

Relations among knowledge society, formal education and the government cross-sectorial strategy

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Palavras-chave

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Abstract

Public administration's focal groups design the cross-sectorial strategy and this articulates, in turn, important environmental infrastructure projects that allow local sociocultural ownership in Bogota. This article first claims that both the fragmentation and emotional and knowledge gaps affect the results of the technical-social works in city sectors. It follows by arguing that higher education ignores the emotional and sociocultural competences that normally arise when working in teams. Hence the excessive knowledge fragmentation among the different levels, desktop jobs and field work disrupt both style and management results impacting upon communities. Lastly it concludes with two important facts, first, teamwork is decisive in transversal management processes and second, the social-mapping methodology is an option to the reinterpretation of local territories while involved in a plenty of uncertainties environment because of the neoliberal politics.

Relações entre a sociedade do conhecimento, a formação acadêmica e a estratégia de transectorialidad governamental

Resumo

A estratégia de *transectorialidad* desenha-se em equipas de trabalho da Administração pública. Articula-se à construção de importantes obras de infraestrutura ambiental com espaços de apropriação sociocultural em Bogotá. Este artigo sustenta que o parcelamento do sistema educativo e o desequilíbrio entre competências cognitivas e emocionais afetam os resultados das obras técnico-sociais nas localidades. As linhas argumentais propostas referem que a educação superior ignora o desenvolvimento de competências emocionais e socioculturais evidenciadas em trabalhos de equipa e liderança; a excessiva fragmentação do conhecimento entre níveis, cargos de escritório e trabalho de campo, transtorna estilos e resultados de gestão com impacto nas comunidades. Conclui-se que o trabalho em equipa representa o epicentro *transectorial* em processos transversais de gestão, e que a metodologia de cartografia social é uma opção de re-significação de territórios locais no meio de incertezas por políticas neoliberais.

Introduction

The cross-sectorial strategy applied to governmental institutions of the capital and of the Colombian nation is adapted to the knowledge society in the implementation of development projects, this all to face the many problems that globalization arise in local contexts of developing countries. Some of these problems are: ecologic-environmental, unemployment and poor hiring conditions, indiscriminate violence, corruption and general and widespread poverty. When considering cross-sectorial, it necessarily implies the activation of interinstitutional projects for the final implementation of great local infrastructural works. It demands the participation in varied science fields and finally it is assumed that professionals are fully aware of their own commitment and can apply universal values that contribute to the local development. At the same time, in this context some disruptions arise regarding the formulation of cross-sectorial strategies in the transverse objectives implementation, in terms of rationality in local territories.

After all, Colombian education sector requires an unavoidable revision of methods, techniques and procedures linked to the development of the skills and competences of the information society in the twentieth century, in response to the challenge of “creating, processing, adapting, sharing and making knowledge accessible for problem-solving” (Tobón, 2013, p. 5).

To begin with, undergraduate education –this not being the analysis moment– could look through both, the teaching emphasis as well as in the application of the functionalist approach which focuses on the description of social events; since this limits the approach to the problem sources and to the conflicts associated to the financing capitalism, the excessive global neoliberal’s rise and the global climate change along the 21st century¹. Teaching systems theory or structuralism can be another alternative, since it enlarges the social practice knowledge spectrum. Regarding the procedures, the researches of the “Organization for the Cooperation and the Economic Development” (OCED) (Miyamoto 2015) suggest to include in the curriculum the social and emotional skills development, which in turn interact with the cognitive skills and have a role in the values creation and the human attitudes strengthening related to tenacity, responsibility, self-esteem, and teamwork sociability.

1 The dialectic method applies deductive and inductive procedures, analysis and synthesis; it is supported in the formal logic in the connectivity of links and interrelations; it reveals contradictions and builds prospectives in complex issues associated to the natural phenomena, the society or the perspectives with deep social transformation tendency.

While it is true that the mapping method in communitarian training allows participants to get core information in local territories. Leaders, social agents, and ONGs remain powerless before the faculty given to the Multinationals by the Colombian government regarding the indiscriminate land occupation, with no opportunity to have them follow environmental rules to prevent communities from facing natural catastrophic events².

This article emerges from the desk research and the project’s field work “the common aspects are: water service, public health, social security and the culture of Tunjuelo basin area inhabitants, Bogotá” It also gathers the author’s communitarian work experience in different regions of Colombia.

Names given to the work groups

Cross-sectorial is expressed through setting out groups, work teams or inter-institutional committees. Since each group is very particular there are many ways to name each according to their particular characteristics. From a science division perspective each discipline develops their own concepts and categories. As an illustration of it, in sociocultural anthropology, the word ‘group’ can refer to a community of different and multicultural individuals who inhabit a geographic area, and whose necessities and interests are similar. Nonetheless they keep traditional representations, symbols and analogic identity signs. A group then acquires the collectivity characteristic, once they share tuned up objectives and interests, these are mediated by general agreement to make decisions.

In that same regard the term ‘group’ refers to possible casual encounters and for a short time, either in a train cabin or in any discussion that generates certain social integration (Adorno y Horkheimer, 1969). Another meaningful trait is the ephemeral condition of committees that shapes the cross-sectorial. Regarding the different disciplines that take part of the work teams, Adorno and Horkheimer claim: “The pure sociology does not exist, neither does the pure history, the pure psychology nor the pure economy. Consequently the scientific division of the work cannot be ignored without falling in chaos” (1969, p. 21).

2 “For over 50 years, three have been the factors that draw sand and gravel from the Tunjuelo river bank: the Holcim Multinationals-even inside the artillery school and CEMEX Colombiana S.A., as well as the tittle given to enter the subsoil in the colonist period to the foundation San Antonio of Bogotá’s archdioceses. In conclusion they violate the environmental norms and affect the living human environment of the area”. (Barrera, 2015, p. 185).

When breaking apart the main objectives of the study we risk excluding and breaking up basic relationships in regards identification problem aspects, comprehension, analysis or synthesis that characterize social practices. As it concerns interdisciplinary in many science fields: social science, humanities and others. It is not disregarded the tendency of joining each other or consulting one another (Adorno and Horkheimer, 1969).

With this in mind, work division is inseparable from the intrinsic organization of human groups in the history of humanity. According to Meillassoux (1975), even though primitive societies barely had material development, their consolidated sociocultural links were very strong. The community shared knowledge to elaborate strategies based on cooperation to get livelihood assets. That is to say, they developed economic units, and a system of work division that allowed tasks like fishing, hunting, utensils elaboration and goods for collective use. In Meillassoux' (1975) research "domestic production" of agricultural societies denominated segmental, focused on work division and productivity, he claims:

Each group work team is built on a willing ground. If the common objective has required the elaboration of a means of collective production susceptible of being used repeatedly, over the time it is being used, the members of the team are encouraged to remain together. However the constructed links throughout the experienter are not mandatory [...]. Once the producer abandons the team before the ending of the project, he does not do more than abandon his part on the production, but essentially this does not break a production cycle (p. 18)

Pre-capitalist societies represent integral forms of organization. By knowing the unit as a whole the survival of the tribe or village would be guaranteed: going from the general to the specific and vice versa, and from the segment to mental processes of the collective ego, without anyone perceiving the existence of thinking processes. After a few centuries, when industrialization began, the mass production boosted consumerism and replaced cooperation, the main agriculture's characteristic, to market competition. Considering the diversification of the social division of work at the manufacturing period Adorno (2001) claims as follows:

[...]It is linked to the segmentation of work in small and similar tasks among each other. Teamwork reports automatically and precisely reciprocal controls, just like in the *Blind Scoring* methodology where the members of one same group subsume independently specific data following the criteria. The decision should be ob-

jectivized by comparing the results, that is to say, it should be independent from the individual spontaneous scores (p. 60).

The representative of the Atomism philosophy³, Descartes, funded the bases of the industrial capitalism and the individualism that Camps (1999) defines as "selfish prejudice". Later on, he adds that among the philosophy's priorities relies the legitimization of the subjection of *other*, which Fromm (1956) defines as "abstract authority"; this is referred to the law, to the State or anonymous power the one that no one sees, even though it casts its omnipresence in the behavior regulations and attitudes of subjection, with no – apparent— reasons for that subjection "Questions like the following are uttered with varying success and conviction: why does the selfish individual end up subjecting to obligations?, why do they have to abide by the law?, how to explain to them, they ought to be moral " Camps, 1999, p. 27). Thus "the selfish prejudice" deepens out the corporate state, a characteristic of the globalization that first gets immense in the formative reproduction of educational establishments and then, expands to the practice of professions in the societies.

When considering *subjection of the other* we also consider the constant evolution of the authority in the field of administration. It is the greater coordinator and first available option; in the present time it is used after other action mechanisms have failed, standing on the modern theories "hierarchy simplification and more autonomous people" (Bijon, 1992, p. 83). Additionally from the labor force perspective there are certain expectations, the humanist vision of the leader, places him as a facilitator, as a coach and agent of change. It is the vision that sets up a distinction between the leader and the authoritarian in Fayol's theory, existing in governmental institutions in a wealth of social organizations. From this perspective the importance of competences, personality features and management styles are highlighted and rooted in the inherent authority to the power given by the command line (Barnard, 2000). That is to say, domination is

3 In the second part of Discourse of Method, Descartes refers to the analysis and synthesis rules. The analysis begins by breaking the whole into parts. It is the main command of the technical diversification of the work and its posterior specialization. The synthesis compiles in a deductions chain simple affirmations got through analysis. From this perspective, Alsina (2014) claims that along the seventeenth century the Scientific Revolution becomes a cultural fact unprecedented; its main characters are Descartes, Galileo and Newton. These start a new science represented basically by physics and whose fundamental paradigm is the mechanism. The whole entire universe is depicted as a great machine that works according to mechanics associated to the technological revolution in considerable proportions.

applied when the *other* is efficiently commanded, by an administrative or by a *domination* association, all this, based on the particular features of the group that is being commanded and also the goals and the domination reach (Weber, 2002).

Academic education in the technical sciences

Segmented academic education in the field of higher education is placed within the technical sciences. That is to say, it beholds a curriculum focused on three fundamental areas—generally—it splits the subjects into: basic, disciplinary and humanities. These last ones have a reputation of being unnecessary in the curriculum. They lack of contextualized meaning linked to the culture, the society and ethics. In the university's argot are known as the "filling subjects" thus "the useless ones", the ones that serve the purpose of raising scores on the disciplinary subjects. Not to mention in curriculums is also mentioned transversal segments separated from one another. Bearing that in mind a more meaningful teaching practice could be designed, one that serves the purpose of "actual useful learning" adjusted to the individual or social group's circumstances no matter whether it is about an image, a concept or a necessity of that individual. By achieving this academic goal the methodology that allows the relationship between "the learned things and the ones to be learned" (Solano, 2007) is linked.

Therefore, academic education focuses in the corresponding disciplinary area. Yet, —in terms of neoliberal capitalism—it still lacks of networks and connectivity between the contents and the technical competences, with sociocultural, ethical and environmental subjects in real settings with no inflection points. This allows cultural industries' dynamics to engage emotions, feelings and passions for the historical memory deconstruction, linked strictly to the territory where the inhabitants are constantly constructing and reconstructing the popular culture. Regarding the relationship between industrial culture notion and the segmentation unit, Horkheimer y Adorno, (1998) claim:

Culture industry equally handles the whole and the parties. The whole opposes to the details ruthlessly or inconsistently, a little like a successful man's working career, to whom everything should serve as an illustration and prove, while the working career itself is nothing, but the sum of those idiotic events. The so called general idea is a cadastral map, it creates an order, but no connection. That is to say, the whole and the parties have the same features. Their guaranteed harmony is a

joke of the bourgeois masterpiece, from the beginning until the very end (p. 4).

The model rooted in the scientific though Cartesians deepens out in the subdivision of the education model, which overestimates the techniques with very different country archetypes from the actual inhabitants reality in which cross-sectorial intervenes. Given that, Tobón (2013) establishes the following about the pedagogy of the curricular transversality in the teaching-learning processes: It consist on approaching a problem by implementing varied disciplines, subjects or fields aiming to accomplish comprehension and a more integral and systematic resolution. Also, to have a greater impact and importance in the expected results (p. 20).

Consequently a margin of disciplinary is demanded in the development of competences in the subjects' contents. Each era develops its own concepts about the knowledge societies, in line with the development of their productive forces. In this context, markets globalization driven by the capitalism, the cyber-economy and the ICT's rapid advance also reflect on the concept. This all stands on the communication skills and competences along the sixteen years of the 21st century, where the communication is mediated by the internet and the web platform with its applications in constant evolution; therefore transformations in schools extended to higher education are demanded in regards knowledge creation: this reflected on how "problem solving considers communication, collaboration, critical thinking and creative expression as part of the curriculum" (Colección Educar, s.f., CD 26).

Accordingly, research on neuroscience draws closer the education sector to teaching on emotional competences, namely, self-confidence and persistence, these all related to processes aiming at "realization, happiness a type of committed happiness to both one-self's and other's " (Carpena, 2010, p. 43). As a result, awareness is raised on other strategies that balance the development of the intellectual competences and the behavior with the expression of emotions. This reveals good results in other knowledge areas, such as math, literacy, and even in foreign language learning. On its behalf, the Education Project for the Social Progress of the OCDE highlights that "skills induce skills: social and emotional early interventions can play an important role on improving efficiently and reducing educational, labor and social inequities" (Miyamoto, 2015, p. 2). These skills are normally underestimated in the education system, since there is no awareness on how to implement them among students and the professors themselves never learned them as they were being instructed. Miyamoto

(2015) suggests to include new collaborative actions in the curricular and extracurricular activities to boost the self-efficiency and the motivation in both work teams and leadership in risky and uncertain situations.

In this context, the implementation of transversal projects to the environmental infrastructure and the applied knowledge in Latin America, reveal gender issues framed in the citizen participation democratic process –single mothers–, micro projects in the poverty reduction, environmental care and human rights. These initiatives also meet the fragments of the social group's consumer goods in response to problems of the communities. In the same way, transversality is extended to the performed actions in the territories that had gone under interinstitutional intervention, based on particular objectives related to the financial management, professional hiring process and community work, among others, as it will be displayed further on.

The fragmentation of knowledge is portrayed in the internal work teams dynamic with two specific divisions: firstly, between technocrats and staff members working in offices who are unconnected to the social practice of the affected population which, in turn, secondly, interact with technicians and communitarian field work managers; to these last ones the contact with organization's leaders is assigned. In curriculums this orientation aims at humanities area, whereas in a higher category it is placed in the social sciences. Others go even further and divide them in two: "hard" and "soft" sciences the hard ones for being objective and having a relation with technology and innovation, and the "soft" ones for belonging to the subjective world; however it is forgotten that subjectivity is also *objective*. Since it stands as an immaterial reality in the human and social sciences.

Academic social and human sciences sub valuation is reproduced in the interinstitutional projects instrumentation, regarding concrete structures linked to the development. While the goal of the project is the infrastructure construction, it must not be forgotten that environmental services allowed are planned not only for the inhabitants near the natural resource –In this article, basin of Tunjuelo in Bogota city, but also for the industrial, commerce and agriculture sectors placed in the same territory.

Additionally the main factors that delay the technical implementation of the procedures, disrupting in inter-institutional information and the ones that have a role in corruption, waste of resources and inefficiency in the management are: the fractures and interruptions in the interinstitutional management between the Capital and

the Country, with private officials hired under conflict of interests, as well as the varied institutional missions, legal gaps and timing issues in both concrete works intervention and the way to present technical reports to the leaders and community groups.

Cross-sectorial management and the implications in the communitarian relations

In the transversal perspective each institution works on the integral management section according to the technical division of the work, based on the knowledge field specified in the mission of the institution that varies in content according to the programs, development plans and other administrative procedures. The cross-sectorial responds to problems that require intervention of public universities participation and different sectors of public administration. In Colombia all the administrative activities aimed at social comforts are conducted by the local and the national government, they are established in the National Constitution, which defines the Social State of Law based on the territorial institutions' autonomy "based on the concepts: respect for the human dignity; the work and solidarity of people that are part of it and maintain the general interest".

Hence, administrative management is related to the development of objectives, actions and activities in either committees or in work teams where staff of varied academic disciplines meet and who are connected to the works of progress in local territories. According to Solano (2207), "an inter-sectorial action becomes sustainable once it assumes a cross-sectorial scheme, that is to say, an issue or action that goes across sectors and is added to the decision making"(p.4).

On the other hand, in the social practice the application of the concept is not simple due to the intervention of many sectors: professionals' academic background; though processing; connections to intuitions that participate in different institutional missions; cavalier or authoritarian leadership; political patronage and limited communication to the *other*. Apart from all of that, the definition of the strategies come to engage the leaders and members of social groups in the participation of governmental projects, in accordance with the guidelines of inter-sectorial institutions. Solano claims that "in the medium term, cross-sectorial authorities should disappear, once the transversal issues have been included in the action of other sectors" (2007, p. 4), bearing in mind they correspond to different important activities related to development projects or programs. As

evidenced, there is certain degree of overlapping with Von Wiese (quoted by Adorno and Horkheimer, 1969) when uttering

To the group 'ideal type': 1. Relative persistence and continuity. 2 distribution of the work among members, type or organization. 3. Collective ideas present in individual members. 4. Traditions building and habits in the longest lasting cases. 5. Two -way relationships with other settings. 6. Judgment (mostly in the larger and more objectivized groups) (pp. 61-62).

Before going further ahead it is precise to make emphasis on the difficulty faced by cross-sectorial: specialized vocational training. Which could be the alternative?, searching on the technical knowledge applicability to the community context can be a start, without putting aside certain sociocultural characteristics, and without this meaning great expertise in this field. This necessarily leads to the definition of interdisciplinary which tends to reduce hyper-specialization and reification of the study's objectives' risks. According to Ros y Dietz (2012):

[...] it is the meeting point of varied disciplines, where there is no longer discipline isolation, instead the interchange and cooperation in virtue of a common project or objective is implied [...] [for] each discipline to be both, open to the interchange and closed to maintain their essence (p. 2).

Under this circumstances the importance of *sine qua non* of the knowledge, to understand other collateral activities embedded in the cross-sectorial process. This is depicted with the following example taken from Tunjuelo mid Basin:

At the beginning in (2008) the cross-sectorial process takes place cautiously in the sectors regarding the implementation of the Social Integral Management strategy, being one of the causes, the lack of knowledge, clarity and ownership of both the strategy and the commitments that could be originated at the institutional level. This is how the SDIS through the local sub-directorate, along with the hospital of Tunjuelito, start leading this project (Secretaría de Integración Social 2010, P.3).

In the social practice, it is evident that the more institutions take part in the management of the development programs -in the same territory- the more difficulties arise, even more so if they interrelate in phases or interphases. Let's have a look to some of them: 1) each institution's own goals generate poor commitment in

the interinstitutional coordination, in regards prioritizing specific tasks in each territory.2) difficulty in the interaction among professional from different fields, mostly in technical and social fields; there is a tendency to downsizing technical fields and social disciplines. 3) Flexibilization in the labor market difficulties both the entry and exit of professionals — due to the contracts signed for over one to four months— who begin processes with leaders and social groups. After the work is done by the professionals with the communities, and a new contract is to be started, it is very difficult to translate the trust gained to another professional. That is not, indeed, an administrative decision. And 4) institutional proposals with ruptures, interrupted processes and inconsistencies in the cross-sectorial that reveal mistrust, apathy and lack of cooperation, cause communities to lose credibility.

Interpreting the diversity of social groups and the way they sense their economic, social and environmental conditions are other important aspects in the consolidation of the Social Integral Management (SIM) strategies. Academic education and not being aware of social practice institutions lead to irreversible mistakes in the technic management. They are academically trained to perform actions in the communities with *homogeneous* characteristics, yet this feature is not present in any reality or social practice. All in all, in the Tunjuelito mid Basin the following insight arises:

The (SIM) strategy has been easier in the social territory of Tunjuelito due to its homogeneous conditions; yet the opposite happens in the territory of Venecia, where the variety of the social conditions as well as the economic do not allow having an unified view of the territory, this has obstructed the implementation of the strategy, with a new definition of micro territories in the territory of Venecia (Secretaría de Integración Social, 2010, p. 11).

In raising awareness on environmentally sustainable management is advisable to humanize the management styles in the perception of the *other*. Camps wonders: "how to turn a free and owner individual into a moral individual who is concerned no only about themselves, but about the others" (1999, p. 45). From the professional life many results are depicted: 1) with a cross-sectorial process demanding challenges crossing the academic education to shape the labor fulfillment, well-coordinated with the closest disciplines to the present one in operational management processes; 2) understanding the meaning of symbols, perceptions, ideas or representations of the inhabitants of the territory: if infrastructure works enable people to experience the inter-subjectivity

in affective-emotional perceptions, these could be kept in the collective memory of the territory and ensure its permanence among the locals; 3) with the sensitization about the fact that infrastructure works have their own value and other intangible uses that could offer quality of life not only to , inhabitants, but also to the region, the district or to the sector, particularly in infrastructures ecologic-environmentally oriented, since they cross administrative decision and local geography policies. This is the case of Tunjuelo Baisin: it goes through eight districts in the capital (about 35515 hectares) and three million inhabitants.

Needless to say, in contrast to the cross-sectorial in sustainable preventing environmental catastrophes policies, inter-institutional intervention of diverse modalities in local, national ONG and community organizations prevail. These intervention modalities are usually focused on specific environmental education tasks: health campaigns, risks and emergencies control –developed in an isolated manner from other institutions and local leaders responsible of making sociocultural situations more critical. A little while later, the external intervention finishes and the programs and projects remain unfinished until the next socio-environmental tragedy arrives and the same events take place back again.

In summary, from the public administration, due to the flaws of the cross-sectorial as a strategic resource in the interinstitutional coordination, difficulties among the same institutions and the communities are not overcome. On the other hand, the leader in charge of implementing cross-sectorial reveals very little abilities to raise awareness on other institutions, in terms of deeply committing to the technic and community procedures. Additionally, behaviors and attitudes that prevent the leader from discovering in himself gaps and limitations when relating to the other are evident in the experience of field work project's management.

Interinstitutional committees operate in separable fragments

Cross-sectorial is grounded in the strategy, a concept repeatedly stated in the administrative literature about processes of management development. Certau (quoted by Ortiz 1998) depicts it as:

Figure that reveals the relation of force possible from an entity (business person, owner, scientific institution, etc.) that is isolated in a space. In other words every strategy is linked to the territory from which the operation is done, that evaluates the operation of

others —opponents, competitors or clients—. There is then a gap between the entity (institution) applying the strategy and the objective to be reached (1998, p. 65).

Cross-sectorial effectiveness is expressed in styles, policies, resources, budget and political and economic agents' interests that intervene in the negotiation between governmental institutions and private companies and ONGs, mediated by the territory's inhabitants. Each one participates and represents an isolated project that can compete, complement or distort approaches of other institutions' activities involved. All in all, the interinstitutional committee is in charge of assembling in the unit: building the whole from the parts. There are many difficulties in doing so, besides the negotiation skills and the parties' political will: interdisciplinary knowledge application that integrates both the technique with the inhabitant's sociocultural characteristics. Furthermore when the inhabitants' comforts linked to the infrastructure are separated from the territory —as it usually happens—, even though the strategy does not fail, the process filters into the bureaucratic inertia, annoyances and troubles among technicians and social groups, waste of resources and low infrastructure quality and leaders growing lack of confidence that the social agent is unable to conciliate neither to solve.

Hence, cross-sectorial comes from the core of the interinstitutional committee. In theory, here technicians, social agents and partner institutions should be integrated. The separated objectives of each institution's project should be perfectly synched with other institutions', according to the phase and the stage of the works implementation process, if it is about the integrality, as it is repeatedly stated by *slogans* about socio-environmental practices, for instance in Tujuelito:

It is important to mention that cross-sectorial in the sector has not been easy to implement, bearing in mind that each institution has had to meet their own goals, which in turn has not allowed a stronger commitment and a connection among the present participants in one same territory (Secretaría de Integración Social, 2010, p. 4).

From the previous, in the field work arise: lack of inter-institutional coordination due to the non-compliance of timing agendas, and labor activities rhythms among the institutions; inaccurate interpretation of contents of both specific objectives and related activities; non-compliance of project's delivery according to indicators; discontent with leaders and important agents in the community basis; misleading reports that favor

institutions interests and evasion of responsibilities. Meanwhile, in the activities interstices these following slip: the material resources waste, economic investment and the interinstitutional resilience. And the best ally of this is the excessive parceling of the processes and activities that in turn dissolves, in levels of authorities, the responsibilities and the efficiency in the implementation of the projects. The leaders notice it and they also show detached to it, cautions, they observe from the distance and take their own positions regarding institutions.

From the interinstitutional committee some inconsistencies also take place between the same social and technical areas, due to disparities in the interpretation and application of the knowledge, as well as for the wrong usage of the language and linguistic codes inherent to the sociocultural expressions of the social groups, perceptions, approaches and ways of perceiving the process of projects implementation among technicians. Interdisciplinary responds to dilemmas and finds answers to the knowledge complexity in the social practice. Disciplinary interchanges also imply interaction, cooperation and circularity among the different disciplines through area knowledge, instruments interchange, methods, techniques etc. (Elichiry, 2009).

On the other hand, due to each staff member's work load, of a particular knowledge area considers that it is not within their activities to get involved with the others, restricting responsibilities with the government and the sectors. Also, they feel taken out of context and with not social commitment regarding the comforts that the projects should offer to the benefited inhabitants, regarding this topic Max-Neef (1991) claims:

A human being that divides himself to experience the world, who divides the realities into parts and assembles the parts back again to know it [...], who not only divides himself intellectually, but who fragments itself in life, is organized and ends up organizing itself fragmented [...] (p. 4).

Even though the word 'integral' is within the public and private institutional mission's formal language and even in our case -education-, in practice the subdivision of theoretical and applied knowledge. Each technocrat at a desk and the ones operating in the field focuses on their own job and does not commit to other objectives 'projects managed from the inter-institutional committee —also divided into sectors—. In this regard there is not a direct relation between cross-sectorial implementation and the promised and expected transforma-

tion that communities await during the physical works process and ending.

All in all, when dealing with the territory it implies to move further into specialized parts with very little theoretical grounding in the social practice. Although each discipline has its own subject of study, the socio-environmental practice demands knowledge and interdisciplinary actions with very precise indicators stated from the projects. To illustrate with an example, in the past flood 2002, in the middle area of the Tujuelo Basin in Bogota, the Preventing and Emergency Respond department made recommendations to raise awareness among the community members about the control of environmental risks related to the household and building waste in the peripheral areas and about children's care in emergency situations, waste handling in rivers and streams, usage of suitable trash bags during rainy season among others. About this regard, Rincón y Cepeda (2007) state the following: One can observe, those recommendations can be applied not only by the communities living near bodies of water, but every one of us should apply them to avoid tragedies and not to harm the natural resources and the environment. (p. 70).

In this regard the expansion of the Cartesian method in the west⁴ contributed to the capitalist system architecture, through inventions, break troughs, and development of the sciences; while in the 21st century the dialectic is reclaimed, since it contributes to the reality's knowledge deepening, before new associated environmental destruction events, worsening of illnesses raising by floods, unexpected droughts and storms; however, that method is still applicable and tends to be strengthened in teaching-learning processes, based on conceptual, aptitude and procedural competences in different institutions: education, business and services providers, with the "omnipresent super-specialization". According to Concensa, Rodriguez and Moreira "humans' distinctive capability of meaningful learning depends on cognitive capacities, such as symbolic, representation, abstraction, categorization and generalization" (2011, p. 32); these are mental traits that intervene in inhabitant's, subject of the cross-sectoriality, perception and interpretation of the world.

⁴ In the sixteen years of the 21st century the following prevails "the Mechanistic philosophy, born with Descartes, legitimizes the human will of placing the nature to the human's service and necessities when considering the whole universe as an immense machine. Physics not only provides a coherent and unified explanation of everything that surrounds us, but it provides the techniques and knowledge that will make the Industrial Revolution possible." (Alsina, 2014, p. 217).

The Fragmentation of reasoning hides the complexity of the causes of the events, briefly described after the analysis or synthesis. In sum, the problems and conflicts worsening in the urban and rural centers, the crime rise and the environmental destruction are not paradoxical. From this view point, it is not rare to think that as Max –Neef claims, human nature

[...] is everyday more and more damaged and assaulted; deserts are taking more land affecting important rain-forest for all living species; hundreds of thousands of people die in suspected natural disasters that are not caused by humans; other hundreds starve to death and are hardly a piece of statistic information; while the rest continue sleeping and living their own lives (p. 3).

The segmented vision of technocrats and operational specialists

In anthropology, land sociocultural occupation corresponds to different traditions, assessments and symbolic interpretations linked to the cultural history and a worldviews mixed by visions that circulate in shared spaces. The map is provided by the geography, which allows the elaboration of data inventory and observed facts by the same community members; this enables their own analysis and facts generalization, *in their scale and exact location*. This methodology raises awareness about their own territory's management regarding other economic and social agents of the surroundings.

In each place the individual gives sense to their own existence. In relation to the *other*, breaks down habits, traditions, symbols, representations and ideas about economy and politics; about family relationships and the way to direct children's socialization, about the consumerism and the way of perceiving and using natural resources. Thus, the map offers the geographers, anthropologists and sociologists the definition of idiosyncrasies built by the collective worldviews and modeled by the mass media with consumption purposes. Cultural diversity of Colombian society is left out in the education system. From this perspective, it is not surprising that officials and businessmen of the globalized world talk about homogeneous cultures, which in part, is due to generalized facts and inventory in *exact locations* that are then confirmed by countless socioeconomic descriptions. In this regard, the socioeconomic characterization by strata also identifies material comforts with the addition of cultural features associated to the mental structures of the being. This approach is a common point in the official literature.

Sociocultural gaps in the academic education lead institutions to make irreversible mistakes in the operational management of technical nature. They imply *homogeneous* characteristics in human beings, while it condition that doesn't even exist in any social practice. Thus the following perception is explained: "the (SIM) strategy has been easier to apply in the social territory of Tunjuelito, due to its homogeneous conditions, as opposed to in the territory of Venecia [...]" (Secretaria de Integración Social 2010, p. 2).

According to the previous, in industrial centers it is symptomatic that part of the discussion about the pop culture is linked to the homogenization. This tendency in the social sciences is clearly mistaken, since it is directed on the discussion national unity strategy. National unity is understood more as a politic concept than as an anthropologic one, articulated more to the concept of country than to the Nation: "On the underlying idea of a homogeneous or mass culture, rests a dynamic that breaks all the paradigms" (Ortiz, 1998, p. 17). *The mass culture*, although recycled in the cultural diversity before the unavoidable lifestyles intrinsic to industrial societies, does not get blurred in the unaware attributes of the human nature.

In the territory, social groups mobilize a variety of cultural expressions in multiple connections to the social relationships. According to Linto, the central core of each culture is built by "mass values, associations and emotional reactions, mostly unaware, since they give their vitality the culture and give the individuals reasons for them to follow the patterns and put them in practice" (1973, p. 360). However, in each territory, its inhabitants are widely exposed to the *mass media* influence in hands of *marketing* experts, in charge of promoting products, services and consumption tendencies, either in massive markets or in specialized consumer segments, without making a distinction between social strata or classes. This is all done based on the *brand personality* and on the way the concepts of the self and the self's image influence attitudes and consumers behavior (Shiffman y Lazar, 2010).

Each social class' market niche of products online, captives the consumers. Escaping from the pressure and mirage of the market is not easy. The truth is that the mass media are immersed in the set of popular values regarding the unlimited consumption. From this perspective, the territory's inhabitants do not get enclosure in their own popular worldviews and cultural features, instead the cultural industries outward them into the outside world. Lévi-Strauss (Citado por Ortiz, 1998) asserts: "the identity is a kind of virtual site, which turns

to be necessary to refer to and explain things, but which does not truly have, a real existence" (p. 51).

Labor flexibilization, social management and community development

Social agents act as intermediary between the communities and the institutions. They basically motivate, train and urge responses that match both, interests and instrumental requirements in the infrastructure projects. Although the social agent is an interlocutor between communities, the professional technician is who predominates. Yet the social agent occupies a similar place to the one that "humanities" occupy in university curriculums: reproducing tendencies, value judgments and ideologies according to subordination in the model of education.

Labor flexibilization affected the labor conquest in Colombia —financial support of livelihood and protection needs— not only the worker's but also the families that depended of that income and got offered social security guarantees, for which it was possible to use paid time off. Current regulation allow employers to hire personnel from over a month to a year; the working time doesn't necessarily correspond to the projects implementation timing. Once the due date is passed whomever was there leaves the territory. In the meantime, community leaders lose credibility and trust in the interinstitutional work teams. Gaining management spaces in the communities implies creating empathy and adapting leadership styles to the cultural behaviors of the social groups. From this point on, the new social agent re-initiates the process, without this meaning being totally free from the previous possible trauma from rupture. In essence, it is very meaningful for the social agents since they are tightly related to the communities. The contract fragmentation in three months, six months, and a year have repercussions in both the activities performance and processes, these last ones are slowed down.

Social mapping: a community empowering integral method

Social mapping produces knowledge, comprehends and explains complex systems of geographic and sociocultural meaning; interests and comforts of varied social agents; as well as ways of territory occupation; ruptures and interruptions of not only physical spaces, but also in spaces where cultural ideals connected to identities or traits of them circulate, due to economic, social or politic causes. This methodology qualifies social groups in

systems of ideas easy to understand, without this implying trivializing the academic processes. This way project trainings transcend.

Social mapping is a methodology that empowers communities in the rational interpretation of usage and management of the territory from the applied disciplines —geography, socio-anthropology and environment—, in stories that reveal socio-environmental and politic struggles, sacrifices and claims in defense of what belongs to them. Maps re-build the inter-subjectivity of multicultural groups and reveal actors, interests, expectations, conflicts and comforts. For instance big companies with not territory fracture the boundaries of the districts crossed by Tunjuelo river crosses, and the national government allows the usufruct of the natural resources at the expense of the communities and the environment. About this regard Fierro (2012) claims:

In the government of President Juan Manuel Santos these policies became the basis for the national development plan, allowing an electric-mining "machine" to become an employment-generator and a turnbuckle for poverty reduction, which in essence, lacks of technical basis and has not taken place in any part of the country, including those that already have mining industries on a large scale for over 30 years, that is the case of El Cerrejon in Guajira (p. 180).

By contrast those corporations coexist with national agents that explode the soil with production purposes and develop varied forms of shelter occupation that in turn pollute and generate solid waste in public and private places, with severe environmental damages. As Bozzano (2009) claims "our territories are real, experienced, thought about and possible because our lives go on, cross and percoll our places from our senses, meanings and interests, generating countless processes that our knowledge is in charge of understanding and explaining" (p. 5).

In Bogota, sand and gravel multinationals in the mid Basin of Tujuelo spread their territories expansion capacity to the houses and common property. Floods of 2002 put public health in risk while evident interinstitutional disarticulation raised worsened by the destruction of aquifers and the inability of the capital government of enforcing environmental rules and regulations, for which the Mining code of 2001 should be fulfilled, before the sector's inhabitants' inability. According to Fierro (2012): this policy is reflected in a Mining code totally confined which does not consider other productive sectors, nor the existing rules, although it does make biased

interpretations about the environmental, territorial and ethnic legislation (p. 180).

Thus, in the capitalist globalization “arises a new asymmetry between the nature of the extraterritorial power and the territoriality of ‘life as a whole’ [...] it is not longer necessary to consider the cost of facing consequences” (Bauman, 2013, p. 17).

Lastly the descriptive method’s predominance enables knowing about the truly impact of the deterritorialization in the affected populations. Additionally the permanent violation of the communities’ empowerment rights over their own territories, regarding characterizing them and later on negotiate, with local and national officials and with local agents and transnationals, the possibilities of preserving the environment for their benefit. Also, other alternative is the interdisciplinary —topic not developed at the moment—, which allows to compensate the integral academic education in technical processes, administrative and cultural of the cross-sectoriality while projects of great local infrastructure are taking place.

Conclusions

The dynamics of the knowledge society demand adapting to varied ways of environmental and human progress in temporal cross-sectorial organizations. This requires balance among cognitive, social, emotional abilities that are apprehended by professionals throughout their academic life, as part of a person’s progressive development as a social being (Miyamoto, 2015). Schooling comes with its own challenges, it involves two generations: the one teaching and the other learning. However there is another challenge related to the officials in their contractual performance. A professional in the 21st century is in permanent learning and awareness raising; therefore if the professional wishes to remain in the labor market it is advisable they adapt to the changes that team work proposes, where in accordance to the context, no one is exempt from new knowledge, learning and interdisciplinary or integral experiences.

Correspondingly, if higher education establishes a balance between the administration and acknowledges the subjective value of the individual, will also be able of creating a “fixed capital turned into a man” or a woman (Sève, 1974); this not only in the work teams, but it could also reach the inhabitants benefited from the physical works, essential condition to the alignment of both, devices and human connections in the interest of preserve the environment and protect the territory’s infrastructure. The relations among professionals, no matter the

knowledge area to which they belong to, demand *Sine quo non*, the ability to acknowledge each other, regardless gender, social status or multicultural condition, as equals, based on the diversity principle that regulates the dialectics of nature, society and thought.

Colombia is expected to enter the era of post-conflict in 2016, once the Havana agreements between the Colombian National government and the guerilla (FARC) ends. What comes is the gigantic administrative challenge of repairing more than six million victims and design the plans of individual repair; besides getting around fifty Governmental Institutions started that constitute the National System of Assisting and Integrally repairing victims (Semana 2013). One final question comes up: independently from professional’s and institution’s performance indicators, which will be the cross-sectorial strategies for the relocation of officials and transversal plans in the Colombian regions, towards the nation’s reconstruction?

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