

International Journal of Human Sciences Research

PEDAGOGY OF SPACE

Eduardo Enoch Galindo Sánchez

Tecnológico Nacional de México/
Instituto Tecnológico de Minatitlán.
Department of Administrative
Economic Sciences
Minatitlán, Veracruz.

María Patricia Torres Magaña

Tecnológico Nacional de México/
Instituto Tecnológico de Villahermosa.
Department of Chemistry
-Biochemistry and environmental
Villahermosa, Tabasco.

Gilberto Rodríguez Montufar

Tecnológico Nacional de México/
Instituto Tecnológico de Minatitlán
Minatitlán Veracruz.

Lizzet Jazmín Franco Rodríguez

Tecnológico Nacional de México/
Instituto Tecnológico de Tuxtepec.
Systems and Computing Department
Tuxtepec, Oaxaca.

All content in this magazine is licensed under a Creative Commons Attribution License. Attribution-Non-Commercial-Non-Derivatives 4.0 International (CC BY-NC-ND 4.0).



Abstract: In order to fulfill and provide the pedagogical tools to the future professionals, our teaching task aims to enable educational improvement through the Pedagogy of Space as a complement to the curriculum and didactic design. It is based on the socio-cognitive model to enhance comprehension in the fields of science, technology, and the environment, with the purpose of contributing to the enhancement of education in our society.

The result of developing and implementing the curricular design in the classroom, based on the socio-cognitive model, is to improve the level of comprehension and information among students in all degree programs.

Our goal is to enhance the quality of education and provide up-to-date knowledge to our university population that meets the forefront of educational needs, ensuring a conscious assimilation among young professionals in training.

Furthermore, the Institutional philosophy is led by a professional with experience in the field of education, driven by a strong desire for the academic and professional preparation of their students, as well as the compliance with established prevention regulations.

Keywords: Pedagogy, Application, Educational quality

INTRODUCTION

Space as a silent language (and pedagogical silence about space...) More than half a century ago, an American anthropologist, Edward Twitchell Hall, published a work entitled *The silent language* (New York, Doubleday, 1959).

Why this title? Surely Hall wanted to highlight how our way of inhabiting space is usually not very conscious, and, for that very reason, something that we rarely share in our conversations. Yet it is there. And it is a language, that is to say, it follows identifiable codes of meaning and it helps us

to communicate.

One of the great contributions of this author was in the first place the recognition of this wordless language that we speak in our movement, use and situation in space. This silence, as we educators know, is sometimes very "noisy": it is enough to look at certain postural attitudes, certain groupings, certain ways of occupying space, to understand the messages that our students transmit.

With this pioneering work and other subsequent works, Mr. Hall opened a new field of research, the Anthropology of Space, giving academic and scientific status to the study of our behavior in space. In fact, he called *prosemics* the set of observations and theoretical assumptions about the use, culturally specialized, that people make of space.

To give examples: - the use of space and personal distance in each person: we do not get as close to a son as to a boss; to a student than to a colleague; Latinos tend to talk more closely than Anglo-Saxons... Hall distinguishes 4 personal distances: intimate, personal, social and public... In this sense, the interesting thing about his research was not his measurements (in cm), but the understanding of variability between different groups, between different cultures. This is something you learn!

MODELS OF FUNCTIONAL SPACES

The functional specialization of fixed spaces: the parts of a house, or of a school, or, on a larger scale, of a city... An important feature is that some spaces are "more rigid" than others. For example: permitted-induced behaviors in a church are much less varied and variable than permitted-induced behaviors in a secondary school classroom Conference on flexibility and educational quality ``Universidad de Navarra`` September 2014.

I say this as a hypothesis, we will return

later on the latter.

The variable use of semi-fixed elements: for example, the distribution of furniture, its more or less flexible nature. Hall pointed out two basic structures: sociofugal and sociopetal, that is, distributions that promote or hinder communicative relationships.

Hall has been a central author in the first steps of Environmental Psychology. His influence, not always well recognized, is evident in a recent and new discipline, Neuroarchitecture, which investigates how architecture can induce well-being, or stress, or fatigue, or cognitive performance...

It would be a mistake to think that all this works in a mechanical and deterministic way. On the contrary, although we see predictable, even predictable behaviors, they are the result of a very complex network of variables, which include: material aspects of the environment, temporal regulation of the activity, biography and past experiences of the participants, personality differences...

To all this we must add those aspects of social and spatial regulation that any institution develops. An educational institution, as the sociologist Basil Bernstein already pointed out in the 1980s, can be governed by visible or invisible codes. This author distinguishes between visible and invisible pedagogical practices, and, with regard to spatial aspects, we can point out that a visible pedagogy is exemplified in the traditional classroom: its objects are strongly "classified" (everything in its place and a place for each thing; the space and furniture are fixed, they do not vary); the rules of use are clear, explicit and specific, easy to understand by the student; spatial regulations, control and surveillance are evident, being in the hands of the institution and its representative, the professor.

In this pedagogy, the student who wants to preserve his privacy, although he does not have spaces for it, simply "does not attract

attention". On the other hand, in invisible pedagogies (for example, open plan schools: open space schools) objects and space are "weakly classified". This entails greater optionality, greater mobility of people and more changes in the use of objects.

You also need more resources and space. The role of the teacher is here indirect, through less explicit decisions about resources, their spatial arrangement and their variability, therefore, the student has greater autonomy of movement and decision. The teacher's control, being implicit, makes the acquisition of the rules less easy for the student.

Space as a legible, functional, psychosocial and symbolic language.

The foregoing considerations have been preparing us, I hope, to look at the use of space with a greater desire for understanding.

We already know that, although silent, our behavior in space constitutes a language that we can decipher. Spatial behavior works like a signal system. We can read, interpret this language, and exercising this ability can be something very positive for all participants in the educational community.

Ergonomics - the science of man/machine adaptation in its beginnings but which today is taken into consideration in the development of various projects, not only industrial but also urban, engineering, etc., occupational medicine, and other disciplines would deal with the study of these issues. at this level.

In this sense, there is still much to improve in educational institutions. We all know poorly designed classrooms, with impossible lighting, for example. Or with isolation deficit, making it very difficult to concentrate on tasks. Or, more subtly, failing aspects such as the lack of space -we must not forget how the m² per student has been reduced over time in the school building regulations-, inappropriate colours, shortage of container and storage elements, unsuitable desks for health that

induce musculoskeletal problems, etc., etc.

The next level is therefore a psychosocial level of space. Here we can say that the environment supposes for each individual a system of guiding coordinates at a perceptual, cognitive, affective and relational level.

The notions of personal space, territoriality, intimacy, privacy, place identity, appropriation, studied by environmental psychology, and the behavior scenario, proposed by ecological psychology, are, among others, useful to understand this level. We cannot stop here for reasons of time.

In the case of the school institution, in contrast to, for example, the urban public space, it is important to insist on the idea that it presupposes or supports a certain system of social relations, with the establishment of hierarchies -some users have priority over others- differentiations, exchange networks and relational forms, etc. All of this has direct consequences on psychosocial relationships with space.

We have seen two levels, functional and psychosocial. Finally, our interaction with the spatial environment is also done at a third symbolic-cultural level. It is a level that marks the two previous levels, which regulates and emphasizes certain configurations and uses of space, excludes and rejects others, assigns positive and negative evaluations to objects and their uses, defines their legitimacy and breadth, etc.

THE EDUCATIONAL SPACE

MAIN AXES OF PEDAGOGICAL USE OF SPACE

We said at the beginning that, to recapitulate, we can already understand that space fulfills a fundamental socializing function. The human cub, so to speak, must acquire the codes that this humanized space offers him, if he wants to be part of the group

in which he finds himself. This acquisition is basically unconscious, involuntary, as we said before. Adults themselves partly reproduce these codes, often “silenced” or hidden, as we have also seen.

But we also modify them, which requires a job of “disclosure”, of questioning. Precisely this dynamic goes through the educational nature and the pedagogical treatment of the space that we are going to describe below. We will do it through two axes: adaptation and projection⁶. The 5 RICOEUR, P. (2003). Architecture and narrative. Architectonics. Mind, Land and Society, 4, monograph on “Architecture and Hermeneutics”, pp. 9-29.

Here I follow my teacher Alejandro Sanvisens (1984), when he defines education as a “projective and adaptive optimization process”. That is, education allows adaptation to the environment, the adoption of culturally relevant forms and guidelines in the group in which the person has to grow. But as the same author indicates (p.211): “it is not a mere cultural transfer, a simple and routine transfer of habits, ideals and knowledge...”

CONCLUSIONS

As we said, most of what we have learned in relation to the different places in which we have lived has been done without realizing it, so we hardly give it any importance.

At the same time, it is possible to verify to what extent we can agree on our behavior in different institutional environments: a classroom, a musical auditorium, a church, a waiting room... all of them places where the range of relationships is socially defined. with different shades.

This basic socialization, through which we define what is and is not possible, desirable and permitted, is so powerful that individuals are practically interchangeable in these environments: the symphony of behaviors in these environments is practically repeated

even with different people.

Therefore, at the same time, a good educational environment is a place for personal and collective projection. We can then distinguish two lines of influence of the environment, materialized in the architectural environment, which in a dialectical relationship are important from an educational point of view:

- In the first place, the architectural environment provides us with resources to satisfy needs, be they physical, emotional, social or intellectual. In this sense, functioning as a system of perceptual, cognitive, affective and relational coordinates, it is a fundamental condition for humanization.

- Secondly, the medium is also a field of application, a place for people to carry out their own actions and projects, whether individually or in groups. It is the projective moment of education.

It is about the active moment, the time to project what we want, how we want it and where and in what way we want it. An educational moment par excellence in which we can recognize ourselves as co-authors of our own lives, by modifying what we have inherited. Man, in addition to placing himself in his midst, tries to influence him, transforming him for his subsequent personal and collective development.

In short, the educational virtuality resides not only in what it previously offers (space-resource) but also in what it allows later as a result of the action of the participants, educators and students (projection space).

Whether the space is an educational resource or a field of application, it is clear that the investment required for its adaptation must be considerable. Both in a material sense and in the training and dialogue between designers and professionals, an aspect so often forgotten. There is a long way to go here.

RECOMMENDATIONS

We live together at school, at university classes and offices. Using these educational spaces, sometimes involves multiple adaptation actions: lowering the blinds when the flooring prevents you from seeing the blackboard or the screen, using microphones or projecting your voice well when the acoustics of the classroom are poor, moving little when the furniture is arranged it is difficult to walk among the students... The students at the same time work encased a lot of hours in seats and pupils of a single piece, of a single measure, in a way that in search of a minimum of corporal health they come to adopt postures the most unlikely, performing micro movements that sometimes look like contortions..., etc.

We recognize the value of all these adaptations and all these efforts that all educators make daily in our work. We cannot forget that we have already taken a long way from those first school spaces of yesteryear, not thought or projected as such, to the current buildings for education.

However, here it is proposed to take a step further. Taking seriously the idea that the humanized space (the architectural medium) does not only induce functions, facilitating or hindering movements, promoting or hindering the effective execution of tasks, etc. forms of relationship and coexistence. In short, if there is a place and education.

Now it's all a challenge to make our educational environments more habitable. But we are better equipped to do it because we know some things. We know that it is primarily about "unhiding" the rules of the place, becoming aware of its constraints and opportunities, of our automatic responses and of other possible responses that we can give.

We also know that it is about opening a new opportunity for collective reflection among the participants, educators and students,

because the space is always social and shared. Thirdly, we know that we have to negotiate, to harmonize interests between different groups

and different people to reach agreements that are loved by all, inclusive for all.

REFERENCES

FARREL, Glen M. (2010). The Development of Virtual Education: A global perspective. The Commonwealth of Learning: Vancouver, Canada. pp. 11 y 13

GAYOL, Yolanda. (2008). Las Universidades Internacionales, un fenómeno reciente de la realidad virtual. En: Revista de la Educación Superior No. 104. octubre-diciembre. p. 33.

HARASIM, Linda. Hiltz, Starr Roxanne y otros. (2018). Redes de aprendizaje. Guía para la enseñanza y el aprendizaje en red. Gedisa: España. pp. 27 y 28

HILERA, José R. Otón Salvador y Martínez Javier. (2010) Aplicación de la Realidad Virtual en la enseñanza a través de Internet. ANUIES: México. <http://www.anuies.mx/> 27/03/01

LEVY, Pierre. (2009). ¿Qué es lo virtual? Ediciones Piados Ibérica. S.A. Barcelona.

SÁNCHEZ, Franyuti María de Lourdes. (2003), Las funciones del asesor en los posgrados virtuales en educación: el caso de MADE Campus Virtual Politécnico. Tesis de grado (fragmento). Escuela Superior de Comercio y Administración. Instituto Politécnico Nacional: México.