STUDENT DRIVEN WORKSHOPS AS MEANS TO ENHANCE DESIGN KNOWLEDGE AND SKILLS

Bente SKJELBRED
Oslo and Akershus University College of Applied Sciences

ABSTRACT
This paper provides a psychological and design didactical view on student driven workshops to promote learning as part of a design process. Students have, through observational learning, gotten acquainted with the method, its potential and possibilities and adopted it extensively in an academic context with varying experiences and outcome. The paper reports on the findings from the analysis of three semi-structured interviews of recently graduated Product Design students' from Oslo and Akershus University College of Applied Sciences. These graduates used workshopping as a significant part of their design process through their work with their Master's Projects. The findings in this paper maps out the students' experiences with running workshops. It then goes on to discuss how their experiences with student initiated collaborative workshop situations can be understood and managed from a design didactical view in light of Social Cognitive Theory emerged primary from the work of Albert Bandura [1,2,3,4]. The study shows that the students' seem to find the facilitating role challenging and experiences to a high degree independent learning as the approach for preparing the workshops. They do however find it rewarding and useful for their design process and learning at the same time. The findings also shows a significant didactical potential using SCT as an active learning strategy from a teaching point of view, by using supporting teaching methods to gain didactical awareness to achieve a high degree of reflective learning and personal growth.

Keywords: Workshopping, independent-learning, Social Cognitive Theory (SCT), Product design students, design didactics.

1   INTRODUCTION

Workshop in the meaning of educational seminars are often used by both educators and students; by educators for teaching and by students' as a way of collecting data through social contexts which facilitates collaborative learning. The students' use of this method (workshopping) as part of their design process seems to have increased, growing in usage by both students and teachers as a learning and teaching method this last decade. In Product Design education this method is found to be convenient as it promotes a practical approach and different types of collaboration and outcomes. The method may easily be combined with project based learning, problem based learning and the concept of open innovation, which has proven to be a suitable approaches within product design [6]. Workshops promotes thus an observed social situation where facilitated cooperative learning can take place. By using Social Cognitive Theory (SCT) – it is possible to discuss students' experiences with facilitating workshops in a behavioural context which points towards some usable didactical directions. SCT refers to a psychological model of behaviour and emphasize that learning occurs in a social context and that much of what is learned is gained through observation. The theory rests on several basic consumption about learning and behaviour. One of the assumptions concerns triadic reciprocal, or the view that personal, behavioural and environmental factor influence one another in a bidirectional, reciprocal fashion. A closely related assumption is that people have an agency or ability to influence their own behaviour and the environment in a purposeful, goal-directed fashion [4]. SCT intergrades a large numbers of discrete ideas, concepts, and sub-processes into an overall framework to understand human functioning. Some of the central concepts are; Observational Learning, Outcome Expectations, Perceived Self-Efficacy, Goal Setting, and Self-Regulation. All of these concepts are according to SCT crucial for the students learning outcomes and will therefore along with the students' experiences contribute to a didactical views on workshopping. The research question for this

article is therefore divided into two parts: How do students experience planning and conducting workshopping as part of their design process? What didactic consequences may the findings lead to?

2 A PHENOMENOLOGICAL STUDY

This article's research question seeks to get to the bottom of a type of knowledge on a phenomenon which can only be discovered by conversations with (former) students'. With this in mind, the qualitative method will be used to this phenomenological study (Husserls, 1859-1938) which involves a systematic attempt to put aside the pre-understanding and prejudices when it comes to the phenomenon being studied. Intentionality and intuition are two key concepts related to transcendental phenomenology. Intentionality in this case refers to the consciousness of the inner experience of being conscious of something [11]. Intuition is the starting place for deriving knowledge of human experience, free of everyday sense impressions and the natural attitude. In this article it is the students' perspective that initially will be highlighted. The research process (and the didactic reflections) are characterized by being deductive; the study's starting point was created from my own observations, interests, skills and attitudes as a teacher within the Product Design field. Theories I am rooted in will in this case be learning theories, pedagogics, design didactics and theory. What also may affect my research gaze is my background as a previous trainer for art and design education with a primary focus on practical training.

2.1 The interviews

Interviews were used to develop an understanding of the field being studied [10], and chosen because they enabled me to take part in the interviewees' experiences, thoughts and feelings [12]. All three students have experienced the phenomenon being highlighted by running 2-3 workshop each with various group of people as part of their research. Moreover, the interviewees were required to have experience with facilitating workshops as product design students, and a semi-structured life-world interview [8] is found to be the most suitable. This type of interview is neither a completely open-call nor a closed questionnaire, it is a conversation and thus enables information to go both ways. In advance of the interviews a partially structured interview guide was prepared in an attempt to break down the research question for the study and make the overall theme into a more precise theme with direct questions. The transcribed material resulted in a horizontal customization process where statements that were connecting to the themes they all chose to talk about picked out. The horizons were compared with each other, where they formed different shared experiences describing *what* (former) students had experienced (textural descriptions) and *how* they felt (structural description) planning and leading workshops. The interviewees' names have received abbreviations, the discussion will therefore refer to the students' statements/quotes by using; S1, S2, S3. The textural description (TD) resulted in the categories: *involvement and cooperation, the facilitator role*, *means and outcome of the facilitator*. The structural descriptions (SD) resulted in the categories: *demanding but fruitful*, *design methodological approach, independent learning*. The categories were given names by what characterized the interviews most congruent experiences.

Table 1. Categories (TD1-3 + SD1-3) with representative example quotes from the interviews horizon customization summed up in textural and structural descriptions

Textural descriptions:	
TD1	**Involvement and cooperation:**
S1	"[...] They had not in any way involved locals or users of the space, so that was when! I thought about using participatory design workshops […]".
S1	"[…] Community, schools and business are linked together, it was exciting composition, really!".
S3	"It began with…, I needed to get information of fields and practices outside of the design practice. The music and dance industry…,so I decided that the best way to understand those field of study was to run a workshop where I could invite different professionals to come and share with me".

TD2	**The facilitator role:**
S1	"[…] I really like the way of working that is more like a facilitator in the designer role, I feel more like a facilitator in a way, if I'm going say a little about what my designer's role is".
S3	"In terms of design workshops, you as a facilitator are basically responsible for setting up everything, I think I will use the word prose. You set up the environment".
S3	"That I think is actually developed as a skill. You personally develop it as a skill because you do a lot of self-learning".
TD3	**Outcome:**
S1	"[…] The one at the high school ended up with a lot of material samples. All the workshops were very helpful in their own way".
S2	"I think it went well on an overall manner, for me it was specially challenging to portray my workshops as something exciting because of the inherit topic of it […]".
S2	"[…] but I gathered very useful information and the response from the attendants was mostly positive".
S2	"[…] The best scenario is that both parties finish the activity having learnt from each other".
S3	"It was challenging to handle the amount of information workshops generated".
S3	"Sharing knowledge has also been very exciting working interdisciplinary with different types of people".

Structural descriptions:

SD1	**Time demanding, but fruitful:**
S1	"[…] I had lots of meetings in advance with the different teachers, so it was a lot of planning. There were three very busy days, when I had to guide 30 students, so I was not quite prepared for all this, I was thrown into it, but it ended up with very many ideas, examples and trials in a short time."
S2	"Workshops are a very good way to retrieve information from a specific group of people […], […] It was rather hard for me to find interested and motivated people to work and learn about these topics".
S3	"[…] The workshop has been very useful for me […]".
S3	"[…] I had a series of interviews, were we talked about our different backgrounds and our interests, to try to figure the cross relation meaning […]".
SD2	**Design methodological approach:**
S1	"[…] The first was an ideation workshop, and the next workshop was the one with material testing in relation to the concrete and the concrete surfaces […]".
S1	"[…] I read quite a bit about methods. I've basically used design methodology throughout the whole process, but it was very much at the forefront of these workshops".
S2	"Since my masters' thesis talked about methods of teaching design methodologies, it was important for me to see how these theories I was proposing would react among students […]".
S3	"It is very important that you have an open approach. You look at a workshop as something you need to design…, you can't just take one method and implement it, you have to be very conscious of what you are looking for, and design for that situation. Mix and match different methods".
S3	"[…] The foundation based on my workshops is open innovation. The reason for open innovation, or open innovation structure…, it allows other methods to overlap".
S3	"[…] I think the workshops are my design process. It's a part of concept development, it's a part of product development. Because that is how I work, I work cross disciplinary, with cross disciplinary activity, and co-creation…, so I think I get a lot more feedback and information from workshops, and it is a good tool for testing". "[…] Both the designer and the user has to be involved in it".
SD3	**Independent learning:**
S1	"I don't think I had any specific situations where we were supposed to learn specific about planning and leading workshop, workshop situations I have been in gave me ideas on how I could carry out my own workshop".
S2	"[…] On my experience I had to be autodidact on those matters, it is important to follow procedures in order to perform workshops appropriately".
S2	"I have an important background of teaching and being in front of publics talking and expressing ideas, I think that helped a lot. I have also attended to numerous workshops and I have seen what things are good and what things are bad when performing them. Lastly I consulted relevant literature on how to prepare, organise and execute efficient workshops and how to appropriately find and

	retrieve the information you're looking for. It is also recommendable to read about how to generate creative thinking and how to talk and behave in front of publics".
S3	"When I started at HIOA I first did one workshop myself, and one where I was a participant. I did some independent learning for planning my own workshop".
S3	"I was informed by school how many students were coming, and I just had to try to plan it in a logical way. It was very much based on self-learning".

3 FINDINGS

The textural descriptions reveal that students' experiences with workshops promote involvement and cooperation [TD1] in different ways and at different stages of the design process through facilitating social learning contexts with collaborative approaches. The participants involved were relevant for the workshops' purposes and goals and amounted to: fellow students, students at primary school level, teachers, technicians, architects, musicians, dancers, municipal employees, and business representatives [TD1: S1, S3]. They were participants who either could contribute with a relevant technical expertise and/or were also involved in the project on the basis of possible future cooperation and exchange. The students described their experiences by showing awareness of the need for both practical and personal preparations and responsibilities to fulfil the role as facilitator. One of the students describes it as a skill [TD2: S3]. All the students planned and led their workshops as part of their studies to highlight different teams or research questions as part of their own learning process [TD3: S1, S2,] in addition to being aware of the participants learning outcome [TD3: S2, S3]. One of the students experienced it could be challenging to gain enthusiasm from participants towards a chosen team [TD3: S2]. Two of the students' experiences had a satisfying outcome: they gained material samples, information, and knowledge [TD3: S1, S2]. The structural descriptions show that all of the students' experiences taught them that workshopping need a lot of planning and preparation to make the processes go smoothly. They needed to: do theoretical research, put practical preparations in place, involve human resources, know how to make conscious choices and priorities when it came to choosing suitable content for the workshops within a timeframe (SD1: S1,). They all also experienced fruitful data generation (SD1: S1, S2, S3) as a part of their design process. Two of the students reflected about the need for initial meetings with the intentions of getting to know the participants and their disciplines to a certain degree before workshops with a cross-disciplinary specific approach took place (SD1: S1, S3). All three students described their use of workshops as a part of their design process (SD2: S1, S2, S3). One of the students stated the relevance of using a workshopping as a design tool very clearly by saying; 'I think the workshop are my design process.' The same student describes further a need of tailoring the workshops methods to adjust the form of the workshop to what they want to explore or pay attention to, and promotes this through 'mixing and matching' methods (SD2: S3) and adjusting the methods towards the purpose. All the students find self-learning/independent learning as a key approach to their use of workshop as a part of their design process (SD3: S1, S2, S3). However, all the students recognize their experiences through participation in different workshop situations (SD3: S1, S2, S3) as a preparatory factor beside watching and assisting fellow students in their processes in leading workshops.

3.1 Analysis of the findings

The students find workshopping as a suitable method as part of a design process, because it generates a lot of results in a little amount of time, and it is also considered as a suitable social arena where people can be involved, get to know each other's disciplines, and learn from each other. All of the students described workshops as a more or less practical collaborative situation in terms of ideation workshops, interview workshops, discussion workshops, and material based workshops, involving different materials like cardboard, wood, concrete, plaster, paperwork etc. The richness of the students' reflections towards their experiences using workshopping as a design method, shows a high degree of consciousness and awareness of the many possibilities workshops promotes and how the method could be used. Research by internet and conversation with "specialists" (for example, within materials knowledge, engineering knowledge, teaching, architecture, public administrators, private sector and private businesses) proved to be frequently used by the students to prepare the workshops. However, the students also in some cases find it necessary to integrate various resource persons who were on different levels of competency within the aforementioned examples in case the students lacked the knowledge or skills to perform what they had planned. One's own assumptions in terms of

knowledge and skills, or lack of those, does not necessarily have to provide limitations when it comes to the desire to facilitate a workshop.

Figure.1. Examples from different student led workshop situations who took place during the students work with their Master's Projects, Spring 2016

However the findings also show that the students' experiences independent learning as the main approach to their own use of workshopping. The students' experience this despite the fact that they beside involving resource persons from different fields also during the interviews describes attended workshop(s) as part of their studies. This findings reflects a dilemma. The term `independent learning` implies doing it alone, when in fact all learning is relative; learners relate to new information, concepts, processes, and people within the social context of the educational environment. In practice, learning is necessarily inter-dependent [5]. To handle and raise the awareness of the important social dimension as part of the teaching SCT is found useful as the basis for didactical thinking to explore useful approaches and teaching methods to increase students' skills in facilitating workshopping as learning activity as seen demand both good cooperation skills and leadership ability. The findings indicates these skills needs to be trained.

4   DISCUSSION AND CONCLUDING REMARKS

Observational learning may lead to new behaviour pattern, judgmental standards, cognitive competences and generative rules for creating a new form of behaviour [1]. Studies have shown that people are more likely to exhibit model behaviour if it results in valued outcomes, than if it has unrewarding effects [ibid]. A sense of self-efficacy, through previous mastery experiences, may be one reason why students' choose workshops as part of their design process in the first place. This does not mean that it doesn't need to be shown attention to this further during their studies. Success builds a robust belief in one's personal efficacy, and is therefore important for educators to facilitate can be achieved. Failure, however, undermines it, especially if failures occur before a sense of efficacy is firmly established [2] (this could conceivably also be applicable when it comes to observing other fail). To facilitate a high sense of mastery there is need for a didactical approach to promote self-efficacy, not only in the context of workshopping, but to all cooperative learning and teaching processes. Effective learners does not only have a high level of self-efficacy, but are also self-regulating; selecting, adapting, and inventing strategies to achieve their objectives. The learners also monitored progress of their work through the task, managing to intrusive emotions as well as adjusting strategies and processes to foster success [9]. Processes that promote perspective transformation are also needed to facilitate a high level of critical reflection when it comes to facilitating social learning activities (like workshopping). One way to train design students' cooperation skills and leadership ability in light of SCT could entail to facilitate teaching in social contexts which enables students to take part and observe workshop situations initially lead by teachers or professionals. To do this they needs varied customized learning approaches to process their observations to promote learning and growth. The students could as an example gradually be involved in the teachers workshop planning by initially get observational roles (followed by reflective processes towards the implementation), to minimize the chance of experiencing defeat. After some observing they could get the main responsibility for facilitating a workshop as part of their course, studies, subjects, etc., supported by observations and supervision where both fellow students or/ and a teacher contributed. This approach may also be used when it comes to other teaching or learning methods (as group discussion forums, supervisions, informal evaluations etc.), to promote design leading skills in different situations and in

different environment. This approach could if systematically implemented in the curriculum, potentially promote valuable outcomes (as self-efficacy), by strengthen the students' beliefs when it comes to wherever they can achieve a given level of success at a particular task [3]. One of the interviewed students' statement; "I think workshops are my design process […]", points towards a relevance of workshopping as a design methodological approach which is worth paying attention to for both research and teaching purposes. By following these thoughts into action the students potentially gain awareness when it comes to identify and manage cooperative processes and environments by knowing how to draw on this competence, both during their studies and in their professional life.

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