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La ciencia, la lógica y el arte como ejes del pensamiento analítico: el proyecto educativo GPEUX, 2002-2005, en la Universidad de Xalapa, México, y sus repercusiones académicas

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Introduction: the dream GPEUX

An academic dream and its realization depend on one idea that became the center of all. In the case of the dream G-PEUX, the idea belonged to the writer Elias Canetti:

"Is there any idea that doesn't deserve being thought again"? (Canetti, 1980: 76).

Three elements to consider: To think again, the logic and the art as support of academic formation in the superior education. That is a whole new way to revise in Latin America, where the methodological insufficiencies in this field are evident and has to be worked precisely.

This work develops a retrospective vision of the project Degree Premium Elite of the University of Xalapa (G-PEUX from now on), took place between May 2002 and June 2005, in this project the elements that were put in practice were scientific, logical and artistic, to reinforce and to potencies the university formation in the Major Degree. This educative experience got together in the classrooms teachers of several disciplines and students from different majors to take extracurricular classes and public

scenarios to debate, with significant multidisciplinary results, that they are still useful in the University of Xalapa.

1. Origin of the project G-PEUX and its planning

The dream G-PEUX was supported by the academic vision of the Dean, Ph D Carlos Garcia Mendez, Dean Representative today, and the Vice Dean Ph D Isabel Soberano, Dean today. The strategic objective was to reinforce the student's formation with extracurricular classes of scientific, logical and artistic kind to propitiate an analytical thought. At the same time, from its planning we searched as a result, an important change in the educative model UX and its student programs offered by the University of Xalapa. This way the Project was conceived, and started its first phase (May 2002 – July 2003) by the Director of G-PEUX, Cesar Augusto Garcia Soberano, intellectual author of this dream and Vice – Dean. The second phase of the project (August 2003 – June 2005) was coordinated by Omar Lopez Rojas and Luis Antonio Blanco Cebada. The operative planning of G-PEUX, after being traced the strategic objectives, was centered in the selection of the participants, teachers and students. To this point it is important to give more details.

1.1. The Board Group of G-PEUX

There was a necessity of competent instructors to begin a multidisciplinary way to built knowledge, abilities and attitudes. The first point was to diversify the academic visions to do not get only one profession that dominates the sense of the discussions in the board group. This way, after a revision of academic resumes, the specialist group was selected by the invitation of the director of the G-PEUX, Cesar Garcia Soberano, that group now integrated in May 2002 formed by a philosopher, a historian, an engineer, a methodologist, a journalist, an expert in computer science, an engineer, an expert in statistic, an educator, a professor of physical education and an expert in logic.

Other criterion of inclusion in the board group was the availability of time to the project, the geographical location and the adequate attitude to collaborative work.

Each member of the board group has an assistant/student, to organize their activities and to generate academic squares that permit the cultural reproduction of the G-PEUX project, in the case of anyone has an early leaving or a quit to the project. It's important

to mention that this kind of assistants had the same academic resume to their mentors, to propitiate a better academic relation.

The board group was charged of: a) to built the student's programs for the extracurricular subjects to take in two years, b) to execute the student's programs by semester and c) to evaluate the G-PEUX project in each phase of it.

To see more details, consult the chapter V of the Book Edu-Gestión, edited by the University of Xalapa (Edu-Gestión, Several authors, 2002: 91-122).

1. 2 The selection of the students and participants of the pilot group.

In the pursuit of the dream G-PEUX, the raw material was the students. Between May 2002 and July 2004, there was a pilot of 16 students coming from 6 different majors: Sciences and Techniques of the Communication, International Business, Sciences of the Education, Electronic Engineering and Communications, Engineering in Systems and Administrative Computer Science. To select those students, there were personal interviews and a meticulous revision of their academic background files, and also their socio economic and familiar situation.

At the beginning, the G-PEUX project was designed for students in their first semester (new entrance), that has the profile of: a) scholar high performance (8.5 as minimum general average) and b) a proved economic necessity to justify the designation of the scholarships. However, after being promoted in the university community, several students in their third semester asked their incorporation to the project. That's why the pilot group was formed by: 11 students of first semester and 5 students of third semester.

The second group of students G-PEUX worked between August 2004 and June 2005. It was a total of 14 students, getting up students of the Law Major, besides the same majors mentioned in the first pilot group.

It's important to consider the next point, to give a general ideal of the academic interest that generated the experience G-PEUX: the students participating dedicated a big part of their time to commit with the project, including weekends to cultural recreational activities, because the subjects were taken in a different schedule than their main subjects. This reveals, that beside, the student's responsibility, there is an attraction implicit in the G-PEUX project in their subjects, themes and contents.

2. The development of the G-PEUX Project.

The subjects of study were, in their first phase: 1) Seminar of Multiculturalism, 2) Advanced Writing, 3) Management of the Information, 4) Logic and Argumentation, 5) Physical Activation. In the second phase the subjects were: 1) Workshop of Debate, 2) Workshop of Public speaking, 3) Formation for the intellectual work, 4) Workshop of Investigation, 5) New technologies. It's not the time yet to detail the contents and themes developed in each subject of G-PEUX. But the interesting to our working table is to describe the thematic and the dynamic of the G-PEUX more significant in relation to the arts and the logic. To get this route clear, to continue we enlist the activities in chronological sequence:

1) Painting (September 2002): *persona reflection*, from the critic made by the English writer Julian Barnes to the different versions of The execution of Maximiliano, painted by Edouard Manet in century XIX. (Magazine Nexos, July 1993: #187). The objective was to develop the descriptive abilities and analytical of the students.

2) Literature (October 2002): drawing in colors of an African queen and her clothing, from the description of Gustave Flaubert described in his novel Salammbô. The objective was to visualize a literary character, to consolidate the descriptive ability with a combination between the textual and the visual.

3) Logic (November 2002): *identification of deceits* in journalistic news. The objective was to propitiate the analytical and logical thought in the contemporary world.

4) Multiculturalism (January 2003): identification and interpretation of e *elements of popular culture from the massive culture*. The objective was to visualize the mix and the hybrid cultures from the quotidian activities of the people to determinate the impossibility of purist and idealized visions of the culture.

5) Literature (April 2003): *essay about the relation between the art, history and science*, from the novel En Busca de Klingsor, from the Mexican writer Jorge Volpi. The objective was to propose multidisciplinary elements of knowledge from a narrative

piece (Volpi's novel), to appreciate how the artistic discourse generate new visions of the world and of history.

6) Activity /Debate (June 2003): the creation of writing exhibition for a public debate about Cloning, the debate were between students from the University of Veracruz and the G-PEUX students from the University of Xalapa. The objective was to promote the research, also the tolerance attitudes and respect for the critics, through a cultural ideal scenario to the practice of argumentation and the logical reasoning.

7) Rhetoric (August 2003): *essay about the elements of the rhetoric and poetry of Aristotle*. The objective was to propitiate the reading comprehension and the critical reading, to the articulation of the discourse of Aristotle in other fields of the knowledge.

8) Management of information and new Technologies (September 2002 – June 2003): *Virtual debate forums taking place in the G-PEUX platform on line*, with different thematic in the cultural, scientific and artistic fields.

The objective was to develop an academic space of interchange reflexive thoughts between the students G-PEUX, to diversify the visions of the world and to promote the respect and the interest in the others opinion.

9) Literature (September 2003): *reading report and discussion forum about the novel El resplandor de la Madera*, from the Mexican writer Hector Aguilar Camin. The objective was to distinguish the historic discourse from the mythical discourse and to precise similitude and differences between mass cultures and popular cultures, to consolidate the pleasure literary and the historic sensibility trough the comprehension of different times and societies (rural and urban) of the modern Mexico.

10) Document / Research (September 2003 July 2004): *handle research techniques and scientific methods, theory fundamentals to get a theme for a thesis*. The objective was to consolidate habits of research between the integrants of the G-PEUX, to in work in a thesis work.

11) Activity /Debate (January 2005): The creation of the creation of writing exhibition for a public debate about ethic contemporary dilemmas between the University of Veracruz and the University of Xalapa. The objective was to consolidate attitudes of public speaking and techniques of argumentation trough the intellectual confrontation, to articulate the analytical thought of the students G-PEUX in public debate scenarios.

12) Activity /Debate (June 2005): creation of the creation of writing exhibition for a public debate about juridical dilemmas between the University of Veracruz and the University of Xalapa, with the participation of the UNAM as academic judge. The objective was to exercise the analytical side of the students G-PEUX, to cooperate to their intellectual and ethical formation trough juridical discussions.

Until this point the chronological review of thematic and significant activities of the G-PEUX project and its academic project and learning objectives.

It is worth to mention, now, the innovation aspects of the G-PEUX, at least from the educative perspective of Latin America and the Caribbean region:

a) To visualize in an axiological way, the necessity of an integral university formation that overcome the not fragmented and out of context visions of the knowledge, also the pretensions of neutrality and objectivity (for example, the identification of deceits in journalistic discourses).

b) To visualize in a methodological way, the necessity of an effective collaborative work that permits inedited academic space of learning and the interchange activity (for example, the combination between art and science in different activities as well as debate and speaking skill workshop).

c) To visualize in a reflective way, the science, the logic and the art as playing elements of knowledge, that generates dynamic and more creativity contents in the classroom (for example, the reflective thoughts about paintings, in the realization of drawing from literary texts, in the discussion forum about novels) and virtual spaces of learning (for example, the discussion forum on line with a constant interchange).

The axiological fields of the G-PEUX project implicate to think twice about the significant values of the university education (intellectual responsibility, imagination, tolerance, diversity, flexibility) in action content. This means: to pass from the internalization of the values (its reflective assimilation for the students) the expression of those in specific behaviors. This way, the axiological field planted by the GPEUX project answered to the necessity of pass from the simply mention to the action (for example, in the activity / debate) it's a crucial aspect in the region in which this experience was developed.

In the methodological field of the G-PEUX project implicates to develop scenarios to add the knowledge of the several participants and go on from different perspectives that complement each other, to find new solution with a board group criterion, to solve old problems. In this direction, the methodological field planned for G-PEUX answered to the necessity of a combination of knowledges to achieve finished isolated visions of the education and its problematic in the Latin-American context.

The reflexive field of the GPEUX project implicated to manage dynamics and contents that with a playing element and creative sensed retake with more stress in the science, the logic and the art as central topics of discussion, analysis and argumentative production. In this way the reflexive GPEUX project answered to the necessity of diversifies educative practices with unusual themes in the geographical region of reference.

2.1. Theory bases

About the theory bases of the G-PEUX project, it is worth to refer the multidisciplinary element that worked in the different phases of this educative experience. In the already mentioned book *Edu-Gesgtion*, edited by the University of Xalapa, it's been synthesized the achievement of the two first years of the G-PEUX project. There is the planting of a multidisciplinary knowledge: "It consists in a knowledge fusion around an object of pertinent study for academic including reasons, searching the integration of different theory frame in new knowledge models" (VVAA, *Edu-Gestión*, 2003: 31). Also it was an important point: "The multidisciplinary knowledge requires an accent in the creation of academic bridges between the different disciplines, with the exemption that

those bridges do not take to a separate academic field. In the multidisciplinary knowledge the bridges are already an academic territory where several disciplines live together. That is why we talk about a fusion of knowledge and not only a combination” (Ibid). Until where have we achieved that fusion of knowledge for the participant students of the G-PEUX? It is not easy to say, even the G-PEUX project ended officially in June 2005, it continues giving great academic results to several majors in the University of Xalapa.

Now, the definition of the most important theory concepts of GPEUX, without this extracurricular experience of superior education would be unthinkable:

Analytical thought: the capacity to assimilate ideas, to process, to articulate them, for a projection of cultural interpretation and practices, in a complex context of reflection and production of messages. (Eco, 1968: 343-407).

Collaborative work: the reflective integration, be caused of a consensus of individual multidisciplinary efforts, to get a resolution of educative and collective (VVAA Edu-Gestión, 2003: 128, 129).

Creativity: the analytical ability to detect by the combination of imagination and logical reasons, new strategic vision to old problems. (Baudrillard, 1983: 77).

Educative and communicative attitude: the capacity to expose a problem in simple terms, in the course of a talking and academic discussion. (VVAA Edu-Gestión, 2003: 36).

Critical Reading: the capacity to relate a text and its context in an assimilation of ideas, also reflexive proposals and a changing questioning issue with a focus to the concrete application of the acquired knowledge. (VVAA Edu-Gestión, 2003: 17,18).

Instrumental rationality: the exercise of consensual decisions in the right time, without considering in first place as immovable chains of command. (VVAA Edu-Gestión, 2003: 40).

Why to take those theory bases? Well, there are other theory concepts that for the reason of space are not mentioned (met cognition, analogy, competent individual,

epistemology retractable). To effects of argumentative defense, in this few words: without analytical thought there are not precise comprehension, nor interpretation of a cultural phenomenon, without collaborative work we are like islands, without creativity there are not new visions in the knowledge construction, without a communicative attitude we are like cultural orphans, without critical reading there are not internalization of other knowledge and without instrumental rationality there are not organization with an humanistic support. That should be enough as an explanation why those used concepts.

2.2. The science, the logic and the analytical thought

The superior education in Latin America speaks about science, but not in the practice. At the same time, the logic appears rarely as a plus in the majority of the students program in the region. That's why the analytical thought does not show in the profiles of the graduated students of the university. Under this grey perspective, it became a strategic objective for the University of Xalapa to recover academic field so much mentioned in the rhetoric but very forgotten in the reality. Of course there were conceptual mistakes or deficient practices, even they were well planed. From an institutional posture it was not popular to return back to the reasoned argumentation of the science and the logic, when the new generations seem more alike to the postmodern thought, always got in to the game, the relativism e even in the conceptual chaos. Also to extracurricular subjects, the academic decision was risked, but it gave a good result. This will be more explained when we see the academic repercussions for the G-PEUX project.

2.3. The art in the classroom: creativity and analytical thought.

The G-PEUX project took the art to the classroom in two different ways: as a reflection of the narrative pieces (textual and visual), and as a production of messages that reflect a sensibility and a style (in motion). It is true that so many times it was a rare combination between art and science, but the two aspects were complement instead of excluding, to talented students that in his study programs of major that the haven't yet the opportunity of play in both directions.

The art in the superior education most has been at the same time object of study and an agglutinant element of several knowledges. There are majors more alike to it, of course, but it should not be excluded of any major a priori. The university students need the art as analytical fuel. This has to be understood in a strict sense, not as a metaphor. There are not an obtuse thought that left behind a great narrative piece, being a painting, a comic, a novel or a movie. “A man only could survive if he has stories to count on” (Eco, 1994: 126). And nobody tell better stories than the art, always unreachable, but always sharp.

2.4. The collaborative work

The G-PEUX project would not be here without the collaborative work shown by their integrants: directors, teachers, assistants and students. To this there are not recipes, but hard work, with clear objectives and verifiable results. That helps in front of an ego fight that never misses. There is an old Mexican traditional story that resumes the sense of the academic ego, unfortunately in Latin America: several sea crabs are trapped in a fisher man tank and to escape the other sea crabs pull them hardly and in this way the sea crab that wanted to escape get back in the fisher man tank. Nobody helps anybody. Everyone is hurting everybody. This traditional little story is a contrary version of collaborative work developed in the G-PEUX project. There are ethical requirements of attitude and organization to the collaborative work. There is not intent of idealization (VVAA Edu-Gestión, 2003: 33): it is about an ego fight that lost the density of common goals. This is not always achieved.

3. Academic repercussions of the G-PEUX project

It's been three years since the project ended its academic period in the University of Xalapa. Two groups of different students ended the extracurricular subject's package. Now a list of the academic repercussions that result more significant:

1) This experience as base, *there were presented changes in the study programs of the University of Xalapa, in the Major Degree*. There was a new structure, following the model G-PEUX in the Majors of Sciences and Techniques of the Communication, Administration and Accountability. In the list of subjects o this study programs, we added a line of formation that reflects the multidisciplinary tendency already mentioned

in G-PEUX, study habits necessities at a university level, the weight going to the analytical thought and the logical argumentation, at the same time a major cultural formation through artistic phenomenon. There are recent opened majors as Marketing and International Business that also has taken the academic aspects of the G-PEUX. There are other majors that are working in curricular changes based on the academic results of G-PEUX.

2) About the *achieved academic formation*, 27 from 30 students G-PEUX worked outstanding thesis of major, gaining 12 diplomas of Honor Mention (the highest achievement in the school), 10 diplomas of Academic university merit and an average of 7 highest notes in their majors.

3) A notable academic impact for the University of Xalapa in its several majors, its been *the rising of discussion forum and the intellectual confrontation, activities in every ending of semester, public scenarios and dynamic simulators of professional practices*. The emphasis on passing from the theory to the practice couldn't be possible without the G-PEUX, or at least it wouldn't have the same impact in this aspect.

4) The *notion of multidisciplinary and its epistemological elements* has touched several teachers UX, thanks to the contact between teachers members of the board of G-PEUX project and the assistant/ students that still work in the University of Xalapa.

5) Also *the new structure of class program based on the triangle of competences* that G-PEUX used with the strategic vision.

Conclusions: analytical though and creative responsibility

It is now an ended dream but an accomplished one. But above all: prolific dream that still give us results in the academic field.

Umberto Eco tells that the English talk about collateral damages when in the knowledge field, someone search determined results with certain techniques and it finds another result, equally or more benefic than the original purpose. (Eco, 1994: 28). This is the result of G-PEUX, that searching a group of students of high performance;



we found thematic and activities that impacted in a bigger rank the offered majors in the University of Xalapa.

The art and the logic will be always problematic elements in the university study programs. Nobody knows what to do with them. Untied those nodes, in the superior education, implies to be risked and creative from the planning of the project till its execution.

Happily, that is what happened in a little university of Mexico, our University of Xalapa that might be teaching something to other bigger institution and much more important. Because its not important the size: what it is important are the ideas, that became dreams and “To think again” as Elias Canetti would say.



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