Doing Girly Stuff in Semi Structured Design Activities – and the Point Is?

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ABSTRACT

This paper describes a Participatory Design Session with female pupils from a UK comprehensive school. The design of the design session is examined, both with respect to the choice of activities and the metaphors that were used. Results from the design session are briefly presented and discussion then follows that focuses on what it is that makes design work with children rewarding or interesting. The paper concludes with a set of motivations for carrying out design sessions with children and presents an argument that suggests that the point of the design session will affect the outcomes and that it is extremely important when design sessions are reported that the point of the session is made clear at the outset.

Author Keywords

Participatory Design, Websites, Gender, Girls, Methods

INTRODUCTION

This paper reports on a design activity with eleven and twelve year old girls. The method that was used was based on the participatory design approach, where the users and designers act as partners in the design process [1], [2], [3]. The ethos for participatory design is that the users should be actively and directly involved in design with the intention of enabling them to be equal partners. In general, the process involves the use of brainstorming and low-tech prototyping tools to capture and demonstrate the ideas of the participants.

Previous projects that have used participatory design with children have found it to be a worthwhile although difficult process. Much of this type of activity takes place in the school environment where the power structure between adults and children is difficult to change, and where children are unused to providing critical feedback [4], [5], [6], [7].

The majority of the participatory design work that has been done with children has been with those aged between seven and ten [8], [9], [10], [4]. There is surprisingly little work on designing with older children [11], [12]. The digital libraries project, Theng *et al*, included a design activity with a class of boys aged eleven or twelve, and Isomurso *et al* reported on an informant approach design activity with girls aged between 10 and 16.

There are differences in the ways that girls and boys view computer technology. Teenage girls use computers as social tools and like to work as part of a group on collaborative projects and solving real life problems [13], [14]. A study that observed the social interactions during computer use in classrooms found that boys tend to dominate mixed gender groups for activities and interactions, leaving the girls as spectators. With single sex pairings, boys will argue about who controls the keyboard or the mouse, while girls are more likely to work together cooperatively [15].

The paper evaluates the success of the design activity, providing some thoughts about 'doing girly stuff' and then goes on to examine how it was that the outcomes that were produced were affected by the motivations of the session organiser.

We begin with a description of the event and then go on to examine some of the products from the day, and the results of a self-evaluation that was carried out by the participants. In the remainder of the paper we discuss the key findings and suggest some guidelines for participatory design work with girls. Five motivations for carrying out design sessions with children are then presented.

THE DESIGN SESSION

The design session that is described here was carried out as an assessed exercise during a postgraduate course on child computer interaction.

The Aim

The design session was intended to fulfil two needs. Firstly it was intended to give the session organiser an opportunity to plan, carry out and evaluate a participatory design session with children, and secondly the session was devised to give girls the chance to engage in a design exercise that allowed them to design websites and magazines that were especially suited to their age and gender.

Participants

A class of 11 and 12 year olds were chosen for the design session. These children came from comprehensive school, which takes in 11 to 16 year olds of mixed abilities and mixed socio-economic background. The class comprised of boys and girls, but only the girls participated in the design session. There were also three female adults assisting the pupils and one male adult (who was not involved in the activities) who acted as a photographer.

The Physical Setting

The design session took place in their classroom, and lasted two hours. The room contained several desks, which were

suitable for group work with several participants. There were two tables at the front, and a box of materials was placed on one of these tables. This box contained magazines, coloured papers, paper shapes, fabric shapes, scissors and glue. There was also a material pack prepared for each group, which consisted of print outs of 3 different websites similar to the website they were to design, two magazines for teenagers, a booklet of questions about websites and magazines, some templates of screens, cut out buttons in different shapes, questionnaires, and patterned papers. These packs were compiled prior in order to reduce the chaos of sharing out the materials during the session.

The Procedure on the Day
Before the design session began, all the adults involved were briefed by the session organiser on the activities that were going to take place and on what they were required to do. For each activity, they were advised on what was expected from the pupils. The adults were reminded that they were only there to assist the design process and to be careful not to impose their own ideas about design, allowing the pupils to express their designs freely.

On entering the classroom, the adults introduced themselves to the pupils. The pupils were asked to split themselves into 3 groups (A, B, and C) (two groups of three and a pair). It was then explained to them what the purpose of the design session was, what they were designing, and they were given a brief description of what they were going to be doing. A general chat followed, to find out how much the pupils knew about websites, and websites for teenage girls in particular. In an attempt to eliminate any lack of knowledge of domain, they were shown some print outs of teenage websites, as well as some magazines targeted for their age. Group A and B were told that they were to design a website, while group C were to design a magazine. The pupils then took part in activities which were aimed to give useful information on the design of the website.

The Activities
The design session was structured and consisted of a range of activities which were designed to encourage the participants to gain a good understanding of what a website should contain, as well as what other things they could bring into the website. The activities were designed to encourage them to go through a design process similar to those that website designers go through themselves when creating a website. Each group had an adult sitting with them at the table throughout the tasks.

Activity 1
They had to answer questions in the booklet as a group, about the differences between websites and magazines, looking at what was good and what was not good in each media. This was designed to encourage the pupils to think what they would want in their website, and what works in each media. This activity also gave the adult designers an understanding of what the pupils might expect from each media.

Activity 2
Each group was then asked to write a list of things (content) that should be in their assigned media. This was to get them to think specifically about what they wanted and to give a clear picture of what topics they were interested in.

Activity 3
The pupils were told to take the list of content they wrote in the previous task, and to group each of them into sections, such as make up, skin care and nail care to go into a section titled '*Beauty*'. This was to aid the design of the navigation of the website, although purposely, the connection between their task and navigation was not made obvious to them.

Activity 4
Each group were told to create a mood board for the website/magazine on an A3 size paper, using the magazines, and other materials provided to show the look and feel they wanted their website/magazines to have.

Activity 5
For this activity, the pupils were given a sheet of A4 and asked to create a design of what the front page/cover of their website/magazine was going to look like. The two groups designing for a website were given a A4 sheet with a monitor printed on it to represent what the user will see on their screen. They were also given a set of buttons printed on paper in different shapes and cut out speech marks. It was explained to them that the speech bubble represented any sounds they want the website to play. Group C was given a booklet of A3 sheets folded in half and stapled to represent magazines to do their front cover design on.

Activity 6
To discover what the pupils felt about the design session, the final activity was a one-page questionnaire about what they thought of the design session, and about their involvement in the activities.

EVALUATION OF THE METHODS USED
The pupils were keen and highly interested in carrying out a design session about "girly stuff", and cheered when the boys that began in the class with them were taken out of the room. The session started off with a feel that the pupils and the adults were in a student-teacher relationship while the adults were stood at the front of the classroom, but they became more relaxed as the adults sat with them at their tables.

Figure 1 – A Group of children working with an adult working on one of the activities

Activity 1 – Question booklet

The booklet highlighted features that the website should avoid, such as pop ups, and some website features that could be included such as download music that could not appear in a magazine.

The girls were happy to discuss with their adult member what they thought of each media and the advantages and disadvantages. However, they were less forthcoming in writing their answers to the questions in the booklet and had to be encouraged to do so by the adult members. Some had to be reminded to write down their thoughts regularly. All three groups completed the questions asking them to list the advantages and disadvantages of each media, but only one group completed the booklet by doing a comparison of the two media.

Activity 2 - Content List

The content list provided the adult designers with a good clear idea of what topics and features should be in the media. Each group listed 17 to 25 items, and most popular topics were beauty, problem pages, stories, reviews, gossip and games. They were also very interested in freebies and competitions.

It was easier to get the pupils to write in this task, possibly because they were already used to writing things down from the previous task. However, they still required some encouragement from the adult members to continue writing when they were not very interested in the task. They referred back to the example magazines and websites often to give them more ideas of the content.

Activity 3 - Content Map

The content map provided easy to understand information about how the girls saw how their content should be grouped. Groups A and B produced a map with the contents grouped into several (on average 9) sections laid out with no particular order. However, Group C attempted to place some ordering to the presentation of the content as seen on Figure 2. Since Group C was designing a magazine for teenagers rather than a website, this perhaps mirrors the linear manner in which contents are presented in a magazine.

Figure 2 - Comparison of the contents map by Group A and Group B

Activity 4 - Mood Board

The task of creating the mood board was the most enjoyed task for the pupils, and because they were so engaged, the time allocated to this activity was extended by 10 minutes. At first, the concept of mood boards and what they are used for had to be explained in detail, as they had not come across mood boards before. This was followed by some chaos in the classroom as each tried to grab what she could from the material box, and some even have to be told to start on their task as they were spending too much time going through everything in the box! The mood boards all contained many pictures, colourful bold texts and lots of pinks and purples. Interestingly, Group C took a different approach to the task yet again and individually created A4 sized mood board. The girls all seem to enjoy cutting things out of magazines, and decorating the board with paper shapes.

Activity 5 - Front Page Design

This was similar to the mood board task in that the pupils were able to cut and glue things they liked onto paper. The groups designing websites made full use of the buttons and speech bubbles provided to them, although some used it less effectively than others. Group A had an organised set of buttons in one area, and even provided a 'home' button, where as Group B's buttons were randomly placed around the page. It is suspected that group B did not quite understand the different between this task and the previous task, and their front page design were more in style of a mood board than a front page of a website. Group C's design was very much representative of a magazine front cover, even having a price on it and a bag of freebies (Figure 3).

Figure 3 - Magazine cover designed by Group C

Activity 6 - Questionnaire

Due to the extra time assigned for the mood board task, this task occurred very close to the end of their school day and was consequently somewhat rushed, but all participants completed all the questions. The general response of the design session was that they had a great time, enjoyed being creative and making things but didn't like writing things as much. Questions asking how much involvement they felt they had showed that with exception of one participant, all felt that they had about 40% involvement in the tasks within their group. Interestingly, the answers written for the questions were similar within each group.

DISCUSSION

There was a range of things learned from the design session, some specific to the future management of such events, especially with girls, and others with a wider applicability to the reporting of design work with children. When

designing with girls, it is believed that the session organiser should:

- Avoid making them write too much (Activity 1 and 2).
- Have more materials (photos, papers, etc) in variety of sizes (Activity 4 and 5).
- Have all the material organised into groups before the session (Activity 5).
- Avoid making them do similar tasks (Activity 4 and 5).
- Show examples of what you want them to do (Activity 3 and 4).
- Carry out boring tasks first, then do the fun tasks and allocate extra time to them if needed.

In addition, on reflecting on the event, the authors began to consider how the event would have been different had the session organiser had a different agenda. It became clear that the point of the design session has an impact on the products. We have identified five motivations for doing design with children.

To Investigate an Effect
Some design studies are essentially research activities where the session organiser deliberately presents one or more constraints and investigates the effect. In the example given in this paper, one effect that was being investigated was the choice between magazine and website.

To Design a Product
In certain cases, the design activity is intended to influence the final design of a real product. Many design sessions with children are never intended to provide designs for manufactured artefacts.

To Investigate a Context
Some design sessions are used to determine what children think about, or understand from, different concepts. In the study presented here, Activity 1, where children compared and contrasted media, was an investigation of a context.

To Value Children
Design sessions are known to make children feel better about themselves by giving them opportunities to express their ideas. It is perhaps unusual for this to be the sole motivation for running a design session, but it is, nonetheless, a reason for doing a session and potentially provides the most value for the children.

To Empower Children
Where designs are eventually being built, the children, if engaged on the designs over a length of time, will feel some ownership of the final product. This is probably only possible with small in-house developments, for instance, school websites.

None of these motivations are mutually exclusive. However, some are in potential conflict with one another. For instance, if a researcher were to investigate the effect of designing individually vs. groups, one might argue that one set of children may have a less valuable experience.

Others are related, i.e. empowerment and product design. It is difficult to imagine how children might be empowered if the session is about investigating context.

We would argue, therefore, that in any design session,, the session organiser needs to have a clear idea of the point of the activity!

CONCLUSION
This paper has provided some hints for design sessions but has also presented some areas for further research. The varying reasons for carrying out design sessions are presented but it is clear that these will need some refinement. Future work, stimulated by the workshop audience, will focus on these issues.

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