
Knowledge Management – The Importance of Learning Theory

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„Knowledge is power”. Sir Francis Bacon, Religious Meditations, Of Heresies, 1597 - English author, courtier, & philosopher (1561 - 1626)

Knowledge Management is a current topic in the market, which have been treated during the last years from different consideration perspectives. This ongoing subject has fascinated me ever since I had the opportunity to read a paragraph of Hendry Minzberg, in respect of this topic.

Knowledge management is a main part of the today's economy. It reflects the expressive representation to the demand of the knowledge society, within the scope of the globalization and the continuous learning.

Organizational learning and learning organization are two concepts often confused. If knowledge processes, knowledge contained change occurs through the process of learning. By learning we understand, in this context, an increase of possibilities of action of various sources of personal knowledge.

Keywords: *management, knowledge, learning factors, human capital, learning capacity, cognitive dissonance, situational influences, Data Mining, learning processes*

Factors of influence over the learning result

The learning result of human knowledge bearers, beside the learning situation, is influenced by other factors as well. If they increase learning, one speaks about successful learning factors; on the contrary, if these factors represent an obstacle for learning, one speaks about learning barriers. Considering this point of view, further on are presented the following: learning technique of human bearer of such knowledge, their learning capacity, their approach, their predisposition as well as such circumstances. Compare with figure 1.

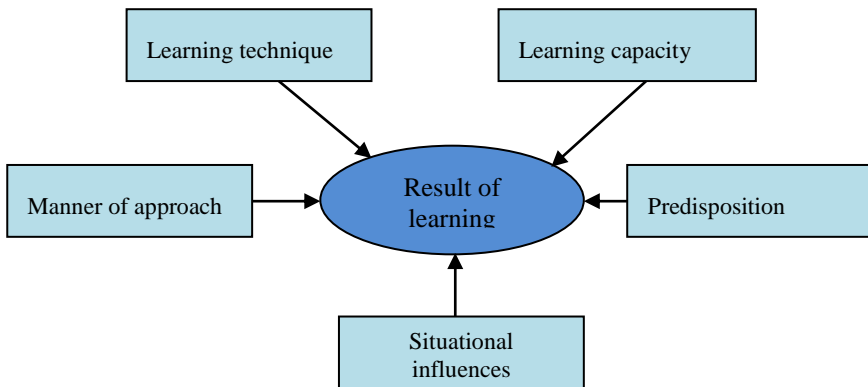


Figure 1: Factors of influence over the learning result of human knowledge bearers

Source: Jenny Amelingmeyer(2004); Wissenmanagement-analyse und Gestaltung des Wissensbasisvon Unternehmen; in: Deutscher Universtitaets-Verlag, Wiesbaden

Learning technique

The learning capacity of persons is influenced to a great extent by their didactical-methodical competence. Among these, it is stated firstly the knowledge about the individual study methods, about the didactical structuring of teaching and learning processes, about selecting different forms of study, internal and common, as well as about different communication media.

Considering that almost any individual has his/her own learning style, each individual also displays an individual effective and efficient learning technique. It is generally deemed that exclusively acoustic information is maintained less than the audiovisual one or even than personally experienced knowledge, however, this varies significantly from person to person.

Learning capacity

New knowledge may be assimilated whereas existent knowledge may be refined only when the person has a proper *learning capacity*.

In this context, one pays a special attention to performance characteristics, relevant for learning, such as intelligence, intellectual curiosity, comprehension, joy to experience, creativity, intellectual opening, etc. These individual characteristics of performance may also be used more or less efficiently, depending on the learning technique acquired.

On the other hand, the learning capacity is also determined by the already existent knowledge. The more comprehensive, voluminous and various it is, the more new knowledge can be integrated and applied. The condition that this thing has the intended effect of the knowledge transmitted is that, on the one hand, the information is not too less innovative (and therefore boring) and, on the other hand, it is not so new that the person cannot integrate it in their personal context. If the information volume exceeds the assimilation capacity (we talk about "Information Overload"), it is no longer possible to properly process knowledge. In this context, one must consider the fact that a person may have available very different levels of starting knowledge, in different fields.

Approach

The learning processes may be influenced both positively and negatively by the existent means of approach. The causes of these approaches, positive or negative, may be on different levels.

As a prevention of learning, the following things have an impact: aversion to certain fields of knowledge (for instance, mathematics) or

aversion to the source of knowledge. In companies, this is noticed under the form of so-called “Not-Invented-Here-Effects”.

In this context, we must refer to the *cognitive dissonance* phenomenon which can lead to the fact that some knowledge contents are not perceived as such or are underestimated or overrated. On the other hand, the extrinsic learning incentives can increase the learning motivation.

Predisposition

The individual learning capacity of human knowledge bearers can be thenceforth influenced by the respective concrete predisposition.

Thus, individual performance depends, at a certain time, among others, on the health condition, biorhythm and humor of the respective day.

Thus, individual performance is subject, during a learning period, to typical fluctuations. Virtually it takes a starting phase which then becomes the main working and concentrating stage and in the end becomes the final stage.

Situational influences

Finally, the learning success is also affected by *situational influences*. Thus, in many cases, a basic attitude is settled as of the beginning, concerning work and learning. Also, teaching is positively influenced by aspects given to exterior conditions (illumination, temperature etc.) and by the concrete working environment (type of chairs, positioning in space of work equipment etc.). Special conditions must be taken into account as far as learning with a monitor is concerned.

Change of knowledge of the material knowledge bearers

As material knowledge bearers are mainly passive knowledge bearers, changes in knowledge of their memory are induced, mainly through human knowledge bearers. Thus, we must take into consideration certain special characteristics, according to the type of material knowledge bearers, as described below.

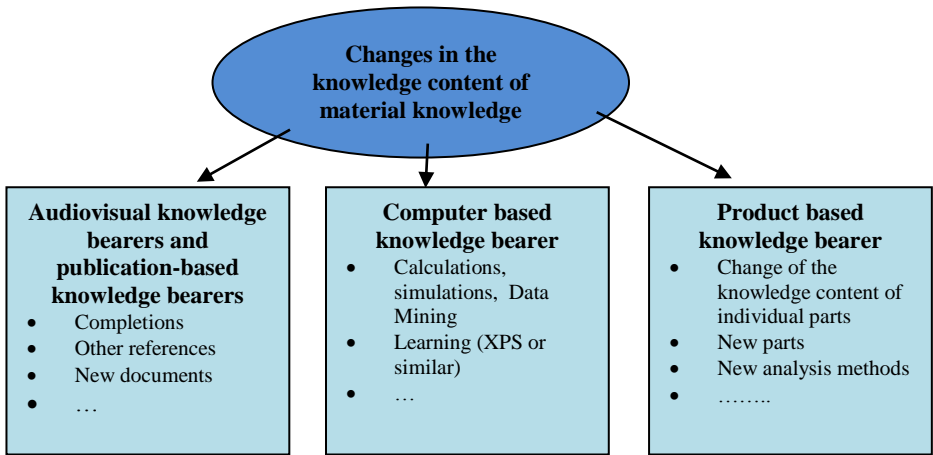


Figure 2: Possibilities of changes in the knowledge content of the material knowledge bearers

Source: Jenny Amelingmeyer(2004); Wissenmanagement-analyse und Gestaltung des Wissensbasisvon Unternehmen; in: Deutscher Universtitaets-Verlag, Wiesbaden

Changes in the content of knowledge of the publication-based and audiovisual knowledge bearers

The audiovisual knowledge bearers and publication-based knowledge bearers do not usually acquire new knowledge. Even so, different processes may result in the development of memorized knowledge.

Thus the further *completions* (for example handwritten observations) on the existent publication-based knowledge bearers, lead to the extension of the acquired knowledge and/or to the change of its interpretation. Both the new *compilations* of the publication-based knowledge bearers (possibly gathering articles on a certain theme), and the creation of *references*, lead to the extension of knowledge of these bearers. The same thing is valid for the audiovisual knowledge bearers.

As for the publication-based knowledge bearers and the audiovisual knowledge bearers, it was found that for acquiring new knowledge contents, new knowledge bearers were often created. In the case of publication-based knowledge bearers, this thing appeared in the creation of new documents (notes in conversations, protocols, new editions, etc.). As for the audiovisual knowledge bearers, new contents are often developed by the existent

communication environment. In both cases, there are no changes in the knowledge content of the existent bearers, but they should be treated as such due to the resemblance of processes in this sense.

The change in the content of knowledge of the computer-based knowledge bearers

By using the computer-based knowledge bearers, knowledge is generated, which, before the existence of these bearers, could not be produced or could only be produced by great effort. The reason in this sense is represented mainly by the possibility of applying some comprehensive calculations, as well as *simulations*, based on the computer.

In the past years, together with the development of *Data Mining*, this aspect gained a lot of value, because such new knowledge becomes very accessible databases, by recognizing information, based on computers.

In certain cases of the computer-based knowledge bearers, processes still take place, similar to the *learning processes* of the human knowledge bearers. The independent extension of the basic knowledge of the expert systems is included herein. The same is valid for the apparition of new connections in the neuronal networks. The apparition of new knowledge to the computer-based knowledge bearers is tightly connected to the creation of new files and/or to the reopening of the existent communication media.

Changes in the content of knowledge of the product-based knowledge bearers

As long as the audiovisual, publication-based, and/or computer-based knowledge bearers are integrated in the computer-based knowledge bearers, there are possibilities to change the knowledge contents of this *components* analogously to the ones mentioned above. Thus, a change usually takes place in the knowledge contents, when a new component is added (for example control programs).

In certain situations, the knowledge memorized within the product-based knowledge bearers, is modified from a point of view of the human knowledge bearers, but also when new methods give the possibility to

decrypt the implicit knowledge contents up to that moment. This is valid for example for new possibilities to analyze chemical substances.

Collective development and learning processes

The collective knowledge bearers are also characterized, just like human knowledge bearers, by development and learning processes, as well as oblivion processes. Thus, there are different types of knowledge changes, as well as different learning processes. As a whole, we must retain that collective learning has visibly benefited from less focus in the field of research, than individual learning.

Conclusions

The purpose of knowledge management, as an initiative for potential existing knowledge, stretches to a corporate and integrated system. This knowledge is an efficient processing of knowledge to achieve the main goals of the company. One of its aims is developing organizational intelligence.

All knowledge starts with learning, but the benefits are limited unless new knowledge is shared – ideally with everyone else in an organization who might find it useful. Sharing, incidentally, depends equally on everyone both making their knowledge available to others and on using the knowledge made available to them, on both push and pull; it is not a one-way process.

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