

A PRE-STUDY OF TWO DESIGN METHODOLOGIES IN A PRE-SERVICE TEACHER EDUCATION ACTIVITY

INTRODUCTION: In many school curricula, design processes are important aspects (Citrohn, 2018). Thus, they are an important aspect of pre-service teacher education. An activity of designing chair prototypes with specific functions of use were implemented in two different pre-service teacher student groups. One group (Group 1) were handed three Design Heuristics Cards¹ (DHC:s) (Daly et al., 2012), each card showcasing a certain function (e.g., telescope, swivel, showcase interior) that should be incorporated into the chair. The other group (Group 2) were instead handed specific information (three information points) about the intended user of the chair (e.g., a child who has lost his use of his legs and like to read a lot). The functions of the chair were put in the foreground for the first group, while the user was put in the foreground for the second group.

RESEARCH QUESTION:

What differences in the design processes can be observed when putting functions respectively user in the foreground?

METHOD: 60 pre-service primary school teacher students were selected for the pre-study. They were evenly split between Group 1 and Group 2 – which were then further split into two sub-groups (due to the size of the design classroom and availability of material). Each sub-group then took part of a three hour design class with the object to construct a prototype of a chair. The students in each sub-groups were divided into teams of three. Two researchers took part of the classes – one of them held the class and made participatory observations, while the other one were present in the classroom and silently observed. Both researcher took photos of the process during the classes. Unstructured observations were used for data collection, and after each class the two researchers discussed and summarised their collective experience of the students processes and finished prototypes. Photos, as well as prototypes, were used for stimulated recall.

RESULTS:

GROUP 1 – FUNCTIONS IN THE FOREGROUND

- ⇒ Students were critically reflective of the relevance of the DHC functions.
- ⇒ Aesthetics were secondary to the main design process.
- ⇒ Functions were constructed with simpler mechanics containing few interconnected parts.



Chair with attachable drawer.

Sofa-chair with exposed interior.

Chair with attachable armrest.

GROUP 2 – USER IN THE FOREGROUND

- ⇒ Students interpreted the user needs and accepted them without questioning.
- ⇒ Aesthetics were included in the main design process.
- ⇒ Functions were constructed with mechanics containing interconnected parts.



Chair with fold-out easel.

Rolling and swivelling wheels.

Chair with arm rest-controlled foot rest.

CONCLUSIONS: The students who were presented with the user in the foreground, saw functionality, mechanics and aesthetics more holistically compared to the students who were presented with the functions in the foreground. The intended user appeared to create an emotional connection to the task for the students in Group 2, which could not be observed in Group 1.

REFERENCES:

