

FROM THE SCHOOL-FACTORY TO THE SCHOOL-HOUSE OF CULTURE

AURORA LACUEVA

*Escuela de Educación, Universidad Central de Venezuela
Caracas, Venezuela*

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ABSTRACT

The school-factory is the traditional school model, still prevalent today at a global level, albeit with slight renewals and additions which give it a more modern façade. It is characterized by its closed and precise curriculum design, its step-by-step teaching of isolated notions, its emphasis on simple didactical routines and its superficial and deceptive evaluation of learning, based on the repetition of that transmitted. This school is an obstacle for the ample and authentic education of children. Opposite to it, we can consider the model of the school as house of culture: a pleasant and well stocked environment, where children can have valuable experiences of learning, structured in an emergent manner thanks to the support of the teachers. This article focuses on one of the main facets of the school-house-of-culture: enriching activities centered in research projects. Exploratory experiences, different kinds of projects (scientific, technological, artistic, of citizens research...), workshops, short activities, and self-correcting materials can constitute the substance of the school day, often organized in “theme immersions”.

Introduction

The school for the masses, which arose in the most advanced capitalist countries in the 19th century and which later spread to other societies, developed as the environment for the training in basic reading and writing, the four arithmetical rules and elementary norms of ordered and obedient behavior of a population that was being rapidly incorporated to the factories and other enterprises of the modern world. The tradition of the school is a tradition of mass-production, uniformity, simplicity, indisputable discipline and rudimentary pedagogical methods: recitations, drill and practice, copies... This school responded to its purposes of minimal preparation of future laborers and “second-rate” citizens, but is unable to meet the challenges of a more complete, profound and significant education of people: it was not its aim.

Today, the democratic developments produced, the wealth achieved and the increasing personal and socio-economic demands for cultural preparation, at least in the richest countries and often in many others, bring to the light the serious limitations of the traditional school model. In addition, the evidence from the psychological and pedagogical research of the last decades points to the need for a less regimental education, an education more capable of awakening the interest and the reflective effort of the learner.

The answer is not to be found in fragmentary propositions of limited scope, albeit sophisticated and apparently novel, but which leave untouched the core of the traditional model. Nor in the initiatives that try to transfer, slightly refreshed, the academicism and detachment from practical affairs and societal issues of the old elitist secondary school to present-day general education. We need to turn to holistic and far-reaching proposals, which could help us break the barriers of the established school paradigm and build *another* world school model upon different basis, and with other values, routines and aspirations.

We cannot forget that what could be called *the school-factory paradigm* is strong and resists transformation. Its strength is partly based, among other causes internal and external, on its simplicity: it requires very few resources, its teaching routines are few and easy to learn and implement, its demands over teachers and learners are minimal, and there are almost no doubts, dilemmas or challenges to be solved by any of them during the course of school life.

But the options consistent with this model are opposite to all is known about human meaningful learning, and prevent us from effectively supporting the best education of children and youth. Even though we are far from a firm understanding of the area, research of the last decades acknowledges that, especially in the case of the more complex learnings, the new notions do not lie on top of or adjacent to others previously acquired, neither are organized only by simple association, instead, they tend to participate in mental networks (“mini-theories”) that the learner already has, modifying them in a major or lesser degree or, in some occasions, unleashing processes of radical change (different perspectives on the subject are offered, for example, in Strike and Posner, 1985; Duckworth, 1987; Claxton, 1991; Linn, 1992; Kuhn, 1997; a view from neuroscience is presented in Hendry and King, 1994). To learn is not to fix and accumulate but to relate and reconstruct. Also, for the higher-order learning characteristic of good educational action it stands out the importance of

meta-cognitive and affective factors: the learner has to know where he/she is heading and has to want to go there. The metaphorical union of mind, heart and hands is fundamental in complex learning: an active, organic process that makes sense to he/she who embarks on it and that is energized and, even more, co-directed and co-organized, by affectivity (Blumenfeld *et al.*, 1991; Pintrich, Marx and Boyle, 1993; Claxton, 1991; and for a more general, neuroscientific, consideration Damasio, 1994). Besides, it is now recognized the weight of socio-cultural factors in learning: the role of the direct collaboration with others and of the utilization of rich cultural products (Luria, Leontiev, Vygotsky *et al.*, 1973; Vygotsky, 1978; Newman, Griffin and Cole, 1989; Fernández and Melero, 1995).

Increasingly, psychological and pedagogical research reaffirms what great pedagogues like the French Célestin Freinet (1967, 1971) or the Brazilian Paulo Freire (1972, 1993) have said since decades ago: ultra-structured teaching, with its paths prepared *from the outside* to be faithfully followed by the students, encloses children in a too passive role and therefore does not favor the more significant, pertinent and relevant learnings.

From the work of pedagogues like these and others, in different parts of the world throughout the 20th century, it emerges a school paradigm alternative to that of the school-factory, and which could be called *the school as a house of culture*. In this school children can live meaningful experiences, rich and varied, being supported and oriented by the educators, who offer the students a gamut of attractive, intellectually demanding activities, a propitious physical and social environment, and diverse and adequate resources. To the house of culture children do not go to fill in questionnaires or to solve exercises. They go to browse and explore, to propose ideas, to investigate, to design and build, to make complex decisions, to communicate to others the results of their labor... Three enemies of the school-house of culture are: the textbook, the exam and the neatly closed curriculum package.

In the richest countries, resources abound to achieve this inquisitive and democratic school. As a matter of fact, even though in the minority, proposals along this line are more present every day. Current inheritors of the “*école moderne*” of Freinet, of the progressive schools of Dewey, of the project method of Kilpatrick, work in much more favorable conditions than their predecessors: better trained teachers, well equipped schools, mounting

research evidences of the correctness of their choices, a defeated behaviorism, a more democratic political and social climate...

Less favored countries confront the challenge of transforming the traditional school with much less resources and facilities. The danger is there for a differentiation even greater than the existing today among the schools of the richest and those of the poorest. A radical differentiation, not only quantitative but of *quality*, in a deeper and more difficult-to-alter way than ever before, a differentiation that can create an abyss among investigative schools, with abundant resources and teachers prepared up to the graduate level, and schools of repetition and copy, broken desks and precarious textbooks, leaded by teachers that have barely completed secondary education or a few years of low quality post-secondary training. Some could say that, at least, in these low-level institutions children *are* going to school, whereas there are still millions of other children around the globe who are out of the classrooms, working or in the streets. But do we have to be contented with the school-factory for the less-privileged? In a world where the generation of wealth, and the power that brings with it, is increasingly based on the cognitive abilities of workers, the absence of school for many, and the differentiation among investigative schools of the rich countries (or, at least, of some sectors of the rich and not so rich countries) and repetitive schools of the poor countries (and of the underprivileged sectors of the more affluent societies) sets forth a very dark future, of serious global imbalances, hurtful injustices and incessant conflicts.

Ingenuity, the intelligent use of scarce resources, the prioritization of educational investment, the implementation of culturally powerful and at the same time relatively simple pedagogical designs, the well-oriented international cooperation, all can help avoid such a disastrous division. But only if they can operate on the basis of a more equitable global economic order, and of stimulant and just economic measures within each country, because no educational improvement design can thrive in conditions of growing critical poverty, unemployment, disintegration of families and communities, and a bleak future for the majorities.

Centering on the need of culturally powerful but relatively simple pedagogical designs and propositions, in the next pages I deal with a key area towards the transformation of the school-factory into the school-house-of-culture: the kind of activities developed at the

classroom level. The advance in this area needs to be accompanied by changes in at least other four facets of school life: curricular planning, evaluation, organization of work and resources available. I cannot consider them within the limits of this paper, but the proposals are: planning as preparation and not as predetermination, evaluation as help, a democratic organization of school work and school life, and the need of diverse and abundant resources. The intertwined advance in the five areas mentioned can set up the structures of the radically different institution that is needed. These considerations can help all schools, but especially those less privileged, which urgently require to be more successful in the ample, critical and democratic education of their students.

Enriching activities

The school must propose *in a systematic, daily basis*, rich and educative tasks, capable of leading towards fertile learnings. It is important to count with very open, exploratory work, balanced with other more structured activities. The equilibrium among various areas: scientific, technological, artistic, philosophical, sportive... also has to be offered. The main portion of the school time should be centered on investigative activities: different projects carried forward by the children with the support of their educators.

As a way to organize and give strength and direction to the different kinds of tasks that could be developed, we can resort to the figure of the “*Theme Immersion*” (which we take with modifications from Manning, Manning & Long, 1994): there is a great theme, which is going to be studied using knowledge of different disciplines, and through different types of activities, such as exploratory experiences, projects, workshops, short tasks and, eventually, work with self-instructional materials.

What can be a theme immersion? A big, rich subject like oceans, space travel, war, energy sources and how we used them, plants we eat, our ancestors... Children participation in theme selection is important: they can choose among options derived from the official curriculum or selected by their teacher. And, also, they can make their own proposals, more and more fluently as they progress in an investigative school.

Exploratory experiences

At the start of the immersion we can place some *exploratory activities*, which prepare children for more structured work. Also, these exploratory activities can be developed on their own, outside any thematic immersion, as a way to enrich children's school learning and, probably, give them more ideas for future work.

Among them are visits to natural environments, museums, factories, shops and other places of interest; talks with experts: from the baker of the neighborhood to the astrophysic of the nearby university; the "free text" or "free writing" proposed by Freinet (1966), but the authentic one, not the mandatory composition euphemistically baptized with such name; the free drawing; the correspondence among schools, today facilitated by Internet; the school orchard or garden; the short "stays" of animals in the classroom; the free reading of fiction and non-fiction; collective readings; the conversations about objects, plants or animals that the students have brought to class... An ambitious and bold alternative is what could be called "free talk", as developed by the teacher Karen Gallas (1995): thirty minutes spaces for open theoretical construction, hypothesizing, creative speculation... that may or may not be followed at that point by more systematic research.

These exploratory or unleashing experiences form a substrate above which becomes easier and more solid the construction of knowledge. In addition, thanks to some of them, as the free text, the world of children can enter the school to be subject of reflection and research. Another of their advantages is that they complement the teacher efforts: many of these activities allow, directly or indirectly, the dialogue between different experts and the children, expanding in this way their education beyond the limits of each individual teacher's knowledge and capabilities.

Research projects

After some familiarization and "browsing" thanks to exploratory experiences, the theme immersion can advance towards *research projects*. In these more structured activities, the children, individually or in teams, attempt to give answer to issues of their interest, in a planned manner, and combining library research, field work and/or laboratory experiences, with more or less intensity. Usually, the projects demand at least three or four weeks of labor. They involve diverse possible activities, of great educational value. Among them it can be

found: observations of natural and social phenomena -open or using structured instruments-; interviews; use of questionnaires; experiments; analyses of primary sources; consultations in books and other printed materials, videos, CDROMs and Internet; design and making of objects; the proposal of ways of action and the action itself on authentic problems. It is necessary that the children combine the empirical work with the theoretical consultation, in order not to fall either in a simplified empiricism or in a theoreticism isolated from reality. Besides, it is not a question of school children rediscovering the already known, but about their inquiry on the world (their world) based on the knowledge that their culture puts to their disposal.

Planning, development with follow-up and communication are the three big phases of projects. In all of them it is fundamental the decisive participation of the students: only in this way the projects will be true investigations, and only in this way they will be energized by the interests of the students and will be led by complex meta-cognitive processes.

The projects are the best way to put to test and develop children's mini-theories: to construct better, richer and more coherent theories is not a matter of a few "conceptual change" structured sessions, but of the repeated effort to investigate the world with the help of others and using the best cultural heritage.

Macro-projects which involve the whole class-group can be problematic: it is difficult that 20, 25 or, like in Venezuela today, 35 children could be interested in exactly the same endeavor. It is better that, within a big theme, different students' teams could propose or choose different projects. It is not easy to plan and carry on a project, specially if children and teacher are not used to them. In the best examples I have seen in the literature and in action, the teacher gives children time and guidance to think on the theme of their immersion and on things they would like to know about it (Manning, Manning & Long, 1994; Short *et al.*, 1996; Tann, 1990). Children, by groups and then in general discussion, determine some of the issues they already know about the theme and some of the things they would like to know. They later organize their questions by sub-themes, adding new interrogations and refining previous ones, elaborating a big network with all the sub-themes and the questions proposed for each of them. This kind of protracted procedure puts children minds to work, cognitively,

affectively and metacognitively. Short-cuts that avoid it tend to reduce children's control, reflection and interest over their own work.

Two good questions for this phase of the planning stage are:

Where can we look for information? and *What research activities can we develop?*

This last question is important. Without it, projects –as is frequently the case- can be limited to library research, useful but insufficient as a formative activity. Children need to look for information in different sources, and to attend to their teacher's explanations. But they also need to carry out empirical research activities. In my field, science education, I find it useful to differentiate three kinds of projects, according to their methodology and research interest: scientific, technological and of “citizen” action research (Lacueva, 2000). They are explained in the following section. Other projects outside the science education field could be the artistic, the historical and the philosophical.

An important final question in every project is *How can we communicate what we have investigated?* The use of different languages and different means of communication, occasionally directed towards audiences beyond the classroom, enrich children's learning and open more opportunities for self-expression and reflective thinking.

In some innovative schools, besides classrooms projects, each child develops annually an individual project of her or his own choosing. This is an important enrichment of the school offer. I have had the opportunity to see interesting individual projects in the school *Asociación para una Nueva Educación* in Caracas, Venezuela, and also in the school *Pompeu Fabra* in Barcelona, Spain: piercing, an orchard of medicinal herbs, ducks and geese of nearby wetlands, the child's own city, are some of the subjects dealt with in these projects.

Three kinds of projects

In the *scientific projects* the children carry out investigations similar, up to what their conditions allow, to those of the adult scientists: exploratory, descriptive or explanatory research about natural phenomena. Children pose problems, make predictions, formulate hypotheses, design experiences to obtain empirical evidence, manifest their ingenuity in the set up and use of scientific equipment, observe phenomena, register and organize data,

interpret results in the light of theories, support conclusions, and reconstruct theoretical ideas on the basis of experiences and reflections.

In the classroom of Giordan (1978) in Paris, children grew plants and reared animals, activities which gave rise to questions, and then to investigations about, for example, “What do mice eat?” or “Where do seeds germinate better?”. More recently, the author has worked on environmental education projects; close to the kind I have called here “citizen-research” (Giordan and Souchon, 1995). Roth (1995), together with a colleague, worked in Canada with students of grades 8, 11 and 12, developing as he says *authentic school science*. Youngsters, inspired by the available equipment (abundant, varied and quite sophisticated), by previous investigations and by theoretical discussions, undertook problems like “The relationship between the density of worms (annelids) and the independent variables of soil depth, moisture and temperature” or “The effect of viscosity and density on the motion of an object falling through different materials such as a variety of oils, water and alcohol”. Careful measuring, the computational processing of data, modelization using software programs, are essential constituents of students’ work in this case, as in recent others of richer countries. Thanks to the collaboration of interested teachers, I have tried projects, some scientific, with Venezuelan students: for example, sixth-grade students, individually, researched the activities, language, reactions... of a chosen baby, throughout different moments and situations of the baby’s daily life (Lacueva and Vilorio, 1994). The children kept a record of their observations, including some quali-quantitative ones, such as number of words said by the baby or infant, classified according to a typology proposed by the little researchers themselves. They organized their observations, complemented them with documentary information, and made a final report. This study generated diverse questions about mental development and characteristics of human nervous system, and motivated children to compare the babies studied with the preschool students of their institution, and to inquire with their parents about their own past as babies.

Increasingly, we can see examples of studies centered on project-based learning, made in school contexts and not in laboratories, thanks to the more or less dialogical collaboration of university researchers with classroom teachers (Brown, 1994; White and Frederiksen, 1998; a good presentation of several recent programs is in Blumenfeld *et al.*, 1997).

In the *technological projects*, the children develop or evaluate a process or a product of practical use, imitating in this way the work of technologists. Technological projects help develop skills and knowledge little exploited in strictly scientific inquiry: they stimulate inventiveness in the design and construction of objects, increase practical mastery over diverse materials and tools, call for the development of specific categories for the evaluation of their results, allow for the application of scientific notions, and stimulate precise knowledge about the behavior and usefulness of diverse materials, the characteristics and efficiency of different processes and the potentiality of varied tools and equipment. An interesting example is reported by Kane (1992), who developed a unit on sound with six and seven-year olds during the nine weeks of a summer term, in the United Kingdom. The unit encompassed aspects of different disciplines, from science to art. The first sessions centered on short experiences perceiving different sounds, and also on teacher's demonstrations, observation of models of the human ear, discussions... Then the children elaborated their own musical instruments, aided by ideas presented in books and workcards, but making modifications as they saw fitted. They made drums, a xylophone, bongos, castanets, maracas, tubular chimes, bottle chimes, a zither, scrapers, pan pipes... Each team wrote a report on its work, which was quite an effort for the little children and made them reach new levels of systematization and precision, according to their teacher. The whole group visited also a university workshop for elaboration of musical instruments and a museum collection of mechanical musical instruments and musical boxes. Children enjoyed playing their instruments and showing them to their parents in a final event. Kane mentions some of the aspects that could be improved in the experience, a reflection not very common in reports on school innovation.

In Venezuela, Bolívar *et al.* (1987) conducted a project with eight-grade students, which integrated contents of the subject Commerce with other areas. The students constituted mini-cooperatives and agreed on the item to produce: pickles. Each group of partners named their enterprise, made its rules or statutes, collected the starting capital and established responsibilities. They carried out a market study, and investigated also about the production process. In the Art class, they designed models for the label of their jars and, through a contest, chose one which was later printed. The pickles were produced at the school kitchen.

A “Pickles Fair” at school helped them sell most of their merchandise. At closing, each administrator presented the accounts to the rest of the partners. For more on technological projects see Benenson (2001), Cajas (2001), Ritchie and Hampson (1996), and Raizen *et al.* (1995). Useful guidelines and practical teaching ideas can be found in Dunn and Larson (1990).

In the third kind of projects, the *citizenship projects*, the students act as concerned and critical citizens, who jointly consider problems that affect them, get information, discuss and propose solutions and, if possible, put them into practice or at least make them public, albeit at a small scale. In this kind of projects, whose methodology can be characterized mainly as of action-research, students learn to detect important social and socio-personal situations, to look for and to process information from different sources, to take decisions, to organize and work effectively in democratic teams, to negotiate and undertake actions of change in a rational, pertinent and prudent way.

Plonczak, Zambrano and Salcedo (1989) worked with Venezuelan seventh-grade students in the project “Serviguía del barrio” (*serviguía* as a contraction of “guide of services” in Spanish). The teachers knew from past experience that to study their neighborhood for its own sake was of little interest to the youngsters. So they proposed, and was accepted, to elaborate an informative guide for the general public, about services offered in the local community and its surroundings. After some classroom work on services and its kinds, and a search for information that allowed a better planning of the activity, students went out in teams to collect data. Then, they processed and organized them and, following several revisions, made a brochure using the school computers. The brochure was reproduced and distributed.

In the United States, at the University of Michigan a group of researchers develops an interesting work in collaboration with local primary and high school teachers, around project-based learning (Huebel-Drake *et al.*, 1995; Marx *et al.*, 1997). Unlike other initiatives of university teams, locked in a “pure science” perspective, here projects start from real life issues, which may be of significance to the students. Although the methodology proposed could be considered as of “applied science”, sometimes the dynamic of the study approaches what I have called “citizens’ research”. The initial problem of the project is proposed by the

educators, but students derive new questions from it, which guide their investigations. In this way, they have dealt with issues like skateboard physics, the quality of air in their city, and water pollution in a nearby creek, tributary of the river which serves as a drinking water source for their town. In this last project, for example, students made maps, identified and measured pollutants, developed water quality indices, and monitored benthic macro invertebrates, using them as indicators of stream health. They made a presentation of their results to local authorities, and produced other artifacts, like multimedia and an exhibit for the children's museum of their city. The use of advanced computarized technology is intense in this proposal, but this feature could be minimized in less favored contexts without damaging too much the core of the initiative.

It has been frequently said that the processes of scientific research are useful in the resolution of all kinds of problems, including those of personal and social life outside the laboratory. However, this is not so: the problems of the concerned, democratic citizen are not the same than the problems of the scientist, nor are equal the processes of resolution (Hurd, 1970, 1971, 1982; Howe, 1996). In the everyday world it is valuable to look for the useful knowledge and not only or mainly for the true one, and it is also indispensable to contextualize rather than to abstract (or, even better, to contextualize and also to abstract, in a swinging way). Parsimony can be damaging, since rapid solutions to pressing problems are often required, even when they could result cruder and less secure against mistakes. Similarly, the precise records and the careful measurements could imply too onerous costs, being therefore advantageously replaced by qualitative approximations. On the other hand, the interdisciplinary effort and, even more, the transdisciplinary effort become fundamental: we cannot approach social and socio-personal situations in the purity of scientific theories; we may have to apply more diffuse and hybrid theories, which feed on diverse disciplines and which go beyond them. Procedures less highlighted in the scientific environment become important in the lay world: the political negotiation, the making of practical decisions, the prudent social action, the prevision of secondary consequences of action in diverse levels or circles, and the detection of possible obstacles to change. What is important is that such lay rationality, in its own terms, should be increasingly more systematic, scientifically based, critical, pertinent and innovative. To limit inquiry to the scientific kind (or, more broadly

speaking, to the strictly disciplinary-like kind, be it biological, geographical, historical...) restricts children's opportunities to learn other ways of problematization, other methodological procedures and different research goals, more relevant to their lives as citizens. It also means avoiding at school themes and issues of the utmost importance for all of us: the "real life" problems not considered in a purely disciplinary approach (Hurd, 1982; Fensham, 1987).

Other types of classroom activities

Complementing exploratory experiences and research projects, the theme immersion can include *short and fertile activities* like demonstrations, guided observations or experimentations, lectures... And *workshops*, some of them intergrades, to facilitate children's learning of important procedures, concepts and/or values as, for example, graphic making, note taking, information searching in a library, sample taking in field-trips, value clarification on a certain issue, application of a particular conception or theory...

Also, the immersion can include *work with self-correcting materials*, which allow each child to advance at her/his own pace and, in occasions, following her/his own road, different from the ones of other classmates, in order to reach a better grasp of certain processes or concepts.

An example of a complete theme immersion

The examples of school projects presented above are interesting, and have the value of being real experiences, not just well meant proposals on a sheet of paper. But children's participation in their definition was still rather limited, and their activities perhaps too uniform. That is why "theme immersions" as big endeavors that can encompass a diversity of projects, exploratory experiences and other activities, and that ask for students' decision making all along their course, constitute a step forward in the better education of children.

A relevant case is a theme immersion (TI) about the environment developed by Linda Maxwell and her fourth-grade class in Alabama, United States (reported in Manning, Manning and Long, 1994). The class first discussed about the theme they wanted to study. A student proposed to take a look at the issues mentioned in a survey they have participated in

months before: an inquiry conducted by a children's magazine about the main problems the next president of their country should face (it was an election year). After a lively dialogue considering the different issues there proposed, students voted for "The protection of the environment" as their theme. So the theme immersion does not start at "zero point": this is a class where different exploratory experiences occur throughout the year, which offer new notions, new ideas, new possibilities that can later be the basis of more careful studies. In this instance, the fact that they receive that children's magazine at school, and the fact that the teacher invited the students to participate in its survey, gave them elements for their later choice of one of their TI. In the discussion that followed, to better define their TI, students utilized other rich experiences they had had in class, for example, they mentioned ideas about the environment expressed in a book they had read: *Brother Eagle, Sister Sky*. The next days were utilized in small group and general group discussions to generate questions about the theme, to organize these questions in sub-themes, and to constitute the research teams, the way I explained at the beginning of this section. Each one of the teams chose a sub-theme of their interest: endangered animals, tropical forests, our city before and after major renewal done... Each team presented its research plan to the whole group and, eventually, incorporated their classmates suggestions and corrections.

Once inquiry started, the children looked for information in books and magazines (abundant in their class), talked to experts like a local scientist who tries to recover a nearby stream and a member of the city council, examined old photographs of their town... They made two tri-dimensional models of a tropical forest, before and after careless intervention, a mural, transparencies for the school media center, cloth bags for the costumers of local stores, appreciative letters to neighborhood enterprises which plant trees in their surroundings..., they even wrote a proposal for an ordinance on the preservation of trees, and managed to present it (anxiously) to their City Council. Children self-evaluated their work weekly.

The value of this kind of school activity resides not just in itself, but in the fact that it develops normally and recurrently throughout the school year. Also, its different features are significant, and if they change quality may be lost, although at first sight the activity may still look the same.

The examples given in this paper want to help close the gap between general proposals and actual school practice. As Crawford (2000) points out, orchestrating non-traditional, inquiry-based instruction is complex. And very often theoretical arguments or curricular reform statements are rather ungraspable and obscure.

Details of day-to-day events in the real world of classroom life are left to the imagination and often frustration of the classroom teacher striving to use inquiry-based strategies. (Crawford, 2000: 917).

A new school: the house of culture

All children must go to school. But we cannot be satisfied anymore just sending them to the school-factory. It is necessary to open for them the doors of the school-house-of-culture, where they can find a joyful environment, educators prepared to guide and stimulate, varied and adequate working tools, interesting proposals for activities and organizational scaffolds that help them structure their work from the inside.

Schools within this paradigm have sprung here and there during the 20th century, and have generated good learning, but their societal soil has been arid and harsh and so their life has been usually rather short and their number limited. In a more massive and global scale, the school-as-house-of-culture is a well fundamented proposal in need of implementation, development and enrichment. Such a challenging task demands the participation of many people in many different countries, plus important institutional measures, in a movement that has to go both from the basis upwards and horizontally, as from the top national and international levels downwards.

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