

PEDAGOGY

I.A. Revin, I.V. Chernonaya

(South-Russia state polytechnical university (NPI) of M.I. Platov. Novocherkassk, Russia)

Methods of development of the systems engineering thinking of students of technical university

It is considered the justification of selection of methods for forming the system engineering thinking of students of technical University. Based on the analysis of modern researches in the field of professional thinking, the essential components of engineering thinking recognizes the technical, creative, and systems thinking. The article proposes to consider systems thinking as a product of the joint work of visual and abstract-logical types of thinking. It is recommended to use in educational process methods aimed at enhancing the interaction of visual e and logical thinking. Based on this it is proposed to use the tasks with a visual component, preventing logical decision. The article discusses the features of the methods of concept maps, mind maps, reference notes, which are based on the principle of visualization of essential concepts and relations between them in the learning material.

Key words: engineering systems thinking, abstract logical thinking, visual thinking, concept map, mind mapping.

March, 16, 2016