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Article / Book Information

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Title(English)	Development of co-design tools for collective ideation under a power asymmetry context due to differences in expertise
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論　文　要　約

DISSERTATION OUTLINE

Chapter 1 "Introduction" outlines the brief backgrounds of co-design and gives research objectives of this thesis. Co-design has been seen as a promising way of solving social wicked problems. Co-design involves non-designers, who are not trained as designers, into the design process. Involving non-designers leads to form power asymmetry due to differences of participants' expertise. Therefore, it is essential to develop new designated tools for better participation of non-designers. As designing is cultural dependent activities, development of the tools should take culture into account. Participants may perceive the power asymmetry differently depending on one of their cultural value orientation, sensitivity to unequal power (PDI: Power Distance Index). Therefore, this study aims to clarify impacts of cultural difference, especially PDI, on idea generation and selection of co-design activities in which people having different level of expertise of design and propose tools for the purpose.

Chapter 2 "Co-designing as a cultural dependent activity" links national culture and co-design process by describing theoretical backgrounds of co-design, criteria proposed to measure national cultures in anthropology research and related studies investigating cultural difference and design process. This chapter argues that it is important to investigate impacts of participants' PDI on power asymmetry due to expertise in idea generation and selection activities in co-design, especially in a high PDI context such as Japan.

Chapter 3 "How co-design has been implemented in practice in Japan" explores what are barriers and how professional designers deal with them by interview with professional designers who have experiences in both high and low PDI contexts. The interview found that the power asymmetry has both positive and negative impacts on collaboration in design activities. As a positive side, people in with more expertise can facilitate discussion, which leads to better discussion. On the other hand, in most cases, people with less expertise become less active in design discussion because they are intimidated by the presence of people with more expertise. The interviews with designers suggested that, in a high PDI context, the collaboration within a co-design group would be affected by the presence of a person 'with authority' (e.g. a professional designer), while this would not be the case in a low PDI context.

Chapter 4 "Cultural difference and influence of power asymmetry due to differences in expertise on co-design" describes the impact of the power asymmetry in co-design workshop by focusing on difference of PDI. The experiment was conducted with ten people from high power distance countries and ten people from low power distance countries. In the experiment, the participants were asked to generate ideas with and without professional designers. The impact of the presence of designers and cultural differences were analyzed by protocol analysis and participants' perception of collaboration. The results suggest that presence of design experts intimidates non-designers in high PDI groups, which leads to less varieties of opinions were tended to be shared during idea generation.

Chapter 5 "Impacts of anonymity on idea generation and selection in co-design" describes an experiment with twenty-four Japanese university students to investigate the impact of anonymity at design discussion in groups with the power asymmetry. In the experiment, the participants were asked to generate ideas and select an idea either in anonymous condition or in identified condition. Anonymity was offered with a setup where each participants cannot see with each other. The result suggests that anonymity do not have significant impacts on idea generation but do have significant impacts of idea selection. To be precise, anonymity increased the number of comments regarding negative sides of ideas, which leads to critical discussion.

Chapter 6 "Development of Tools offering anonymity for idea generation and selection in co-design" reports development of two tools offering anonymity in order to investigate impacts of anonymity in a condition which is closer to practical design workshops. The author conducted an experiment with sixteen Japanese university students. In the experiment, the participants were asked to conduct design tasks with and without the tools; one tool for idea generation and the other tool for idea selection. The results imply that both of the tools have positive impacts on design activities. The tool for idea generation significantly increased creativity of participants and the tool for idea selection increased the number of comments of both positive and negative aspects of ideas in idea selection.

Chapter 7 "Conclusion" discuss overall findings. The findings have the potential to inform the development of tailor-made co-design methods which are eventually expected to help designers and non-designers collaboratively produce valuable outcomes for the society.

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