

Using visual thinking in the organization of studying and research activity.

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This report is based on the experience of creating interfaces for visualization of the research environment in the Construct-Text-Explore contest, within the general concept of authors for the design of information teaching environment.

The main problems solved while implementation of visualization of the tasks are the following:

- to find visual representation for some theoretical concepts that are difficult to understand;*
- to provide a number of objects simultaneously so that a student uses the mechanisms of visual thinking to analyze the "scene", a comparative analysis of the fragments;*
- to give an opportunity to carry out an experiment with visual representations of objects without changing the objects themselves.*

The research environment built on the hypothesis of Kelly-Ulam's about restoration of the graph for a set of its subgraphs is considered as a main example in the article.

Key words: visualization, scientific distance game-competition, objects