

Towards new sources for industrial product design curriculum: Collectivism and social network

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Abstract

Design education is an open platform where new approaches can be implemented due to the experimental nature of design. This paper includes two separate projects whose common ideas are experimentalism and up-to-dateness. They were conducted in the Department of Industrial Product Design at Istanbul Technical University. Each section covers one project including related concepts and terms, description of the process, outcomes and discussion. First section stresses a collective design activity conducted in Basic Design course. Second one discusses a newly introduced method of developing personas by using a social network website. Hence, this paper reporting and analyzing these projects and their results can be considered as a prospect; and inspiration and source for the future studies in design education.

Keywords

Design education, Curriculum development, Social network, Collectivism.

1. Introduction

The experimental nature of design as a practice is and should also be characteristic for the education aspect of it as a “creative” profession. This paper is a compilation of projects assigned to students of Industrial Product Design in Istanbul Technical University. The common point of these projects is the experimental approach and the use of different methods transferred from different areas completed with original results. Compared with the conventional teaching methods, the projects in this paper are the attempts to try new methods considering today’s paradigm and students’ characteristics. Hence, this paper reporting and analyzing these projects and their results can be considered as a set of examples for the future studies in design education.

All cases shown here were presented in different design conferences under different titles. The first section¹ is an example for a collective activity from a Basic Design studio. In this case; as opposed to the conventional individualistic approach, we aim to introduce and support design process as a collective activity. In the second section², a social network website (Facebook) is used as a tool to develop personas in design project studio. In this project, we especially pay attention to today’s ever-growing platform where most people like to interact with each other and share their identities, preferences, hobbies, photos etc. on social media. As a result, this project is expected to contribute on user research where social network is used in the scope of design education.

2. Collectivism as a source

This section focuses on a specific Basic Design project, which has been conducted for four following semesters in the Department of Industrial Product Design at Istanbul Technical University (ITU), Turkey in 2010-2011. In this project, students were expected to design a Jury Invitation (card) collectively specialized for the specific semester in Basic Design courses³.

Over the past decade, there have been changes in the conception of the designer’s role. The popular understanding of designer is closely linked

with the designer’s signature on the product. The name of the designer, considered and used as a tool in marketing, might even affect the perception of the product itself. This can be regarded as the continuation of the general understanding of the position of the artist in society as a celebrity similar to any other profession related with creativity and originality. Ross Lovegrove or Philippe Starck, who have become inseparable from their products, can be given as examples. Therefore, the products are often marketed with their names, which is an entity contributing on the symbolic value in the market.

We are now in the era of the name and individual style of designer being disappeared. Especially designers in R&D departments together with the staffs from other disciplines are working with teams in which individual dominancy in design process decreases. The new concepts of co-creation, co-design and participatory design also affect this disappearance where even consumers/users engage in the design process as a part of the team.

Design education in classical sense; however, generally supports the individualistic approach due to some practical limitations such as difficulty in assessing and forming a team in design project fairly. This situation sometimes leads to a selfish and isolated process of design, contradicting to the designer’s role as designing for the others not for him/herself. This creates an ironic scene.

In this section, a new process of design is introduced to the first year design students to increase their awareness about collective designing and responsibilities of designer in their early phase of design education. Moreover, this project attempts to implement a design practice in an educational context resembling to a typical mass-production process. As Blachnitzky (2011) points out that teaching design basics in general is not sufficient and propose that real-world design projects should also be engaged in Basic Design, we formulated a project fulfilling the practical needs of industrial design profession.

Focusing on working in teams, we

¹ Bagli, H., and Gelmez, K. (2013). *Who is the designer?: An experience of collectivism in Basic Design course. Paper presented at DRS // Cumulus Oslo 2013 The 2nd International Conference for Design Education Researchers, Oslo, Norway, 14-17 May 2013.*

² Gelmez, K., and Bagli, H. (2013). *Social network as a tool to develop personas for user research: An exercise from design education. Paper presented at DRS // Cumulus Oslo 2013 The 2nd International Conference for Design Education Researchers, Oslo, Norway, 14-17 May 2013.*

³ EUT 121E Basic Design I, EUT 124E Basic Design II.

conducted a project to introduce a so-called real-world project to Basic Design students.

2.1. The issue of teamwork

One of the most important differences between individual designers and teamwork is on understanding the problem. Whereas the former is able to shape his/her “idiosyncratic” understanding, the latter one must find “shared” understanding (Cross N. and Cross A.C., 1995). This difference both causes some barriers and also offers some potential in terms of creativity.

Goldschmidt (1995) conducts a comparative study based on process of a single designer and a team; and summarizes her study as in the following:

He [single designer] oscillates between overviews and technical details, between functional aspects of the design product and issues related to human factors. He thinks of features, product identity and aesthetics along with stiffness, strength and ease of production. Team members do the same, but they can let a colleague answer a question they raise, or pick up someone else's line of thought and build on it. The single designer has only him/herself to rely on, and he/she must act as a team and give all the answers while also asking all the questions... (Goldschmidt, 1995, p. 208).

One of the most important difference between single and collective design lies under the social interaction formed among members. A comparative study shows that both direct and indirect interactions occur between designers while team members contribute to the process (Darses et. al., 1996).

When the number of members in a team is increased, the differences in working processes between single designer and team become more dramatic and observable.

2.2. Description of the process

In addition to the final project of the Basic Design I and II courses, students were asked to design an invitation (card) for the visiting jury members of the final jury to be put into their post boxes at the university. The students were highly motivated because it was going to be their first ‘products’ that would meet with somebody else's needs

apart from the studio tutors as a mimic of end-users. 45-50 students took part in each project.

The requirements of the project can be summarized as:

Concept: The invitation should be appealing enough for a call. It should reflect the idea that this is an outcome of the learning of Basic Design course.

Functions: It should have basically three functions: transmitting a message (date, place, name of the course, inviting expression), being put in a postbox (collapsibility/adjustability) and being kept as a desktop object (appeal).

Dimension: It should be suitable for the dimensions of postboxes of the jury members.

Graphic design and typography: The message should be clear enough to read and understand.

Basic Design principles: Harmony, rhythm, unity, variety, repetition, balance, order and color choice should be considered.

Reproduction: The invitation should be easy to reproduce. According to a guideline, each student should be able to make a copy.

Therefore, the invitation includes mainly following information:

- Call text such as “We would like to see you in our Final Jury.”
- Date and place
- The name of the course Basic Design I/Basic Design II

2.3. Phases of the project

The project has four main phases to which students followed: Generating ideas in the form of models individually, class voting, redesigning the selected top four or five collectively, finalizing and reproducing (each student in the class produce one copy).

In the first phase, the students were expected to develop ideas considering the requirements that were explained in the previous section.

In the second phase, all developed ideas were presented on a table where all students and tutors had three stickers to attach on their favorite projects. They were allowed to attach more than one sticker to one idea, which can dramatize and ease rating the results (Figure 1).

After determining the top four or five



Figure 1. Pictures from voting, 2010 fall semester.

projects and having a class discussion on them, in the third phase students had to work on them and improve the most popular ones by considering the requirements and critiques again. They were expected to work in groups of 4-5 and come up with three alternatives by reconsidering the principles in the class discussion. After the alternatives were voted in the class again, the project to be produced was selected.

Third phase was the most important one, where the real designer of the project disappeared and different points of views found its place in the project. Therefore, the designer of the project became anonymous and from then on it has become the “property” of the class. This made the students to cooperate and to feel connected to the object they are developing. By the help of this process, they perceived the project as a reflection of their class. The end of the phase was where the tutors withdrew their critics gradually and left the class alone to develop their own invitations (Figure 2).

In the last phase, a volunteer group (5 or 6 students) prepared a guideline for their classmates to finalize the invitation and make it standardized. They used social networks such as Facebook as a platform and an accelerator to communicate. The comments on Facebook were in ordinary language⁴ and were included in this section to reflect some of the details and insider motivation of this phase. The Facebook group

comments can be classified as in the following:

Proposing and selecting alternatives: While they were discussing on Facebook, at certain points the members were proposing alternatives. Moreover, they had to select and discuss on these alternatives. These were mostly about colors, materials, and fonts of the invitation. Briefly, the decision-making process included proposing, discussing and eliminating alternative design solutions. Some students’ comments on proposing and selecting alternatives can be seen below:

“Shall I color the triangles? What about using our previous thin black material?”

“We can decide on the easier one”

“Instead of sticking black cardboard, let’s find black sticker.”

“Using sticker is more practical but how can we do this?”

“I prefer it parallel to the base.”

Discussing on timing, dimensions, production places and cost: In Facebook group, the students also discussed on production process of the invitation. They often asked when they should finish the invitation, how its dimensions should be, where they would print it and how much it would cost. Here are some related students’ comments:

“I can go and ask to the place in Beşiktaş. Maybe they print cheaper.”

“If it doesn’t cost a bomb, we can handle it.”

“Let’s get a price. Then we can decide.”

“The cheaper it is, the better it is.”

“Is there a possibility that it will cost more than 1 TL? If so, then let’s forget about.”

Reflecting emotions: Since the group was responsible for the finalization, they shared their feelings in this group. They felt pressure because of the deadline, the lack of tutor’s critiques and the idea of collective work. These emotions can be observed from their comments below:

“I have stomachache because of the depression.”

“Why do our tutors not think about this?”

“Don’t you sometimes sit and cry?”

Discussing work distribution among members: Every group project has its

⁴ Facebook comments were translated from Turkish to English.



Figure 2. A group of student working on invitations, 2011 fall semester.

drawbacks especially in terms of work distribution. Likewise, Cross N. and Cross A.C. (1995) state that “Working as a member of a team introduces different problems and possibilities for the designer, in comparison with working alone.” In this particular case, volunteer group taking part in finalization phase experienced some problems regarding this issue. The issue of work distribution can easily be understood from the comments:

“All of the stuff is left to you. Nobody cares. You are a group on your own.”

“I am getting crazy because of this unresponsiveness. I expect some sensibility.”

As Cross N. and Cross A.C. (1995) indicate the importance of “personal commitments” in teamwork, volunteered students took initiative in our case and their commitment commenced and expedited the process.

In the end, each student had to submit exactly the same invitation by following the instruction in the guideline. This phase was also crucial since the students firstly experience the terms such as standardization and mass-production that are highly related to the field of industrial design.

2.4. Outcomes of the project

After analyzing the outcomes of the projects in different semesters, it is seen that the invitations share some similar characteristics, some of which

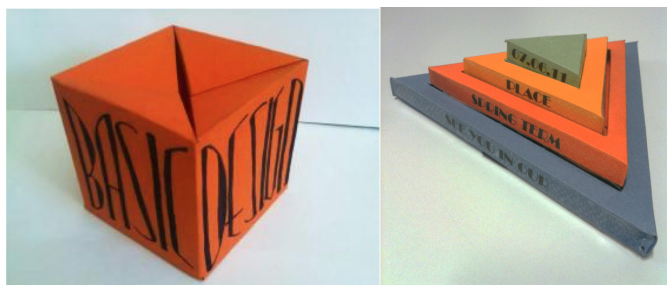


Figure 3. Invitation from 2010 fall semester (left) - 2011 spring semester (right).

were sought in the design brief (Figure 3-4-5).

Form: Classes in different semesters prefer similar basic forms such as cubes and prisms, as they are easy to work with and suitable to the principle of collapsibility and adaptability. This may be because of the directions and considerations about easy-to-define forms during the semester.

Playfulness: Students from different years take playfulness as the core concept of the invitation. They usually like the idea that the invitation card can also be played with instinctively. Therefore, the target group (jury members) can spend time while they are discovering the invitation. That's why; all invitations can get into at least 2 different positions by folding or rotating. These positions also provide to fit into jury members' post boxes and to stand on their desks.

Material choice: Each invitation has the same materials like paper or cardboard. The students prefer to write on it, use stickers or print. It may be partly because of the material use during the semester and the cost of it.

Graphical understanding and typography: The students use basic sans-serif typefaces. They conduct these typefaces by considering the surfaces of the invitation. We tried to direct student to use an existing type to apply on the invitation rather than create a new type from scratch for the quality of the finished item.

2.5. Discussion

The problem of authorship in design has always become a problematic issue. It has its historical basis depending on the motive of artistic creativity. Some examples like R. Lovegrove, P. Starck etc. in that sense affect and motivate young designers to decide to select this profession. Creativity and originality become a means and end in itself and students sometimes tend to forget that design is about “problem solving” in its classical definition.

This project is an attempt to crack this selfishness from the early phase of design education by erasing the issue of authorship in a certain point of the process and to remind that design is not something only about creativity



Figure 4. First draft (top) - After designing collectively (bottom), 2011 fall semester.



Figure 5. Invitation from 2012 spring semester.

and originality; and not something you create for yourself but for the social good.

In this project, design is handled not as a selfish, but as a goal-oriented process. So, this section can be considered as important since similar processes in corporate companies are conducted. By the help of this section, students can learn about the real-world practices of design in the early phase of their design education. As it happens in corporate level, also in this project, competitiveness and goal oriented-ness necessitate erasing the owner of design and dominates the success of the product and company (in this context, class) itself.

In conventional process of design, we can simply say that there is a direction from designer to user/consumer. Basically, designer's decisions are transferred to producers and after production, marketed to users/consumers.

In the process of this project, the role of designer and producer is combined. That is, design students taking part in the project act as both designer and producer. In the first part of the

process, the student acts as an individual designer, when developing the first invitation for voting. In the second phase, the top choices among other alternatives are developed collectively. After the completion of the collective processes of designing and producing, invitations are presented/marketed to jury members considered as user/consumer. In this project, tutors also act as organizer, moderator and controller of the process (Figure 6).

Moreover, this section can be considered as an empathetical effort for today's design students, most of whom will work in teams rather than alone in their professional life (Tzeng, 2011). The study on strategies of teaching industrial design to the (inter)net generation suggests that "Collaboration enables their 'collective intelligence' to emerge through the pooling of knowledge, research, arguments, and insights from diverse groups of people." (Tzeng, 2011, p. 40). In this sense, this section reveals a Basic Design project that cares for today's design students' characteristics and also makes use of it in a positive manner.

Such projects are also helpful to give an insight about the importance of contextual information for the purpose of design education. The classical approach of basic design course usually coming up with abstracted and idealized problems and solutions is cracked with a contextual perspective in this project. The invitation card for the jury is a project where students feel close and warm and adopted very easily as it is an event, which they feel and actually

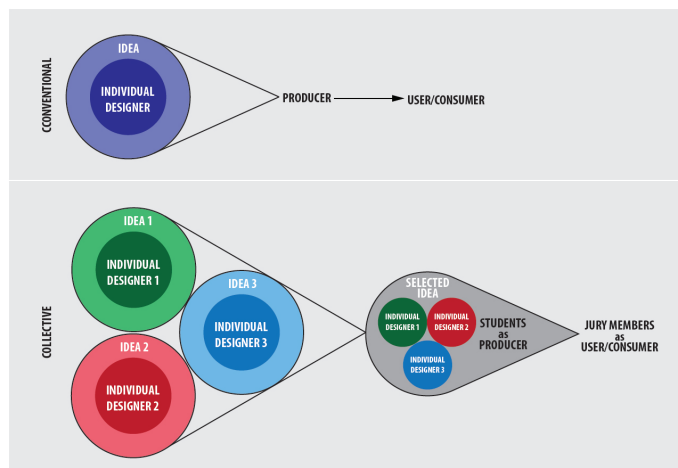


Figure 6. Distribution of roles.

they do belong to.

Erasure of the real personality who initiated the design idea and other personalities who worked on an idea that they have not generated is significant in this project. The elements of co-creation or co-design are also applicable in different methods based on drama techniques, persona building, ethnographic approaches in different levels and styles. All these methods could and should be wisely transformed and transferred to the context of basic education with a good reading and analysis of the “contextual” data.

All the processes and methodologies in the project are developed to serve to reach “better” design solutions. However, “better” here does not refer to an objective but a collective and contextual quality to be reached. In this sense, in the early phase of design education the quality of the collective process completed in a democratic and harmonious way is more significant than the final product itself.

3. Social network as a source

This section focuses on a new type of user research as a part of a design project conducted in 2012 Summer School Project Studio in the Department of Industrial Product Design at Istanbul Technical University (ITU), Turkey. In this project, students were required to get information from an open Facebook profile by concentrating on its demographics (age, gender, and nationality), descriptive attributes, mottos, likes, dislikes, hates, beliefs, activities, work attitudes, holiday attitudes, socializations and favorite objects etc. They were expected to propose some keywords and concepts to describe the persona after learning from the Facebook profile. By depending on these keywords, they were required to develop mood boards to summarize, abstract the data to generalize the persona to represent a real user group. This was supported by a project in which students fill a fictitious shopping cart of the persona according to the so-called buying habits of him/her. Finally, they were expected to act as the persona they developed in a roleplaying session to enliven the persona and enhance the degree of empathy.

This section benefits from persona forms, mood boards and video recordings and aims to question whether social network such as Facebook is helpful for new and progressive tools in design research and education.

3.1. Facebook, identity and ethical issues

In today’s world, Facebook influences almost every single person’s life. According to the recent statistics, there were 901 million monthly active users at the end of March 2012 (Facebook, 2012a). Approximately more than 300 million photos uploaded to Facebook per day in the three months ended March 31, 2012 (Facebook, 2012a).

According to the key facts on Facebook, “people use Facebook to stay connected with friends and family, to discover what’s going on in the world, and to share and express what matters to them” (Facebook, 2012a).

Socialbakers.com declares that in Turkey there are 30.771.500 Facebook users, which makes it 6th in the ranking of all over the world (Socialbakers, 2012). About 9 users of 10 Internet users in Turkey have active Facebook account, which means that Facebook is fairly popular in Turkey.

Facebook offers a personal web page for the users, which includes a considerable amount of personal information such as birth date, e-mail address, hometown, demographics, hobbies, relationship status, favorite movies, music, books, online, activities etc. In addition to the profile pages, all users have a “wall”, where they and their friends can leave messages or declarations. Therefore, Facebook can be considered as a platform where people try to reflect and emphasize their identities (Zhao et al., 2008; Smock, 2010).

A self-identity is formed in a public interaction, including the “identity announcement” and the “identity placement”. While the former one refers to asserting an identity by the individual, the latter one is related to approving the individual’s identity by others. The identity is founded when “coincidence of placements and announcements” is formed (Stone, 1990, p. 143). It is “the process by which people convey to others that they are a certain kind of per-

son or possess certain characteristics” (Leary, 1996, p. 17).

Whereas people use their clothes, hair, language, belongings etc. in physical world for identity reflection, they are identified by their writings, photos and preferences in the virtual world. Even though the virtual and physical worlds have similarities in the sense of social interaction, “the virtual world is much more self-controlled and self-constructed” (Estoisia et al., 2009). Moreover, self-presentation on social networking sites differs from physical interaction since people may “inspect, edit and revise” (Walther et. al., 2001, p. 109) themselves in virtual world.

In this project, the use of personal data in Facebook is considered from the privacy and ethical points of view. According to legal terms in Facebook:

When you publish content or information using the Public setting, it means that you are allowing everyone, including people off of Facebook, to access and use that information, and to associate it with you (i.e., your name and profile picture) (Facebook, 2012b).

Depending on this term, in the process of the project, personal data is used educational purposes only and it does not violate the agreement given by the rules of Facebook. Also, in the selection of the profiles, only the open profiles were selected to share in the class and in this section. In addition, names and identifiers of the Facebook profiles are not shared and the faces in the mood board examples are blurred in this section.

3.2. The method of persona development

Personas are fictional characters first appeared as a tool in marketing, extensively examined in Alan Cooper's book “The Inmates are Running the Asylum” (Cooper, 1999). It is defined as “hypothetical archetypes of actual users” (Cooper 1999, p. 158). Even though they are unreal, they have to be determined thoroughly and precisely. Cooper (1999) posits that designing a product for general users is problematic. Instead, designing for a single person has to be used while designing a product. In short, “the more specific we make our personas, the more effective

they are as design tools” (Cooper, 1999, p.163).

Personas are not only powerful tools for assisting designer to better understand the needs of the users, but they also make designers not to design selfishly and enhance communication between design and marketing processes.

Considering methods in creating persona, “photographs and considerable supporting information is provided for each of a handful of Personas used in a project.” (Pruitt and Grudin, 2003, p.313). Likewise, Long (2009) suggests using photographs instead of sketches and illustrated storyboards and scenarios. Another important issue in creating persona is to give the persona a name. According to Cooper (1999), a persona without a name is useless since a nameless persona will never be a concrete individual in anyone's mind. Moreover, Cooper (1999) gives clues on developing personas and making them more realistic by proposing:

To make each persona more real to everyone involved in the product creation, I like to put faces to the names and give each persona an image. I usually purchase, for a small fee, faces from stock photo libraries on the Web. Occasionally, I've used sketched caricatures. You can cut them out of magazines if you want. (p. 163).

Finally, as a design tool, “it is more important that a persona be precise than accurate” (Cooper, 1999, p. 166). In other words, it is more crucial to describe the persona in a detailed way than in a correct way. According to Goodwin (2002), personas are depended mainly on ethnographic user data, where focusing on what users do is used rather than asking users what they want.

The use of persona does not mean eliminating scenarios or any other methods related to product development. Instead, it is a basis on which to generate scenarios and data collection (Grudin and Pruitt, 2002).

All these characteristics that determine the creation and life-cycle of persona have great parallels with the quality of the data presented in Facebook profiles. These can be summarized as:

- Both have a certain name.
- Both show a “flow of someone's day,

as well as their skills, attitudes, environment, and goals” (Goodwin 2008).

- It is easy to focus too much on a persona’s biography. Personal details can be the fun part, but if there are too many of them they just get in the way. To avoid this problem, focus first on the workflow and behavior patterns, goals, environment, and attitudes of the persona—the information that’s critical for design—without adding any personality (Goodwin, 2008).

So all these kinds of biographical, demographical, personal, social and behavioral data needed for developing a persona are readily visible and readable in Facebook profiles. This reveals an easy-to-reach kind of information; however a deep-dive critical analysis of the profile is crucial to make decision on what kind of information, or -more correctly- “clues” extracted from the profile to be useful in design ideation, also to generalize the specific data peculiar to one person to represent a social group.

So, this is an initial examination or implementation of a process where the outcomes of the analysis of the Facebook profile connected to the creation of persona as a source for design, in the context of design education and design research.

3.3. Description of the process

The process of the project has 3 major phases: creating persona from Facebook profile, developing mood boards and role-playing. After the implementation of the project, students fill out the course assessment form to get their opinions about the project (Appendix 1). They are required to assess the project research phase by stating which part they like most, which part is the most beneficial for their education and the most boring.

3.3.1. Creating persona from Facebook

The process starts with developing persona from an open Facebook profile to meet the ethical standards for the research. Students were expected to fill persona form depending on the written and visual data on the profile.

In the first section of the persona form, students were required to get information from a Facebook profile by focusing on its demographics (name, age, gender, nationality), descriptive attributes, mottos, likes, dislikes, hates, beliefs, activities, work attitudes, holiday attitudes, socializations and favourite objects etc. They were expected to propose some keywords and concepts to describe the persona after learning from the Facebook profile.

In the second section, students were required to prepare a fictional shopping list for the persona to specify and direct the research into design choices, also as a project to generalize the specific person as a part of a social group. This was a session of brain storming about the syntax of the objects he/she uses to start building up the persona. They had to suggest different products/services that will fit the persona’s preferences and include product category, price, brand, technical specifications, source and photographs. They also explained why they chose this product for the persona. This was a process where the persona development was started, rather than just reporting what the Facebook profile contains.

Most of the students enjoyed choosing products for their personas. This made them to think on behalf of somebody else, to have empathy and to compose a conceptual product range for their personas. Their comments on preparing shopping list part support this:

“Shopping list is the most enjoyable part. It is really interesting experience to decide on behalf of different person”(D. Bektaş).

“When I was choosing products for my persona, I considered my persona’s potential necessities, similar products that she owns at her home and the brands that she has liked on Facebook”(M. Alioğlu).

“I really enjoyed when I was preparing shopping list. Since my persona’s budget was available, it was not difficult to shop for her. I felt like she was real”(Ö. Kenar).

3.3.2. Developing mood boards

Mood board serves as “a powerful tool to communicate users’ emotions,

they were in their personas' place. They played a short performance together with their partners.

For this part, it was apparently observed that students enjoyed while they were role-playing according to their personas. For instance, one of the students expressed that *"I liked the role playing part most, because it makes me think and act as the persona"* (B. Akin).

It was also observed that this part was a positive crack for most of the students who could not integrate and involve into the project. As they associated themselves with the persona, they felt more eager to go on designing for the persona they developed. It was also a process that tutors and students turned back, referenced and acted to personas again and again in the following discussions and critiques (Figure 8).

3.4. Outcomes

Students were expected to design a product that stores anything for their personas. They were responsible for deciding on the details of the brief by benefitting from the acquisitions from the research phase.

Even if this section focuses on the method rather than the outcomes, some examples from the design ideations are presented in order to draw attention to advantageous parts and some drawbacks of the project.

First of all, almost all of the students

had problems in design phase since they had difficulties to make analysis and reach derivations from their research outcomes to the end product. They preferred to use explicit design cues in their products, which made the end products immature and not refined. One of the reasons for this also was the limited time left for the ideation and finalization compared to the time for the research and analysis in the time plan.

For instance, one of the students (A. Varlık) used references from his persona's daily life and hobbies. Especially in this case, there was a significant gap between the student and his persona in terms of gender, age, socio-cultural situation and preferences. (The persona was a middle-aged woman living with a prosperous husband and with two children). Therefore, in the beginning of the project, he had difficulty in establishing empathy with the persona. Throughout the process, he managed to understand his persona thoroughly and reflected this to the product (Figure 9). He developed a pencil and brush box for his persona who is an amateur painter and likes ornamented, floral decoration.

In another project, H. Şişman combined different information that she got from her persona. She used direct references of the character *Sponge Bob* – which her persona likes to use its products- in a functional way. Hence, the



Figure 8. Stills from the role-playing session.

hallow parts in the product referring to the material and pattern of the character were used as storing units and the product used as a space separator. Together with the functional benefits, this product had a cosy style, which the student thought that it matched with the persona's lifestyle (Figure 10).

The last project is an example for using direct visual references about the persona. G. Altınçekiç developed a shelf for her persona by a direct resemblance to a soccer ball in her modules, because her persona was a big fan of soccer. It was somewhat similar to Sponge Bob project, but with less reference to the life style, rather only on the shape itself (Figure 11).

This process can be regarded as a contribution to the design education in terms of generating specific and unique solutions for an intended user group. By the help of the unique process of the project, students could develop specifically designed products.

Whether or not there is a perfect match between the persona created and the product developed for that persona, the process was a good test of the combination of new methods. Also, the result of the product ideations was so original that, students stated it was

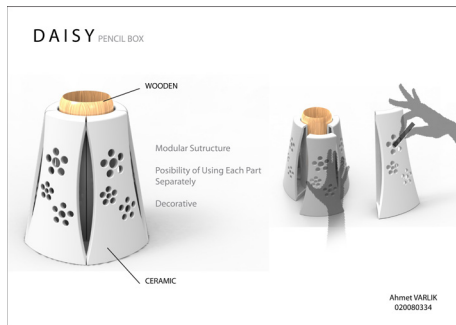


Figure 9. A. Varlık's project – Pencil box.

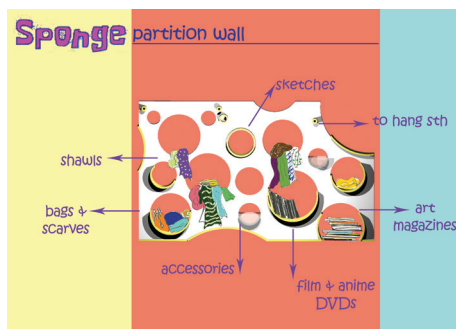


Figure 10. H. Şişman's project – Partition wall.

Hexagon cupboard

scenario

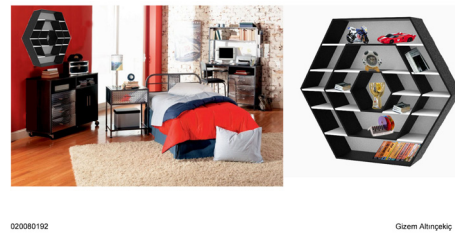


Figure 11. G. Altınçekiç's project – Shelf.

not possible to develop such concepts and products in another process.

The effect of drama, among other methods, was so clear and had a great impact on expression of the students as a person and as a designer. It was again seen that, interactive approaches are the best solution to warm up the hard processes.

3.5. Discussion

In the classical process of creating personas, conventional techniques are mostly used; interviews, surveys and other methods taken from ethnography. The use of the data gained and analyzed from Facebook, seems to be an original and fruitful source for designers. Rather than trying to find out data from the scratch, Facebook is a ready-made source, however waiting to be analyzed and made use of wisely. So the quality and the nature of the analysis become critical here, because the data gained and distilled should be suitable and well implemented both for the concept creation and ideation of a new product design.

This section aims to explore the use of social network in the context of design education and design development in general. In this section, the research phase of the project was longer and more dominant; however, it is also possible to conduct a process with a more design focus, also with reflections from the persona him/herself.

The quotations from the students' reflections support the focus of the section as they learned more in terms of method rather than product development itself. One of the students states that:

"...It is both enjoyable and informative to get information from Facebook profile. Analyzing the photos, "likes",

comments and “shares” makes me to develop ideas. Continuing with mood boards and developing personas teach me new ways to get information.” (Y. Avcı).

The use of new media as a design research source was also interesting for the students. One of the students declares that:

“This project contributes to my educational improvement, in which I developed a persona that I did not know before by using an online source”(Ö. Kenar).

It is also observed that, using social network for research is exciting and easy to motivate for the students because it became almost natural to perform this kind of research for especially young people, as a daily habit because it is the basic form of interaction in social media.

4. The contribution to industrial product design curriculum

This section attempts to reveal how the aforementioned projects contribute to Industrial Product Design curriculum in order to see how these approaches meet the standards of design education. The final part of course catalogue forms of ITU Department of Industrial Product Design includes the relationship between the course and Industrial Product Design curriculum. As shown in Appendix 2, 32 program outcomes are identified and the levels of contribution are specified for each outcome. These 32 program outcomes embrace skills and knowledge which students are expected to gain in Industrial Product Design curriculum.

The project using collectivism as a source aims students to work as a team and to introduce the basic steps and actors taking place in a typical mass production process. Therefore, it is seen that this project basically is related to “multidisciplinary teamwork skills” and “entrepreneurial and leadership skills in design” (Appendix 2; No: 18, 20). Even if this project has no direct connection with other disciplines and cannot be considered as multidisciplinary, it highly contributes to develop students’ teamwork skills. Furthermore, students are especially able to develop their leadership skills

while working as teams. In managing and distributing workload among team members, some of the students volunteered to work more or acted as a leader by taking responsibility, while some others played a more minor role in the process. So, this process reveals to observe these roles and attitudes among students. We can say that the major contribution of this collective design project to the outcomes of Industrial Product Design curriculum is to develop teamwork and leadership skills (Appendix 2; No: 18, 20). Other than these major contributions, this project also corresponds to some other program outcomes like other project-based courses. For instance; as almost every project-based courses do, this project helps students to develop the skills of:

- observing, identifying and decomposing problems; (Appendix 2; No: 1).
- applying creative problem solving methods systemically; (Appendix 2 No: 3).
- creating and developing sufficient number of alternative design concepts in a given time period; (Appendix 2; No: 5).
- creating and developing meaningful product forms; (Appendix 2; No: 11).
- evaluating, choosing and using right materials; (Appendix 2; No: 12).
- self learning (Appendix 2; No: 26).

The other project in this paper proposes a method to gather and analyze data for the user research. This project aims students to build empathy with the potential users, to understand their needs by using a social network website and to transfer the research analysis to the design process. Regarding the outcomes of Industrial Product Design curriculum, this project mainly contributes to “skills research, information gathering and analysis methods in every stage of design process”, “research skills for deep understanding of users and their related processes”, “knowledge and skills for understanding physical, psychological, ergonomics, cultural and social needs of users” and “knowledge and skills in understanding market dynamics and trends” (Appendix 2; No: 2, 9, 10 and 19). In short;

via this project, students were able to develop research skills specifically for data collection and analysis in user research process. Besides research skills, students also benefit from this project, which meets different program outcomes like other project-based courses. For example, students are able to improve the skills of:

- observing, identifying and decomposing problems; (Appendix 2; No: 1).
- applying creative problem solving methods systemically; (Appendix 2; No: 3).
- creating and developing sufficient number of alternative design concepts in a given time period; (Appendix 2; No: 5).
- employing manual and computer-aided visualization of design concepts; (Appendix 2; No: 6).
- making 3D and 4D models, and prototyping; (Appendix 2; No: 7).
- creating and developing meaningful product forms; (Appendix 2; No: 11).
- observing, capturing and evaluating the changing life styles, and their reflections (Appendix 2; No: 23).
- self learning (Appendix 2; No: 26).

Although these approaches seem to fit some requirements of the curriculum, apparently each project has a unique experience and outcome in its own right as a network of relations and connections in the education of design.

5. Conclusion

The sources that inspired our two projects are collectivism and social networks. Although they are various in method and style, the way they were interpreted as design briefs are common in that they all share experimental understanding. Apparently, these different methods and interconnections have fruitful intersections with design, especially in the practice of design education. In all, the main contribution is both on bringing originality and novelty to the process and idea development, also apparent in the resultant projects. By the help of such experimental point of view, students become more aware of the potentials of different tools and media as sources for their design ideation and generation.

The inspiring starting points in these projects can be diversified from using social media to collective design. Whatever the case, transferring and interpreting this kind of novel attempts is significant not only in terms of academic contribution to knowledge but also as new sources for design educators to be enriched with new extensions and experiences.

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Appendix 1.

Summer School 2012 – Studio Class

Date:

Student Name:

Student ID:

Demographics (Name, Age, Gender, Nationality etc.):

Descriptive attributes:

Mottos:

Likes:

Dislikes/Hates:

Beliefs:

Activities:

How to spend a day:

Work attitudes:

Holiday attitudes:

Socializations:

Favorite objects:

Fanatisms:

Keywords:

Selected photographs from his/her Facebook profile

| <i>Description</i> | <i>Photograph</i> |
|--------------------|-------------------|
| | |
| | |
| | |
| | |

Shopping list

| <i>Product Description</i> | <i>Photographs of the Product</i> |
|--|-----------------------------------|
| Product Category: Price: Brand: Technical Specifications: Source: What makes you choose this product? | |
| Product Category: Price: Brand: Technical Specifications: Source: What makes you choose this product? | |
| Product Category: Price: Brand: Technical Specifications: Source: What makes you choose this product? | |

Course Assessment

The first phase of this project consists of 6 parts:

1. Learning from Facebook profile
2. Determining keywords for your persona
3. Developing mood boards
4. Roleplaying
5. Preparing shopping cart
6. Studio critics

Considering the first phase of this project;

1. Which part do you like most? Why?

.....

2. Which part is the most beneficial for your education? Why?

.....

3. Which part is the most boring? Why?

....

4. Any suggestions for further parts?

....

Appendix 2.

| No | Program Outcomes |
|----|--|
| 1 | Observation, problem identification and decomposition knowledge and skills |
| 2 | Skills in research, information gathering and analysis methods in every stage of the design process. |
| 3 | Knowledge and skills in systematic application of creative problem solving methods |
| 4 | Skills of conceiving design concepts for innovative product and services |
| 5 | Skills of creating and developing sufficient number of alternative design concepts in a given time period. |
| 6 | Knowledge and skills for employing manual and computer-aided visualization of design concepts |
| 7 | Knowledge and skills for 3D and 4D models, and prototyping. |
| 8 | Knowledge and skills in verbal and written communication of ideas and concepts. |
| 9 | Research skills for deep understanding of users and their related processes |
| 10 | Knowledge and skills for understanding physical, psychological, ergonomics, cultural and social needs of users. |
| 11 | Skills for creating and developing meaningful product forms |
| 12 | Knowledge and skills in evaluating, choosing and using materials. |
| 13 | Knowledge in modern manufacturing methods. |
| 14 | Knowledge and skills in evaluating and using information technologies |
| 15 | Knowledge and skills for developing creative design solutions on the basis new technology |
| 16 | Knowledge and skills in understanding and assessing company strategies and culture |
| 17 | Planning and managerial skills for industrial design projects |
| 18 | Multidisciplinary teamwork skills |
| 19 | Knowledge and skills in understanding market dynamics and trends |
| 20 | Entrepreneurial and leadership skills in design |
| 21 | Knowledge and skills for developing analytical approaches to natural and artificial environment |
| 22 | Knowledge about the social, cultural economic and environmental context of industrial design |
| 23 | Skills for observing, capturing and evaluating the changing life styles, and their reflections |
| 24 | Apprehensive skills for visual aesthetic values |
| 25 | Developing attitudes for listening, inquiring, understanding, being open for critique and self-development and renewal |
| 26 | Skills for self-learning |
| 27 | Skills for transforming local cultural values into design inputs. |
| 28 | Knowledge about professional ethics in industrial design |
| 29 | Knowledge about the historical development of industrial design in Turkey and the World. |
| 30 | Knowledge about the legal rights and responsibilities of industrial designers |
| 31 | Effective use of professional design terminology |
| 32 | Knowledge about the role of industrial design for the social and economic development of Turkey |

Endüstri ürünleri tasarımı programı için yeni kaynaklara doğru: Kolektivism ve sosyal ağ

Tasarımın doğasındaki deneysellik, tasarımı ilgili yaratıcı mesleklerin eğitim yönü için de geçerlidir. Bu çalışma, İstanbul Teknik Üniversitesi Endüstri Ürünleri Tasarımı Bölümü öğrencilerine verilen deneysel projelerin bir derlemesidir⁵. Bu projelerin ortak noktası iyi ve özgün sonuçları olan deneysel yaklaşımdır. Geleneksel yöntemler ile karşılaştırıldığında, bu çalışmadaki projeler günümüz koşullarının ve öğrencilerin özelliklerinin dikkate alındığı yeni yöntem denemeleridir. Sonuç olarak, bu projeleri ve sonuçlarını raporlayan ve analiz eden bu çalışma tasarım eğitiminde gelecek çalışmalar için yeni bir bakış olarak değerlendirilebilir. Bu projeler, tasarım eğitiminde kullanılmak üzere geliştirilen yeni ve farklı kaynak arayışının ortak ürünüdür. Çalışma içindeki ilk proje Temel Tasarım eğitimi için kullanılmakta olup diğer proje Endüstriyel Tasarım Projesi dersi için geliştirilmiştir.

Birinci bölüm, Temel Tasarım dersindeki bir kolektif etkinliğe örnektir. Bu proje, geleneksel bireyci anlayışa karşı olarak tasarım sürecini kolektif bir etkinlik olarak ele almaktadır. Bu proje 2010 yılından bu yana 6 dönemdir Temel Tasarım derslerinin dönem sonlarında uygulanmaktadır. Projede, öğrencilerden kolektif olarak dönem sonu final jürileri için davetiye tasarlama beklenmektedir. Projenin dört ana aşaması vardır: bireysel olarak fikir geliştirme, oylama, seçilen davetiyeleri kolektif olarak yeniden tasarlama ve üretme. İlk aşamada, öğrencilerin proje ile ilgili ölçütleri (çoğaltılabilirlik, malzemenin uygunluğu, Temel Tasarım dersini yansıtırma vb.) gözleterek fikir geliştirmesi beklenmiştir. İkinci ve üçüncü aşamada, geliştirilen fikirler sınıfta oylanarak en beğenilen 4-5 fikir ekipler halinde çalışarak geliştirilmiştir. Bu aşama sonunda gelinen davetiye önerileri tekrar oylanmış olup seçilen fikir çoğaltılmak üzere öğrencilere verilmiştir. Bu aşamalar, ilk tasarımcının fikrin sahibi olarak kaybolduğu ve projenin farklı bakış açılarıyla zenginleştiği kısımdır. Bu sayede, davetiyenin tasarımcısı anonim hale gelmiş ve davetiye sınıfın ürünü olmuştur.

Bu durum öğrencilerin katkısının kolektif olarak arttığını ve grup çalışmasının yoğunlaştığını göstermektedir. Son aşamada, öğrencilerden davetiye hazırlanan standarda göre çoğaltması istenmiştir. Bu aşama öğrencilerin Endüstri Ürünleri Tasarımı disiplinin temel bileşenlerinden olan standartlaştırma ve seri üretim mantığıyla uygulamalı olarak tanıştığı kısım olmaktadır.

Bu bölümde projenin süreci ve çıktıları kolektif tasarım anlayışı ışığında tartışılmaktadır. Bu projenin amacı, ilk yıl tasarım öğrencilerine kolektif tasarım ve tasarımcının sorumlulukları üzerine farkındalık yaratmaktır.

İkinci bölümde bir sosyal ağ sitesi (Facebook) tasarım projesi stüdyosunda *persona* geliştirmek için bir araç olarak kullanılmıştır. Bu projede özellikle günümüzde önemli bir yere sahip olan çoğu kişinin birbirleriyle etkileşim içinde oldukları, kimliklerini, tercihlerini, zevklerini, fotoğraflarını vb. paylaştıkları platforma dikkat çekilmektedir. Proje, 2012 yılı yaz okulu proje dersinde verilmiştir. Öğrencilerin açık Facebook profillerinden demografik bilgilere, beğenilere, inançlara, alışkanlıklara, fotoğraflara vb. odaklanarak bilgi toplaması beklenmiştir. Ardından bu bilgilerin anahtar sözcüklerle ve kavramlarla özetlenmesi ve *persona* oluşturulması istenmiştir. Buradan hareketle bu bilgiler görsel olarak desteklenmiş ve bir kullanıcı kitlesini temsil eder hale getirilmiştir. Sonrasında, öğrenciler oluşturdukları *personalar* için kurgusal olarak alışveriş yapıp kullanıcıların satın alma alışkanlıklarını irdelemişlerdir. Süreç drama etkinliğiyle desteklenmiş olup kullanıcı ile empati kurma düzeyi arttırılmıştır. Yoğun geçen kullanıcı araştırmaları süreci sonunda öğrenciler kullanıcı grupları için ürün tasarlamışlardır. Sonuç olarak, bu çalışmanın, sosyal ağın tasarım eğitimindeki kullanıcı araştırmalarına katkı getirmesi beklenmektedir.

Özetle, bu çalışma tasarım eğitimi uygulamasında yeni fikir geliştirme sürecine yenilikçi ve özgün katkı sağlayan projeleri içermektedir. Bu deneysel bakış açısıyla birlikte, öğrencilerin farklı araçlar üzerindeki farkındalığı arttırılmış olup özellikle fikir geliştirme süreçlerine farklı kaynaklar sunulmaktadır.

⁵ Bu makalede toplu olarak derlenen ve ortak bir paydada toplanıp geliştirilen çalışmalar, DRS // Cumulus Oslo 2013 The 2nd International Conference for Design Education Researchers'ta sunulmuştur.

Bahsedilen projelerdeki önemli nokta, kolektif tasarım ve sosyal medya gibi daha çağdaş ve günümüze ait temaların tasarım projeleri geliştirmede kaynak olarak kullanılmasıdır. Bu türden yenilikçi teşebbüslerin paylaşılma-

sı akademik bilgiye katkının yanı sıra tasarım eğitimcileri için önemli kaynak oluşturduğu düşünülmektedir. Bu tür yaklaşımlar yeni uzantılar ve deneyimlerle çeşitlendirilmeli ve zenginleştirilmelidir.