

## ПСИХОЛОГІЧНІ НАУКИ

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### **THE ISSUE OF METACOGNITIVE MONITORING DEFINITIONS DIVERSITY**

Metacognitive monitoring of one's own cognitive processes is an important metacognition construct in the self-regulated learning paradigm. It is measured with the help of the accuracy levels of the judgments of learning and the calibration of confidence in knowing procedure. According to J. Dunlosky and J. Metcalfe, metacognitive monitoring judgments of learning show the students' approach to the correct problem solution and assessment of how well they understand what is being learned [4].

There is a need to specify the diverse approaches to metacognitive monitoring definitions. Thus, the analysis of the studies of the peculiarities of metacognitive monitoring shows that the issue is seen as an assessment or estimation of individual's own knowledge, knowledge of cognitive strategies, and knowledge of conditions that affect the learning process (studies by M. Avhustiuk, J. Dunlosky, A. Fomin, R. Kalamazh, J. Metcalfe, D. Moshman, L. Narens, T. Nelson, I. Pasichnyk, Ye. Savin, G. Schraw, M. Serra, A. Valdez, and others). In the learning activity metacognitive monitoring is viewed as the way of students' cognitive activity evaluation and how these results direct to the solution of certain cognitive tasks (e.g., recalling answers, doing tests, and reading texts) [2]. The significant role is also played by the sphere of metacognitive monitoring use.

Significantly, metacognitive monitoring is regarded by some researchers as a skill (A. Fomin, R. Isaacson, Ye. Savin, G. Schraw, C. Was, etc.), particularly, the skill that can be taught and learned (J. Ranalli, etc.), while others are even more concrete in specifying that metacognitive monitoring is an ability to provide progress assessment (H. Clark III, J. Flavell, I. Pasichnyk, O. Shovkova, S. Ward, and others).

Thus, S. Tobias and H. Everson [11] see metacognitive monitoring as the awareness of what is known and unknown, and as the basis to other metacognitive activities, such as evaluating learning, selecting appropriate strategies or planning; it is a crucial component in most learning and instructional contexts. According to the authors, the basic strategy is to assess knowledge monitoring processes (the KMA) by evaluating the discrepancy between students' estimates and their actual (determined by performance on a test) knowledge or ability.

K. Thiede, M. Anderson, and D. Therriault [10] consider the notion as the ability that affects regulation of study, and thus affects overall learning. Accurate metacognitive monitoring can produce more effective regulation, and this, in turn, can produce improved learning (higher levels of test performance).

R. Isaacson and F. Fujita [5] state that metacognitive monitoring is the ability to assess the mastery of the learners' academic tasks they are facing. There is a need to examine the relationship between metacognitive knowledge monitoring (MKM) of classroom performance and academic success. Furthermore, R. Isaacson and C. Was [6] consider metacognitive knowledge monitoring as a skill of assessing the prior knowledge that can be taught and learned. It examines students' ability to monitor and accurately assess their prior knowledge.

By J. Dunlosky and J. Metcalfe [4] it is viewed as the assessment (or evaluation) of the current state of a cognitive activity. Monitoring is used to judge whether you are approaching the correct solution to a problem; and to assess how well you understand what you are reading (or performing).

Metacognitive monitoring is regarded as the skill of checking out the process and the result of any cognitive activity (studies by Ye. Savin and A. Fomin [2]).

O. Shovkova and I. Pasichnyk [9] study the notion in the process of learning activity. The authors consider monitoring as the students' ability to imagine the possibilities and limits of their own cognition in the process of solving various cognitive and educational problems and to understand the level of the effectiveness of the preparation used to regulate educational and cognitive activity.

E. Balashov [1] study metacognitive monitoring in the self-regulated learning paradigm of university students. The author points out that it is the learners' ability to evaluate the process and the results of coping with any cognitive task, in other words, to assess one's own knowledge.

A number of authors see metacognitive monitoring as a process (M. Avhustiuk, R. Isaacson, R. Kalamazh, J. Metcalfe, I. Pasichnyk, M. Serra, C. Was, etc.). Thus, M. Serra and J. Metcalfe [8] regard the notion as the assessment that focuses on the progress of the cognitive processes in which a person is engaged. Monitoring can take form of explicit judgments – feeling-of-knowing judgments (FOKs), ease-of-learning judgments (EOLs), confidence-in-response judgments, etc.

A. Valdez [12] defines it as a process that consists of various critical determinants of human learning. The use of various knowledge estimates are aimed at enabling learners to engage in self-regulatory processes important for both the acquisition of knowledge and the monitoring of one's knowledge when engaged in assessment.

According to M. Avhustiuk, I. Pasichnyk, and R. Kalamazh [3], metacognitive monitoring is the process of assessing the on-going progress and its results in learning, as well as the current state of students' cognitive activity. The characteristics of metacognitive monitoring reliability (accuracy) are studied through the prism of the effects of different types of information proposed to learn, and of personal, cognitive, metacognitive, and individual psychological characteristics.

J. Ranalli [7] considers it as a process in which there originates one's sense of one's current state of knowledge or performance. Monitoring informs control that there is the enactment of decisions about maintaining, altering, or abandoning one's approach to learning. When monitoring is not accurate, control is based on suboptimal information, making desired task outcomes harder to achieve.

Consequently, the presented ideas can expand an investigation of metacognitive monitoring accuracy factors in the learning activity of university students. The issue of the accuracy factors and mechanisms of metacognitive monitoring objectivity requires new approaches to its solution, systematization and theoretical generalization.

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