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Moholy-Nagy Visual Modules - Research on Art Didactics Design Education is Secondary Schools, Let's space design!, 3. Case Study –Space

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Objective

The development of the methodology of design culture education and the selection of efficient improvement methods with the help of measurements and other evaluating procedures in Hungary.

Theoretical framework

The central aim of our research program, which focuses on 10 grade students, is the development of spatial perception (Haanstra, 1994). The two basic spatial skills, which can mostly be improved upon by real displacement in space (Kárpáti, 1996), are the visualization skills (e.g. rotation, manipulation) and the spatial operational skills (up-down) (McGee, 1979).

Methodology

Our methods consist of individual- and group projects and design tasks. Our design tasks focus on exploring and researching several solutions and also on the procedure of solving the tasks.

Design tasks start with exploring the structure of various spatial objects by first transferring the objects from planar to spatial geometry.

Student performance is measured with the help of nine tests, among those are tools designed to assess spatial perception and evaluate students' portfolio. Results of the measured group, which consisted of 70 secondary school students, are compared against control groups.

Anticipated Results

A syllabus tailored to the teacher's personality and knowledge. A teaching system applicable in secondary education, with a curriculum designed to improve spatial intelligence. Specific tasks in the curriculum that are applicable in practice as proven by experiments carried out in schools.

Relevance in education

Creating a system, which is currently in limited use in Hungary, that would rely on tested ‘Design education” methods and tasks.