



HANDLING MIND. EMBODIMENT, CREATIVITY AND DESIGN



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This multidisciplinary research focuses on both the embodied learning that occurs in relation to creativity and design as well as on their neural mechanisms. The project combines approaches from neuroscience, psychology, design and educational science for research on embodied thinking and creativity. Approaches from different domains bridges themes of mind, experience and social interaction, thus creating new knowledge about the relations between socio-emotional, embodied and brain-functional aspects related to working with hands. The goal of the study is to open up an entirely new neuroscientific research tradition focusing on processes of art, crafts and design.

Very little neurological research on design thinking has been conducted which means that the research consortium has an excellent chance of becoming world-class in

the field of neuroscience and design research. The Handling mind research project creates and tests hypotheses related to the tasks and functions of different parts of the brain, in addition to studying processes and skill acquisition related to design activity.

Through four interlinked study tracks we will examine how participation in creative design processes affects the participants' socio-emotional experiences as well as how their neural responses are mapped out. In addition, the nature of the embodied knowledge related to these is examined, with special emphasis on the interaction between mind, body and material. The study track Personal Exploration (A) examines the personal improvisational creativity required in creating innovations and new solutions; Co-Design (B) focuses on co-designing and artifacts-mediated sharing of expertise in crafts and design;

Drawing and Forming (C) address neural correlates regarding relations between reproduction and innovation and Skill Learning (D) focuses on neural indications of the development of craft-design skills.

The results of the present project are particularly important because the methods as well as theoretical frameworks and empirical findings can possibly be generalized to many design fields. Results are also expected to be of practical help in the development of teaching methods for different age groups and to be applicable in service design in health and social sectors as well as therapeutic areas. The research results endeavor towards the progression of increasingly diverse design practices and the facilitation of achievement that cross contemporary boundaries between art, design training and working life environments.



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