



**KNOWLEDGE MANAGEMENT AS A TOOL FOR THE PRODUCTIVITY OF RESEARCH
IN THE UNIVERSITY SECTOR**

**GESTIÓN DEL CONOCIMIENTO COMO HERRAMIENTA PARA LA PRODUCTIVIDAD
DE LA INVESTIGACIÓN EN EL SECTOR UNIVERSITARIO**

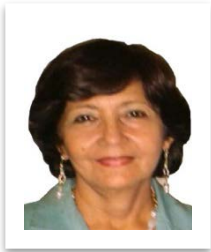
**GESTIONE DELLA CONOSCENZA COME STRUMENTO PER LA PRODUTTIVITÀ
RICERCA NEL SETTORE UNIVERSITY**

Reception: 04/02/2017 Revision: 22/04/2017 Acceptance: 22/04/2017



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ABSTRACT

Universities are conceived as generating and diffusing institutions of new scientific and technological knowledge, with research being the main source of this knowledge and as an essential tool for their productivity, knowledge management, as a form of growth



focused on optimizing a set of activities Which lead to the capture, creation and dissemination of knowledge in university organizations, with the aim of formulating lines of action that increase research productivity in them. For the development of the article, the following question was posed: How to use knowledge management as a tool to increase research productivity? In this paper we analyze the theoretical approaches of authors such as Nonaka Takeuchi (1998), Del Moral and others (2007), Molina and Marsal (2002), Alles (2001), Briceño and Chacín (2002), Koulopoulos and Frappolo (2001), North y Rivas (2008) among others, emphasizing the research function that constitutes a pillar, for the development and evolution of knowledge and its productivity and thus improve the quality of the institution. At the end, some lines of action and final reflections are presented, answering the question raised above.

Keywords: knowledge management, productivity, research.

RESUMEN

Las universidades son concebidas como instituciones generadoras y difusoras de nuevos conocimientos científicos y tecnológicos, siendo la investigación la fuente principal de esos conocimientos y la gestión del conocimiento la herramienta esencial para su productividad, entendida como una forma de crecimiento centrada en optimizar un conjunto de actividades que conllevan a la captura, creación y difusión del conocimiento en las organizaciones universitarias, con el objeto de formular unas líneas de acción que permitan incrementar la productividad investigadora en las mismas. Para el desarrollo del presente artículo, se planteó la siguiente interrogante: ¿Cómo utilizar la gestión del conocimiento como una herramienta para incrementar la productividad investigadora? Se analizaron los enfoques teóricos de autores como Nonaka (1998), Del Moral y otros (2007), Molina y Marsal (2002), Alles (2001), Briceño (2000), Koulopoulos y Frappolo (2001), North y Rivas (2008) entre otros, enfatizando la función de investigación que se constituye en pilar durante el desarrollo, evolución y productividad del saber, para así mejorar la calidad de la institución. Al final, se presentan unas líneas de acción y reflexiones finales dando respuesta a la interrogante antes planteada.

Palabras clave: gestión del conocimiento, productividad, investigación.



RIASSUNTO

Le università sono concepite come istituzioni e divulgatori di nuove conoscenze scientifiche e tecnologiche, la ricerca è la principale fonte di tali conoscenze e come uno strumento essenziale per la produttività, la gestione della conoscenza, come una forma di crescita focalizzata sull'ottimizzazione una serie di attività che portano alla cattura, creazione e diffusione della conoscenza nelle organizzazioni universitarie, al fine di formulare una linea di azione che permette di aumentare la produttività della ricerca in loro. Per lo sviluppo di questo articolo, la seguente questione è stata sollevata: Come utilizzare la gestione della conoscenza come strumento per aumentare la produttività della ricerca? Analizzando gli approcci teorici di autori come Nonaka Takeuchi (1998), Del Moral et al (2007), Molina e Marsal (2002) Alles (2001), Briceño e Chacín (2002), Koulopoulos e Frappolo (2001), del Nord e Rivas (2008), tra gli altri, sottolineando il ruolo della ricerca è un pilastro per lo sviluppo e l'evoluzione delle conoscenze e la produttività e migliorare la qualità dell'istituto. Alle linee di fondo di azione e riflessioni finali sono presentati in risposta alla questione sollevata in precedenza.

Parole chiave: gestione della conoscenza, la produttività, la ricerca.

BY WAY OF INTRODUCTION

Globalization, Technology and Communication, promote structural changes in organizations and contribute to the dissemination of the product of the Information and Knowledge Society, whose foundation is based on tools that enable the use of strategic processes, such as: Identification, acquisition, development, distribution, use, retention and measurement of knowledge.

In the Knowledge Society, new demands emerge for universities as generators of knowledge, which must face the challenges imposed by the accelerated scientific and technological changes that occur worldwide, meaning leaving behind the old image of the university cloister and assume The multiple demands, challenges and circumstances demanded by the social context,

It is an essential mission of the universities to promote, generate and disseminate

knowledge produced by research, promoting their development in the academic community, through their training in order to generate creative responses in all fields and disciplines of knowledge demanded by society.

KNOWLEDGE MANAGEMENT

Knowledge management is a new form of economic growth centered on innovation and the creation of a "knowledge society", in which the development and exchange of knowledge among people, is its most important engine of progress, Zamora (2003). Similarly, Del Moral and others (2007), express that it consists in placing at the disposal of the institution the tacit knowledge of each of the members belonging to it, in an orderly, practical and effective way, in order to achieve Operation and increased productivity.

The first distinction of interest in knowledge management is the one originally proposed by Nonaka and Takeuchi (1998), on tacit and explicit knowledge. In an institution there is a cycle of creation and learning between an un articulated (tacit) knowledge and a formulated (explicit) knowledge. Tacit knowledge is personal and difficult to convey. However, it is a knowledge well established by experience, very useful and flexible, is one that puts into play the creation of value. In contrast, explicit knowledge can be codified and easily transmitted and managed through documents, but requires a process of assimilation by the subjects to be applied, Molina and Marsal (2002).

PROCESS OF CONVERSION OF KNOWLEDGE

Nonaka and Takeuchi (1998) constructed a model that explains the processes and phases that occur in the creation of knowledge. The steps and phases for knowledge conversion are described below:

- Socialization (from tacit to tacit): it is acquired through observation, imitation, and communication of experiences, practice and learning of new skills through on-the-job training. Consequently, socialization generates tacit knowledge when shared mental models and technical skills that contribute to the understanding of the reasoning of the other individual.



- Outsourcing (tacit to explicit): the externalization of tacit knowledge is the tangible activity where knowledge is made known through the creation of metaphors, analogies or models. It is activated by dialogue and collective reflection, when the individual is able to make known what he thinks. Outsourcing is the key to knowledge creation, because it creates new explicit concepts from tacit knowledge.

- Combination (explicit to explicit): This synthesizes and integrates explicit concepts, systematizes knowledge by integrating explicit knowledge from different sources. Thus individuals exchange and combine their explicit knowledge through conversations, meetings, reports, memorandum, among others. It can be categorized, confronted and classified in a number of ways. Existing information can be processed in computerized databases to produce new explicit knowledge.

- Internalization (from explicit to tacit): at this stage the transformation of explicit knowledge into tacit knowledge occurs and is achieved through the verbalization of knowledge, the production of manuals and documents, in order to experience the experience of others, whereby The cycle is completed in the knowledge spiral. It develops when the experiences resulting from the other processes of knowledge creation are internalized.

It is emphasized that the creation of knowledge begins with individuals who develop an understanding of how they perform an activity (shared knowledge), then, knowledge is made known through outsourcing (conceptual knowledge); Systematized by confronting the knowledge from different sources (systemic knowledge), finally is internalized by transforming from explicit to tacit knowledge (operational knowledge). The four processes relate to each other in a continuous spiral, enriching the knowledge base of people and organization.

PRINCIPLES OF KNOWLEDGE MANAGEMENT TO CONSIDER IN RESEARCH PROCESSES

In research processes, knowledge is created, processed and disseminated, so it is necessary to keep in mind the following principles of knowledge management, for a better

organization of the same.

a) TEAMWORK

In Knowledge Management, socialization facilitates the sharing of experiences through teamwork, that process promotes collective actions and collaborative work. This is why universities should encourage the development of projects and projects with well-defined objectives, where individual efforts are diluted to enhance collective work, the product of consensus and different perspectives, to ensure quality results, through the exchange Of experiences, which provides the opportunity to learn by taking into consideration other points of view, different ways of doing things, different interpretations of concepts for problem solving.

Among the aspects that are important when working as a team is having a shared vision to channel individual efforts and provide members with a sense of belonging, have efficient channels and media and the ability to share information.

b) INFORMATION AND COMMUNICATION TECHNOLOGY

Information and communication technology represent a set of tools that facilitate the learning process among teachers, allowing to create, codify and elaborate maps of knowledge, location, diffusion and transfer, allowing the analysis and interaction necessary for their development, Del Moral, Pazos and Suárez (2007).

The technological support, power the use of information and knowledge, allowing changes in universities. The development of technology allows a more effective management of codified (explicit) knowledge, since the tacit is only transferred through social interaction, through sharing with people.

In this context, research would achieve greater productivity through the creation of spaces for interaction, discussion, renewal and updating, to identify the priority needs or problems that facilitate the development of society and its environment. It is important to use information and communication technologies for the expansion and diversification of knowledge, with the aim of achieving their registration and dissemination to the

communities.

According to UNESCO (1998) in Universities, ICTs play a fundamental role because they increase communication as a means of social interaction for the exchange of information and knowledge. According to Alles (2001), in the University, there are two options for the Knowledge Management, in which, the new technologies play a preponderant role; The first is when the teacher manages the technology and the second, when in addition to managing the technology, is able to interact with others as a team, forming networks for the development of research.

The second option is oriented toward collaborative learning, which tends to make teamwork more efficient, facilitating communication, coordination and collaboration among its members. This interactive approach to Knowledge Management is important, since processes occur in the interactions of people with people, people with systems and systems with systems. And, at the same time, the interactions must be taken into account to implement the processes: Planning, creation, integration, organization, transfer and evaluation of knowledge, Rollet (2003).

According to Soto and others (2006), they point out that, technology is a necessity to be able to share knowledge, but it is not the only solution, since it should be considered as a tool that facilitates Knowledge Management, but it is in people where It manifests the creation and diffusion of the same, as well as its application for the development of its effective and pertinent production. Hence, the importance of creating an organizational culture of openness to the generation and collaboration of knowledge.

c) ORGANIZATIONAL CULTURE

The organizations are the expression of a cultural reality, which are called to live in a world of permanent change, both socially and economically and technologically, or on the contrary, as one that can be locked up within the framework of its Limits. In both cases, this cultural reality reflects a framework of values, beliefs, ideas, feelings and wills of an institutional community.

According to Alles (2001) the organizational culture is the set of assumptions,

convictions, values and norms that the members of an organization share. This culture may have been created consciously by managers or founders, or simply have evolved over time, it is equally important, for the success of an organization whatever its object or purpose in its management philosophy, to offer its Members an identity and a vision of it.

Organizations with a defined culture that work on it, in general, achieve continuity in the actions they perform and the members who work in it are identified with the institution and its culture. When an organization assumes and practices its philosophy of collective management, it acquires a life of its own, generating in its actors integral identification in all the functions that are fulfilled in it. That is, teamwork in teaching, research and extension activities encourages innovation and encourages their participation in inter-institutional projects. Collison and Parcell (2003).

d) INCENTIVE

Every organization must configure its incentive system, which is considered important to achieve optimum performance. It is necessary to have mechanisms that encourage individuals to work towards the fulfillment of organizational objectives and goals. These mechanisms can include tangible benefits such as salaries and bonuses or less tangible ones such as the freedom to be able to dedicate themselves to their interests and participate in them. Gupta and Jenkins (1998).

Incentive systems are an important part of motivation and are essential when performing diagnoses to understand the driving forces of the organization. These are related to the reason that the personnel enter the same and the way in which it rewards or punishes its personnel, being able to encourage or discourage the behavior of individuals and work groups.

The motivation in the subjects will guide or facilitate the achievement of the goals, in this respect Papalia (2005) argues that it is related to the strategies or mechanisms that are put in action to promote the actions of the subjects to whom it affects A particular direction or to cause inhibition of a behavior. The stimuli that provoke it, is usually considered as an internal character, when it is derived from the very nature of what is

being or is rejected. This implies a set of feelings and stimuli that elevate the person's capacity for self-disposal and satisfaction.

In universities, researchers who have incentives increase their motivation. Among the factors that will develop their effectiveness are: Access to better research materials, subscriptions or important publications in their field, access to the Internet to share knowledge with other researchers about their specific area or field, the opportunity to present the results of their Research in refereed journals that activate their participation in programs to stimulate the researcher.

Similarly, there are other important incentives related to more intrinsic factors, such as values, safety and working conditions. Many individuals look for jobs that have social value, favorable conditions, security and other non-economic rewards such as flexible working hours. These conditions provide incentives for people to be productive.

In order to achieve this productivity, university teachers must have favorable environments, where scientific knowledge and recognition are valued for their work. For this reason, it is important to have spaces or areas of work that foster broad communication and stimuli promote the desire to investigate. The incentive system must reward professional behavior, so that individuals strive more and are consistent with organizational goals.

PRODUCTIVITY OF RESEARCH IN UNIVERSITIES

Universities as institutions dedicated to the generation, production, distribution, diffusion and transfer of knowledge are considered learning organizations, since productivity is part of their objectives, forcing them to give evidence of their quality and excellence in their processes and Products, justifying the financial resources it receives, which requires a systematic evaluation and permanent control, so that the results are relevant and consistent with its environment. (Michelangeli, 2005).

The term productivity within the business context is one of the essential elements for considering organizational behavior. In addition to this, it is necessary to take into account the factors that contribute to the accomplishment of an effective work, among which are

the material resources, economic and infrastructure, being necessary the integration of all these, that are those that contribute or Allow organizational productivity.

In view of the above Toro (2001) expresses that productivity orients its dynamics in different directions; When it comes to organizational performance, the following aspects are considered: Economic, administrative, technological, and when measured from an individual point of view, encompasses knowledge, skills, motivations, interests, expectations, leadership and communication. The two positions are related, since, the organizational productivity depends on the individual productivity, because the human resource is the most important capital that the organizations have.

Universities must rely on a comprehensive management, where the subject must be the center, because it will depend on the human talent that increases the intellectual capital, and this in turn, will obey the configuration of spaces with an open and fluid communication, which Propitie the construction of knowledge, thus developing true learning organizations. In this context, university organizations should focus their operations through the basic functions: teaching, research and extension, which should conduct their action in a harmonious and related way, with the aim of achieving knowledge, learning, technological development, innovation, which Is translated into a proactive management, to direct and enhance the development of people's skills, through coordinated work.

Productivity in research is the relationship between what is physically produced and what is invested in goods, such as: Equipment, facilities, personnel to perform a particular product or service. (Barro, 2001). In this regard, Jiménez (1997) considers that productivity "is the relationship between the quantity of tangible products and the activity that linked to the research carried out by university teachers." Similarly, Albornoz (2001, cited by Briceño and Chacín, 2002) defines it as the performance of the professional role in teaching and research, under criteria of quality, efficiency and effectiveness, as dimensions of academic productivity.

Torrealba (1997) defines these definitions as linear, because it is an efficient concept where academic excellence is rewarded, more, for the quantity of products made by the

teacher, than for the grade and quality of the same. Products are valued in terms of volumes and types of publications, relating them to the inputs expressed in human and financial resources.

INCREASED PRODUCTIVITY OF RESEARCH IN UNIVERSITIES

In a changing and highly complex environment marked by economic, technological and socio-demographic transformations that occurred in the last decades of the 20th century, universities play a predominant and leading role in the formation of the human resource required by society to achieve Changes and thus give answers to their communities, with the aim of contributing to their development, is why it is necessary to implement new approaches aimed at increasing productivity, through a knowledge management that contributes permanently to the generation, Creation and transfer of the same, giving inputs for the progress of peoples and nations, for the sake of a better quality of life.

In this sense, Koulopoulos and Frappolo (2001) express that at the global level there are constant transformations in technologies, systems, processes, products, and trends, generated by the conditions of globalization and competitiveness, which impose the opening of innovative processes in institutions And organizations, so that other forms of development, centered in the generation of knowledge, the product of interdisciplinary research and collective work, must be considered.

The constant evolution of knowledge in universities and their productivity is essential to meet the needs of the social sectors and at the same time to promote the personal-professional growth of the researcher teachers, guaranteeing their effectiveness in this globalized scenario. Hence, research represents for universities an indicator of quality, which generates greater knowledge, social relevance, and relation with the productive sector and services, to achieve greater competitiveness in the national and international scope.

The link between university and productive sector must be based not only on research activities, but also on the capacity of the university to solve problems, consultancies and provide services by providing continuous training through significant postgraduate

programs through commitment With its environment, which is an indispensable process for the achievement of the strengthening of this relationship, guaranteeing with this link the generation of knowledge necessary to improve scientific and technological productivity. In this organizational context, the actors who live in it must be trained in the development of basic competences for the search for information and the socialization of knowledge, with the aim of achieving their conversion to be codified, disseminated and transferred by the Organization for its transformation and application

The creation of knowledge in public and private organizations should be addressed through the use of new information and communication technologies, developing strategies, models, techniques, methods and tools of knowledge management in accordance with scientific policies. In this context, Peluffo and Catalán (2002) point out that knowledge management responds to a process related to competence management and the development of information and communication technologies, to create competitive, oriented or knowledge-based advantages and the learning.

According to these authors, the essential objectives of knowledge management include: The generation, socialization and utilization of tacit and explicit knowledge in organizations, with the aim of providing answers and inputs to the needs of workers and Institutions for its strengthening.

In fact, there is a need to reflect on the importance of managing knowledge, through strategies that facilitate and implement the necessary resources and resources to strengthen the research processes in different institutions and especially in universities where research carried out by teachers should contribute to its permanent updating.

To develop research in universities, it is necessary to comply with the following aspects:

- Research conducted by teachers should respond to needs that provide relevant responses to their context.
- Research must be framed in research lines, connected with the social problems of its environment.

- Apply the strategic processes that allow the creation, promotion, diffusion and transfer of knowledge to the community.

INNOVATION IN THE UNIVERSITY

Innovation is intimately linked to creativity, as a capacity to create. Amabile (1996) defines it as the production of the new, of new ideas by the subjects working as a team. De la Torre and Barrios (2000), from educational research, proposes a definition of innovation focused only on implementation or adoption and not on generation, noting that: "Innovation is a process of managing specific changes in ideas, materials Or curriculum practices to their consolidation for personal and institutional growth (p.77)

Innovation in research can be understood from a broad perspective as synonymous with renewal. In Cañal de Leon's words (2002) it refers to: as a set of processes that uses systematized ideas and strategies, with the purpose of achieving or provoking changes in current research practices, to find professional and organizational development. The university institutions must generate productivity and that better than sticking to an innovative research culture associated with the production of knowledge and a permanent formation.

According to Clark (2012) the analysis of successful innovative activity in the university sector contains five basic elements for its application:

- Powerful proactive management with autonomy, administrative ability and fulfilling its management philosophy with implicit values applied by all, so that all levels of the institution work together to improve the academic culture.

- Use relationship mechanisms such as linkage, cooperation and partnership with the various sectors: productive, community, social and academic to generate and promote knowledge in order to achieve mutual benefits, such as: transfer, industrial contact, development Intellectual property, continuing education.

- A diversified income base. That is, multiple sources that generate income.

- Staff, with strong identification with the institution and involved in the various teaching, research and extension functions, working together to achieve institutional purposes.

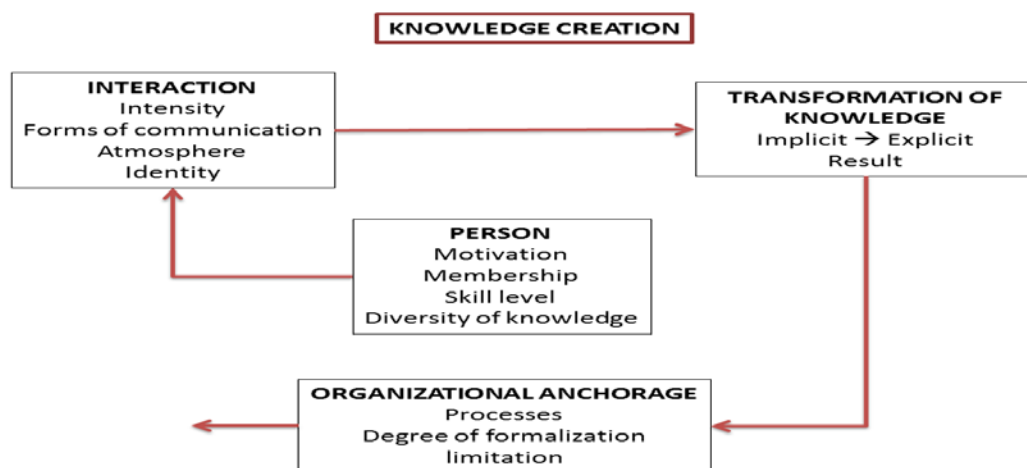
- An innovative culture integrated with creative strategies that recognize what is essential and allows generating productivity in organizations.

DIMENSIONS OF CONFIGURATION FOR THE ORGANIZATION OF KNOWLEDGE IN THE UNIVERSITY SECTOR

Knowledge organization in the university sector, considering North and Rivas (2008) requires four basic elements: people, interaction, knowledge transformation and organizational anchoring. These elements explain the creation of knowledge through the interaction between people within organizations, which have a diversity of them and interacting through different forms of communication by exchanging and creating new knowledge.

The following graph shows the necessary contexts for the organization of knowledge in the university sector.

Graph: Dimensions of Configuration for the Organization of Knowledge in the University Sector



Source: North and Rivas (2008).

Each of these elements is described below:

Person: The organization must promote favorable contexts for collaboration, cooperation of the various factors that make it live, generating high levels of participation, commitment, membership to get members to integrate into the knowledge societies.

Interaction of the organization: Teamwork fosters interaction between subjects and increases the intensity of contact between them, the ways in which they occur, influence the exchange of knowledge and the fluidity of communication that must lead to a climate Warm and open to facilitate the conversion of tacit knowledge into explicit.

Transformation of the organization of knowledge: North and Rivas (2008) point out that in interaction between people not only exchange knowledge, but also generate new knowledge, these transformations of skills, which work at the levels of knowledge established by Nonaka and Takeuchi (1998), who in their spiral of knowledge frame them in four phases: Socialization, exteriorization, combination and interiorization, belonging to the epistemological level, likewise, to establish an ontological level conformed by Subject, team, organization and interorganizational relations .

Organizational anchor: Any process that is carried out in an organization, must consider the management philosophy with its degrees of formalization and limitations of each one, understanding that each organization has three systems: legal, structural and innovation ; These should act interrelated not separately or linearly, to accommodate the process of innovation and creativity that promote good knowledge management.

The institutional dynamics should provide incentives for the staff to have a high motivation and commitment to fulfill organizational purposes and thus improve their productivity and raise general working conditions. In organizations there is a diversity of knowledge, however, it is necessary that these are integrated, are linked through strategies that promote the socialization and dissemination of knowledge, which includes establishing a communication between all areas of work and actors that they give life to the organization.

LINES OF ACTION TO IMPROVE PRODUCTIVITY IN THE UNIVERSITY SECTOR

In order to improve productivity in institutions

1. - Diagnosis of the research needs.

In order to achieve greater social relevance, increasing the interrelation with communities and other social sectors, to promote and strengthen mechanisms of relationship between the university and the productive sector. You can start with simple questions, such as: where are not essential needs covered? How can you improve the flow of knowledge to reduce errors?

2. - Linking teaching and research

This linkage should be expressed as a co-implication, since there is no effective teaching where there is no research and there is no reliable research where there is no teaching. Within the questions that we could ask, would be: What are the competencies of teachers and the strategies that could be used to establish the link between teaching and research?

3. - Configuration of conditions that favor the encouragement and recognition of teachers.

Although there are some stimulus and recognition policies by university bodies, priority has been given to individual performance, thus encouraging competition among teachers based essentially on individualistic productivity. Among the questions that we could raise would be: What would be the stimulus systems and criteria of performance evaluation established by the university institutions?

4. Development of human talent through programs that support research

There is a need to achieve a highly qualified and productive staff, in order to improve quality in the university sector, generating more knowledge for the strengthening of innovation. As far as we could ask, what would be the criteria that favor the development of human talent?

FINAL CONSIDERATIONS

After analysis, the theoretical elements of the authors considered in the development of the article, can be considered, the human resource as a fundamental element of the process of knowledge generation and social transformation, in that sense, one of the ideal scenarios is the opportunity Which provides the link between teaching and research, considered as one of the processes, where teachers not only put into practice their acquired knowledge, but also, the generation of an interaction environment, where it discovers, encourages and innovates, with the object To foster greater productivity by sharing knowledge that can be disseminated and transferred.

It is extremely important to establish conditions that encourage the adoption of various stimuli, through programs that recognize the research activity that is developed in the university context, such as:

- To grant recognition to the most creative research processes, for their contribution to the development of the processes of creation, diffusion and use of knowledge.
- To award annual prizes to the best work done to both teachers and students. Provide facilities and opportunities for participation in events where they can disseminate the achievements in their research.
- To support research lines and research groups, with material and financial resources for a better development in their implementation dynamics.
- Financial support for the creation of research networks, as a mechanism for academic and scientific integration, local, regional and national.
- Promotion and exchange between researchers, local, national and international.
- Encourage seminars, meetings, congresses and other events related to the educational field.



BIBLIOGRAPHIC REFERENCES

- Alles, M. (2001). Dirección estrategias de recursos humanos. Gestión por competencias. Argentina. Editorial Ediciones Granica. S.A.
- Amabile, T. (1996). Creativity in context. Boulder, CO. United States. Nestview Press.
- Barro, M (2001). Criterios y estrategias para la definición de líneas de investigación y prioridades para su desarrollo. Venezuela. UPEL.
- Briceño, M. y Chacín, M. (2002). Racionalidad instrumental y humanista en la valoración de la productividad del docente investigador universitario. Consideración para la heterologación. Revista Universitas 2000. Volumen 21, número 3-4.
- Clark, B. (2012). Concepción acerca de la universidad emprendedora. Revista: Tendencias de la Facultad de Ciencias Económicas y Administrativas. Universidad de Meriño. Vol XIII. Nº 2. 2do semestre 2012. Julio-diciembre. Pp 103-118
- Collison, CH. y Parcell, G.(2003). La gestión del conocimiento. Lecciones prácticas de una empresa líder. España. Paidos Empresa.
- De la Torre, S. y Barrios O. (2000). Estrategias Didácticas Innovadoras. Recursos para la formación y el cambio. España. Ediciones Octaedro.
- Del Moral, A. Pazos, J. Rodríguez, E. y Suárez, S. (2007). Gestión del conocimiento. Madrid. España. Thomson Editores Spain Paraninfo, S.A.
- Gupta, D. y Jenkins, N. (1998). Las políticas de compensación y los beneficios económicos. Debates IESA. Número 4.
- Jiménez, V. (1997). Elementos para evaluar la productividad individual: Investigación del docente universitario. Documento en línea. Disponible en: <http://www.revistaespacios.com/a94v15n03/40941503.html>. Consulta: 20/10/2015.
- Koulopoulos, T. y Frappolo, C. (2001). Lo Fundamental y lo más efectivo acerca de la gerencia del conocimiento. Colombia. Editorial McGraw-Hill.



- Michelangeli, C. (2005). La productividad Investigadora en los docentes de la universidad Nacional Experimental Simón Rodríguez. España. Universidad de Oviedo.
- Molina, J. y Marsal, M. (2002). La gestión del conocimiento en las organizaciones. Colección, negocios, empresas y economía. España. Libro en Red.
- Nonaka, I. y Takeuchi, H. (1998). La organización creadora de conocimiento. México. Oxford University Press.
- North, K. y Rivas, R (2008). Gestión del conocimiento. Colección, negocio, empresa y economía. España. Libros en RED.
- Papalia, D. (2005) Desarrollo Humano. México. Editorial McGraw-Hill / Interamericana.
- Peluffo, M. y Catalan, E. (2002). Introducción a la gestión del conocimiento y su aplicación al sector público. Chile. Instituto Latinoamericano y del Caribe.
- Rollet, H. (2003). La gestión del conocimiento: Los procesos y tecnologías. Estados Unidos. Academic Publishers.
- Soto, E. Sauquet, A. Core, E. Vergel, E. Soler, C. y Cárdenas, J. (2006). Gestión y conocimiento en organizaciones que aprenden. México. Editorial Thomson.
- Toro, F. (2001). Desempeño y productividad. Colombia. Cincel Ltda.
- Torrealba, F. (1997). Pedagogía del sentido. México. Harvard Business Review.
- Unesco (1998) Conferencia Mundial de Educación Superior. Paris, 9 de octubre
- Zamora, E. (2003). Marco de referencia teórica para la investigación sobre los procesos de conocimiento en las organizaciones de la sociedad civil de Centroamérica. Costa Rica. Fundación Acceso.