MIND'S EYE IN ACTION

Its implication in School Education

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Abstract

This is a two part paper. The first part deals with review of mental imagery research in creative work. The second part deals with possible ways in which the voluntary control on imagery can be used in education at different levels.

Relationship between creativity and mental imagery has crossed the anecdotal stage to become an important research area in cognitive science and is beginning to be so in design research. Part one starts by reviewing some of the research findings in cognitive science dealing with the relationship between mental imagery and creativity. Later it focuses on interdisciplinary mental imagery studies in design problem solving carried out by blindfolding architects and designers. This section reports the potentials of mental imagery in early creative efforts in design problem solving. By exclusively depending on mental imagery, the quality of design output as well as the design process does not appear to change. These studies show the amazing abilities of designers to hold and work on design solutions in their Mind's eye and effortlessly transform these images by performing complex operations completely in their mind.

Part two deals with the pedagogic implications of integrating mental imagery skills in education. It starts with searching for answers to how age specific are the skills that voluntarily control images. Keeping focus on creative design problem solving, it begins by reviewing studies that extend the use of eye masks to students in architectural schools. From studies dealing with individual students, it moves on to include explorations in use of mental imagery in group design studio (classroom) environment, where 40 to 50 students learn design. Pushing the idea further, the paper reports pilot experiments that explore secondary school children's (11 to 14 years) abilities to voluntarily control their mental images. Paper concludes by speculating new applications of these techniques to resources starve schools.