

DDB100 Design < > research - Essay

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Through this course my understanding of what Design Research is is that it is a design process that is used to produce insights and general theories related to a topic. According to chapter 43.1.4 in «Research through Design» [1], designing in design through research is used as a stimulus for generating knowledge in a research. According to the same chapter, principle of design research is that the formation of knowledge is done by making, changing and improving the design prototype. The knowledge is usable for the reproduction of speculations and concepts. This can be elaborated with the example, taken from research «"I don't Want to Wear a Screen": Probing Perceptions of and Possibilities for Dynamic Displays on Clothing» [2]. In this research a device is designed to allow users to communicate through vibrations. However, the device made was not only vibrating but it was also making noise. This combination of sound and touch led the researchers to the notion that audio has a significant role in our communications, whether positive or negative. Thus, it is understandable how the making and iterating of a prototype can generate knowledge. Another principle, mentioned in Chapter 43.1.4 [1] is that making requires active contemplation that leads to the realisation of hidden facts or illusions. In the same research as the previous example [2], the researchers in order to design an ergonomic handheld device observed how people hold their mobile phones. This led to the uncovering of two main ways of holding our phones, creating a helpful rule for the designing of handheld devices.

Design Research differs from user studies. User studies are conducted to collect information about specific situations where a design is being used, according to «What is User Research?» [3]. Through user studies researchers and designers gather insights about their designs in order to perfect their designs. In contrast, design research aims in general discoveries and formation of theories that can be used both in specific situations and in abstract.

The role of these theories in design research is to interpret a set of observations and to identify the set of discrete observations as a class of phenomena while confirming the underlying reality that influences this class of phenomena, based on Chapter 3, «Definition of a Theory» by Creswell [4]. This is done by approaching an issue from an abstract or specific point of view. All three example research papers, «"I don't Want to Wear a Screen": Probing Perceptions of and Possibilities for Dynamic Displays on Clothing» [2], «Are tangibles more fun?: comparing children's enjoyment and engagement using physical, graphical and tangible user interfaces» [5], «ComTouch: design of a vibrotactile communication device» [6], begin with general themes and issues such as the role of digital tools in young children's play and learning, in the second research paper [5]. Then they move to the research which is based around a specific prototype in order to gather data and explore their research question. In the same example of the aforementioned research [5] this specific item are two jigsaws. At the end, all papers conclude with where they contributed knowledge in a wider research field, like that of "interactive play environments for school age children" in research paper of the previous example [5]. This indicates the method of approach from abstract and specific view points in design researches. The role of theory in design researches is also visible in the research paper «ComTouch: design of a vibrotactile communication device» [6]. Based on observations on their user tests, researchers were able to create distinct patterns in behaviour while using touch based communication. This theory generated for those specific tests was then used in a generalised setting, as explicitly mentioned: "These results shed light upon the possible benefits of a tactile communication device in everyday use.". Again this exhibits the role of theory in design research in applying findings of the research from specific situations to broader ones.

The prototype in design research also plays a major role. The prototype is a medium for the research not a product of the research. Through it one can experiment and experience various situations and theories. It is also used as an occasion for conversation and narration of related stories. The experimental role of the prototype in design research can be seen in a statement, from the aforementioned research «"I don't Want to Wear a Screen": Probing Perceptions of and Possibilities for Dynamic Displays on Clothing., 2016» [2]. The statement is: "Our design process consisted of developing a core technology ..., and exploring design possibilities ... using the core technology". In that research a technology was developed to then explore and develop other ones instead of a final product. In that same research [2] a kind of fabric with colour changing technology was given to individuals to be tested. As can be seen in the findings section, the participants started talking about the prototype and how they would imagine it in the real world. Each participant expressed their own thoughts based on their personal experiences and expertise. This helped the researchers identify specific themes between the prototype and its real world use. Through this example the role of the prototype as a medium of conversation can be seen, as people reminisced past experiences and placed the prototypes in them resulting in unique points of view.

References:

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