Active learning: relevance, features and conditions

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Abstract: One of the effects of new post-modern culture is identified in the 'de-routinization' process of social life. The lack of concrete points of reference, seems, paradoxically, to force the subject to make is own 'life plans'. The current situation of chaos leads one to carefully reflect on a trend which is often neglected: nothing can be considered human if it is (or remains) purely mechanical. Even in education, the 'active learning' involves the fostering of 'interactive' school relations between teacher and student and of dialogue techniques so as to make younger generations more and more skilled at pinpointing their problems, questioning themselves and thus enabling them to 'open up' to the riches of their relationships in life, as a whole. Our study is founded on the conviction that a social institution (such as a school) is human only when its members find their bearings with one another in an 'over-functional' way. The 'activity' can be based on a correct and organic formulation of educational relations so as to regenerate social capital which can be regarded as the vital resource for the survival of a civilization.

Key words: Active learning; Authority; Dialogic relationship; Educational social capital.

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Learning is a personal and social 'activity'

One of the achievements shared by human sciences is the urgent need to limit the more and more threatening phenomenon of the mechanism itself by daily, social action: the growing intrusiveness of routine practices can be extremely dangerous even in the most intimate sphere of the individual (as in the learning process). It is likely to give rise to a 'hydraulic society' in which the initiative of the individual, the agency, simply disappears. It is important always to consider the fact that 'learning' is a complex process that cannot be limited to a simple, mechanical recording of information. "Knowledge is the result of a constructive process, in the sense that the individual elaborates knowledge actively" (Livolsi, 2000, p.100).

The most recent sociological theories seem to suggest the existence of a curious inverse process, a 'de-routinization' of social life, made compulsory or inevitable by globalization and post-modernity, which would gradually free people from the constraint of traditional 'common values', replacing the burden of conformity with the obligation to build one's own 'personal culture'. "Not only do people have to develop their own 'do-it-yourself biography', but, for the first time, they have to bear the brunt of this funambulism, with the daily renewal of interpersonal relationships (love, marriage or parenthood) that allows them to maintain their balance. Furthermore, they are burdened with the responsibility of regularly updating their choreography" (Archer, 2009, p.121).

If this trend is real and 'forces' everyone to deeper 'reflectivity' in order to create his/her own profile in the world, we are convinced, however, that nothing can be considered human if it is (or remains) purely mechanical. A person exists when he/she expresses his/her original needs, the 'ultimate concerns' which include both emotional and intellectual energy. Putting it in simpler terms, a person becomes himself or herself when he or she gets (or is helped) into action: without this belief, any process of de-routinization is not enough to remove ourselves from the so-called social hydraulics.

In the field of learning, this approach has led to the definitive end of the behaviourist perspective, where learning was basically reduced to the realization of the dynamics of 'stimulus-response'. Pavlovian research on reflexology has highlighted behaviour patterns common to human beings and animals (conditioned reflexes). However, these studies no longer represent, (but they probably never did), an adequate framework capable of

describing the learning processes characteristic of man.

Humans have always had, indeed, a unique wealth of resources, (such as the 'intentionality' of their act and the reference to cognitive previous acquisitions) since the first stage of their implementation.

The original catalyst: curiosity and problems

The first symptom of this activity in action or, rather, its most original catalyst, can be found in a strange form of energy: curiosity, a sort of fuel that characterizes the dynamics of the human being. Curiosity is widespread and alive during childhood and adolescence, "but, unfortunately, schooling extinguishes it, instead of stimulating and awaking it" (Morin, 2001, p.39).

In contrast to what one would normally think, intellectual capacity does not increase with the decrease of emotional energy which is involved in the learning process. Emotional capacity is actually essential to the implementation of rational behaviour since curiosity and passion are 'the springs of philosophical and scientific research'. Knowledge cannot be reduced to a simple, direct comparison between reality and what we already know: our 'cognitive schemata'. "Every scheme is, in its own nature, repetitive and stereotyped and not always successful at accounting for new and different things" (Livolsi, 2000, p.90). This requires the human quality of constant open-mindedness human to new things: "The unexpected surprises us. We have great self-confidence in our theories and ideas so that there are no chances of welcoming what is new. New facts constantly spring up. We can never predict how, but we should expect them, which means to expect the unexpected. Once the unexpected comes, you should revise your theories and ideas rather than, like using forceps, force the new fact to fit into your previous theory, which is actually unable to accept it" (Morin, 2001, p.30).

It is curiosity that drives and persuades *Ego* to let the guard down (when there are adequate reasons) towards *Alter*, so that the attitude of defence is not the winning *habitus*. In this way, a second fundamental experience for learning is allowed: "The surprise is a way to tell us that what we know can be different from what we assumed" (Sennett, 2009, p.202). When you have such an attitude, even the mere mechanical transpositions of logical, operational, technological or moral procedures from one field to another

can represent, unexpectedly and radically, innovation. That is because "there was something deeper or more versatile in the initial proceedings than you had supposed. At this point the author begins to wonder" (*ibid.*).

How can this dynamics actually happen in the creation of an educational process? In other words, what does 'active learning', also known as 'experiential learning', mean?

It is precisely because of the resilience of this attitude towards what is and remains different from the self (but which the self needs in order to develop), during any learning process; it is important, therefore, that every educational process aims at achieving the concrete activation of this attitude. This is why it is essential to encourage and to spur the inquiring attitude, helping it to identify, investigate and engage in the fundamental and concrete problems of life (Morin, 2000). Maybe the very heart of any educational effort is that curiosity should become the main way of thinking. Inborn in man, it can generate wonder and urge him/her to solve the various problems in life. It should be a way of thinking and is what studying should go back to. Studying and thinking cannot remain two, separate, independent entities.

Human factors and the context of active learning

It is our goal to identify the human and contextual factors which are able to encourage an active position. This attitude is fundamental in the achievement of any successful educational process and, thus, avoids simplifying the process to a mere mechanical one², which is not human in

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² With this term, we mean to insert ourselves into a rich vein of philosophical and sociological studies whose milestones were effectively synthesized by Habermas: "The issue of the rationalization/reification is placed in the 'German' line of social theoretical thought, determined by Kant and Hegel, that from Marx through Weber goes up to Lukacs and Critical Theory" (1986, p. 547). Basically, the process of rationalization and disenchantment analyzed by Weber (which involves a 'rationality of purpose' or 'instrumental rationality') is developed in the twentieth century as a paradoxical reduction of reason itself and its prerogatives. Becoming mere "rationality of the means placed at the service of purposes already given as obvious or discounted" (Gadamer, 1987, p. 30), reason loses the qualities that it had with the first philosophers. In fact, they estimated that it would serve to "something more than simply to regulate the relationship between means and ends; they considered it as a tool capable of understanding the purposes, even to establish them" (Horkheimer, 1970, p. 16). This reduction in 'instrumental reason' or 'calculating thinking' has had important consequences not only on the philosophical/rational side, but, above all,

the end. The research started considering that the term *active learning* had not yet been precisely defined in pedagogical literature. However, some general features commonly associated with the use of active learning strategies in the classroom may be identified. First, students should be involved in more aspects than just listening. Less emphasis should be placed on the transmission of information and more attention should be focused on the students. They should be involved in activities (such as reading, discussion and writing), with greater importance given to self-reflection and comparison of the students' own attitudes and values. Active learning can be defined "as anything that involves students in doing things and thinking about what they are doing" (Geyser, 2000, p.36).

We need to understand how to help a 'conscious action' to emerge by identifying the main factors of this process.

The first element is identified by many authors in the shift of classes "from a teacher-directed place with a task-oriented culture to a student-centered place with a collective-inquiry culture" (So, Seah and Toh-Heng, 2010, p.480). A traditional lesson, therefore, can make the student's active involvement harder, as he/she must be considered the 'subject' of the research, before being the object of 'transfer'.

A second element, closely connected to the first, is to be found in the fostering of 'interactive' school relations between teacher and student: for active learning, it is necessary to develop the ability to respond to (each other) and the actions of the participants. In Great Britain, the National Literacy Strategy (DfEE, 1998) and the National Numeracy Strategy (DfEE, 1999) refer to direct and interactive learning as one of the factors that contributes to a successful learning process. Teaching is considered interactive when "student contributions are encouraged, attended and extended" (DfEE, 1998, p.8).

A third element, that derives from the second, is the quality of this interaction, which must be based on dialogue, as a form of educational practice. This can improve students' comprehension. 'Dialogic teaching' is characterized by a collective, mutual, supportive, cumulative and voluntary approach, becoming meaningful to students owing to its multiple perspectives. It can be opposed to an 'authoritarian approach' (Scott, Mortimer and Aguiar, 2006) that implies only the teacher's point of view. It must also be distinguished from dialectical teaching which focuses more on

on the social/relational one.

overcoming the differences between the students' thoughts and formal knowledge (Wegerif, 2008).

These three elements are now widely regarded as effective strategies to address the shortcomings of traditional teaching methods, which, in general, are unable to promote active learning.

In particular, the lecture-type lesson is almost considered a method no longer adequate for current classes of students. Symptoms of its inadequacy can easily be found: "Students' attention to what the instructor is saying decreases as the lecture proceeds; It is presumed that with this type of lesson, the listener is oriented towards auditory learning; Lectures presume the listener is oriented towards auditory learning; Lectures tend to promote only lower-level learning of factual information; Students tend not to like lectures" (Geyser, 2000, p.36).

According to some researchers, the root of these phenomena must be, in the reductive conception of the student's role and the educational aims. Students are often treated as passive recipients. This, in part, "may be due to teachers' propensity to talk at students who are required to listen and respond, often just reiterating information provided earlier by the teacher" (Gillies and Boyle, 2010, p.933). The quantitative and qualitative prevalence of the teacher discussion enlarges "the persistence of initiation–response–feedback as the principal form of discourse, the brevity of student responses and the lack of sustained interaction with individuals" (Beauchamp and Kennewell, 2010, p. 759).

This, often, leads to an implicit belief of students that what they should learn will be explicitly given to them by the teacher or can emerge in the explanations and examples given. In this way, there is the risk of creating "a stultifying classroom, where students see themselves as passive absorbers of knowledge, rather than as constructive knowledge builders" (Hübscher, Younger and Narayanan, 2003, p.315).

In contrast to the afore, to promote an active attitude, there is the choice of a variety of educational methods and strategies: experiential learning, cooperative problem-solving exercises, writing tasks, discursive activities, class discussions, case study methods, simulations, role games, peer learning, fieldwork, independent study, literature research, transactions on computers and homework (Houston, 1995). The selected active learning method will actually depend on the situation, the aim of the lesson and the student's level.

All the strategies previously stated are able to help the starting up of

the student's learning activity: it is our belief, however, that the real heart of the matter is not only the discovery of challenging methods (although there is no doubt how useful they are). In our opinion, two factors play a central role in the young student's enhancement of free membership to an educational proposal. What makes it attractive is the coherence of this proposal to the provocations of daily life ('contextual' level) and the type of relationship that is established among the subjects of the educational process ('relational' level).

'Activity' as a 'proper attitude towards the situation'

At a 'contextual' level, the fundamental element of an educational proposal capable of involving the learner, is the underlining and valorisation, clear and explicit, of the 'attitude appropriate to the situation' being dealt with. In other words, active learning occurs when the student is encouraged and supported to face problems that arise from the real context in which he/she lives.

From this point of view, there is a preliminary factor to be considered which often gets neglectfully overlooked. The most important step consists of recognizing that a problem exists, not just because it is the teacher that points it out, but because the student, when active, cannot fail to notice that a provocative detail of reality concerns him/her. The identification of problems, originating not from the teacher, but from the student's own personal awareness, is the first essential element of a truly active learning process: "Students need help to recognize problems, not only to solve them. Accustoming students to solving problems built just for them does not actually mean that they are taught to recognize problems by themselves" (Sternberg and Spear Swerling, 2002, p.107).

Nevertheless, the selection of problems implies a capacity for critical evaluation in order to be able to identify both the importance (relevance) of real problems and false ones, for example, those not worthy spending energy on: "Students need to be taught not only how to solve their problems, but also how to recognize the problems worthy of being solved" (*ibid.*).

Even more precisely, the student must be helped to develop the ability to locate problems, to ask questions and 'open' such problems, that is, going into them more deeply by connecting the detail to the universe of

existing links with other universes of sense: "The carpenter understands what the structure of each piece of wood is by observing its markings. He turns it over in his hands, wondering if the veins on its surface reflect the real structure and decides whether to bring out the grain of the wood with a solvent for metal or a normal paint for wood. To take advantage of these potential capabilities, the brain will have to process in a parallel way, visual, acoustic, tactile and symbolic information" (Sennett, 2009, p.264).

It is right, concerning the 'quality' of the problems, that the school can completely fail in its task of introducing students to real life. Indeed, problem-solving theorists often distinguish 'well-structured' problems from those that are 'badly-structured'. The difference lies, not in a successful framing of the problem, but in the type of solution given. For the former, the solution is explicit and clear (and usually unique), for the latter, on the other hand, it is neither explicit nor clear. At school, we find well-structured mathematics, physics, chemistry and logics problems. But the intuitive problems (such as choosing the right investment, partner or career, or how to enjoy life) are usually poorly structured, as well as are daily problems, the real ones, whether big or small: love, family, money, power and everyday life in general. In this way, almost imperceptibly, the school environment is increasingly perceived as a world apart, a 'wonderland' (Derouet, 1992), "a world that seems to embody, perfectly, the modern project in which values, laws, roles and players interact in an extremely harmonious way" (Maccarini, 2003, p.128).

The most common mistake is to solve badly-structured problems through strategies that belong to well-structured ones, in the hope of finding the formula that makes existence work, as it happened with problems during the school years: "Knowing how to solve badly-structured problems is, above all, the best preparation to help us overcome the difficulties that will often emerge during life" (Sternberg and Spear Swerling, 2002, p.109).

Therefore, young people need to be guided, progressively and constantly, to consider the problem asked in class as an exercise, which is important, useful and, at the same time, artificial, in order to be able to face what happens outside the classroom, in 'real life'. The aim of the exercise is to understand that the goal is to gain experience in decontextualized (well-structured) problems and thus be able to handle contextualized (badly-structured) problems when they are impelling. This is one of the most recent achievements made by human sciences in relation to cognitive

dynamics: they are always occur true in a certain context.

Let us ask: what happens when, in a social context (as one created for learning process), you establish an active environment where every subject is in action and in synergy with another? If several minds are working actively (as opposed to when one works and the other undergoes or exploits), a situation of great variety comes out, a creative efflorescence of possibilities of various interpretations, of divergent alternatives to reconcile. Therefore, the 'divergence' can be the first stage of a process of mutual progress towards learning. It should, therefore, be treated with proper care, as it is also a potentially dangerous element in the educational process: a source, but at the same time, a possible threat.

Checking convergence and ambiguities

Being together 'actively' means a coexistence of perspectives. These viewpoints can derive from shared stories, feelings, desires, goals, values and rules, but will never be precisely the same. In other words, *Alter*, as far as consented by *Ego* to the perception of things, can never be comparable to him. *Alter* will always be, inevitably, different in something. The learning process, being a 'plural' process, must take into account the existence of some degrees of 'divergence' which can be well or badly managed, but not cancelled. An annulment would coincide with an aberrant management of otherness and with the lack of any possible process of knowledge.

Learning implies a willingness to change, depending on the achievement of a more complete goal (a 'truth'): here stands the discriminatory attitude towards knowledge and, at the same time, towards others. Some Anglo-Saxon scholars define this attitude using a slightly strange and suspicious term: 'approach to uncertainty', 'divergence', or 'ambiguity'. Let us now try to understand what they mean.

Recently, psychology has considered the creation of a situation full of alternatives as a positive potential for the effectiveness of cognitive processes. It is assumed that controversial viewpoints are able to foster understanding and mutual appreciation within a class. In fact, "controversy will promote learning by provoking intensive attempts to clarify and finally reconcile one's own and other learners' ideas" (Huber, 2003, p.257).

Therefore, 'convergence' must be considered a 'collective goal of a

shared meaning' or even a representation (or explanation) that gives a correct meaning of a concept. However, 'convergence' is a collective phenomenon and proves that learning has taken place within a learning path based on collaboration. The achievement of this convergence is perhaps the most delicate and critical process of any type of learning, knowledge and relationship among people. In point of fact, man has a tendency that, due to haste and to reduce the required effort of a task, leads to a convergence where some of the available data is sacrificed. In the anxiety to solve problems as soon as possible, he/she tends to force results hurriedly, making problems work out where they normally would not. "Students seem to want to simplify complicated things" (Hübscher *et al.*, 2003, p.321).

It is a reductive inclination, in which "only one, or a small number, of the legitimate and useful ways a topic or phenomenon could be construed are recognized or considered, thus limiting understanding" (Feltovich *et al.*, 1996, p.36). Uncritically pursuing this inclination, students often risk adopting a single representation and apply it even if it is not appropriate to the context. Result: restricted perspectives hinder learning. For this reason, it is right to fight the 'premature convergence', the one that is simplest, the one that neglects unsolved or contradictory details which reality or other people bring to the light.

However, it is also right to wonder if there is a limit to the divergence, beyond which the educational process will be jeopardized. Even the 'uncertain educational situation' has limitations that must be carefully assessed by those who lead the learning process, because even an unjustified or 'premature uncertainty' may reduce or even impede the process of knowledge. Therefore, we need to ask some fundamental questions relating to the functioning of the educational processes that provide and require an 'active' intervention of the learner: what are adequate reasons and what are the correct processes in order to obtain convergence? Behind these two questions lays a third inevitable one: what is authority, what function or dysfunction may it represent, how do the vertical and horizontal (symmetric and asymmetric) dimensions integrate or hinder the processes of learning?

Exploiting the 'complementary differences'

Along these lines, let us move on to the second element which we considered essential for the promotion of an active engagement of the pupil: the 'relational' level. After years of revision, reformulation and obliteration of its function, it now seems urgent to reaffirm the centrality of the teacher's proactive action in promoting an active (and, therefore, really critical) attitude in students: young students, "especially during the age of development - need guidance, authoritative reference models, someone to help them to achieve the targets they set for themselves, to fulfil repeated and positive experiences of success" (Chiari, 1995, p.108). In addition, since it is "difficult to think of formal education processes that are, so to speak, not afflicted by a certain degree of asymmetry between teachers and students [...] the intensity of the asymmetry underlying the interactions between teachers and students can be variously modulated and can give rise to widely divergent educational and socializing outcomes" (Fischer, 2003, p.211).

We could, therefore, say that the respect for the diversity of roles, functions, experience is the condition for the preservation of mutual 'credibility', or, to use the more precise term, a 'complementary' credibility. It is easy to forget that, in classrooms, the relationships that are created and which affect the structuring of the situation are always of two types: the 'complementary' relation (in which participants, belonging to social positions characterized by a one-up situation or higher and a one-down position, or lower, can not switch roles) and the 'symmetric' relation (whose participants are in a position of social equality, between peers). The first category includes the doctor-patient relationships, parent-child or teacher-pupil, while the second applies to relationships in a scientific community or those everyday relationships characterized by friendship.

At this point, the credibility of these relations is linked, in some way, to the acceptance of their own nature, to a balanced and respectful management of the characteristics of the particular mode of relationship. For this reason, "a rigid complementarity, that is, the imbalance or excessive distance between transmitter and receiver can diminish the credibility of the sender and the enhanced level of resistance and hostility of the receiver" (Gili, 2005, p.16). In our case, if the teacher detaches himself/herself too much from the wavelength of the student with whom

he/she is in relation, the teacher's credibility decreases.

We would like, however, to emphasize that also the contrary is true: when the teacher reduces excessively the difference and becomes the 'accomplice' of students, just as when the mother wants to be considered a 'friend' by her daughter or when the doctor turns out to be less 'competent' than the patient, even in this excess of proximity (represented or dramatically real), the relationship of credibility can be suddenly lost.

The extent of the dialogue (which, as such, must start from the respect, first of all logic and then moral, for differences) in the educational relationship is vital: it must be supported by "the awareness that everyone learns and teaches at the same time, despite the diversity of previous experiences" (Jori and Migliore, 2001, p.109). For this reason, as a teacher, "I cannot allow myself the immaturity to think of myself as a pupil, to deny the specificity of my job [...]. Teachers' holding back, in the name of respect for the pupil, it is probably the best way to not show respect to the student" (Freire, 2004, p.57). The common sense is enough to understand that "it is not the sign of an authoritarian exercise of my authority as a teacher in class, when I make decisions, when I direct the activity, I establish the tasks, or I demand the individual and collective production. It's just my authority doing his duty" (*ibid.*, p.50).

This does not mean, therefore, limiting, censoring, or resetting the principle of authority: it is to put it (or put it back) in its place, that is, to stimulate the growth (*augeo*) of the other, taking on the responsibility to conduct: also in this case, it should be remembered that, in order to conduct, you must have, at least, sketched the idea of a goal.

This last step allows us to establish a synthesis of what is necessary to bear well in mind when you talk about the learning and teaching function. What is required of those who want or have to lead or encourage a learning process? In 1976, three American scholars, David Wood, Jerome Bruner, and Gail Ross, published an article in the *Journal of Child Psychology and Psychiatry* which later became popular, entitled *The Role of Tutoring in Problem Solving*: the highly pragmatic imprinting contained in the Anglo-Saxon verbal root used to indicate the guide function, *to scaffold* ('to erect a scaffold around') has certain power and charm. The teacher has to build a scaffold, a sort of 'walker', like the one you use to teach children to walk. However, he must then understand that, at some point, when the plaster 'sets', it is time to remove the scaffold: "As the child takes over the task, the adult decreases the amount of regulations, keeping always on the

edge of a continuing expansion of the child's competence" (Pontecorvo, 1999, p.56).

The teacher is required to have, therefore, a particularly delicate skill: that of knowing when to switch to the various stages of learning, asking students to 'watch' while he/she is solving a problem, to then 'imitate him/her' under his/her direction, to 'be inspired by his/her teaching' when the problems are new and different from those solved together and finally asking them to 'invent' new solutions, even better than those of the teacher's. In this manner, we could say that the 'active' implication of the learner is initially facilitated, set in motion and sustained by the teacher's example. However, continuing through training, the student can achieve a more ambitious goal, which, in the collective imagination, seems to flow only from the source of personal talents: the 'creative' attitude. Creativity is, certainly, a resource of the individual, but its development is remarkably connected to the context in which the individual learns to express himself/herself (as the most recent psychological and sociological empirical research has shown).

We come now to the most challenging hypothesis of our study: the realization of these processes implies that, while respecting the diversity of roles among the protagonists of the learning process, a relationship has to be established that can go beyond the roles themselves, a relationship that does not silt up in the dynamics which are purely 'functional' or, even worse, 'instrumental'. We believe that the 'activation' of the young that has come about, the fielding of its cognitive and volitional energies, would be doomed to an inevitable downward spiral if the reasons invoked and adducted for this commitment were ultimately justified in terms of calculation or convenience. The enhancement of *Alter* can never be reduced to a simple procedure: it is here that what can be called 'humane' is really shown. Furthermore, it is the lack or poverty of this factor that, in time, withers the relationship and the individual.

Overcoming 'non-human' interactions

Even the educational sector, as part of a larger cultural system, is inevitably affected by the criticalities of the society that produces it. For this reason, learning processes do not escape the risk of being bent to the criterion 'of the instrumental benefits economy'. Thus, the relation is

worthy as long as it is 'productive' or 'convenient', but a relation of this type no longer allows the person to emerge in his/her full dimension.

A first step towards the in-depth study of the value of social relationships in the learning process is the suppression of a type of 'crystallization', so far acquired, that leads us to consider the person only in the light of the role he/she plays in society, thus avoiding the real possibility of any success. An encounter with another person or with himself/herself requires, in fact, an awareness which is able to go beyond, what in sociology and psychology is called 'representation'. This is a term used in human and social sciences to describe "mutual expectations during interactions between subjects (a double contingency where *Ego* behaves as expected by *Alter* and vice versa) with the collective representations that make up the social life web identified by Durkheim' (Masini, 1996, p.20).

Therefore, we are dealing with systems of ideas which are anchored on certain 'types'. These systems objectify themselves in the widespread common sense and they engender the habit of living by representations of ideas, a disposition that can become addiction thanks to the mass media, which is the most effective common means of its diffusion. This attitude, that becomes the 'normal' way of having relations in everyday life, can lead to not giving people the characteristics of consciousness, feeling and intentional acts, "and the more we represent such connotations of representation, the more they become representations in relation to us" (*ibid.*, p.21). In this way, we prevent the ability to grasp "the authenticity of the person lying behind those representations" (*ibid.*). A habit is so strengthened that it quickly becomes "that powerful conception of our time that, in the end, only the so-called objectives, or rather the collective interests are real, while is given importance to people just because their performers or instruments" (Buber, 1993, p.83).

Nowadays, society gradually tends to distance humans from their social sphere, through a proliferation of increasingly artificial relations, "in which the human is eclipsed or transmuted into the non-human" (Donati, 2006, p.51). In this way, an ironic and tragic palingenesis takes form, through which the 'progress' is transformed into its opposite: "The progress of the technical resources which could serve to 'enlighten' the mind of man is accompanied by a process of dehumanization; so the progress threatens to destroy that goal which it should achieve: the idea of man" (Horkheimer, 1970, p.9).

This process of dehumanization of society is achieved gradually through

the constant autonomization and mechanization of human activities. This situation is what gives rise to the urgent need of a re-humanization of contexts and relationships. But how can this virtuous circle be 'reactivated'?

As you may have supposed, we started dealing with the issue of 'active learning', but the steps taken so far have led us to gradually shift the focus of our attention 'from the receiver to the relationship'. Our hypothesis is that the urgency is not confined to the discovery of psychological and pedagogical strategies appropriate in order to 'awaken' young people who are less and less involved, but to a more complex problem, where the subjects are all the people that give birth to an educational relationship. In order to activate the young person, the relationship must be reactivated and this, of course, also involves the adult.

Let us consider a hypothesis that can explain a very promising trend, even in the field of learning: "A social form is human when the social relations that make it up, are produced by individuals who open themselves to others in a supra-functional way. A social form is not human whenever its subjects do not open themselves to others (because in this way there are no relationships, but pure reactivity or affirmation of individuality). Neither is it human whenever the meaning of actions is only functional (or pure systemic autopoiesis, as in this case the actions are, in fact, only operations, automations without intentionality, even if acted upon by human individuals)" (Donati, 2006, p.88).

We can now ask ourselves what is the most appropriate way to implement properly this 'relational setting' In other words, what is the 'attitude' that would facilitate an arrangement of social relations aimed at increasing the human side, that is to say, those relationships that are built in the processes of education, learning and interpersonal communication.

Establishing a dialogic relationship

Why is it necessary to open oneself up to others and work with them? First of all, because without this we would not exist. Secondly, because our mind can not function according to the extent of its possibilities. Indeed, reason is not a static structure, but "a movement that takes place from intersubjective acts of mutual correction, through which individuals can free themselves from subjective appearances and open to the true being"

(Costa, 2010, p.18). Therefore, reason can approach the whole understanding of reality (and at the same time as the learning of its significance) only through 'intersubjective acts of correction', without which it is lost, dispersed in its 'likely' creations and with no points of orientation. Reason, thus, is not 'an act' but rather "an infinite series of acts within an intersubjective community: it is interaction" (*ibid.*), since "the other and the others are already inside the subject, because this is established and constituted in intersubjective relations" (*ibid.*, p.39).

This process, then, can not be reduced to a logical/cognitive level, since "there is no true word that is not practice. So, saying a true word means to transform the world itself" (Freire, 2002, p.77). The teacher, therefore, has the task of promoting an interactive dynamic, facilitating the contribution of each one: in fact, "if speaking authentically, it is work, it is common practice, it is to change the world, talking cannot be the privilege of few men, but the right of every men" (*ibid.*, p.78).

If, therefore, the real existence of these 'intersubjective acts of correction' is essential, we should wonder what the most effective relational dynamics is, in making them routine. Scholars from various disciplines connected to human sciences have shown that, beyond vertical or horizontal dynamics, democratic or authoritative (or, rather, across them), what promotes the integral development of reason, and, therefore, of intellect, is a 'dialogical' relationship. The learning process is seen, in this light, less and less as a mechanical transfer or a passive acceptance, and increasingly as a 'mutual creation of meaning': for this reason, recently, "some branches of science, such as philosophy, anthropology, linguistics, communication science and education, have shown increasing interest in the significance of dialogue in humanity's learning and development" (Amhag and Jakobson, 2009, p.658), since "the educational relationship is purely dialogic" (Buber, 1993, p.177).

The term, dialogue (literally: alternated 'speech between two people'), can be understood as simple "interaction between co-present individuals through symbolic means" (Linell, 2001, p.12). However, it is clear that the aim of this process must be seen as much more extensive and deeper than the simple exchange of information. First of all, sharing a real dialogical situation implies that the issuer must take into consideration (as far as changing his/her mind) what the recipient might say: in other words, a dialogical situation is when "each utterance can be considered as an answer to preceding utterances, that is, it has *addressivity*" (Amhag and Jakobson,

2009, p.658).

Therefore, to understand what another person is saying, means that the recipient must 'direct' himself towards what was previously said, with its particular context and taking into account a possible change of the discussion course. Bakhtin has already said (1986) that understanding, by its nature, is always dialogic and all human communication is socially based on dialogic interactions. The consequence of this assumption is that our expression is always a recomposition and a reuse of what others have previously said. This is, a multivoicedness, since 'persuasive speech' (opposed to authoritarian) always includes one's own words and some words of others.

If this is true, it follows that the goal of verbal interaction at school should be a common and mutual reference to an 'object of knowledge' in order to "build more appropriate modes of discourse and analysis for the specific object of knowing" (Pontecorvo, 1999a, p.75). Therefore, teachers and students should, (each with his/her own specific set of knowledge and experience) focus on this one objective: to know the object as it is, through individual contribution. It should be noticed that the context can either facilitate or hinder this essential 'habit': "the normal structure of conversation in the classroom - with its typical sequence of teacher's questions - pupil's answers - the teacher's comment responds to the purpose of evaluating the student's knowledge; this type of verbal interaction is not 'done' in order to facilitate the creation of new knowledge, nor the opposition of points of view" (*ibid*.).

In particular, recent experimental researches on learning processes show that "while in spontaneous peer interactions that take place even at school, children discuss 'facts' and 'opinions', while during verbal exchanges guided by the adult, moments of real discussion about cognitive problems (and, therefore, also of possible conflict) are not expected" (Pontecorvo, 1999a, p.75). It is interesting to note that among children there is an inclination that, as time passes and they become adults, the 'normality' of 'thinking together' tends to fade. This consists of 'collective' and socially shared thinking and reasoning that occur in dialogue and conversation. This is called the "co-construction of reasoning" (*ibid.*, p.79).

This inclination, drawing a downward tendency over time, is not a natural skill, but must be acquired/developed and, above all, preserved. Here is where the teacher has great responsibility (and perhaps of all, the most important of all): an attitude of curiosity will emerge (and will

potentially be transmitted) in the way the teacher conducts his/her class (the rules of interaction) or, conversely, an indifference to the 'discourse' given by the other will emerge. In this perspective, the requested 'decentralization' of the teacher is probably more understandable (and even shareable). He/she assists, facilitates and solicits students in their learning but should, in no way, 'pretend' to be at the same level as them! With what the teacher learned, but, above all, with what he wants to learn from the new context of interaction, he/she may become "the mediating tool (or the mediator) required to achieve the specific purposes proposed by the field of study" (Pontecorvo, 1999a, p.90).

As mentioned before, teachers must consider the class discussion more than a marginal part in the development program of thinking skills: "The discussion is an essential element" (Sternberg and Spear Swerling, 2002, p.121). All those who have taught in their lives know that the classical lesson, as long as it requires preparation (at least during the first years of teaching), is, after all, a 'reassuring' teaching strategy. This is because it does not present any particular setbacks or unexpected situations (as it is connected to an individual project). In contrast to the previous statement, the dialogue or the discussion (when they are not mere formalities) always depend on several subjects and how they are conducted calls for flexibility and intelligence of management in the field. For this reason, teachers do not often use these techniques as they know that it takes more cognitive, moral and, sometimes, even physical energy, or (an even more damaging solution), they abuse the dialogue by letting the children talk without making any assumptions, in a sterile theatre of opinions that have no meeting-point (since without cognitive hypotheses there is no dialogue): therefore, time is simply being killed.

This second option (even more destructive than the first) seems to have recently found theoretical support in post-modern culture, in that practice that Lyotard calls 'a-pedagogy', in which none of the participants assumes their responsibility of guiding the dialogue towards a set goal. Thus, the dialogue drags on aimlessly in a never-ending match of information exchange.

Nonetheless, once an asymmetry is established, whereby there is someone who leads, can we still talk about dialogue? To ask yourself this question coincides with the claim that this asymmetry can sometimes assume such proportions that "the dialogue – namely, the meeting of people who listen to each other, who can put themselves aside when necessary, or

take action to give their contribution to pursue the same goal – is no longer possible" (Postic, 1979, p.119). A dialogic situation should have some balance in the contribution of each participant. Can the teacher who works with children or pre-adolescents aspire to this reciprocity? He/she should be allowed, "thanks to the educational relationship, to achieve a personal goal and to make his/her own changes. In this case, there would be the rule of reciprocity, which implies the usual aspects of interaction" (*ibid.*, p.122).

Alternatively, a teacher's 'realization' should be considered in an alternative, theoretical and experiential perspective where there is not only the simple completion of functions and social roles. It would be a hypothesis identifying the ultimate goal of the educational process 'in' the educational relationship itself, which should be cared for and where members have their own role, function and responsibility, so that they may pursue their realization. Ultimately, it would be a hypothesis capable of enhancing also the possible intermediate and even instrumental goals of the interaction.

After all, if we ask ourselves whether there is communication between a mother and child of just a few days old and whether that relationship can be considered a mutual exchange (each according to what he or she is and what he or she has), everyone would answer affirmatively.

The educational relationship as 'social capital'

An instrumental approach to the educational relationship is not suitable to identify everything that is planned or proposed as 'social capital'. Any type of cooperation is at risk whenever the deep, over-functional and over-instrumental root of it, is not understood. It is increasingly evident that present-day societies are losing the propensity to trust each other in order to come out of isolation and conflict. This energy, paramount for society's survival, is closely linked to human relationships, and is called 'social capital'. Social capital, rather than a simple co-operation, is a relationship network based on trust through which participants may exchange tangible and intangible resources.

Therefore, the usefulness of such "social relations with people or groups that can represent resources for better individual success (achievement) is evident" (Donati and Solci, 2011, p.147), this is even regarded as 'academic success'. As a consequence of this concept, social capital may

gradually be completely drained. Indeed, social capital can be interpreted exclusively in an instrumental way, bent to individual gain. In this way it becomes a mere 'means'. It follows therefore, that even active learning can be considered a 'facilitative instrument'. In that case, you often stop simply at "measuring the impact of social capital on the success of the students" (Scanagatta, 2009, p.26).

On the contrary, social capital, in order not to be subjected to a pure exploitation that leads to its exhaustion, "requires a non-instrumental motivation of every person in his/her involvement with another; conduct should be inspired by the rule of reciprocity: where reciprocity means symbolic exchange and not a *do ut des*" (Donati and Solci, 2011, p.24).

We would like to make a reflection on active learning. It could become really effective for all participants (including teachers) when the start-up resources, as well as the ultimate goals are primarily focused on the mutual consolidation of educational relationship, through which the individuals who cooperate can reach the *ultimate concerns*. In this process, as seen before, the 'economic' logic of exchange is not enough. Disguising the pursuit of your own targets with an altruistic 'semblance of sincerity' can sometimes speed up the pursuit of personal goals, but it certainly weakens, to exhaustion-point, the potentialities of a relationship.

A strange situation might emerge where everyone achieves the desired result: the teacher, a sense of self-esteem and social recognition, the student, enjoyment in his studies and good results at school, but all this "to the detriment of human relations as well as happiness. The common good, on the other hand, leads to happiness because it is widespread through a life in communion with people that live together" (*ibid.*, p.210). Clearly, this perspective is a radical departure from the instrumental mentality that characterizes most of our social relations: "To articulate with the vocal cords the sound 'you', it does not absolutely mean to say the disquieting fundamental word; as long as, seriously, it does not mean anything more than the experience and the use, even to whisper with the soul, a lover 'you' remains without consequences [...] as long as a man fills every moment of experience and uses, he does not burn anymore" (Buber, 1993, p.83).

The refusal of the economic logic, setting a proper relation, leads to an 'ethical' suggestion, encouraging everyone to make their own contribution according to the link between freedom and responsibility, since the subjects of the relationship must help each other to realize what they want/need to

do. To sum up, the common good entails a mutual action of *scaffolding*, where 'vertical' and 'horizontal' are simply different areas of intervention, but yet organic and complementary.

This reciprocity, pursued and proposed with determination, can represent "a new foundation for the idea of a cooperative relationship that can bind all citizens, in their various roles and positions", without which "no institutional mechanism of formal rules will work" (Maccarini, 2009, p.12).

The present educational emergency is embodied in teachers' responsibilities to make emerge 'between the lines' (that is, the rules), a priority of relational good as opposed to the specific objectives (which are, nonetheless, temporary and transient, but indispensable in order to achieve the ultimate targets). This responsibility cannot be reduced to professional competences, as, to the contrary, it is a *habitus* assumed by the teacher. Students always have extraordinary sensitivity towards this attitude: in fact, despite the disastrous education given by adults, they can keep an active 'sensor' for a long time whenever they perceive a genuinely 'good' relationship, ultimately disinterested, 'gratuitous' and so unusual today. "Every word or phrase that hints at not pragmatic relations is suspect. Ask a man to admire one thing, to respect a feeling or an attitude, to love a person for who he/she is, without further motives: that man will take you for sentimental man and he will suspect that you are kidding or you are trying to make him understand something unspoken" (Horkheimer, 1970, p.91).

The preservation of this non-instrumental 'goodness' of relations should motivate the stable and long-lasting 'activity' of the various protagonists of the learning process, regenerating, at the same time, the key resource for the livelihood of a society, especially in times of economic and cultural crisis: the social capital.

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