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Research Article

A Look At The Importance Of Using Knowledge Management To Enhance Creativity In University Teachers

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Abstract

The emergence of the knowledge economy has led many countries to pay more attention to the value of knowledge in organizations and increased competition among universities to acquire and manage knowledge, has led them to gain more success. However, the complexity of certain issues in the organizations has led creativity to be known as an important factor in problem solving, organizational dynamics and the final victory in the field of competition and survival. Since Educational systems, including Education are in focus of knowledge management processes – creating, acquiring, storing, sharing, application and dissemination of knowledge, with proper management of knowledge they can educate scholars and researchers' knowledge as valuable organizational assets and resources. As management of knowledge is one of the main principles of change and innovation, so the efficient management of knowledge as one of the executors of education goals plays an important role in this way. Researchers have identified many factors that influence creativity and some of them show a relationship between knowledge management and creativity regarding its role in enhancing creativity and innovation. So the deeper attention to the role of knowledge management in educational institutions in order to strengthen the skills and knowledge to implement a coherent educational leaders can be an effective step towards enhancing their creativity. So we are to examine the role of knowledge management in education and its importance in university teachers' creativity.

Keywords: Creativity, Knowledge Management, University Teachers

Introduction

Today, due to the growing development in the fields of science, social issues, economy and policy, Issues and concerns of organizations has changed to a new and complex form and has created different expectations. So, the correct applying of knowledge potential to solve problems and meet the needs of the organization is necessary that requires a special management and it's known to knowledge management in literature. The implementation and execution of knowledge management also need specific modules and executives who are well

informed. Educational organizations and especially the Education which prepare forces for the society are located in the center of knowledge creation (Koma & Farabod, 2013). However, preparing creative and efficient forces to encounter and deal with complicated problems of organizations is undeniable. Few studies have also been conducted to explore the relationship between knowledge management and creativity like researches Karimi and Koma (2012) , Nayer and Jokar (2012) , Ansari (2010) , Abbasi, Moslu , Saeida, Ardakani , Damaki, Hatami, Nasab and Golkarieh (2008) , Rahimi , Arbabisarjou, Mohsen, Allameh and Aghababaei (2011). The results of these researches showed a relationship between knowledge management and creativity and its role to creativity increase. As knowledge management could be the leverage to increase creativity, so using it to increase the creativity of university teachers as one of the most important goals of education seems essential for the development of creative forces. So, the purpose of this paper is to describe the application role of knowledge management in higher education teachers' creativity.

Knowledge

There are many definitions of knowledge as well as knowledge management. The list of some are displayed as follow: "Information, understanding and skills that you have gained through learning or experience" oxford word power dictionary (2006). Awad and Ghaziri (2004) defined knowledge as understanding gained through experience or study. Liebeskind (1996) offered the definition information whose validity has been established through tests of proof.

Words like information and data are often used instead of knowledge but in fact they have different concepts and understanding the difference between them is very important and vital for a knowledge-based work .Though data is a collection of raw information, calculations and statistics; Information is the processed and structured data that is timely and accurate (Holt, Love & Li, 2000).
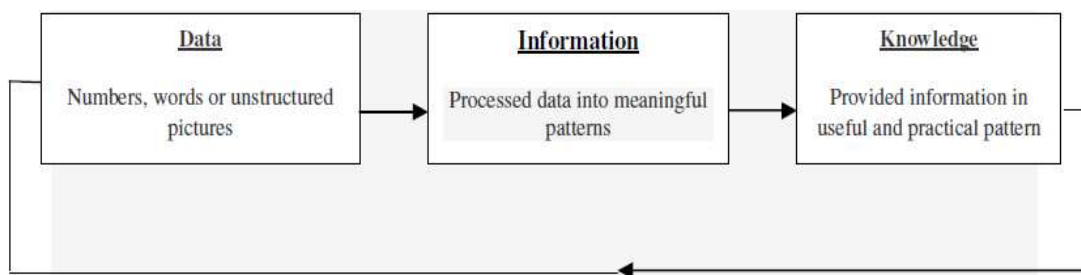

Figure 1. Data into knowledge

Awad and Ghaziri (2004) offered the knowledge pyramid. It was shown by Figure 2.
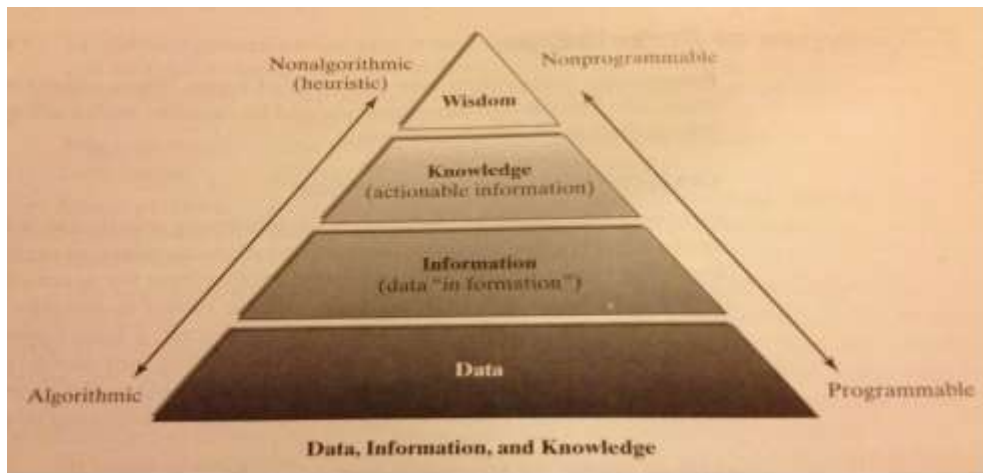
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Figure 2. Knowledge Pyramid

The information, knowledge and wisdom are all from data that is fundamental. It might be a raw number, or a fact. For example, Tom is forty years old. This is data; it does not have any meaning. However, if says, Tom is forty years old, he is older than his brother. This becomes information. In the real world data exists everywhere, and especially there are thousand millions of data in the organizations. So the organizations must transform data into information.

The top one is wisdom. It is not only the highest level of knowledge pyramid, but also it represents the action with vision, foresight and ability to see beyond the horizon (Awad & Ghaziri, 2004). Based on hierarchical classification provided by IFRCRCS (2005), the pyramid also indicated the four levels (Figure 3):
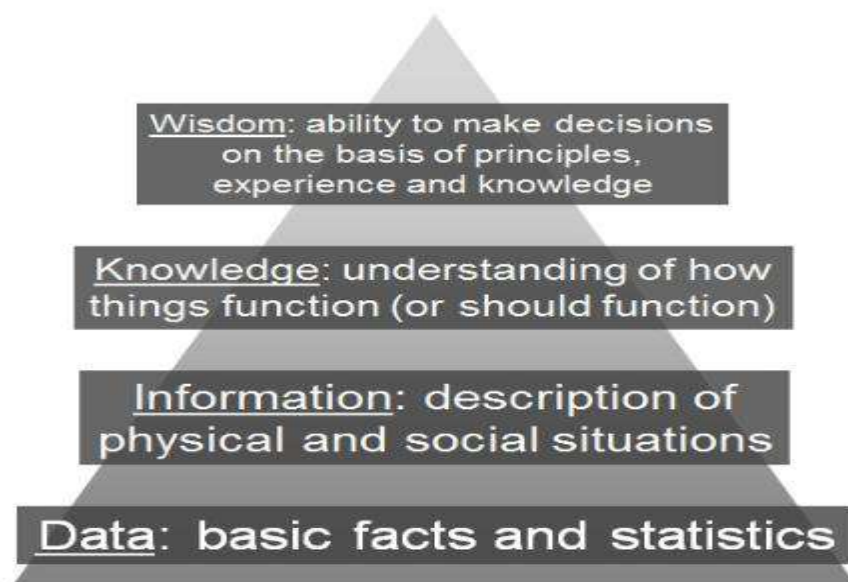

Figure 3. The Pyramid

Knowledge Management

Drucker was the first to suggest that the U.S economy had shifted from production to knowledge (Drucker, 1969). Knowledge management has become main issue around the

world in knowledge economic age with many researchers focusing on the area of Knowledge Management (KM) in the latter half of the 20th century and into the 21st. KM is increasingly seen as a set of vital practices that are knowledge discovery, knowledge mapping, knowledge database, database mining, etc. It all related to keeping knowledge using tools or methodologies in a better way. KM can help the organizations obtain the recognition of customers, further to gain the competitive advantage over opponents (Shin, 2004).

Although the concept of knowledge management has attracted much attention from both academicians and practitioners, no generally acceptable definition of the concept has yet been found. Yahya and Goh (2002) complained that defining the concept of knowledge management is difficult, because different perspectives or schools of knowledge management can yield different dimensions and meanings. In terms of definition of the concept, such researchers as Mertines (2001) have taken an information systems approach, whereas others, such as Beijerse (2000) and Newell, Robertson, Scarbrough and Swan (2002) have taken a strategic approach. Whereas Skyrme (1999) and Swan, Newell, Scarbrough and Hislop (1999), among others, have taken a human resources process approach towards definition of knowledge management, still others, including Davenport and Prusak (1998) have taken an approach which integrates IS. Jashapara (2004) presents the definition of knowledge management from four different perspectives, being those of strategy, IS, human resources process, and a combined information systems and human resources process. According to Swan (1999), knowledge management can be defined as any process or practice of creating, acquiring, capturing, sharing, and using knowledge, no matter where it resides, in order to enhance organizational learning and performance.

Many other definitions of Knowledge Management are used in research currently, three which are useful to discussed in this paper are: Fernandez & Sabherwal (2010) gave a more detailed definition of KM that defines as performing the activities involved in discovering, capturing, sharing, and applying knowledge so as to enhance, in a cost-effective fashion, the impact of knowledge on the unit's goal achievement. Duffy (2000) defines Knowledge Management as a set of business practices and technologies used to assist an organization to obtain maximum advantage from one of its most important assets knowledge.

Barclay and Murray (2012) indicate that knowledge management often encompasses identifying and mapping intellectual assets within the organization, generating new knowledge for competitive advantage within the organization, making vast amounts of corporate information accessible, sharing of best practices, and technology. Despite the researchers have given different versions about definitions of KM, there are some integral parts:

- Processes/Activities

- Intellectual Components

- Knowledge as an asset

Knowledge management process

These definitions are listed because the researcher was talking about the KM as an active process using words activities, processes, technologies, etc. And the researcher mentioned that knowledge as an asset is the most important to the organizations. Figure 2.4 shows KM

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processes (Fernandez & Sabherwal, 2010) that consist of discovery, capture, sharing and application. Each process is supported by a set of sub processes, such as combination, socialization, externalization, internalization, exchange, direction and routines. The definitions of four processes as below (Fernandez & Sabherwal, 2010):

- Knowledge Discovery: to develop the tacit or explicit knowledge from data and information or from the prior knowledge.

- Knowledge Capture: to retrieve tacit or explicit knowledge that existing in people, artifacts or organizational entities.

- Knowledge Sharing: to communicate to other individuals about tacit or explicit knowledge. As the spread of internet technologies, knowledge sharing may occur between business partners, departments and personnel.

- Knowledge Application: to establish effective application in making-decision and task performance depends on the better processes of knowledge discovery, capture and sharing
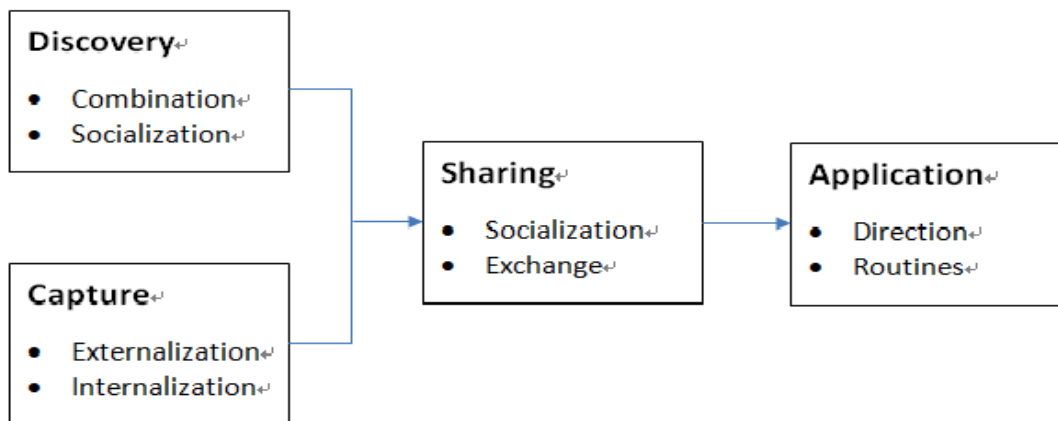

Figure 4. Knowledge Management Processes

These four KM processes can be implemented in the KM system which is a platform to provide better services for users. During this process, knowledge discovery and capture can convert between tacit and explicit knowledge; then the knowledge is stored in the repositories e.g. databases, documentations, etc. after that, knowledge sharing occurs between partners, departments, and individuals through exchange and socialization; In addition, knowledge application can provide better applications to the decision support. Also they are the knowledge management activities (Daneshfard & Shahabinia, 2010).

Knowledge Management Cycle

Nickpour and Salajegheh (2010), knowledge management is a continuous process and as knowledge becomes more and more, it spreads like a spiral shape during run time (quoted by Lawson, 2003). Lawson considers knowledge management cycle as the successive and overlapping phases. Lawson divides the knowledge management cycle into six different processes of knowledge creation, acquisition, organization, storage, dissemination, and application of knowledge.

Knowledge Creation

Knowledge creation is the first stage of an extensive process of knowledge management. Knowledge is created into two distinct Individual and group cycles. When individual knowledge is used in the context of the organization, creating a new knowledge that is called organizational knowledge (Kluge, 2001; Najm, 2009). At this point organization does an aware struggle to examine for and define the knowledge and related resources inside and outside. Knowledge is created through the discovery, it means the workers are developing new ways to do things or knowledge is created through external sources (Karimi, 2006; Lawson, 2003). According to Davenport and Prusak (1998), the production of knowledge refers to activities that increase organizational knowledge storage. There are five methods of production including: acquisition, allocation, fusion (fusion of companies), coincidence, and building networks of knowledge. These methods compound fluctuation and creative chaos and also a rich diversity of Nonaka knowledge creation empowerment. Individuals create knowledge in response to their environment. In this process, they gain sufficient diversity to deal with the complexity. Organizations may acquire knowledge by employing people, buying another organization or hiring external knowledge (Karimi, 2006).

Knowledge Capture

New knowledge is just identified as relevant and valuable for future needs, and it is extracted and presented to be shared where it is readily available in a reasonable manner (Lawson, 2003). Understanding or knowledge acquisition process to meet current and anticipated future needs and effective implementation of objectives is essential. Knowledge can be acquired through different mechanisms (Adli, 2005).

Knowledge Organization

New knowledge is refined and organized in Knowledge organization step. This process is done by identifying and preparing a list of useful knowledge for various products and services through the filtering .Knowledge is such implemented in the field that it will be feasible and can be reviewed and updated (Abzari, 2009; Lawson, 2003).

Knowledge Storage

Those activities are noted here which retains knowledge in the organization. In this regard, we can mention organizational memory and the most important function of organizational memory is to preserve organizational knowledge (Ahamdi & Safdarian, 2010.) But it should be noted that institutional memory is only capable of storing explicit knowledge. In addition to organizational memory, Personal memory, where hidden knowledge is kept, should be considered. The effectiveness of knowledge management programs should be established between these two closely linked memories (Lawson, 2003).

Knowledge Dissemination

Knowledge Dissemination is dissemination, distribution or knowledge sharing. Propagation is the process of distributing knowledge through organization, even beyond the organization (Adli, 2005). Knowledge sharing refers to providing information about how to help others and also implies cooperating with others to solve problems, develop new ideas, or implement policies or procedures (Abtahi & Salavati, 2005; Lawson, 2003). Knowledge Dissemination

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can occur through written correspondence or face to face communication via network with other professionals in order to document, organize and integrate knowledge to others (Abtahi & Salavati, 2005; Lawson, 2003).

Knowledge Application

Utilization or application of knowledge power is the final process of knowledge management, but it would be the most important process from Pfeffer & Sutton point of view (Adli, 2005). Organizational knowledge should generally serve to products, services and organizational processes. If an organization couldn't easily determine the right knowledge at the right place, it will be faced by difficulties in a competitive arena .Where Innovation and creativity is the way to victory in today's world, organizations must be able to place the appropriate knowledge at the right place (Adli, 2005; Lawson, 2003).

From the view of majority researchers including Pfeffer & Sutton, application of knowledge or power is the most important process. They claim that competitive advantage does not belong to the organizations which have the best knowledge assets but, it belongs to organizations that are using the best of their knowledge in practice (Singh, Shankar & kumar, 2006). If knowledge does not change into practice and organizational activities is not based on the knowledge, all the activities and processes of knowledge management is disinfected and sluggish. Use of the knowledge makes the gap between knowledge and action disappears, and important cycle of feedback and learning appear by doing and applying (Najm, 2008). Knowledge is valuable when it is used. It not only affects the actions and strategic plans, but also its impact on daily activities of the organization are observed (Binder, & Fish, 2001; Samadian, & Sayed, 2011).

Knowledge Management and Education

Today, the concept of education has profoundly changed, affected by structural changes. Manual work has more low values in comparison to intellectual work and some concepts such as knowledge management and knowledge employees are emerged. Education benefits from organization and community learning model. Each principal and teacher not only in his/her career field, but also about their management operation , educational processes and environment, Must constantly be updated in order to have an effective presence in scientific fields (Abtahi & Salavati, 2005; Salgi, 2011).

Educational and scholastic processes are based on knowledge and skills updating. Teachers and students basis on symbolism, intellectual, qualitative and creative activities and also technology and knowledge creation are evaluated. In fact, knowledge is a tool for eliminating or reducing the gap between developed and developing countries in new age respectively .To access knowledge-based development , universities can assume the duty of knowledge creation and to legitimize sustainable development in international, national and regional world. Knowledge management is a new approach that successful universities of this century focus on, in order to develop their ability. This management includes of knowledge acquisition and intellectual capabilities and experiences of individuals and creation of capabilities to recover them, which are the most important human and organizational capital (Mazhar & Akhtar, 2016; Salgi, 2011).

The application of knowledge management also seems necessary in all organizations, including educational, healthcare, industrial and commercial institutions. Despite the development of knowledge management in recent years, many institutions are disappointed in its optimum utilization. These organizations seek to respond to the following questions. How

can produce, store and distribute knowledge in organizations? How knowledge management concepts and techniques can be implemented in an organization? How can members of a learning organization be encouraged to share knowledge? And basically, is applying knowledge management essential for a learning organization? These are some questions that may arise for managers of an educational organization (Ghoreyshi & Ahmadi, 2008). So training has undergone knowledge management as well as other areas and In order to survive in today's changing conditions it must be able to enlist knowledge management appropriately to serve the needs and Moreover, to keep pace with today's changing environment to be able to reach its main objects. In the knowledge and information era, knowledge is the most important factor in the long term success of persons and organization. Knowledge collection is scattered in many areas such as: Library resource, document centers, databases, knowledge bases, and archives around the human mind and agencies. Knowledge management is required for optimal use of distributed collections to produce new knowledge and information (Ghoreyshi & Ahmadi, 2008).

Knowledge management can be used as an alternative strategy to assist teachers with the related skills to deal with challenges to improve performance in schools as well as commercial sectors. However, a few researches have been done on how to apply knowledge management in universities. In the beginning, for applying knowledge in practice, teachers' understanding of knowledge management is very important (Chu, Wang & Yuan, 2011). Universities with a large population of students and teachers are known as the most important breeding ground of society intellectual and knowledge capital. Education invests in people intellectual capital and the role of school administrators in this regard is very important. Carol believes that knowledge management in universities is a challenge that we need to consider it. Although the culture of the universities is not unique and special but it is highly regarded personal (Salgi, 2011). He and his colleagues described seven areas of problems solving through knowledge management.

1) Features of school work

2) Capturing and acquiring knowledge

3) Understanding of information

4) Restore data,

5) support knowledge management by time,

6) Evaluation,

7) Knowledge management tools (Salgi, 2011)

Universities have always been in connection with knowledge management. Teachers are good examples of knowledge management. University libraries are a good example. Today they have provided a dynamic environment for independent learning with the help of technological changes to libraries facilities and information resources. But what is important for a university as an organization is providing, readout field, nurturing, sharing and exchange, promotion and especially organization, storage and dissemination of knowledge in the university and interact with the beneficiaries (Galini, 2010; Rowley, 2000). From this

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point of view, the most important aspects of knowledge management in universities can be summarized in the following:

- Awareness of teachers (why do we need to share our knowledge with other universities?)

- Students' awareness (What is knowledge management and what are its functions?)

- Society awareness (education is not just talking and working, but rather it's about how well it handles or how well it works)

- How to perform knowledge management educations.

- How to preserve, maintain and solidify school knowledge (Rowley, 2000).

Zhao (2010) points out that university knowledge management can facilitate acquisition, sharing and application of teachers' knowledge in the university. To manage and utilize better, tangible and intangible knowledge assets of universities, especially the professional knowledge, experience and competence of teachers to be used (Chu, Wang & Yuan, 2011). Knowledge age requires a different interpretation of the phenomenon and method of operation. Successful administrators only emphasize that how is the availability of relevant information for decision making and they are always dynamic and looking for education.

These administrators are evaluated based on their learning speed and their decisions are made based on knowledge management And in case of being well informed of the latest relevant knowledge and information they will be successful in decision making . This requires to be dynamic, aware and well updated .They also require knowledge sharing and training before the implementation of knowledge management. Decisions made by university administrators in the field of education and continuous improvement of education ensure principals' success in university managing (Aryaznd, 2010).

Knowledge management requires informed leadership and participative management and in the culture of educational environment where Critical and creative thinking is considered as the dominant value, this creative thinking is as a key and instrumental factor in knowledge management (Singh, 2008; Smith, 2000; Soo, 2002). Creating knowledge-based universities and using model of knowledge management and information technology in universities can upgrade the speed, quality and utility of education services. And to develop this in universities, all systematic changes that due to reconstruction, interaction and engagement of knowledge must be Encouraged and supported (Salgi, 2011; Stacey, 2000; Storey, 2000).

Creativity

There are many definitions of creativity that some of them are from organizational point of view and the others are from individual perspectives. Hosseini (2001): creativity is applying mental abilities in suggestion of old elements to create a valuable and targeted idea or solution. Luthans (1995): creativity is a combination of solutions by individuals or groups in a new way. Moorhead & Griffin (1989): creativity is the process of creating original perspectives and imagination on the situations. They also believe creativity is creation and production of minds through the imagination to illustrate the situation and the important indicator of it, is the strength of the mind in the form of phenomena and situations. Another definition outlines creativity as innovation and talent to create that potentially exists in any

body at any age and is closely related to Social and cultural environment. For the realization of this natural tendency, Favorable conditions need to be explained .Therefore, creativity of human being is a general talent such as intelligence and memory and contrary to popular opinion there would be no division between innovators and non-innovators. Here there are some more or less, but everyone is creative (Bessis & Jaoui, 2000).

Creativity is the ability to apply knowledge to solve problems. Creative synergy occurs when a group of people want to solve their problems through collective mind. Creative people are often spontaneous. Creativity does not require superhuman education or intelligence, but it requires a framework in which innovation takes place. Thinking ability of employees is the key factor of developing ideas and new ways of working (Rahimi & Najafi, 2007).

Creativity Process

One of the first models for the creative process was described by Graham Wallas in 1926. The Wallas model contains four stages of creation.

1. Preparation

New ideas are always based on already existing knowledge. People usually invent something new on their own field or where they can apply their knowledge. For example scientists need a background of mathematics, biology, etc. to understand and analyses a problem for finally getting new ideas.

2. Incubation

Most people will not solve a problem instantly. For many it is stimulating when the task of solving a problem is put aside for a while. Most of us faced already a situation where one got the idea for a problem when making a tea or having a stroll.

3. Illumination

Wallas described this as the moment when the new idea appears in the mind.

4. Verification

It is necessary to examine whether the idea is a useful solution for the problem. The verification is the final step of elaboration and application of the new idea. The four stages are not entirely separated from each other and can overlap sometimes. It is also possible to visit an early stage again (Garnham, 1994). The Wallas model is sometimes described with having five stages, with an additional third stage called intimation.

Another model for the creative process is called the Directed Creativity Cycle. The concept behind this model is somewhat different to the Wallas model. It is more focusing on the fact that there is usually a repetition in the creative process during the creation of a product. Figure 5: depicts the cycle (Paul, 1997).
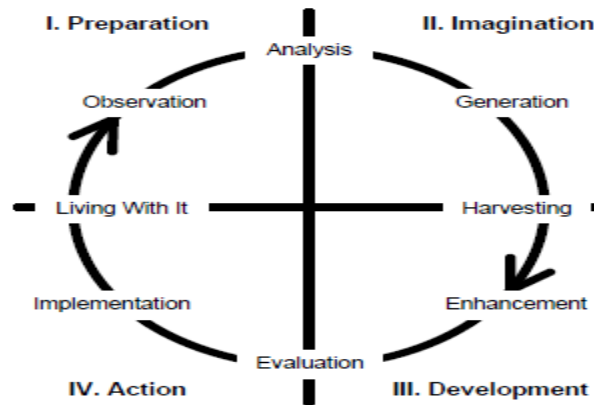
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Figure 5. The Directed Creativity Cycle

One can see that this model is more fine-grained than the Wallas model. It has similar stages to the Wallas model, but has several sub-stages. Cycles are an often re-occurring element for the description of the creative process. It illustrates that the creative process is not only a task with a start and an end, but with many refinements. The creative process itself will not stop, even the creation of the artefact itself stopped. This can be observed through the fact that creators will usually find some imperfections in their work. The correction of these imperfections would lead to other imperfections and the process would continue.

A closely related topic of the creative process is the creative cognition. Candy describes five elements as part of the creative cognition (Candy, 1997).These elements are given below.

1. Ideas generation

Describes a type of brainstorming, where already existing ideas and methods are combined with each other in order to facilitate the extension and transformation of the design space.

2. Problem formulation

The identification and formulation of the problems and unanswered questions. The problem space is analyzed from different viewpoints to gain a better understanding.

3. Strategies

This element describes the usage of ambitious or opportunistic steps as a creative strategy.

4. Methods

The development or acquisition of new methods arises when really necessary. The need for new methods usually occurs due a change of the working strategy.

5. Expert knowledge

The knowledge of a domain is continually updated through communication over a network of experts of that domain. The type of knowledge is rather informal and recent than documented. Some researchers doubt that there is a general model for the creative process. In their opinion, the models should be more flexible and fine-grained in order to cope with differences between the domains (Todd & Lubart, 2001).

Knowledge Management and Creativity

Today concept of knowledge management and creativity is evident in organizational and social studies and economy today seems more likely to have knowledge and knowledge known as much as the core concept in understanding the market and organizations. However, that creativity is closely correlated with the knowledge, ability to be an important source of organizational effectiveness and is a source of competitive advantage of organization.

Information system (IS) support from knowledge creation and sharing it in the organization and more research is about organizational knowledge management and it role. The importance of creativity in knowledge increase the use of information systems as support organizational knowledge, all of them find the important research about the relationship between knowledge and creativity in organization (Ansari, 2011).

To convert wisdom to the ability or in other words become creativity to innovation, knowledge management model provides fields that it can described creation of the knowledge, insight, and understanding how to use the knowledge and technology with a mix of modern knowledge times by using management principles in the new century and new methods of teaching (Behrangi & Safaei, 2009).

According to Nonaka (quoted by Mousaovi and others, 2009) organizational knowledge develops through social interaction between implicit knowledge and explicit knowledge. He considering basic assumption that knowledge as the main assets of the organization is required coordination and integration by creating dynamic interaction between these two types of knowledge to the four basic strategies of the socialization, externalizing, composition, internalizing refers to the process of knowledge conversion.

In this way the organization will be able to create and develop new knowledge. Knowledge created through spiral process in levels of vertical and horizontal developed and is caused to create a new cycle of knowledge. This interactive process occurs at the level of internal organization. Customer behavior with acceptance, purchase, their use or unwilling to use goods or services is caused concept in product; then it acts as a stimulus to extract tacit knowledge. Then knowledge reflected in organization creative process and begins a new loop of organizational knowledge (Mazhar & Akhtar, 2018).

By applying the knowledge management we can recognize the lack of the knowledge in organization that lead to increasing student satisfaction. However, knowledge management is caused to reduce duplication and save time and to stimulate creativity (Sayadzadeh, Mirshah & Jafari, 2008).

Creativity is field of the development and innovation. Sometimes new ideas and thoughts of individual minds will seeps and in later years by another person are manifested as novelty in product or service. Knowledge management experts believe that mechanisms of innovation and knowledge management processes are adaptable (Najm, 2009).

The decision making in creativity process strongly depends on the tacit knowledge technology. Consequently, tacit knowledge plays an important role in all stages of the novelty process. It is clear that at all stages of the creativity process (discovered and developed the idea) increase intangible and invisible. Therefore, tacit knowledge plays a role in every stage

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of creativity process. Based on studies performed inference that tacit knowledge is necessary in order the ability of maximize the success of creativity (Fathian, 2005).

As Cao says, having a good strategy for working with knowledge management issues is not enough. The relationship between these two organizations allows remaining in the future. The outcome creativity of professional will be depends on the type created between knowledge management and base skills and management creativity (Martenson, 2000). Runco says, creativity is creation of relationship between new ideas and new knowledge. Experience, skills and information is called as the knowledge; but in future of creative process is called knowledge and individuals' creativity will be measured by how to use knowledge (Sarchehani & Jahani, 2011).

After investigation and study to collect results and summary from researches conducted in Iran, Malaysia, UK, India and other countries research topic which is exactly identical with the subject of this paper was not find, but a brief summary of closest research conducted that are in agreement with topics of this study, to be mentioned in here. A research conducted by Rahimi et al (2011) in Iran with title "surveying relationship between knowledge management process and creativity among faculty members in Esfahan University" reached the conclusion that there are positive and significant correlation between the dimensions of knowledge management and creativity and there are not significant difference between mean of knowledge management in faculty members in term of age, gender and field of study and also between mean of the creativity rate of faculty members in terms of age, education and employment status.

According to Hind (2008) research to the examines the relationship and the role of knowledge management with creativity and innovation in higher education centers came to the conclusion that knowledge management variables have positive effects, direct and significant on creativity and innovation variables and creativity and knowledge management variables explain 25% variance in total to the innovation. The research conducted by Nayer and jokar (2012) with title "relationship between knowledge management and creativity among librarians in academic libraries in Shiraz" in 2010 concluded that between knowledge management and creativity, there is positive and significant correlation coefficient 0.261 at the level of 0.013 and between component scores of people and culture in knowledge management of librarians with their creativity score there is not a significant relationship and gender, work experience and education of librarians has no significant effect on creativity.

Ansari (2011) in research with title" knowledge management and creativity in physical education department of Tehran province" concluded that knowledge management and creativity in general office is average and there is positive and significant relationship between knowledge management and creativity and among four dimensions of knowledge management, externalizing and socializing has a significant relationship with creativity. Samadian and Alavi (2011) in research with title "the effect of knowledge management on creativity rate of TV and radio organization employee in Tehran" reached the conclusion that knowledge management and its components (knowledge sharing, knowledge organizing, application of knowledge, knowledge performance evaluation, discovery and knowledge creation) have effect on creativity and increasing the knowledge management and each of its components increases creativity.

Azari, Baryamani and Gholikani (2011) in research with title "Investigate the role of knowledge management on creativity of manager in secondary schools" reached the conclusion that there is a relationship between knowledge management, knowledge

refinement, knowledge organizing, knowledge application and knowledge dissemination with creativity of teachers but there is no relationship between knowledge perception and teachers creativity. Also impact of knowledge management is not different on the creativity female and male teachers. Ansari (2010) in research with title "knowledge management and creativity in the Olympic Committee" reached the conclusion that Knowledge management and creativity in the Olympic Committee is average and there are positive significant relationship between knowledge management and creativity, and also there is a significant relationship between the four dimensions of knowledge management, externalizing and socializing with creativity and it is predictor of this variable.

Mosloo and Abbasi (2009) in research with title "Investigate the role of knowledge management in public organizations to improve employees creativity (Case study: Hospital Sadoughi) reached the conclusion that there is a significant relationship between creativity and organizational knowledge management in among knowledge workers of hospital There are a significant and positive correlation between creativity and organizational knowledge acquisition,

Registration of the organizational knowledge, organizational knowledge transfer, organizational knowledge creation and application of organizational knowledge. Ardakani, Damaki, Nasab and Golkarieh (2008) in research with title "Investigate of the correlation rate between commitment to knowledge management and employee creativity (case study: Yazd University employee) reached the conclusion that There are significant correlation between knowledge management and creativity, There are overlap between the characteristics of creative people and committed people to knowledge management.

Keung (2006) in doctoral thesis from Hong Kong university with title "can creativity be learned: a knowledge management approach to creativity support." It was concluded that creativity is the starting point innovation and organizational creativity is a function of individual creativity. It was also concluded that there is significant relationship between knowledge management and creativity. Criscuolo et al (2010) in research showed that the creative multinational companies in addition to use of research have better communications with retailers, suppliers and universities and are also benefiting from the knowledge. Loaeo et al (2010) (Quoted from Ansari, 2010) in research among 362 manufacturing units in China, observed positive relationship between knowledge acquisition and increase organization creativity.

CONCLUSIONS

As it is discussed in this paper, knowledge management is one of the effective factors known to increase creativity and creativity is also known as a teachers', especially training teachers, key skills .The role of knowledge management is needed to be leveraged in order to increase the creativity of university teachers. Because university teachers are one of the key administrators of educational goals and the process of applying, exchanging and saving huge volume of knowledge in educational organizations, especially creative education, should be managed. If knowledge not to be managed correctly, its power and potential effectiveness will reduce. So it is essential to develop university teachers' knowledge management skills, encouragement and support from changes that are conducive to interaction and knowledge construction, should be a priority.

RECOMMENDATIONS

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Since understanding of work importance for university teachers as one of the administrators' education goals implementation is very important, so it's better the importance of knowledge in advancing the goals of organization to be realized by teachers through educational courses or administrative meetings. Equipment needed to implement knowledge management to be provided. By the instruction of computer technology to increase knowledge acquisition and storage skills and while trying to create an atmosphere of trust in organization, a funding to be considered to encourage those who are striving to share knowledge.

References

1. Abtahi, S. H., & Salavati, A. (2005). Knowledge management. *Journal of Management and Development*, 25, 64-53.
2. Abzari, M., & Delvi, M. (2009). Achieving excellence by strengthening the organizational culture. *Journal of Applied Sociology, 33* (1), 171-196.
3. Adli, F. (2005). *Knowledge Management: Moving beyond the knowledge* (1st Ed.).Tehran: publication of Farashenakhti Andishe.
4. Ahmadi, A., Alavi, A., & Safdarian, A. (2010). Comparing status of existing organizational culture in Medical Sciences University of Isfahan with favorable condition. *Health Information Management journal, 7* (3), 378-369.
5. Alavi, M.,&Leinder, D.E. (2001). Knowledge management systems: issues challenges and benefits. *Communications of the Association for Information Systems*, *1*(7), 1-36.
6. Ansari, M.H. (2011). Knowledge management and creativity in physical education department of Tehran province. *Journal of Sport Management,* 9, 68-85.
7. Ardakani, S., Damaki, A.M., Nasab, S.H.,&Golkarieh, S. (2008, November). *Investigate of the correlation rate between commitment to knowledge management and employee creativity (case study: Yazd University employee).*Paper presented at First National Conference of creativity, TRIZ (TRIZ), Engineering and Innovation Management, Iran.
8. Aryazand, A. (2010). Knowledge management status in decisions of organization school managers of education organization in Tehran. *Journal of Researcher*. 7 (17), 81-66.
9. Awad, E. M., & Ghaziri, H. M. (2004). *Knowledge Management,* Prentice Hall, New York, USA
10. Azari, K. N., Baryamani, A., & Gholikhani, B. S. (2011). Investigate the role of manager on creative in secondary schools. *Journal of Researcher*, 3 (21), 79-86.
11. Azari, K.N.,Baryamani, A., &Gholikhani, B. S. (2011). Investigate the role of manager on creative in secondary schools. *Journal of Researcher*, *3*(21), 79-86.
12. Barclay, R. O., & Murray, P.C. (2012). *What is Knowledge Management*, Retrieved from: http://www.imamu.edu.sa/Scientific_selections/abstracts/Abstract%20%
13. Behrangi, M. R., & Fakhri S, L. (2008). *From creativity to innovation on knowledge management context*. National Conference of creativity, TRIZ (TRIZ), Engineering and Innovation Management, Iran and the First National Conference of thinking and science fiction and its application in Tehran, 14-15 November.
14. Beijerse, R. P. (2000). Knowledge management in small and medium sized enterprises: Knowledge management for entrepreneurs, *Journal of Knowledge Management*, 4(2), 162–179.
15. Bessis, P., Jaoui, H. (2001). *What is creativity? Innovation in business*. (M. H. Sarvari., Translator) (1st ed.), Tehran: Publication of Abed.
16. Binder, S., & Fish, A. (2001). Transfer knowledge and maintain skills: the need for a continuous process of globalization (Jahanshah Mirza Beigi, Tranlator). *Journal of Modirsaz*, 3-4, 10-30.
17. Candy, L. (1997). Computers and creativity support: knowledge, visualization and collaboration. *Knowledge-Based Systems,* 10(1), 3 -13.

18. Chalwa, D., & Joshi, H. (2010).Knowledge management practices in Indian industries – a comparative study. *Journal of knowledge management,14*(5), 708-725.
19. Chu, K. W., Wang, M., & Yuen, A. H. K. (2011). Implementing knowledge Management in School Environment: Teachers' perception. *Knowledge Management & ELearning. An International Journal*, 3(1), 139-141.
20. Criscuolo, C., Haskel, J. E., & Slaughter, M. J. (2005). *Global Engagement and the activities Innovation Activities of Firms.* Working paper 11479, Retrieved from: http:www.nber.org/papers/w11479, pp: 1-48.
21. Daneshfard, K. A., & Shahabinia, S. (2010). Study the relationship between organizational culture and knowledge management establishment: Case study of Electric Power Distribution Company executive vice president of North East Tehran. *Journal of Management,* 17, 1-10.
22. Davenport, T. H., & Prusak, L., (1998). *Working Knowledge: How Organizations Manage What They Know,* USA: Harvard Business School Press.
23. Drucker, P. F. (1969). *The Age of Discontinuity*, Harper Publishing, New York.
24. Duffy, J. (2000). Knowledge Management: To Be or Not To Be? *Information Management Journal, 34* (1), 64-67.
25. Fathian, M. B. L., & Ghavamifar, A. (2005). The role of tacit knowledge management in creativity and innovation. *Journal of Tadbir*, 164, 12-18.
26. Fernandez, B. I., & Sabherwal, R. (2010). *Knowledge Management Systems and Processes,* M.E Sharpe, New York, USA
27. Garnham, A., & Oakhill, J. (1994). *Thinking and Reasoning*. Blackwell Publishers Ltd.
28. Ghorbani, M., Noghabi, J. T., &Nikoukar, M. (2011).Relationship between organizational structure dimensions and knowledge management (km) in educational organization. *World Applied Sciences Journal,12*(11), 2032-2040.
29. Ghoreyshi, F. S., & Ahmadi, P. (2008). The role of knowledge management in educational institutions tomorrow management. *Journal of knowledge management,* 20, 17-24.
30. Holt, Gary, D., Love, Peter E. D., & Li, Heng. (2000) the learning organization: toward a paradigm for mutually beneficial strategic construction alliances. *International Journal of Project Management,* 18(6), 415-421.
31. Hosseini, A. (2001). Creativity managing and creativity in management. *Journal of Rahyaft,*26, 5-16.
32. Karimi, K. M. (2012). *The relation of knowledge management and creativity of pre universities and high schools in Rasht* (Unpublished MSC Dissertation, Islamic Azad University Tonekabon of Iran).
33. Karimi, N. (2006). Knowledge management, needs of today's organizations. *Journal of Scientific Communication*, 4, 12-17.
34. Keung, C.P. (2006). *Can creativity be learned: A knowledge management approach to creativity support?* Doctoral Thesis, Hong Kong University.
35. Kluge, J., Stein, W., & Licht, T. (2001). Knowledge Unplugged, *Bath Press*, Bath. Retrieved from: http://dx.doi.org/10.1057/9780333977057
36. Koma, K. L. M., &Farahbod, F. (2013). A look at the important of using knowledge management to enhance creativity in educational managers. *Trends in Social Science*, *6*(1) 78-98.
37. Lawson, S. (2003).*Examining the relationship between organization culture and knowledge management* (Doctoral Thesis).Wayne Huizenga School of Business and Entrepreneurship, Nova Southeastern

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38. Lawson, S. (2003).*Examining the relationship between organization culture and knowledge management*. Doctoral Thesis, H. Wayne Huizenga School of Business and Entrepreneurship Nova Southeastern.

39. Liebeskind, J. P. (1996). Knowledge, Strategy, and the Theory of the Firm, *Strategic Management Journal*, 93-107.

40. Martenson, M. (2000). Critical review of knowledge management as a management tool (Translator: Mansour Majdm). *Journal of Tadbir*, 110, 38-45.

41. Mazhar, S., & Akhtar, M. S. (2016). Knowledge management practices: a comparative study of public and private sector universities at Lahore. *Journal of Quality and Technology Management, 12*(1), 81-90

42. Mazhar, S., & Akhtar, M. S. (2018). Relationship between knowledge management and creativity among teachers of public and private sector universities at Lahore. *Bulletin of Education and Research, 40*(2), 91-104

43. Mertins, K., Heisig, P., & Vorbeck, J. (2001). *Knowledge Management: Best Practices in Europe*, Springer Verlag, Berlin.

44. Moorhed, G.,& Griffin,R. W.(1989).*Organizational Behavior*. (2nd Ed).Boston: Houghton Mifflin Company.

45. Mosavi, N., Pourkiani, M., &Sameni,M. (2009). The effect of knowledge management hidden in creativity and innovation. *Journal of Information Science*, *10*(359), 26-30.

46. Mosloo, A., Damneh, K. T. M., & Jalilian, N. (2009). *Investigate the role of knowledge management in public organizations to improve employees' creativity (Case study: Hospital Sadoughi).* Second National Conference of creativity, TRIZ (TRIZ), Engineering and Innovation Management, Iran and second National Conference of thinking and science fiction and its application in Tehran. (Institute of productivity Study and human resources of Industrial Development and Renovation organization of Iran), 12-13 November.

47. Mosloo, A., Damneh, K. T. M., &Jalilian, N. (2009, November). *Investigate the role of knowledge management in public organizations to improve employees' creativity (Case study: Hospital Sadoughi).*Paper presented at Second National Conference ofcreativity, Engineering and Innovation Management, Iran.

48. Najm, D. M. (2009). Knowledge management and its role in organizational innovation, *Automotive Engineering Magazine and related industries*, *1*(10), 47-52.

49. Najm, D. M. (2009). Knowledge management and its role in organizational innovation. *Journal of Industrial Engineering*, 1(10), 47-52.

50. Nayer, N., & Jookar, A. R. (2012). The relationship between knowledge management and creativity among academic librarians in Shiraz. *Journal of Health Information Management*, 9(2), 1-10.

51. Newell, S., Robertson, M., Scarbrough, H., & Swan, J. (2002) *Managing Knowledge Work*, Palgrave, London.

52. Nickpour, A., & Salajegheh, S. (2010). Study the relationship between knowledge management and organizational culture from the perspective of the medical faculty. *Journal of Beyond Management,* 4(14), 7-18.

53. Oxford WORDPOWER Dictionary. (2006). *Oxford University Press*, New York.

54. Paul, E. (1997). *Working paper: Models for the creative process.* Retrieved from: http://www.directedcreativity.com/pages/WPModels.html.

55. Rahimi, H., & Najafi, M. (2007). Knowledge management in educational Organizations (1st Ed.). Tehran: Publications of Javdaneh.

56. Rahimi, H., Arbabisarjou, A., Allameh, S. M.,&Aghababaei, R. (2011). Relationship between knowledge management process and creativity among faculty members in the university. *Interdisciplinary Journal of Information Knowledge and Management*, *6*, 17-33.

57. Rowley, J. (2000). Is higher education ready for knowledge management? *The International Journal of Education Management*, 14(7), 325–333.

58. Salgi, H. A. (2011). Knowledge management in schools. *Journal of Cheshmandaz,* 8, 26-28.

59. Sarchehani, Z., & Jahani, J. (2011). The effect of individual factors on manager ' creativity in secondary schools Quartet regions of Shiraz city. *Journal of rahiaftino in Educational Management*, 2(5), 51-70.

60. Sayadzadeh, V., & Jafari, A. M. (2008). *Innovation and Creativity and knowledge management. first National Conference of creativity*, TRIZ (TRIZ), Engineering and Innovation Management, Iran and the First National Conference of thinking and science fiction and its application in Tehran, 14-15 November.

61. Shalley, C. E., Zhou, J., & Oldham, G. R. (2007). The effects of personal and contextual characteristics on creativity. *Journal of Management, 30*(6), 933-958.

62. Shin, M., (2004). A framework for evaluating economics of knowledge management systems, *Information and Management*, 42, 179-196.

63. Singh, M. D., Shankar, R., Narain, R. & Kumar, A. (2006). Survey of knowledge management practices in Indian manufacturing industries. *Journal of Knowledge Management*, 10(6), 110-28.

64. Singh, S. K. (2008). Role of leadership in knowledge management. *Journal of Knowledge Management*, 12(4), 3-15.

65. Skyrme, D. J. (1999). *Knowledge Networking: Creating a Collaborating Enterprise,* Butterworth, Oxford.

66. Smith, E. A. (2000). Applying knowledge-enabling methods in the classroom and in the workplace. *Journal of Workplace Learning*, 12(6), 236-44.

67. Soo, C., Devinney, T., Midgley, D., & Deering, A. (2002). Knowledge management: philosophy, processes, and pitfalls. *California Management Review*, 44(4), 129-49.

68. Stacey, R. D. (2000). The emergence of knowledge in organizations*, emergence*, 2, 23-39.

69. Storey, J., & Barnett, E. (2000). Knowledge management initiatives: learning from failure. *Journal of Knowledge Management*, 4(2), 145-156.

70. Todd, I., & Lubart. (2001). Models of the creative process: Past, present and future. *Creativity Research Journal*, 13(3), 295-308.

71. Yahya, S., & Goh, W. (2002). Managing human resources towards achieving knowledge management, *Journal of Knowledge Management*, 6(5), 457–468.