are led to perceive their relevance and they come to display an intentionality to grasp and internalize the grasped meanings.

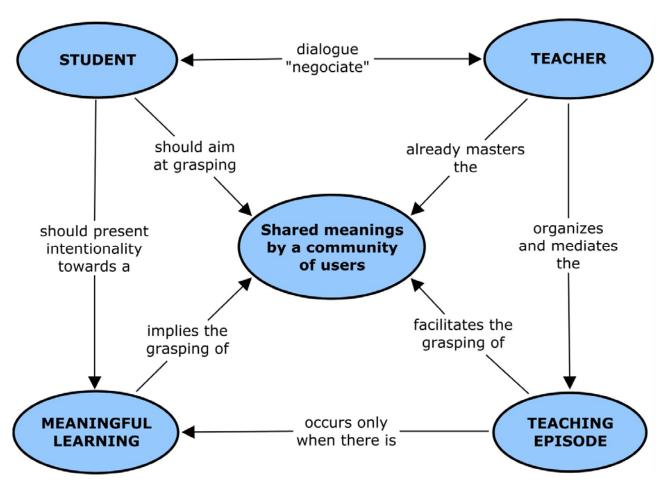


Figure 1. A schematic representation for the grasping of meanings in a teaching episode (adapted from Gowin, 1981).

The student, in turn, should get back to the teacher the meanings he/she is grasping in reference to the knowledge conveyed by the educative materials of the curriculum. This type of student attitude depends on his/her predisposition, on his/her intentionality to learn. In turn, this will depend on the students' perception of the relevance of the new knowledge, and on making sense of the learning tasks. Another restraining element here is the fact that students might be immersed in a telling culture, in which the teacher's monologue predominates. In this culture, the student expects the teacher to talk, to "give classes", while he/she remains passive. This kind of students' attitude must be progressively changed with instructional strategies that lead students to speak more, that is, to externalize to the teacher meanings they are grasping.

When those meanings the students have externalized are not the ones the teacher intended them to grasp, which are those accepted in the context of the subject matter, the teacher should present them once more in a different way, so that students come to externalize them again. Dialogue, social interaction, and negotiation and sharing of meanings must be favored. In any educative event there should be some form of dialogue. Teachers cannot stay on and on speaking to themselves, or telling, while the student just listens and takes notes, or daydreams, or even takes a nap.

Well-known authors, such as Lev Vygotsky (1988) and Paulo Freire (1987, 1996) have emphasized the need for social interaction. The role of language here is crucial for this dialogue to happen. Neil Postman (1969), for example, points out that language is implied in any of our attempts to perceive reality (p. 99).

If there is no dialogue and no social interaction, we are following the steps of the telling model, which we referred to at the beginning of this text, and agreeing with the arguments proposed by Don Finkel (2008), was considered ineffective and unsuitable for education.

The aim of such interaction that involves teacher, student, and educative curriculum materials is the sharing of meanings. Until this goal is not achieved, until the student does not grasp the meanings as they are accepted in the context of the subject matter, and until he/she does not share them with the teacher, we cannot say that teaching has occurred. Teaching happens when students grasp meanings.

A teaching episode takes place when the student grasps the meanings the teacher intends him/her to grasp, which are those the community of users has already accepted for the specific context of a given teaching subject matter (Gowin, 1981).

Then, we go back to the intentionality issue and to the willingness to learn: once meanings are grasped, it is the learner who decides if he/she is going to incorporate them in a non-arbitrary and non-literal way to his/her cognitive structure. It is the student as a person and as an autopoeitic system who decides the changes he/she will make in his/her cognitive apparatus, while maintaining its organization (Maturana, 2001). The new knowledge is a disturbance that, in meaningful learning, gets meanings (that have been grasped because of teaching) and, at the same time, in a disturbing interaction modify, to some extent, the student's structure of prior knowledge without altering its organization.

Collaborative activities

Student-centered teaching implies not only a dialogic relationship, socially interactionist, between student and teacher, but also a student-to-student interaction. Teaching, then, has to be organized in such a way as to provide situations that students in small groups can solve collaboratively. It might be a project, a classic problem (exemplar), an open-ended problem, a concept map on a given topic, a Vee diagram on a research article, a lab practice, a critical analysis of a literary text, a dramatization. There are many possibilities, but it is important that in these activities the students cooperate, disagree, discuss, and look for a consensus. These activities contribute to the grasping of meanings, to the student's perception that he/she is at the very center of teaching, and to ascertain him/her that the teaching focus is his/her own learning. The activities suggested here are related to those that happen in real classrooms, nevertheless they can also be developed in virtual learning environments.

The outcome of these collaborative activities should be presented to the whole classroom. In that occasion, members of the small groups submit their work to the criticisms of the other groups. This seems absolutely necessary. Criticism and argumentation are important. Self-awareness is important as well. What generally results from this is that the group that has presented its work

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Again, we have to consider that this kind of activity does not integrate the script of what means being a student, which has been developed by the students along many years of schooling. At start, students might show some resistance to small group collaborative activities, so that we should be patient and introduce them little by little.

The learning situations proposed to the students should be developed and solved in a collaborative mode, and they have to be relevant, as well as to make sense for these students. It is precisely here that the role of the teacher is crucial: it is the teacher that has to carefully select these situations. Furthermore, the teacher is the important mediator of the intense social interaction that results from these activities in a real classroom and/or in a virtual learning environment.

A student-centered teaching does not mean that the role of the teacher is understated. When the teacher does not play the role of narrator anymore, it does not indicate that there has been any decrease whatsoever in his/her relevance. On the contrary, as a mediator and organizer of learning situations that are student-centered, he/she becomes far more important than as a mere narrator.

Recursive formative evaluation

Student-centered teaching and collaborative activities imply a different evaluation form. It does not make any sense in this approach a dichotomized behaviorist evaluation characterized by "yes or no", and "right or wrong" questions that lead teachers to come up with "has learned" or "has not learned", determining a passing or failing grade. Meaningful learning is a progressive process in which meanings are being gradually grasped and internalized. Conceptual change is not substitutive, as many researchers believed, especially those who have followed the model of Posner et al. (1982), based on Kuhn's ideas (2001) of paradigm change and on the cognitive conflict of Piaget (1976). This model has failed. Conceptual change is evolutionary, progressive.

Alternative constructs co-exist in the learner's cognitive structure and it is the learner who makes this change, and this occurs gradually. Kelly (1963), in his theory of personality, already emphasized this in one of his corollaries – the one on fragmentation.

Personal constructs are non-scientific models human beings construct to make sense of the world in which they live, but they test them in face of the world events as if they were scientists. In these process, alternative models might co-exist so that relinquishing some of them and constructing others does not happen immediately or linearly. On the contrary, this is a progressive process, much more Toulminian than Kuhnian. If we consider the epistemology of Stephen Toulmin (1977), concepts are at the very base of human comprehension, and they are born and die, are replaced, get new meanings, survive, that is, concepts evolve. In Toulmin's view, disciplines are evolving concept populations.

The theory of conceptual fields by Gérard Vergnaud (1990; Moreira, 2004) also highlights the progressiveness and non-linearity of meaningful learning. A conceptual field is a field of problem-situations in different levels of complexity. Any given discipline, such as Biomechanics, for example, is a field of problem-situations whose resolution, in this example, involves concepts and procedures from Biology, Physics, and Physical Education. Mastering this concept field (or any other) by the learner is a quite slow, non-linear, process presenting breaks and continuities (Vergnaud, 1990 apud Moreira, 2004).

In such progressiveness, it is quite common to make mistakes, while overcoming these

mistakes leads to learning. We learn from the mistakes we make. That is how human beings proceed and learn. The "philosophy of the no", by Gastón Bachelard (1991) lets clear these ideas.

According to Novak (2010), evaluation is also a commonplace of an educational event (together with teaching, learning, curriculum, and context). However, in a teaching centered in the student, not in the telling, directed to the grasp of meanings, to meaningful learning, and to learning to learn critically, the evaluation must be predominantly formative and recursive. Formative evaluation looks to what extent learning is occurring (meaningfully, critically). It is processual, opposed to the summative evaluation which is final (and mostly behaviorist). Recursiveness allows the students to redo the learning tasks, using the error as a learning factor.

Learning how to learn critically

As we have already stated, learning how to learn integrates contemporary educational discourse. When we talk about education today, independently of the level of schooling in focus, it is common ground to affirm that in the nowadays world what really matters is learning how to learn.

Considering that Carl Rogers already stated about it, in 1969, what is really new in educational practice? Probably, nothing! However pretty a discourse can be, schools continue to favor behaviorism and the telling model. Teachers continue narrating knowledge that students must later reproduce in local and international exams and tests, but which they delete a short time later. This type of school does not educate: it only trains.

There is also much talk about competences, but in many instances they are only a different term for the same old behaviorist objectives, from the days of educational technology, hidden by another lexical dress.

Let's pretend that the school aims at promoting learning how to learn – or that, at least, initiatives run towards this direction – would this be enough? Of course not! It would have to be a learning how to learn critically. A continuous quest for knowledge, but with a critical attitude.

Critical in the sense of not passively accept any new knowledge, be it declarative, procedural, or attitudinal. Since human knowledge is constructed, there is no acceptable reason to take it without submitting it to a critical stand. This knowledge can be replaced by an improved one. It can have subjacent commercial or ideological purposes. However, it does not imply that we negate it, nor that it can become a sort of "everything goes" issue. Quite the opposite, knowledge constructed by human beings can be brilliant, fruitful, and socially beneficial. Notwithstanding, it is not definitive and cannot be accepted a-critically.

How then can we facilitate learning how to learn critically?

There might be many answers to this question, each one of them attempting at partially contributing to facilitate critical meaningful learning. Perhaps the whole set of answers that follows (Moreira, 2005) may lead, in fact, the student to learn how to learn critically.

1. Taking in consideration what the student already knows. We learn based on what we already know. Prior knowledge is the most influential variable for meaningful learning. Criticism does not make any sense when there is no meaningful learning. How can one be critical about something that has not been learned meaningfully?

- 2. *Disclaiming the telling model*. Repeating the teacher's narrative simply does not motivate neither comprehension nor criticality. Teaching should be student-centered, with collaborative and/or individual tasks that imply externalization of those meanings being grasped by the students. It signifies negotiation of meanings.
- 3. *Motivating students to make questions* instead of asking them those common and ready-made questions, whose answers have to be memorized. Human knowledge is constructed based on a quest for answers to questions. So, it is far more relevant to the student to ask questions (seeking for knowledge) than to know answers that do not mean anything for them.
- 4. *Using a variety of educational materials*. Teaching should not be centered on a single textbook, handout, handbook or manual. Teachers should provide explanations that are accepted in the context of a given subject matter but from different points of view according to various authors. When we stick to a single source (author, book, handout, manual, class notes), we might be just in the training mode, we are not educating.
- 5. Teaching that meanings exist in persons, and not in words or objects. Meanings are contextualized. Those that are accepted within the teaching subject matter and that students have to grasp, might not be the same in other contexts apart from that teaching subject matter. We should promote discrimination between those meanings that are accepted within the context of a given subject matter and those that are not accepted.
- 6. Taking into account errors and mistakes as components of learning. To err is human. Scientific knowledge, for instance, advances by correcting or modifying inaccurate theories, which at a time were well accepted and had many applications. Teachers should encourage students to error-detecting practices and to look for other satisfying explanations.
- 7. Demonstrating the uncertainty of human knowledge, which depends on the type of questions asked, on definitions, and on the metaphors used. Questions are instruments for perception, while definitions and metaphors are thinking tools. Knowledge would be different if questions, definitions, and metaphors were different. (Postman & Weingartner, 1969).
- 8. *Implementing distinct teaching strategies*. As well as the educative materials, the teaching strategies should be also diversified. The chalkboard, as well as Power Point slides, must not be the one and only strategy. The use of the same strategy on and on makes teaching dull, tedious, uneventful and, besides, it does not promote criticism.
- 9. *Helping students get rid of epistemological obstacles*. Teaching should inspire students to unlearn in the sense of not to use knowledge that might be blocking away meaningful learning of other knowledge chunks. Un-learn, that is, not to use "rules that do not fit" is a survival strategy.

Probably, the student who realizes that the new knowledge has to do with his/her prior knowledge; that constructs this knowledge based on diverse educative materials and teaching strategies; that grasps its meanings as contextualized; that understands that such knowledge can be quite useful though uncertain – since it depends upon questions, definitions, and metaphors – will certainly become a critical constructivist and a permanent learner.

He/she might not have rotely learned a large repertoire of ready-made answers for standardized exams and tests, but he/she will have learned to be critical, to be epistemologically inquisitive, as Paulo Freire would say, or to learn how to learn as Carl Rogers would propose, or , as Neil Postman would point out, to start being an answer seeker and an error detector. What a wonderful school would it be!

Concluding remarks

This text began with the telling model and ended with a proposal for its disclaim. Although this model is still celebrated, it should be relinquished since it quite invariably leads to a short-term mechanical learning that can just be used for passing exams or tests. Students deserve more than this: schools have to change and teaching has to be student-centered, so that the sharing and negotiation of meanings can be favored, as well as collaborative activities, criticality, learning how to learn, and educating. Schooling cannot be just a behaviorist training. This is the hopeful and optimistic message of this paper. Times have changed and so must educational practices.

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