INTE 2014

Design for experiencing:
participatory design approach with multidisciplinary perspectives

Mihyun Kang\textsuperscript{a*}, Phil Choo\textsuperscript{b}, Craig E. Watters\textsuperscript{c}

\textsuperscript{a}Department of Design, Housing and Merchandising, Oklahoma State University, Stillwater, Oklahoma, 74074, USA
\textsuperscript{b}Department of Art, Graphic Design and Art History, Oklahoma State University, Stillwater, Oklahoma, 74074, USA
\textsuperscript{c}School of Entrepreneurship, Oklahoma State University, Stillwater, Oklahoma, 74074, USA

Abstract

The purpose of this study was to allow undergraduate graphic design students and interior design students to conduct participatory design projects with entrepreneurship students as collaborative efforts. In one instance, entrepreneurship students developed the business plans and participated as users who were recognized as partners. Graphic design students teamed with these entrepreneurship students to develop app interface designs. In the other instance, interior design students sought collaboration with entrepreneurship students to propose and design a retail space in an existing commercial area. The aspects of the participatory designs were the goal of improving the quality of life, a collaborative orientation, and an iterative process. With an entrepreneurial perspective in the context of community, this project allowed graphic design students and interior design students to experience participatory design within two different forms of design, comprehensive app interface design and an interior retail environment.

Keywords: Participatory Design; Multidiscipline; Graphic Design; Interior Design; Entrepreneurship

1. Introduction

Emerging design practice is experiencing a shift from being product-oriented to being purpose-driven and from being user-centered design to co-designing for collective creativity (Sanders & Stappers, 2008). This co-designing approach is found in the Northern European concept of participatory design. Participatory design is a design

\* Corresponding author. Tel.: +1-450-744-5628; fax: +1-450-744-6910.
\textit{E-mail address:} mihyun.kang@okstate.edu
approach that actively involves all stakeholders, such as employees, partners, customers, citizens, and end users, in the design process to ensure that the end result meets the needs of all and is usable. Participatory design, therefore, can be a collaborative process of multiple disciplines. The purpose of this study was to allow undergraduate graphic design students and interior design students to conduct participatory design projects with entrepreneurship students as collaborative efforts.

2. Participatory Design

Participatory design was originally created to guide the advancement of technological development, especially regarding the computerization of workplaces. Since then, participatory design has evolved into a wider approach to apply to design in general (Merritt & Stolterman, 2012). The goal of participatory design is to include all stakeholders in each step of the design process. Such stakeholders include designers, clients, users, the community, and others. Users are especially valuable stakeholders when it comes to designing for the public.

Participatory design is a beneficial and appropriate means of researching and developing new designs because it focuses on the verbal exchange of design ideas, which is extremely important in the initial concept stages of design. Both knowledge and understanding emerge as a result of verbal exchange (Luck, 2003). The intentions of participatory design are “clarifying goals and needs, designing coherent visions for change, combining business-oriented and socially sensitive perspectives, initiating participation and partnerships with different stakeholders, using ethnographic analyses in the design process…and providing a large toolbox of different practical techniques” (Simonsen & Hertzum, 2012, p. 10). Additionally, participatory design allows users to have a sense of ownership, acceptance, and ultimately the best outcome.

Participatory design can be implemented in many ways, including workshops, ethnography, cooperative prototyping, mock-ups, card sorting, and user design. In a workshop, stakeholders and designers collaborate to create vision, designs, or even a simple understanding of the current problems in search of a solution. Ethnography is an in-depth observational study of stakeholders to attain a first-hand understanding of the public’s circumstances. Cooperative prototyping involves stakeholders getting hands-on experience with a prototype of a potential product or service in order to improve it. Mock-ups are used to stimulate stakeholders into thinking about new ideas and to let them experience the future. Mock-ups are encouraged early in design exploration because card sorting is the process in which stakeholders write down relevant information that is sorted into groups to be used for the designers’ benefit. Finally, user design gives the public direct access to creating designs themselves (Yamauchi, 2012). Other methods include questionnaires, interviews, and establishing long-term working relations with worksite participants. These are implemented in order to understand the relationship between technology and work across organizations (Kensing & Blomberg, 1998). The result of these methods produces designs that can be used to the full benefit of every stakeholder.

Participatory design intends to build value in design based on the shared understanding of stakeholders. Iversen, Halskov, and Leong (2012) stated that participatory design when implemented without acknowledging values is no longer real participatory design. Participatory design must have a foundation in values in order to truly make an impact. They proposed viewing methods and participation as means for achieving a core engagement with values.

3. Procedure

In one instance, entrepreneurship students developed the business plans and participated as users who were recognized as partners. Graphic design students teamed with these entrepreneurship students to develop app interface designs (see Figure 1). App design is one of the fastest growing design industries and develops applications for small hand-held devices such as tablets and mobile phones. In the other instance, interior design students sought collaboration with entrepreneurship students to propose and design a retail space in an existing commercial area.

Participatory design was implemented in the format of workshops, although the terminology of workshop was not employed. A collective understanding, development, and reflection of mutual learning were required. This mutual learning consisted of graphic and interior design students studying the practices and contexts of entrepreneurship and the entrepreneurship students learning about the different options of design that can impact
them in the future. This process was intended to provide all participants with increased knowledge and understanding.

Graphic design students and interior design students explored ideas together at the beginning of the design process to define problems. However, they came up with independent solutions for app design and the interior environment. Entrepreneurship students collaborated with graphic design and interior design students, respectively, throughout the design process. The final solutions were presented to all students and discussed for further improvement.

4. Findings and Discussion

With an entrepreneurial perspective in the context of community, this project allowed graphic design students and interior design students to experience participatory design within two different forms of design: comprehensive app interface design and an interior retail environment. The app interface design project yielded creative and responsive design solutions for app users’ needs. The interior retail environment focused on the creation of an aesthetically pleasing and functional design solution that was integrated into the overall environment of the neighborhood. The final solutions connected the product and the community simultaneously.

A collaborative orientation and an iterative process were the observed aspects of this participatory design process. It required a collective understanding, development, and reflection of mutual learning. This mutual learning included graphic and interior design students studying the practices and contexts of entrepreneurship and the entrepreneurship students learning about the different options of design that will impact them in the future. In this way, all participants gained increased knowledge and understanding. Also, this project supported “when different voices are heard, understood and heeded in a design process, the results are more likely to be flexible and robust in use, accessible to more people, more easily appropriated into changing situations, and more adaptable to these situations over time” (Simonsen & Hertzum, 2012, p. 87-88).

The collaborative orientation and an iterative process of participatory design became a challenge for students. Different working styles and levels of understanding held up progress and required students to invest more time in the process. It was found that the awareness and recognition of contrasting perspectives and the re-examination of the parts that are taken for granted are important aspects to be shared.

Acknowledgements

The authors greatly appreciate the Riata Entrepreneurship Faculty Fellowship, which allowed this study to be conducted in the Riata Center for Entrepreneurship in the Spears School of Business at Oklahoma State University.
References