Review on the research culture and management taking into account values of respect and cooperation

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Abstract

Within the social institutions, the university is one of the most responsible for research, due to its mission, which is closely linked to the knowledge generation. Although, different proposals are made, which on different contexts contribute to the generation of a research culture, they become an opportunity and a real possibility to create the environment needed by the university in order to reach a culture for the research. Pedagogic and educative research contributes and it's formed on the way to reach the quality improvement, through the institutional self-evaluation process from an education based on responsibility and cooperative work values, related to the capabilities of *wisdom, being and coexist.* Now a research management creates a motivating research culture, providing an enabling environment for the promotion of values and required conditions to take research as a lifestyle.

Keywords
Engineering Education, Quality, Management

1. Introduction

This article presents a critique of the way in which it is intended to make the process management research at universities is done. Commenting on the concept that research is an administrator and what is the role that this subject within the processes of formative research is also done.

The idea is to show how you can generate alternatives in research processes within higher education institutions. attention on knowledge generation centers, but this generation of knowledge focuses on the cooperative effort trained for processing and implementation of these procedures in the academic and research staff work. The paper addresses two sections, a context where the importance of managing research and conclusions section showing which way to take in the future works planet.

2. Context

Within the social institutions, the university is one of the most responsible for research, due to its mission, which is closely linked to the knowledge generation. Although, different proposals are made, which on different contexts contribute to the generation of a research culture, they become an opportunity and a real possibility to create the environment needed by the university in order to reach a culture for the research.

Actually, one of the quality factors of the higher education is the named *information society* or *knowledge economy*, link that could be established between teaching and research, it's a shared responsibility among the different individuals and estates of the managerial strategy processes of the Institution.

Pedagogic and educative research contributes and it's formed on the way to reach the quality improvement, through the institutional self-evaluation process from an education based on responsibility and cooperative work values, related to the capabilities of *wisdom, being and coexist.*

On the other hand, on the research management, the ethical dimension holds the reconnaissance of the being as a goal and not as a means; it commits the knowledge, abilities and experiences in function of the identification, analysis and problem solving, the responsibility as moral imperative allows to the researching teacher to decide and to act with knowledge, freedom, co-responsibility and duty's satisfaction, given the impact of its actions and the interrelationship with the social environment.

In this sense, the academy generates knowledge on the educative process through the holistic thinking construction, by articulating activities, formatives jobs, scientific and technological elements without disown the realities and circumstances of the context, generating development of change actions and social transformation.

Although, holistic is considered as a philosophic representation in thought, is also recognized as an expression of the human being condition when searches the natural way to create knowledge and articulate capabilities for the research in face of the *ought to be* and the *wisdom*, generating creative potential of aptitudes and attitudes, through which the teacher and students are successfully faced.

Likewise, the capabilities of the researching teacher establish actions and experiences which generate knowledge, promote actions and contribute to changes and transformations on the improvement of the quality of life and the social development, taking advantage of the diverse existing opportunities. In this sense, the researching teacher connects directly with the knowledge management, differentiating the pertinence of the research lines[1] on a given context.

In this sense, the capabilities of the researching teacher an its varied application, promotes a educational model, which grows the relevance of his job. The teachers have a defined leadership according to the culture, the way of thinking and receive the environment. On this way the co-evolution works on the teaching and learning process.

In other words, the researching teacher establish a dark thought which operates on a platform that is affected when one of its parts understands the process, so the formation by capabilities on research, should be done on a systemic way with coherence between the *ought to be* and the *wisdom* in front of the realities of the context in which they develop.

In this sense, the knowledge becomes into a component of the contemporary man, where the science is understood as a way to get and create knowledge oriented to understand and to transform to the human being and its environment, ceasing to be an interesting activity just for scientists.

Taking into account the realities, the theory and the practice in order to organize the knowledge, the actions are oriented based on the experiences and the characteristics of the context, with the purpose of face the challenges previously set out by the research, in order to produce knowledge which develops generating, enhancing and creating ideas that successfully face the problems that affect the society and the individual.

From here, the knowledge management becomes into a set of actions giving magnificent contributions, oriented to the change and the transformation on constant social development and to the improvement of the life quality. Of course, there are different models of knowledge management, but most of them

1 Requirements for research groups. Colciencias

emphasizes on the diffusion, mistaking collectivization of knowledge and information management, while that, management generates knowledge from the formulation of objectives according to the vision, mission, principles, and values which guide the methodological strategies for the research, it implies also, the philosophy used to plan and execute the actions, the innovation in front of the context, looking for opportunities for pertinent, critical and urgent knowledge generation.

Therefore the appropriateness of the research lines is connected with this aspect of the knowledge management, then, the pursuit of opportunities consists on the ability to detect the demands and needs of the context, so then the knowledge is in accordance with the constant changes and even contribute to predict those changes, featuring a proactive joint between the knowledge and the action; we can regard that while the management transforms the possibilities into opportunities, the knowledge management promotes the actions and takes advantage of the existing opportunities.

Therefore, the manager handles the uncertainty, identifies possible locations of application of the knowledge, thinks the innovations that could be enforced, anticipates the impact, establishes strategic contacts in order to get social transformation and translate them into exploitation of tangible products.

The management is involved in evaluating and taking on challenges, going beyond theories and normal concepts, persuading, motivating, encouraging and stimulating. The manager identifies potential on the people and drives them. The knowledge management means to detect potential on research doers and propitiate the development of potential.

The manager defines responsibilities of administration, creates new methods in order to penetrate the market and take initiatives. One of the manager's fundamental jobs is visualize the most effective strategies to project the organization and strengthen the work that it is done.

Once identified the strengths of a research management, an analysis should be performed to the population that belongs to the research lines or dedicated to the task of generating knowledge groups. On one hand the formation of these individuals means that they has been through a process of education in specific areas of knowledge and in the environment of the research culture (CRES 2008). A community of people is formed, which are prepared at different levels for participation in the research process. The management of these communities means that managers take into account how to plan the work to be done. Just the fulfillment of tasks is not enough, since it must keep in mind that researchers handle degrees of freedom of thought, which creates the possibility of dispersion in sterile ideas for the final objective of a research process. (PARA 2002)

On the other hand, research manager finds an excessive way of control over the working group, making limited the human talent of the research group, and the associated risk with this on the welfare of researchers in their different dimensions, professional and personal. Given this, the following question emerges: how the balance can be found for the management of human talent in a research group?

Undoubtedly, planning is the basis on which the process of conception of the objectives of an investigation is supported. This planning should take into account the form of assigning roles, because it is important for researchers (CRES 2008). Knowing what is the responsibility of each member of the group is an effective way to monitor and measure production. But the key is how to make the cohesion of the obtained results by each researcher or research sub groups.

The way to make the cohesion or integration can be founded on process methodologies, these methodologies are accepted on planning and execution of every kind project, civil engineering, industrial engineering, economy, public administration, among other disciplines. On this kind of methodologies. (PARA, 2002)

Then, the challenge is to accommodate some of these methodologies, used in achieving industrial project, into research projects, where every technical aspect should be controlled in addition to the balance aspects on the researcher welfare. So, task definition is a critical process, because they must have a challenging component in order to motivate the researchers to discover and know the behavior of the studied phenomena, and on the other hand these tasks must be measurable and reachable in order to perform the whole research project.

Examining what has been discussed above, we have a scenario where community must strengthen strategies to ensure the operation of this type of social structure. One of the important aspects in this community is the research culture in which it is immersed. If researchers belong to only one line of a specific area of knowledge, the way in which management concepts is unanimous and there are no discrepancies concepts must be controlled. The role of an external expert or a person with a higher dogma is important because this person should be in charge of taking substantive decisions and arbitrate in internal debates. The other scenario that we can have in a research group is the community of researchers from different disciplines. This state is more complex since the integration of the results and the roadmap should define the scope and objectives of the research GERSH (2005).

3. Conclusion

The question performed now is how to formulate and ensure the self-organization on the elements of the research group. In artificial communities like computer systems, programming tools are used to command each element in order to get a expected behavior, but this is not possible to to on a human system, because the individual can't be programmed with concise instructions in order to perform assigned tasks. Then, strategies or planes should be considered in order to perform schemas of self-organization like adaptability mechanisms facing the complexity of the researches communities. (GERSH 2005).

So a different look for the treatment of research communities is given, where management and the way in which the elements of a community of researchers is administered, is taken as a study and analysis of interactions between these elements. It has also been seen that the complexity can be faced from adaptive schemes in order to ensure that these adaptive schemes exist self-organization and can be a good idea.

In conclusion, a research management creates a motivating research culture, providing an enabling environment for the promotion of values and required conditions to take research as a lifestyle.

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Biography

Martha M Cuellar is currently she serves as a professor at San Mateo College, where he is leading the research group Bimat. It has a specialization in pedagogy and a specialization in finance. Her current studies are a master's degree in education where it focuses on the quality of education in the Colombian sector. He is an economist and his interests are on the stock exchange.