Information-cognitive activity of a man (learner)

Galina Rudolfovna Vodyanenko

Perm National Research Polytechnic University, Komsomolsky prospect, 29, 614000, Perm, Russia

Abstract. The author explains why traditional model of cognitive activity of a man must be changed in the epoch of formation of information society. Key components of the system of information-cognitive activity are presented, which is contemporary model of cognitive activity intended for interaction with new information reality.
[Vodyanenko G.R. **Information-cognitive activity of a man (learner)**. *Life Sci J* 2014;11(1s):295-296] (ISSN:1097-8135). http://www.lifesciencesite.com. 54

Introduction

Today global processes of informatization penetrate into all spheres of living activity of society and initiate creation of new in quality, informationally and technologically saturated, socio-cultural environment; close interaction with this environment changes personal perception and understanding of realities of renewed world, in the same time forming its information space which is a combination of generalized ideas of a man about objects, events and phenomena of surrounding information environment perceived by him in the process of activity and reflected in his consciousness [1-4].

In order to find out and use environmental opportunities which determine content filling-up of this space, its volume and stretching of its borders a man must possess readiness and ability to think critically, ability to see problems, analyze them and find new information to elaborate variants of their possible solutions independently, on his own [5-7].

Development of these specific personal features can be provided most effectively in the process of mastering and realization by a learner of special kind of intellectual activity which is a contemporary model of cognitive activity in times of information civilization.

We shall call this new model of cognitive activity information-cognitive activity (ICA) and interpret it as a special kind of intellectual activity of a man integrating thinking and information activities, which must be realized by research approach.

We shall emphasize that fundamentally ICA is formed by cognitive activity, taking into consideration that in the cognition process human consciousness is forming, his personality is developing. In philosophic context consciousnes means targeted reflection of external world, preliminary mental construction of actions and foreseeing their results, correct regulation and control of the relations with reality performed by the man

Changing of traditional model of cognitive activity takes place through the transformation of its structure at the expense of:
-deepening and extending of the sphere of thinking activity (and understanding it as thinking activity);
- shifting of the component of information activity (as a part of any activity) to independent, key position;
- changing of the direction of interaction vector of a man with external changing world to active research quest.

The nucleus of ICA system is thinking activity which we understand as the process of activity development of different forms and kinds of thinking - key tool of a man to achieve his goals. Our approach to activity-based development of thinking refers directly, in particular, to the position of Yu. Gromyko, who generalizing the opinions of many scientists arrived at the following conclusion: understanding thinking as activity means that thinking can and must be built as activity; we can set goals in thinking, create instruments, means and technologies, it is necessary constantly to elaborate thinking standards, create its schematic, sign-symbolic languages, as well as analyze and describe processes of using knowledge about thinking. [8].

Understanding thinking as activity we first of all wish to underline the importance of independent acquaintance of thinking activity experience by a learner, we believe that he must on his own (relying upon his teacher's help, interacting and communicating with other children):
a) test those operations by which facts are connected into ideas and concepts, not just learn the inferences of someone's thinking operations;
b) master different techniques and ways of thinking actions, understand to what kind of problems they are oriented first of all, and on this base be able to choose the most effective in every specific situation;
c) elaborate and develop personal meanings, mastering in the beginning the ready, and then

developing and transforming his own strategies of thinking activity which go on inside the key, closely connected with each other thinking activity processes: communication, thinking activity , thinking, understanding and reflexion.

Key part of ICA is information activity main target of which is satisfying information human needs through search, collection, systematization, analytical-synthetic processing and storage of information, its reproduction, duplication and distribution. Information need can be characterized as a need for information to solve specific task, realized by the man. Developed ability of a man to perform multi-aspect search and the most complete collection of information sources (documents, containing needed data) and the ability to provide information in proper time and in proper form will provide efficiency of research and development works (in other words, cognition and transformation of reality), increasing the quality of his life and activity [9].

Key component of ICA system is design and research activity which organizes the course of the process and construction of ICA structure, and is a special form of cognitive activity - if we take into consideration that cognition of reality is first of all is a research, and its transformation is process of designing and modeling. "Designing" we understand as "thinking process about what is not available yet but what must be", "research" - as restoration of some things order by their indirect attributes, imprints of general law in specific random things [10]. Correlation of the meanings of these notions will allow to formulate the following: in designing non-existing things are thought and modeled; in research already existing things are analyzed. In other words, designing and research are two sides of one process - process of cognition and transforming of external environment by a man.

Conclusion

So, described above components of ICA structure - thinking, information and designing-research activities are key components of its system. Combination of their interrelations, intensification of their interactions and mutual transitions allows to change existing model of cognitive activity

1/22/2014

transforming it into information-cognitive activity intended for more efficient interaction of a man with informatized reality, in the course of which his subjective information space is being formed.

Corresponding Author:
Dr.Vodyanenko,
Perm National Research Polytechnic University,
Komsomolsky prospect, 29,
614000, Perm, Russia

References
1. Leontiev, A., 2008. Activity and personality. Psychology of personality, V.2. Samara: Bakhrakh-M.
2. Welwood, J., 1977. On psychological space. Journal of Transpersonal Psychology, 9 (2): 97-118
3. Kelly, G., 2000. Personality theory. Psychology of personality constructs. St. Petersberg: Retch.
4. Sommer, R., 1959. Studies in personal space. Sociometry, 22: 247-260.
5. Hall, C. and G. Lindsey, 1970. Theories of Personality. N.Y.: John Wiley and Sons.
6. Halpern, D. F. and M. D. Hakel, 2003. Applying the Science of Learning to the University and Beyond: Teaching for Long-Term Retention and Transfer. Change, July/August, 2-13.
7. Richard, P. and L. Elder, 2012. Critical Thinking: Tools for Taking Charge of Your Learning & Your Life. Prentice Hall.
8. Gromyko, Yu.. Meta-discipline "Problem" Date Views 12.12.2013 www.s-nest.narod.ru/ Lib/Method/Grom_Problem.doc.
9. Toffler, A. and H. Toffler, 1995. Creating a New Civilization: The Politics of the Third Wave. Turner Publishing.
10. Alekseyev, N., A. Leontovitch, A. Obukhov and L. Fomina, 2002. Concept of development of learners' research activity. Research work of schoolchildren, 1: C.24-33.