**ISTANBUL TECHNICAL UNIVERSITY ★ GRADUATE SCHOOL OF
SCIENCE, ENGINEERING AND TECHNOLOGY**

**INVITING ETHNOGRAPHIC CONVERSATIONS TO INSPIRE DESIGN:
TOWARDS A DESIGN RESEARCH METHOD**

Ph.D. THESIS

Özge ÇELİKOĞLU

Department of Industrial Product Design

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DECEMBER 2015

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İSTANBUL TEKNİK ÜNİVERSİTESİ ★ FEN BİLİMLERİ ENSTİTÜSÜ

**TASARIMA ESİN KAYNAĞI OLAN ETNOGRAFİK ANLATILARA DAVET:
BİR TASARIM ARAŞTIRMA YÖNTEMİ**

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To my spouse,

FOREWORD

Stories are lived before they are told, and they find meaning when they are shared. Through this dissertation I am sharing my story, hoping that it will invite further conversations to give it new meanings. In this story, numerous actors contributed immeasurably for whose interest and support I will always be grateful.

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INVITING ETHNOGRAPHIC CONVERSATIONS TO INSPIRE DESIGN: TOWARDS A DESIGN RESEARCH METHOD

SUMMARY

In user-centered design, everyday lives of users, their practices, thoughts and feelings are important sources of information and inspiration for designers. In order to obtain this information, designers and design researchers utilize ethnographic methods that enable them to observe, talk to, and understand users in order to incorporate their views in evaluating design solutions. These ethnographic methods involve the collection of information about the material products, social relationships, beliefs and values of a community. The obtained ethnographic data can be visual, such as, photographs and video records, and/or verbal, such as, notes, transcriptions of conversations and interviews. Among these different kinds of data, this dissertation explores the verbal sources, in particular, conversations, focusing on the generation and use of ethnographic narratives as a source of inspiration for design.

Ethnographic narratives that are obtained through the transcriptions of interviews or conversations, provide opportunities to learn about people's elicited narratives and representations of their social worlds, including beliefs, ideologies, justifications, motivations, and aspirations. These are generated through ethnographic conversations, which are produced and performed in accordance with socially shared conventions including clues for understanding everyday life of their narrators. Through these narratives, researchers can learn about secret histories, internal power struggles, and unofficial customs, as informants can sometimes be eloquent commentators about their cultures. This dissertation aims to identify the relevant information in ethnographic narratives from which designers can make use of, and propose designers a systematic way of utilizing this information for design. From a broader perspective, it aims to describe 'an ethnography of possibilities' for design, which keeps the essential principals of ethnography but deviates from its traditional understanding of describing *what is* by rather inviting conversations of *what is possible* so that designers and design researchers can elicit design-relevant information while preserving the conceptions of users.

The key issues that are investigated throughout this study are the contents in ethnographic narratives, which are interesting and/or useful for designers to stimulate design ideas and the ways designers make sense of these narrative contents and utilize them for generating ideas. To do this, empirical studies with users, designers and design students were conducted. The outcomes of these studies were then analyzed using qualitative content analysis method.

The empirical study started with the Preliminary Study, which was conducted with a limited number of users by using the cultural probes method in order to generate user data. These data were then communicated to designers and design students, separately, to explore how they were utilized in terms of design. The findings from this Preliminary Study revealed that designers and design students similarly utilized

user data mostly in the form of narratives which were about situations that evoke positive emotions related to lifestyle; problematic experiences related to the situated practices; and, expectations and possible responses towards innovation. This information provided insight on what kind of user narratives are mostly utilized by designers and contributed to the question formulation for the ethnographic research conducted in the Main Study.

The main empirical study was completed in two stages: In the first stage of the Main Study, conversations with users were conducted. These users were members of virtual communities and thus, all conversations were online. Along with the findings from the Preliminary Study, a set of questions was formulated addressing the issues that can provide useful information for design. These questions were asked to users during the conversations that were participated. Here, it was found that joining virtual communities in their ongoing conversations with this specific set of questions and without manipulating or disturbing the natural flow of these conversations enabled eliciting design-relevant information while gaining important insight for understanding the members of these communities.

In the second stage of the Main Study, these conversations were transcribed into ethnographic narratives and communicated to designers and design students, separately. They were instructed to read these user narratives and highlight the parts, which they find surprising, interesting and/or stimulating in terms of design and idea generation. In the study with designers, each designer completed this process individually and was interviewed at the end of the process. In the study with design students, the students went through the narratives individually but worked in groups during idea generation where conversations took place. Thus, the outcomes of both processes were mainly verbal and textual. These outcomes were subject of a qualitative content analysis where contingency analysis was utilized as preliminary analysis and followed by an elaborate qualitative content analysis.

Through these analyses and the interpretation of their outcomes, certain contents in these ethnographic narratives were identified, which were found most useful and design-relevant. Moreover, it was determined how the co-occurrences of these contents were utilized in terms of design. Overall, the findings of this dissertation led to the development of a specific design research method, which focuses on generating ethnographic narratives through conversations with users and utilizing these narratives to inspire different design implications.

The method and findings of this dissertation proposes a projection of the use of ethnographies of possibilities into other areas of design, for different stages of designs, and other approaches of design. The developed method offers design researchers, designers and design students a systematic way to generate ethnographic conversations and utilize them for design

TASARIMA ESİN KAYNAĞI OLAN ETNOGRAFİK ANLATILARA DAVET: BİR TASARIM ARAŞTIRMA YÖNTEMİ

ÖZET

Kullanıcı odaklı tasarım yaklaşımında, kullanıcının gündelik yaşamı, düşünceleri ve duyguları tasarım için önemli bir veri kaynağıdır. Bu veriyi elde etmede tasarımcılar ve tasarım araştırmacıları sıklıkla etnografik yaklaşımlara başvurmaktadırlar.

Etnografik yaklaşım, temel olarak araştırmacının bir topluluk veya kültür hakkında bilgi edinmek üzere, o topluluğun bir parçası olmayı deneyimlemesi, yoğun gözlem ve derinlemesine görüşme gibi yöntemler vasıtasıyla ilgili topluluğun gündelik hayatını, sosyal yaşamını, ritüellerini ve pratiklerini detaylı biçimde betimlemesi ve belgelemesine yardımcı olan bir araştırma anlayışı ve yöntemidir. Etnografi, temel olarak antropoloji ve sosyoloji disiplinleriyle ilişkilidir. Başlangıçta özellikle Batı toplumunun kendine uzak toplulukları ve kültürleri incelenmesi için benimsenmiş olmasının yanı sıra, özellikle sosyoloji alanında, sembolik etkileşim yaklaşımı etkisiyle, toplum içinde söz hakkı verilmeyen kesimlerin, azınlıkların ve benzer şekilde *sokaktaki insanın* gündelik yaşamına ve bu bağlamda çevresiyle olan etkileşimiyle şekillendirdiği anlamlar bütününe ulaşmak için etkin bir biçimde kullanılmaya başlamıştır.

Etnografik yöntemlerin kullanımı ile bir topluluğun maddi kültür ürünleri, sosyal ilişkileri, inanç ve değer sistemleri hakkında ayrıntılı bilgi sahibi olunabilmektedir. Elde edilen veri ise fotoğraflar, kamera kayıtları gibi görsel ve/veya araştırmacının notları, görüşme kayıtları gibi sözel/metinsel nitelikte olabilmektedir. Bu tezde incelenen, kullanıcılardan elde edilen sözel/metinsel etnografik verinin, yani etnografik anlatının tasarım ile ilişkilendirilmesidir. Etnografik anlatıların elde edilmesinde, kullanıcılarla soru-cevap şeklinde ilerleyen mülakatlar yapmak yerine karşılıklı konuşma yöntemi benimsenmiş ve hem kullanıcılardan tasarım kapsamında faydalı olacak veriyi alabilmek hem de bu verinin işlenişinde tasarımcılara sistematik bir yol önerebilmek için bir yöntem geliştirilmesi amaçlanmıştır.

Etnografik anlatılar, bir toplulukta var olan inançlar, ideolojiler, motivasyonlar ve istekler hakkında bilgi sahibi olunmasını, daha genel anlamıyla bir topluluğun sosyal dünyasının temsilini sağlamaktadır. Bu anlatılar, gündelik hayatın doğal akışında veya belli bir konu üzerinde yapılan konuşmalar vasıtasıyla ortaya çıkmakta ve anlatıcının yaşamı ile birlikte içinde bulunduğu topluluğun sosyal yaşamına ilişkin çeşitli ipuçları vermektedir. Etnografik anlatılar sayesinde araştırmacılar, toplulukların gizli tarihleri, iç dinamikleri, güç mücadeleleri, gizli kalmış gelenekleri ve benzeri bilgilere ulaşabilmektedirler. Bu anlatıları elde etmek için günlük çalışması, mülakat, karşılıklı konuşma ve döküman analizi gibi çeşitli yöntemler kullanılmaktadır.

Bu tezin temel araştırma soruları kapsamında, tasarım için yapılan kullanıcı araştırmalarında, etnografik anlatıların içerik zenginliği ve derinliğinden verimli bir şekilde yararlanılabilmesi hedeflenmiştir. Bu anlatılardan tasarıma fayda sağlayacak

öncelikli içerikler ile bu içeriklerin tasarım sürecinde nasıl anlamlandırıldığı ve tasarım fikri oluşturmada nasıl kullanıldığı araştırılmıştır. Bunun için kullanıcılar, tasarımcılar ve tasarım öğrencileri ile bir dizi ampirik çalışma yapılmıştır. Bu çalışmalardan elde edilen veriler ise içerik analizi yöntemiyle irdelenmiştir.

Bu araştırma kapsamında ilk olarak sınırlı sayıda kullanıcıyla bir Ön Çalışma yapılmıştır. Burada kullanıcının gündelik yaşam dili ile tasarımcının anlayışı arasında bir iletişim kanalı oluşturmayı hedefleyen ‘kültür sondaları’ yöntemi kullanılarak belli bir oranda etnografik özellik taşıyan veri toplanmıştır. Bu veri temelinde, önce tasarımcılarla daha sonra ise tasarım öğrencileriyle ayrı ayrı çalışmalar yürütülmüştür. Yapılan her iki çalışmada da kullanıcılardan elde edilen görsel ve metinsel verinin, belli bir tasarım işinde kullanılması beklenmiştir. Bu kapsamda tasarımcılar bireysel olarak çalışırken, tasarım öğrencileri gruplar halinde çalışmışlardır.

Ön Çalışma’nın sonucunda elde edilen bulgular incelendiğinde, öncelikle tasarımcıların ve tasarım öğrencilerinin aynı metinsel içeriklere odaklandıkları ve bu içerikleri tasarım fikri oluşturma aşamasında benzer biçimde kullandıkları gözlemlenmiştir. Bu içerikler temel olarak, yaşam stiline ilişkin olumlu duygular yaratan durumlar; yerleşmiş pratiklerde problem yaşanan deneyimler ve yeniliğe ilişkin beklenti ve olası tepkiler bağlamlarında yorumlanmış ve tasarım girdisi olarak kullanılmıştır. Bu içeriklerin belirlenmesi dışında, kullanıcılardan geribildirim alınarak kullanılan ‘**kültür sondaları**’ yöntemine ilişkin bir değerlendirme yapılmıştır. Bu değerlendirme sonucunda yöntemin, bu tez kapsamında yürütülecek Ana Çalışma için kullanıcı açısından fazla kısıtlayıcı ve yönlendirici olduğu ve araştırmacıyla kullanıcı arasındaki etkileşim düzeyinin yine bu çalışma özelinde yeterli bulunmaması gerekçeleriyle en uygun yöntem olmadığına karar verilmiştir. Sonuç olarak yapılan Ön Çalışma hem etnografik veri toplama yönteminin seçilmesinde hem de ortaya çıkan içerik gruplarının Ana Çalışma’nın kullanıcı ayağı çerçevesinin oluşturulmasında önemli bir bilgi sağlamıştır.

Ana Çalışma kısmı, bu tezin iki farklı aşamadan oluşan temel ampirik çalışmasını içermektedir. Ana Çalışma’nın ilk aşamasında etnografik yöntemler kullanılarak bir kullanıcı araştırması yapılmıştır. Burada kullanıcı grubu olarak belli sanal topluluklar seçilmiş ve bu toplulukların konuşma ve tartışmalarına katılmıştır. Bu kapsamda temel olarak katılımcı gözlem ve karşılıklı konuşma (conversation) yöntemleri kullanılmıştır. Bu kapsamda etnografik anlatılara ulaşmada en etkili yöntem karşılıklı konuşma yöntemi olmuştur. Bu yöntemin yapılandırılmış veya yarı yapılandırılmış mülakat yöntemlerinden en büyük farkı araştırmacının kullanıcı grubunun halihazırda devam eden konuşmalarına katılması, diğer katılımcılardan daha üstün veya farklı bir pozisyonda bulunmaması, yalnızca soru sormayıp aynı zamanda sorulara cevap vermesi ve konuşma üzerinde herhangi bir hakimiyeti olmaması dolayısıyla da konuşmanın doğal akışı üzerinde yönlendirici bir etki yapmıyor olması olmuştur. Bu bağlamda kullanılan etnografik yöntemlerin sanal ortamda uygulanıyor oluşu da geleneksel uygulamalardan farklılıklar göstermelerini gerektirmiştir. Bu konuda *virtual ethnography* yaklaşımının prensipleri benimsenmiş ve ilgili farklılıkların araştırmacıya sağladığı avantajlar ve dezavantajlar belirtilmiştir.

Bunun dışında araştırmacının toplulukla doğrudan etkileşime geçmediği ancak topluluk hakkında bilgi edinme aşamasında önemli faydalar sağlayan döküman analizi yönteminden de yararlanılmıştır. Katılımcı gözlem ve karşılıklı konuşma sırasında topluluğun konuşmalarının doğal akışını bozmadan tasarım için faydalı

olabilecek veriyi elde edebilmek için Ön Çalışma sonucunda belirlenmiş temel anlatı içerikleri araştırılacak topluluk için düzenlenerek bir temel soru seti oluşturulmuştur. Bu sayede anlatıların zenginliği ve derinliği korunmaya çalışılırken tasarıma yönelik spesifik verinin de elde edilmesi sağlanmıştır.

Ana Çalışma'nın ikinci aşaması ise ilk aşamada kaydedilmiş olan konuşma dökümlerinin etnografik anlatılar olarak düzenlenmesini ve daha sonra tasarımcılara ve tasarım öğrencilerine iletilmesini içermektedir. Bu kapsamda bir etnografik anlatı dökümanı oluşturulmuş ve bu döküman hem tasarımcılara hem de tasarım öğrencilerine ayrı ayrı düzenlenen çalışmalar ile aktarılmıştır. Her iki gruptan da beklenen bu dökümanı verilen okuma protokolüne göre okuyup tasarım için ilginç ve yararlı buldukları kısımları işaretlemeleri ve bu kısımları ilişkilendirdikleri tasarım fikirlerini ilgili yerlere not etmeleri olmuştur. Tasarımcılarla yürütülen çalışmalara her bir tasarımcı bireysel olarak katılmış ve sürecin sonunda her bir tasarımcıyla tasarımcının dökümandaki işaretlemeleri ve notları üzerine ayrıca bir görüşme yapılmıştır. Tasarım öğrencileriyle yürütülen çalışmada ise öğrenciler anlatı dökümanını yine bireysel olarak incelemişler, döküman ve aldıkları notlar üzerine yapılan konuşma tüm öğrencilerin toplu halde katılımıyla gerçekleştirilmiştir. Her iki sürecin sonunda elde edilen çıktılar, anlatı dökümanındaki işaretlemeler, notlar, görüşme ve konuşma kayıtlarının dökümünü içerip, sözel ve metinsel nitelikte olmuştur. Tüm bu çıktılar iki aşamalı bir nitel içerik analizi ile irdelenmiş ve sonuçlar, tezin kuramsal çerçevesi kapsamında yorumlanmıştır.

İçerik analizi için kavramsal temelli ve veri temelli kodlama prensipleri birlikte kullanılarak bir kodlama çerçevesi oluşturulmuş ve temel kategoriler belirlenmiştir. Bu temel kategorilere göre öncül bir analiz yapılmış ve elde edilen sonuçlar dikkate alınarak alt kategoriler oluşturulmuştur. Bundan sonra alt kategoriler odağında daha detaylı bir içerik analizi yapılmış ve bu süreç sonlandırılmıştır. İçerik analizinin sonuçlarının yorumlanmasıyla elde edilen bulgular, tezin temel araştırma sorularına cevap sağlar nitelikte oluşmuştur. Bu kapsamda, öncelikle etnografik anlatı içeriklerinde tasarım girdisi olarak özellikle faydalı olan kategorilerin neler olduğu belirlenmiştir. Yapılan detaylı inceleme ile bu temel kategoriler arasındaki ilişki ağları belirlenmiş ve belli kategorilerin bir arada bulunduğu içeriklerin tasarımda farklı fikir geliştirme uygulamalarında daha etkili olduğu saptanmıştır. Bu şekilde tasarımcılara ve tasarım araştırmacılarına belli bir konuda kullanıcılardan etnografik anlatı elde etmeye ve bu anlatıları temel fikir geliştirme aşamalarında kullanmaya yardımcı olacak bir yöntem önerilmiştir.

Genel olarak bakıldığında, bu tez çalışması ile etnografik anlatıların elde edilmesi ve tasarımda kullanılmasına yönelik özelleşmiş bir tasarım araştırma yöntemi önerilmiştir. Buna ek olarak bu çalışma, yöntemi ve bulguları itibarıyla farklı etnografik yöntemlerin ve veri çeşitlerinin, tasarım sürecinin farklı aşamalarında kullanımı için bir projeksiyon oluşturmaktadır. Bu tez kapsamında geliştirilmiş olan yöntem, kullanıcı odaklı tasarım yaklaşımını benimseyen tasarım araştırmacılarına, tasarımcılara ve tasarım öğrencilerine, etnografik anlatıların elde edilmesi ve tasarımda kullanılması konularında sistematik bir yöntem önermektedir.

1. INTRODUCTION

Design is proposing something; artifacts, practices, services, that improve the life of others; users, stakeholders and society at large. The impetus of design may come from numerous sources; the experience of problems, present needs, institutional intents but also visions of desirable futures (Eckert and Stacey, 2000; Chan, 2015; Cai et al., 2010; Goldschmidt and Smolkov, 2006). This dissertation explores how designers could be inspired by listening to the voices of potential users of a design.

In user-centered design, everyday lives of users, their practices, thoughts and feelings are important sources of information and inspiration for designers (van Veggel, 2005; Gaver et al., 1999; DeLongis et al., 1992; Salvador et al., 1995). In order to obtain this information, designers and design researchers utilize ethnographic methods that enable them to observe, talk to, and understand users in order to incorporate their views in evaluating design solutions (Sanders, 2002; Muller, 2007; Seybold, 2006; Schuler and Namioka, 1993; Spinuzzi, 2005). These ethnographic methods involve the collection of information about the material products, social relationships, beliefs and values of a community (Angrosino, 2007).

While visual data obtained through ethnography includes photography, motion pictures, hypermedia and the like, the verbal data usually relies on transcriptions of interviews or conversations that capture and express perceptions and social realities of people. The varied forms of visual representation provide a means for recording, documenting, and explaining the social worlds and understandings of people. It is important, however, to emphasize that visual ethnography is not purely visual. Rather, the visual ethnographer simply pays particular attention to the visual aspects of culture as part of his or her ethnographic efforts. Until recently, mainstream social scientists have been steadfast in their belief that the written word is a superior form for representing most types of data (Berg, 2008; Pink, 2007). The other form of ethnographic data qualitative researchers use, are narrative accounts, interviews, field notes, and the like, all of which are textually based.

Textually based ethnographic data, and narratives, in particular, that are obtained through the transcriptions of interviews or conversations, provide opportunities to learn about people's elicited narratives and representations of their social worlds, including beliefs, ideologies, justifications, motivations, and aspirations. These are ethnographic narratives, which are produced and performed in accordance with socially shared conventions including clues for understanding everyday life of their narrators (Atkinson, 1990; Cortazzi, 2001; Denzin, 1992; Atkinson et al., 2001; Labov, 2012). Through these narratives, researchers can learn about secret histories, internal power struggles, and unofficial customs, as informants can sometimes be eloquent commentators about their cultures (Boellstorff et al, 2012; Mead, 1928; Tsing, 1993).

This dissertation focuses on the generation and use of ethnographic narratives as a source of inspiration for design. It aims to identify the relevant information in ethnographic narratives from which designers can make use of, and add an empirical method to design research practices that deal with a rarely utilized source of information: how people talk of their world.

1.1 Research Question

The key research questions of this study are:

- What kind of contents in ethnographic narratives are interesting and/or useful for designers that stimulate design ideas?
- How do designers make sense of these narrative contents and utilize them for generating ideas?

Identifying what kind of ethnographic narratives are important for design and how these can be utilized provide the means to contribute to the discipline of design research and design practice. This dissertation is directed at design researchers who aim to broaden their view on the user research with a special interest in user narratives, and designers, as well as design students, who are looking for a detailed and systematic method in generating user narratives that can save them time and effort.

1.2 Reading Guide

This dissertation is composed of eight chapters: The first three chapters are used for explaining the aim and scope of the study along with the fundamental concepts that are referred to in the following chapters. The following three chapters describe the Preliminary Study and the Main Study that were conducted with different users, designers and design students in order to find answers to the research questions. Finally, the last two chapters present the analysis and interpretation of these empirical works and explain the design research method that is developed throughout this dissertation with the lessons learned, recommendations and possible contribution for further studies.

Chapter 1 provides the introduction to the theoretical and methodological basis of the dissertation. Here, the aim and scope of the study is described along with the key research questions.

Chapter 2 presents the review of the related literature including the concept of ethnography, an overview on design methods and approaches, and how ethnography and design methods intersect in the model where this dissertation is located.

Chapter 3 focuses on the ways of generating ethnographic narratives, which are surveys and questionnaires, diary studies, interviews and conversations, and document analysis, with an emphasis on the distinction between obtrusive and unobtrusive methods.

Chapter 4 describes the Preliminary Study, which was conducted as an initial study to gain insight on the generation of ethnographic narratives and communication of them to designers. In this chapter, the use of cultural probes method was tested in (1) collecting ethnographic data from users; and (2) exploring the ways designers make use of them. Here, the data obtained from users were communicated to designers, as described in Study I, and to design students, as described in Study II. Finally, the findings from the Preliminary Study are described, which contributed to the formulation of the Main Study.

Chapter 5 presents the first stage of the Main Study, where the generation of online conversations to inspire design are described including the selection of the participants, formulation of questions, and advantages and limitations of the used methods along with their deviations from their traditional applications.

Chapter 6 describes the second stage of the Main Study, which includes the transcription of the conversations into ethnographic narratives and their communication to designers. In this chapter, two separate empirical works are presented as Study III, where the ethnographic narratives were communicated to individual designers, and Study IV, where the same narratives were communicated to design student groups.

Chapter 7 presents the analysis and interpretation of the outcomes from the Main Study along with the advantages and limitations of the used analysis methods. This chapter provides detailed information about the contingency analysis and the following elaborative qualitative content analysis that were conducted to make sense of the outcomes of the Main Study.

Chapter 8 provides a summary of the main findings of the studies and presents answers to the main research questions in describing the design research method which is developed throughout this dissertation. Implications of these findings are discussed for design researchers, designers and design students, and recommendations for generating and utilizing ethnographic narratives are given to them on the basis of the findings. The chapter is concluded with suggestions for further research.

2. LITERATURE REVIEW

The literature review related for this study is presented under three main sections aiming to provide a clear view of the theoretical framework. As the focus of the dissertation is the generation of ethnographic narratives and their use for design, first, a brief description of ethnography is made including its definitions, origins, traditions and methodological issues. Then, an overview on the design methods and approaches is presented along with their historical evolution and place in society. Finally, the discursively informed design model is described within which this dissertation is located where ethnography and design intersect.

2.1 Ethnography

The Greek roots of the word ethnography are the combination of *ethnos*, “people” and *graphein*, “writing”. There are many definitions of ethnography which converge and diverge at some points as given below (Bryman, 2001):

- Ethnography is the art and science of describing a group or culture (Fetterman, 1998, p.1).
- In its most characteristic form it involves the ethnographer participating, overtly or covertly, in people's daily lives for an extended period of time, watching what happens, listening to what is said, asking questions – in fact, collecting whatever data are available to throw light on the issues that are the focus of the research (Hammersley and Atkinson, 1995).
- Ethnography is a research process in which the anthropologist closely observes, records, and engages in the daily life of another culture – an experience labelled as the fieldwork method – and then writes accounts of this culture, emphasizing descriptive detail. These accounts are the primary form in which the fieldwork procedures, the other culture, and the ethnographer's personal and theoretical reflections are accessible to professionals and other readerships (Marcus and Fischer, 1986, p.18).

- Ethnography is the study of people in naturally occurring settings or ‘fields’ by means of methods which capture their social meanings and ordinary activities, involving the researcher participating directly in the setting, if not also the activities, in order to collect data in a systematic manner without meaning being imposed on them externally (Brewer, 2000, p.10).

All these definitions point that ethnographers immerse themselves in a society to collect descriptive data via fieldwork concerning the culture of its members from the perspective of the meanings members of that society attach to their social world and render the collected data intelligible and significant to fellow academics and other readers (Bryman, 2001; Hammersley and Atkinson, 2007).

Ethnography is associated with two main disciplines which are anthropology and sociology. Most accounts of the emergence of ethnography in social anthropology attach considerable credit and significance to Bronislaw Malinowski (Kuper, 1983, p.13; Bryman, 2001). While anthropologists spent decades forging theoretical frameworks that narrowed the divide between Self and Other, ethnographers within sociology from the beginning turned attention to contexts in which they were themselves nationally located (Whyte, 1943; Goffman, 1961; Willis, 1977; Fine, 1993). Qualitative sociologists have thus used ethnography to produce rich accounts of everything from urban communities to medical work to sporting activities. Three powerful threads reappear in sociology’s use of ethnography: a fundamental assertion of the valuable knowledge of participants as meaning-making actors, an attention to grounded (even mundane) practices, and a commitment to understanding the ways larger societal considerations or forms of social order shape everyday lifeworlds. (Boellstorff et al., 2012). The realization that participants hold vital knowledge about their social worlds (and broader social processes) can be traced back to early sociological thought, most notably Weber’s influential methodological considerations and his formulation of *verstehende Soziologie*, which implied that one “could best understand society for what it is – not for what one thinks it might, should, or must be – by studying it from the points of view of its members. In effect, Weber required social researchers to become personally and deeply acquainted with their participants’ experiences and views” (Gold, 1997, p.389). This orientation provides sociologists a theoretical grounding for ethnographic work. In this view, those in the field site can provide both data and core framings for those data, keeping

in check assumptions and biases of the researchers themselves (Boellstorff et al., 2012).

This attention to the field site was echoed in some of the most influential early sociological ethnography, most notably the Chicago School associated with Robert E. Park and Ernest W. Burgess. Sociologists of this tradition produced a large corpus of ethnographic work dating back to 1917, perhaps best known from a body of mid-twentieth-century scholarship like *Street Corner Society* (Whyte, 1943), *Outsiders* (Becker, 1963), and *Asylums* (Goffman, 1961). Such scholarship was based on a range of methods (e.g., participant observation, interviews, mapping, and diaries) and often also drew on quantitative data like census information. Sociologists explored urban environments, deviance, race, and collective behavior, focusing on the “everyday life, communities, and symbolic interactions characteristic of a specific group” (Deegan, 2001, p.11; Harvey, 1987). Such a focus on the everyday was linked methodologically to “deep immersion”. Paralleling how anthropologists sought to legitimize “native” cultures, Chicago School ethnographers often saw themselves as “giving voice to populations whose perspectives were ignored by institutions shaping their lives” (Katz and Csordas, 2003, p.280). For this distinctive approach to the study of human group life and human conduct, Herbert Blumer (1969) coined the term symbolic interactionism. Symbolic interactionists assume that human beings create the worlds of experience they live in. They do this by acting on things in terms of the meanings things have for them (Blumer, 1969). These meanings come from interaction, and they are shaped by the self-reflections persons bring to their situations. Such self-interaction is interwoven with social interaction and influences that social interaction. Symbolic interaction, which is the merger of self and social interaction, is the chief means “by which human beings are able to form social or joint acts”. Joint acts, their formation, dissolution, conflict and merger, constitute “the social life of a human society”. A society consists of the joint or social acts “which are formed and carried out by the members”. Blumer (1969) states that symbolic interactionism has three main premises:

- Human beings act toward things on the basis of the meanings that the things have for them.
- The meaning of such things is derived from, or arises out of, the social interaction that one has with one’s fellows.

- These meanings are handled in, and modified through, an interpretative process used by the person in dealing with the things he encounters.

According to symbolic interactionist view, human beings live in a world or environment of objects, and their activities are formed around objects:

- The nature of an object is constituted by the meaning it has for the person or persons for whom it is an object.
- This meaning is not intrinsic to the object but arises from how the person is initially prepared to act toward it.
- Objects are social products in that they are formed and transformed by the defining process that takes place in social interaction.
- People are prepared to act toward objects on the basis of the meaning of the objects for them.
- Because an object is something that is designated, one can organize one's action toward it instead of responding immediately to it (Blumer, 1969).

As cited by Denzin (1992), early and contemporary interactionists were preoccupied with the stream of consciousness of the subject (James, 1890), the experience of temporality in the organization of social acts (Mead, 1910), blocked acts (Dewey, 1896), joint acts (Blumer, 1969), interior self-conversations (Mead, 1967), the place of the other in the act (Mead, 1967), and experience and its organization (Goffman, 1974). Always seeking a unit of analysis, they wavered between acts and experience. This preoccupation led to the continual search for a method of analysis that would incorporate the subjective and interactional features of human conduct into valid scientific documents about human society (Blumer, 1969). Simultaneously interpretive and analytic, structural and interactional, interactionism is both a theory of experience and a theory of social structure (Denzin, 1992; Denzin and Lincoln, 2000).

There is a variety of concepts in symbolic interactionism to explain how meaning is formed. Blumer (1969) refers to Mead's concept of role-taking: "In order to become an object to himself a person has to see himself from the outside. One can do this only by placing himself in the position of others and viewing himself or acting toward himself from that position." This role-taking in Mead's sense refers to the

process where a person assumes the role of the other to interpret the symbolic meaning of that person's actions. Role-taking also enables the actor himself to reflect on how his own actions will be understood by the other.

Erving Goffman (1974) is attributed with the idea of "framing", where a frame applied to a social situation allows the individual to assign meaning to the experience. As with role-taking, frame analysis assumes meaning to emerge not from the symbols of interaction themselves, but from their interpretation through the individual's experience. In his book, "The Presentation of Self in Everyday Life", Goffman (1959) introduced the theatre as a metaphor for social interaction where he used terms from dramaturgy, such as, 'performer', 'audience', 'backstage', 'performance', and etc. to explain everyday life.

The instability of social processes is another core preposition of interactionist thinking, with interaction being seen as the ongoing negotiation of social relations between actors. This means that social reality is not a stable and constant condition (as it is considered by functionalist theorists), but the fluctuating assignment of meaning to symbols through interpretation. This process of negotiation is a permanent reassessment of social context, based on mutual interpretation of meaning between social actors (Strauss, 1978). Therefore, symbolic interactionism encourages researchers to be open to the discovery of aspects of everyday life previously ignored or simply not observed by researchers. The core doctrine in this regard is grounded theory (Charmaz, 2006) which directs the qualitative researcher to approach the everyday life world open-minded and analytically naïve. As a result, rich observations of patterns in social life create what Blumer (1969) referred to as sensitizing concepts that direct further research throughout the course of the study in an analytical way (Kotarba, 2014; Rock, 2001).

In contemporary sociology ethnographic methods have remained important for weaving together grounded stories of everyday life with a broader social and often critical analysis (Boellstorff et al., 2012). Besides, the practices and meanings of ethnography have undergone a significant shift through a series of transformations including debates over colonialism and conflict. These debates were accompanied by the increasing presence of women, people of color, non-Westerners, and queer persons as ethnographers. The varied positioning of these persons as "native" ethnographers (Haniff, 1985; Abu-Lughod, 1991), particularly if they studied

communities to which they in some sense belonged, troubled the distinction between Self and Other pivotal to classic assumptions about ethnographic research. The relational distance between researcher and subject, the belief in standing somehow neutrally “outside of” one’s field site, became problematized, offering the opportunity to reconsider principles of ethnographic research, including the possibility of “studying up” to explore “those who shape attitudes and actually control institutional structures” in one’s own society (Nader, 1969, p.284). From the 1970s through the 1990s, these varied shifts contributed to a rethinking of the practices of writing and representation that are at the core of ethnography as textual product (e.g. Geertz, 1983; Clifford and Marcus, 1986; Visweswaran, 1994; Behar and Gordon, 1995).

Along with the symbolic interactionist tradition that originated from the Chicago School, there are three other schools to point that have shaped the history of ethnography – structuralism, postcolonialism, and feminism (Boellstorff et al., 2012). “Structuralism” originated from linguistics, particularly in the work of Ferdinand de Saussure and Roman Jakobson, and focused on the idea that one could study a language not just historically (“diachronically”), but in terms of the grammatical structures that make speech meaningful in a single slice of time (“synchronically”). Claude Levi-Strauss pioneered this approach to ethnography, viewing culture as a system of grammatical rules. By the latter half of the twentieth century, “poststructuralist” critiques asked if cultures really worked like languages, noting in particular the inability of a structuralist approach to account for power differentials within a culture, historical change, and phenomena like migration and globalization that made the argument that cultures are discrete entities difficult to sustain (Boellstorff et al., 2012). “Postcolonialism” refers to analyses by scholars skeptical of the “Orientalist” assumption that world history moves along a single path culminating in the West (Asad, 1973; Gupta, 1998; Said, 1978). Much key scholarship in this field developed in relation to analyses of India and the legacy of British colonialism, but what “postcoloniality” means may differ in other contexts (Hall, 1996). “Feminist ethnography” has had a long presence in both anthropology and sociology (Visweswaran, 1994; Maynard and Purvis, 1994; Skeggs, 1995), dating back to the work of early anthropologists in questioning the universality of gender roles (Mead, 1935). In the 1970s a new wave of feminist ethnographic work

(Rosaldo and Lamphere, 1974; Reiter, 1975) explored the apparent universality of women's subordination and the cultural construction of gender itself. Since that time the field of ethnographic work on women, gender, and sexuality has become truly substantial (Boellstorff et al., 2012).

Considering from the epistemological point of view, one of the important issues in ethnographic inquiry has been the distinction between "emic" and "etic" understandings of culture. These terms were used in ethnographic research by Clifford Geertz (1983). For ethnographers, the outsider (etic) analyses of researchers are valid and informative, however, they also take insider (emic) analyses very seriously. As Boellstorff et al. (2012) state, ethnographers conduct research not just to mine data from informants, but to learn about their theoretical and pragmatic insights. An ethnographic approach thus implies drawing on both etic and emic forms of analysis. Above all, it implies keeping them distinct, for one of the clearest signs of a flawed or incomplete ethnographic study is confusion regarding which claims are the researcher's etic conclusions and which are the emic understandings of the informants themselves. Another important concept introduced by Geertz is "thick description." This term refers to accounts of behavior that provide a rich context. The argument is that without contextual embedding, it is not possible to meaningfully interpret what we see. Building on this sight, Geertz (1973) noted that the object of ethnography is a stratified hierarchy of meaningful structures.

Overall, ethnography is one of many approaches that can be found within social research today. Furthermore, the label is not used in an entirely standard fashion; its meaning can vary. A consequence of this is that there is considerable overlap with other labels, such as 'qualitative inquiry', 'fieldwork', 'interpretive method', and 'case study', these also having fuzzy semantic boundaries. In fact, there is no sharp distinction even between ethnography and the study of individual life histories, as the example of 'auto/ethnography' shows; this referring to an individual researcher's study of his or her own life and its context (Reed-Danahay, 1997). There is also the challenging case of 'virtual ethnography', whose data may be restricted entirely to what can be downloaded from the internet (Markham 1998; Hine, 2000; Hammersley and Atkinson, 2007).

Main limitations of ethnography, and symbolic interactionism in particular, are the conception of knowledge underlying them. In their context, knowledge refers to

understanding and describing what exists. Design, on the other hand, relies on knowledge of what could be changed to the better, what does not yet exist but is not only possible but also acceptable to the lives of those who will integrate it into their lives. In this sense, design looks for “ethnographies of possibilities” in the lives of potential stakeholders. Such ethnographies differ from traditional ethnographies by exploring not how people live, but what is difficult, cumbersome, frightening, dangerous, costly, or meaningless to them and would surely be replaced if something better were available (Krippendorff, 2014). This dissertation mainly adopts the approach “ethnographies of possibilities” to investigate a special practice of ethnographic methods for design.

2.2 An Overview on Design Methods and Approaches

As Cross et al. (1981) state, from the early days of design research and design methodology there has been a seemingly paradoxical attitude in those seeking to relate design method and scientific method. On the one hand there has been a desire to interpret design in ways similar to those in which science is interpreted; and on the other hand there have been the declarations that design is not like science. The earlier views of design methods were based on rationalist and empiricist philosophies of science. There had, however, been a 'slow but decisive shift in philosophy and scientific epistemology over the past half-century or so,' that had been overlooked by the design methodologists of the 1960s. One of the results of this shift was a recognition that preconceptions, or 'pre-structures', are an unavoidable element in scientific method (Cross et al., 1981).

Designers make use of a variety of kinds of knowledge, from scientific knowledge of the properties of materials to the ineffable craft knowledge (derived from apprenticeship, experience, trial and error etc.) which enables a skilled practitioner to say that a given design solution 'feels' right (or wrong). However, the concepts of “knowledge of” and “knowing how to” have different meanings when considered in design context: while “knowledge of” refers to the scientific theories and verified descriptions; “knowing how to” refers to making practical use of these descriptions or redescribing them. As Krippendorff (2014) clarifies the difference, “design proceeds unlike science and should not to be confused with an art”:

- For Horst Rittel the aim of design is teleological, related to goals, science is concerned with what exists. For Herbert Simon, the logic of design is deontic, what ought to be.
- While scientific theories are generalizations, the products of design need to end up being specific. Mechanisms do not work in the abstract or in general. They need to work in all of their details. Ultimately, all designs are validated in relation to materialities and human bodies they touch.
- While scientists support their theories by observational data from the past, designers aim at future truths which are neither causally determined nor observable when proposed.
- To the extent design benefits its stakeholder communities, the artifacts it brings forth have to be related to how humans realize, perform with, and speak of them. Designers are intentional actors, not merely scientific observers.
- Design produces innovations that must prove themselves in interactions with the environment in which they find themselves, need to grow there, and give rise to further designs (Krippendorff, 2014).

Finally, design usually takes place within a commercial or organizational framework. The activity of designing also relies heavily on the skilled performance of the designer, and it is something which is difficult to analyze in the classic reductionist ways of science. Many of the small particulars of a design actually appear to be dealt with, or 'attended to', by the skilled designer in a subconscious way (Dorst, 2003; Lawson, 2006). They only surface to be dealt with consciously when they become critical. The impossibility of 'attending to' all the details of the skill by the skilled performer is recognized by Polanyi (1966/2009) in his concept of 'tacit knowing'. These things relate to skills and to qualities which can only be learned by ostensive definitions, i.e. learning from example. The knowledge which is conveyed by ostensive definition is know-how (Cross et al., 1981). As Perks et al. (2005) state, designers were much like artists who created stylish and aesthetically pleasing products (Perks et al., 2005) in the early phase. When this practice of 'design by drawing' became insufficient for complex cases, the Design Methods Movement occurred, and systematic approaches were formulated for problem solving. In this

context, problem solving became the new definition of design (Cross, 2004, 2007; Laurel, 2003; Heskett, 1980).

Considering the emergence of design methods, Cross (2007) summarizes that the origins of new design methods in the 1960s lay further back in the application of novel, 'scientific' methods to the novel and pressing problems of the 2nd World War - from which came operational research methods and management decision-making techniques and in the development of creativity techniques in the 1950s. In 1960s, the first design methods or methodology books - Asimow (1962), Alexander (1964), Archer (1965), Jones (1970) and the first creativity books - Gordon (1961), Osborn (1963) appeared. It was Herbert Simon (1969) who established the foundations for 'a science of design', which would be 'a body of intellectually tough, analytic, formalizable, empirical, teachable doctrine about the design process.' However, the 1970s became notable for the rejection of design methodology by many, including some of the early pioneers, such as, Christopher Alexander. Fundamental issues were also raised by Rittel and Webber (1973), who characterized design and planning problems as 'wicked' problems, fundamentally un-amenable to the techniques of science and engineering, which dealt with 'tame' problems. Horst Rittel's (1973) proposal of 'generations' of methods brought about a holistic view on the process: the first generation of design methods was based on the application of systematic, rational, 'scientific' methods, and the second generation moved away from attempts to optimize and from the omnipotence of the designer towards recognition of satisfactory or appropriate solutions (Rittel and Webber, 1984). In 1980s engineering design methodology of the systematic variety developed strongly (Hubka, 1982; Pahl and Beitz, 1984; French, 1985; Cross, 1989; Pugh, 1991). Donald Schön (1983) was a significant figure promoting the new view within his book *The Reflective Practitioner*, in which he sought to establish 'an epistemology of practice implicit in the artistic, intuitive processes which [design and other] practitioners bring to situations of uncertainty, instability, uniqueness and value conflict.'

The recognition of stakeholders' importance during the design process brought about more disorganized and participatory approaches in which the designer is a stakeholder of the problem together with the users (Krippendorff, 1998). According to Rittel, (Broadbent, 1979), through these developments, design methods evolve into a different form in which the designer was not the sole owner of the expertise

rather its shared by all of the participants, and design activity became a more democratic process with the involvement of users. Similarly, Krippendorff (1998) claims that the concept of ‘the typical user’ is not enough to understand users and how they make sense of their world: “THE user” is a myth. For designers, it is a self-serving myth as it constructs the superiority of the designer right into the alleged difference. Designers’ concern for the user also reflects a paternalism towards users – as if users could not speak for themselves and must be spoken for by designers, or as if users could not make sense of their world without instruction.” Accordingly he suggests following methods for inquiring into stakeholders’ concepts and motivations: Narratives of ideal futures; Surveys and structured interviews; Unstructured interviews; Focus groups; Observational methods; Protocol analysis; Ethnography; Triangulation of methods; Stakeholder participation in the design process; and Human-centered design methods (Krippendorff, 2006). As Krippendorff (2006) claims, “Human-centeredness entails conceptualizing technology in human terms. Its currency is meaning. In the special case of user- centered design, it must be recognized that communities of users determine the meanings that their artifacts have for them, not outsiders, designers for example.”

Although the literature on the definition of design and design methods is quite extensive, less is written on models of design processes. Former formulations on models of design processes were made by Roozenburg and Cross (1991) by arguing on the consensus model of the engineering design process. The consensus model is based on the systems engineering approach to the development of complex technical and socio-economic systems. According to this approach development projects are to be structured in two dimensions: the vertical dimension corresponds to the origination phases in the lifecycle of a product, and the horizontal dimension is the problem-solving process that takes place in every phase of the vertical structure (analysing and defining problems, synthesizing solutions, simulating/predicting performance and evaluating and choosing the best system). Asimow was one of the first who applied this view to engineering design. Regarding the consensus model, it is assumed that design should proceed from the general and abstract to the particular and concrete, in order to keep the solution space as large as possible. Moreover, complex problems should be split into sub-problems, for which sub-solutions are to be found and synthesized into overall solutions for the design problem (Roozenburg

and Cross, 1991). However, this model is criticized as being a weak or heuristic one because it is built upon weak knowledge (experience) about the consequences of the possible actions to be taken - in terms of the insights gained with respect to design decisions. Moreover it is claimed to be a heuristic method because following it requires sensible (knowledgeable/ informed) interpretation by the designer of the vaguely defined 'rules' and terms, and, even if properly applied success is not guaranteed (Roozenburg and Cross, 1991).

Similar approaches can be found in early models of the design process in architecture where Jones and Thornley, represented engineering design and architectural design respectively and both used similar models to help describe and teach the design process. In industrial design there was also a similar model of the design process, represented by Bruce Archer. However, in the early nineteen seventies architectural design methodologists began to criticize this shared view of the design process questioning the view that designers should avoid bringing their own preconceptions to bear on the problem. They suggested that the prevailing analysis-synthesis model of design was derived from a fallacious view of the role of inductive logic in science, and that it is inescapable that designers must rely on a form of preconception - their prior knowledge of solution types. As a result of these debates Roozenburg and Cross (1991) suggested a 'type-model' instead of the 'consensus' model in design process. The type-model has essentially a spiral structure; it recognizes the importance of pre-structures, presuppositions or protomodels as the origins of solution concepts; it emphasizes a conjecture-analysis cycle in which the designer, and the other participants, refine their understanding of both the solution and the problem in parallel; and it assumes design problems, by definition, to be ill-defined problems. Thus, design researchers and practitioners have shifted from the vertical - linear, procedural - dimension of the design process to the horizontal - iterative, problem-solving - dimension (Roozenburg and Cross, 1991).

Snodgrass and Coyne (1992) propose that design can be understood through a hermeneutical understanding process suggesting an alternative view to the well-known metaphor of design as problem solving. They claim that the use of the hermeneutic circle metaphor to understand design would be more appropriate because;

“Models such as the hermeneutical circle of understanding, the dialogical exchange of question and answer, the metaphor of play, and the metaphor of metaphor itself can appropriately fill the gap vacated by the problem-solving metaphor, the analysis/synthesis/evaluation metaphor, the atomic language metaphor, and the various other metaphors design science has drawn from the natural sciences. (...) This involves a close examination of the part interpretation plays in the design process; how preconceptions function in the processes of selection and evaluation; how preconceptions lead to pre-figurations of the design product; and how tacit experience and skills enter into the situation. (Snodgrass and Coyne, 1992, p.74)”

This view is based on Gadamer’s (1975) conceptualization of the *hermeneutic circle* which he describes as an iterative process through which a new understanding of a whole can be developed by means of exploring the detail of existence and that “understanding occurs in interpreting”. According to Gadamer (1976), understanding mediates linguistically through conversations with others in which reality is explored and an agreement is reached that represents a new understanding. In other words, as Jahnke (2012, p.33) describes,

“In this *hermeneutic circle*, the movement starts from our own prejudices (which is part of our own *horizon of understanding*); in encountering the *other* in the interpretive process, ideally our own horizon of understanding evolves and may fuse with the horizon of the other who is to be understood— Gadamer’s central notion of the *fusing of horizons*. The centrality of conversation to the hermeneutic circle is developed by Donald Schön (1983), who characterizes design as a hermeneutic circle that is developed by means of a *conversation with the situation*.”

In his article, Jahnke (2012) builds upon that understanding of a *hermeneutic circle* of Gadamer (1975), and he revises it for design by bringing Ricoeur’s (2008) term of the *hermeneutic spiral* into play towards a better understanding of design. With a critique on Gadamer’s hermeneutic circle, Ricoeur’s hermeneutic spiral consists of “a centering movement of reflection and a decentering movement of communication with others via manifested and poetically rich interpretations” (Jahnke, 2012).

In the same line with seeing design as a way of communication, Krippendorff (2014) distinguishes between three models of design processes, such as, technology-centered design, market-driven design and discursively informed design. He argues

that technology-centered design relies on hierarchical social structures and promotes a rationality that views products, individuals, cultures, and society as mechanisms; whereas market-driven design is limited to superficial innovations that do not necessarily change the existing system of production by creating ideally homogenous buyers. Yet, he claims that discursively informed design creates diversities enabling individuals to design part of their lives and addresses human interfaces with technology, mediated human communication, and social networks more profoundly than the other design process models can (Krippendorff, 2014).

Krippendorff (2014) explains these processes in detail as given below:

Technology-centered design: Technology-centered design starts with the definition of a problem, and the definition of a problem implies criteria that its solution should satisfy. In this context, once the problem is defined, the conditions that gave rise to it no longer enter the design process. Here, designing involves generating alternative solutions, evaluating them individually, and selecting at least one. The number of possible solutions tends to exceed the ability to find the best one. Therefore it is not feasible to aim at the best solution. The more realistic design strategy is to select a solution that is merely satisficing most criteria. Finally, the selected solution results in design specifications that can be executed and result in artifacts that make the original problem disappear.

Market-driven design: In market-driven design, design concerns marketable and quantifiable commodities. Thus, the purpose of design is to add value to commodities, benefitting manufacturers and buyers but unequally. Here, design is informed by potential markets for particular commodities through market research methods, such as consumer surveys. The design criteria for market-driven design are derived from statistical distributions of the answers to market research questions by anonymous subjects. In this context, designers typically explore improvements within the given product category in order to increase the perceived value in the projected market of the artifact to be. The success of the design is measured by the sales volume.

Discursively informed design: Discursively informed design starts with the collaborative articulations of visions of desirable futures. This may be of ways of living, artifacts, services, projects, social organizations, and political desires. It

explores the technological, organizational, and cultural components available for combining, transforming, synthesizing, and developing designs. After that, there is a phase of selection of the most realistic path to these futures among all conceivable ones. A realistic design is realizable with the means that stakeholders have at their disposal. It needs to inspire supportive stakeholders to join the designers' project, presenting a design that makes sense in some form or another, allowing it to grow into artifacts or acquire uses with benefits to individual stakeholders as well as larger communities of which they may well be a part.

Approaches, such as, human-centered design and design as a communication process are related to discursively informed design (Krippendorff and Butter, 1984; Krippendorff, 1989; Norman, 1988; Swann, 1991; Coates, 2003; Salles et al., 2001; Crilly et al., 2008).

2.3 The Distinction between Obtrusive and Unobtrusive Methods

In terms of data collection, ethnography usually involves the researcher participating, overtly or covertly, in people's daily lives for an extended period of time, watching what happens, listening to what is said, and/or asking questions through informal and formal interviews, collecting documents and artifacts – in fact, gathering whatever data are available to throw light on the issues that are the emerging focus of inquiry. Generally speaking, ethnographers draw on a range of sources of data, though they may sometimes rely primarily on one (Hammersley and Atkinson, 2007; Fife, 2005; Filstead, 1970; Force and Richer, 1973).

In more detailed terms, ethnographic work usually has most of the following features:

- People's actions and accounts are studied in everyday contexts, rather than under conditions created by the researcher – such as in experimental setups or in highly structured interview situations. In other words, research takes place 'in the field'.
- Data are gathered from a range of sources, including documentary evidence of various kinds, but participant observation and/or relatively informal conversations are usually the main ones.

- Data collection is, for the most part, relatively ‘unstructured’, in two senses. First, it does not involve following through a fixed and detailed research design specified at the start. Second, the categories that are used for interpreting what people say or do are not built into the data collection process through the use of observation schedules or questionnaires. Instead, they are generated out of the process of data analysis.
- The focus is usually on a few cases, generally fairly small-scale, perhaps a single setting or group of people. This is to facilitate in-depth study.
- The analysis of data involves interpretation of the meanings, functions, and consequences of human actions and institutional practices, and how these are implicated in local, and perhaps also wider, contexts. What are produced, for the most part, are verbal descriptions, explanations, and theories; quantification and statistical analysis play a subordinate role at most (Hammersley and Atkinson, 2007).

Ethnographic data generated based on the work as described above can be visual, textual or a combination of them both: they can be photographs, pictures, artifacts, video records, textual documentaries, interview records, conversation transcriptions, and etc. Among these, the focus of this dissertation is on the textual form of data which are ethnographic narratives.

According to Turner (1986), all human act is impregnated with meaning, and meaning is hard to measure. Meaning arises when we try to put what culture and language have crystalized from the past together with what we feel, wish, and think about our present point in life. A theory of the meaning of artifacts in language concerns how artifacts come to live in the narratives that their stakeholders tell each other and enact, in effect making the artifacts available for use or preventing it. Given that language directs the concerns of at least two people, but more typically that of a community, a theory of the meaning of artifacts in language is an inherently social theory. It addresses the second-order understanding that individuals have of each other and because this understanding concerns artifacts as well, it must also embrace a theory of use (Krippendorff, 2006). Moreover, stories make meaning. They operate at the level of semantics in addition to vocabulary and syntax (White, 1980; Turner, 1974). As Bruner (1986) claims it is the language and narrative

structures which organize and give meaning to an experience. Sarbin (1986) claims that the narrative is an organizing principle for human action,

“The narrative is a way of organizing episodes, actions, and accounts of actions; it is an achievement that brings together mundane facts and fantastic creations; time and space are incorporated. The narrative allows for the inclusion of actors’ reasons for their acts, as well as the causes of happening.”(p.9)

This approach emphasizes the importance of narratives in understanding human conduct. It is the narrative medium where people make sense of their thoughts and actions, and in order to gain insight about these thoughts and actions one should operate in this medium as another actor (Mead, 1967). MacIntyre (1981) similarly considers the narrative as central to an understanding of human behavior,

“(…) we all live out narratives in our lives and because we understand our own lives in terms of the narratives that we live out that the form of narrative is appropriate for understanding the actions of others. Stories are lived before they are told.” (p.197-11)

With respect to the definitions and central role of narratives in understanding humans, ethnographic narratives are in the same line with them, being produced and performed in accordance with socially shared conventions including clues for understanding everyday life of their narrators (Atkinson, 1990; Cortazzi, 2001; Denzin, 1992; Atkinson et al., 2001; Czarniawska, 2004). Generation of ethnographic narratives is the process of gathering information for the purpose of research through storytelling. As Connelly and Clandinin (1990) note, "Humans are storytelling organisms who, individually and collectively, lead storied lives." Therefore, the study of narrative is the study of the ways humans experience the world.

Ethnographic narratives can be generated via methods aiming at being less obtrusive, such as ethnographic interviews and conversations, as well as unobtrusive methods, such as content analysis of documents. In this sense, field notes, interviews, journals, letters, autobiographies, and orally told stories are all different ways of generating ethnographic narratives.

In social sciences, the widespread adoption of survey methods, a variety of interviewing techniques, and the use of questionnaires brought about the concern that the act of eliciting data from research participants is capable of affecting the

character of the responses obtained, and that the presence of the researcher within the research situation can introduce potentially distorting factors that need to be taken into consideration. In this sense, the act of asking shaped the character of the answers given (Lee, 2015). Worries about the extent to which the social sciences rely on methods that are “reactive” have encouraged interest in what came to be as “unobtrusive methods”, sources of data that avoid problems caused by the researcher’s presence or involvement in the data gathering process (Lee, 2000; Garwood, 2000; Lewandowski and Strohmetz, 2009; Rodriguez, 2003).

It was Webb et al. (1966) who introduced the concept of unobtrusive measures, and provided a host of examples in their use. In their book ‘Unobtrusive Measures’, Webb et al. proposed that the “interrogation of experience, attitude and belief” (Kellehear, 1993, p.1) might better be accomplished through the use of what they termed ‘unobtrusive measures’(Webb et al., 1966): data gathered without direct interchange between the researcher and the researched. In their view, the great benefit of unobtrusive measures lies in their “nonreactive” character, thus avoiding threats to data quality caused by the researcher’s presence. Accordingly, Webb et al. (1966) suggest that social researchers should pay more attention to sources of data such as the physical traces associated with people’s passage through their physical environment, observing situations without participating in them, and the use of documentary sources of various kinds. Instead of using interviews and questionnaires, researchers might just easily answer research questions by watching what people do, by looking at physical evidence of various kinds, or by turning to the words or images inscribed in various media (Lee, 2015).

Webb et al. (1966) defined the sources of unobtrusive measures as traces, archives, and observation:

- Traces are the physical residues that social activities leave on the physical environment. Webb et al. (1966) distinguish between ‘erosion measures’ produced through the wearing away of the environment, and ‘accretion measures’ that reflect the addition of material to the environment typically through abandonment or adornment. Wear on the library books as measured by smudges, finger marks, turned-down pages, and the like is a classic erosion measure of a book’s use by readers. Accretion measures include such things as the amount of litter or graffiti to be found in some setting.

- Archives are written records of various kinds. Webb et al. (1966) make a somewhat arbitrary distinction between what they call ‘running records’ and ‘episodic records’. Running records are the “ongoing continuing records of a society” vital registration data, for example, or recurring items in newspapers (Webb et al., 1966, p.53). Episodic records have a more discontinuous form.
- Regarding observation Webb et al. (1966) described situations in which activity in some setting is recorded without direct interaction between researcher and researched, and, in many cases, without the latter being aware that they are being studied (Lee, 2015).

Problematic aspects of using such sources emerge in different contexts. For instance, traces are easily quantifiable but it can be difficult to make inferences of them; running records reflect the organizational processes by which they are produced (Garfinkel, 1967); and finally, observation can also be problematic; what one would like to observe is not always available to be observed. In addition, to these there are still different levels of unobtrusiveness (Kagan, 1972).

If the principles from Webb et al.’s (1966) definition of unobtrusiveness is to be applied to methods that are used to generate textual data in social research, the degree of obtrusiveness can be demonstrated as in Figure 2.1:

Figure 2.1 : Ways of generating textual data in social research according to their level of obtrusiveness.

The most obtrusive way of textual data generation in social research is performing psychological experiments, which are designed to test predefined hypotheses (Lee, 2015). In this context, subjects do what the experimenter asks them to do, and

subjects who know that they are subjects of a psychological experiment may not react in ways representative of naive subjects and so may destroy the “external validity” of lab experiments (Kagan, 1972).

In this sense, surveys and questionnaires can be considered as less obtrusive ways of data generation. The term survey is usually applied to observational research which uses a questionnaire as the primary measurement instrument. The unit of analysis is almost always the individual. Surveys are frequently done at a single time point, but panel or equivalent samples designs are also used to conduct over-time research. Surveys can be generally classified as in-person, mail, telephone, mall intercept, or computer administered (Joinson et al., 2007).

The questionnaire questions are presented to the respondents by an interviewer and the interviewer records the answers. Surveys can be used with measurement procedures that use complicated visual or measurement aids. Interviewers can show respondents photographs, videotapes, or objects like product packages or sample magazines. They can use packs of cards for ranking or sorting tasks like multidimensional scaling procedures, small poster-type displays of scale points to aid the respondent in replying to verbal questions, and other visual aids that help the respondent to provide more accurate answers (Spradley, 1979).

Although experiments and surveys are useful in generating data in social research, their structures are completely predefined by the researchers leaving no room for subjects’ interpretation or intervention. Besides, they usually take the subjects out of their everyday life context and aim at measuring their behavior according to certain evaluation structures. Therefore, the data generated through these methods are usually far from having an ethnographic sense. Diary studies, interviews, conversations and document analysis, on the other hand, are more useful in generating ethnographic data and in particular, narratives.

2.3.1 Diary studies

Daily diaries are seen as being ideally suited to investigating phenomena that take the form of events happening over time at the within-person level (Bolger et al., 1989; DeLongis et al., 1992; Reis and Wheeler, 1991) since they permit access to ongoing everyday behavior in a relatively unobtrusive manner by gathering reports of events, experiences and feelings close to when they happen (Conway and Briner, 2002).

In diary studies the subjects are given diaries to document their feelings or activities during a certain period. Bolger et al. (1989) state that when several events become documented, a more credible and solid description of the person can be attained than e.g. from only one observed situation. Diaries are also claimed to reduce the retrospective reflection and to gather more contextual data in comparison to interviews, where situations are mostly memorized. The richness of the data can be seen as an advantage of the diary method. The challenge, however, lies in motivating the users and in the analysis of the open and subjective entries (Hulkko et al., 2004).

The diaries given to subjects can be completely unstructured notebooks which invite the self-documentation of everyday life of the subjects or they can be structured in, in order to include certain predetermined questions and tasks which need to be responded and completed by the subject over an allotted time period.

2.3.2 Interviews and conversations

Interviews in ethnographic research range from spontaneous, informal conversations in the course of other activities to formally arranged meetings in bounded settings out of earshot of other people. In the case of the former, the dividing line between participant observation and interviewing is hard to discern. In the case of formal interviews it is more obvious. Here, the interview represents a distinct setting, and it follows from this that the participants' understandings elicited there may not be those which underlie behavior elsewhere (Silverman 1985; Hammersley and Atkinson, 2007). There is a sense in which all interviews, like any other kind of social interaction, are structured by both researcher and participant. The important distinction to be made is between prestructured and reflexive interviewing.

Ethnographers are usually discouraged from asking questions they want to ask, their main aim is listening to people though they will usually enter the interviews with a list of issues to be covered. Nor do they seek to establish a fixed sequence in which relevant topics are covered; they adopt a more flexible approach, allowing the discussion to flow in a way that seems natural. Nor need ethnographers restrict themselves to a single mode of questioning. On different occasions, or at different points in the same interview, the approach may be non-directive or directive, depending on the function that the questioning is intended to serve; and this will usually be decided as the interview progresses (Holstein and Gubrium, 1995).

In these senses, ethnographic interviews are closer in character to conversations than are survey interviews (Burgess, 1984; Spradley, 1979). However, they are never simply conversations, because the ethnographer has a reach agenda and must retain some control over the proceedings. Whatever their form, interviews must be viewed as social events in which the interviewer (and for that matter the interviewee) is a participant observer (Gillham, 2005; Hammersley and Atkinson, 2007).

2.3.3 Document analysis

According to Smith (1987), most of the settings in which contemporary sociologists and anthropologists work are literate and contain a plethora of documents. In many stances, ethnographers need to take account of documents as part of the social setting under investigation. Documents can provide information about the settings being studied, or about their wider contexts, and particularly about key figures or organizations. They can challenge information received from participants or observation (Hammersley and Atkinson, 2007).

Regarding the unobtrusiveness of the document analysis method Lee (2015) states that the impact of the Internet on the field of unobtrusive measures has been substantial and significant,

“Large repositories of records are now readily available online. Social media sites, blogs, wikis, the ratings, rankings, and comments that appear on many Web sites, and online communities devoted to particular topics, all offer boundless research opportunities.” (2015, p.772)

Adding to Lee’s (2015) statements, the participants of the virtual context may interact exclusively through the virtual worlds they jointly inhabit, many extend their engagement to other sites, including forums, FAQ repositories, blogs, wikis, guides, review sites, videos, email, Facebook, Twitter, instant messaging, podcasts, and other virtual worlds. Furthermore, Hine (2011) claims that with due methodological caution a wide range of unobtrusive studies using Internet-derived data are possible. Many existing qualitative and quantitative approaches can be adapted to take advantage of data from the Internet. For instance, Kozinets (2010) uses the term “netnography” for doing online document analysis that can be utilized in market research, especially when investigating virtual communities of consumers. Often these unobtrusive uses of Internet-derived data allow researchers to access something

much closer to the experience of everyday life than we ever encounter in interview settings. Given an accessible field site, a researcher could follow the progress of development of a web site and explore the interpretations of those involved as to the capacities of the technology and the identity of the audience being addressed. When researchers study forums and wikis, it is in the context of participant observation research as Boellstorff et al. (2012) and Hine (2000) state. In other words, while ethnographers study texts as they link up to people in a community or activity. They help researchers to study forms of interaction, meaning making, and cultural production when they are combined to take conversations that take place in online forums as indicative of larger patterns within a culture (Boellstorff et al., 2012).

2.4 From User-Centered Design to Discursively Informed Design

Ethnography is an important method for designers and design researchers to understand users' needs, and then, generate design ideas leading to products that make sense to all stakeholders who

- see value in their realization;
- have the intellectual and economic resources to realize a design (produce it, market it, sell it, use it, satisfy governmental regulations and ecological concerns);
- enable them to integrate it in their practices of life with benefits;
- do not harm other communities (Krippendorff, 2014).

Moreover, ethnography can contribute in a more powerful way than gaining a quick and inexpensive understanding of users: as ethnographers study people that are unlike us, they can question presumptions designers might have about the application, or product, and thus contribute to product development truly focused on users (van Veggel, 2005; Kuniavsky, 2003).

Ethnography is a powerful tool to overcome the tendency to categorize users which is something common to designers: Designers usually take user data, which generally are rich in details, such as, personal experiences, stories, memories, etc., and narrow them down to some common points. That obviously helps them to deal with the variety of ethnographic data, however, narrowing down the narratives also narrows

down the perspective and the creativity of an efficient interpretation. Turner and Turner (2011) discuss this categorization process with respect to the creation of personas and cite Pruitt and Adlin (2006) in giving the advantages of the use of personas: They promote user-centeredness avoiding self-centeredness; enable to manage the complexity of users; and, represent a proxy since users are not always available for a detailed research. However, their biggest criticism is that the categorization brings about stereotypes, which they describe as “exaggerated beliefs about a given category, in this instance, people”,

“The power of stereotypes lies with their *cognitive economy* (Conrad, 1972), that is, their use allows us to assess, sum up and engage with a situation with the minimum of cognitive effort. (...) However, stereotypes also have an insidious quality: they are too easily evoked and are at work even in people who would claim that this was not the case. Once a stereotype has been activated it can shape the predictions we make about people and situations.” (Turner and Turner, 2011, p.36)

There are propositions to overcome these kinds of limitations in narrative contexts, however, one of the essential components in dealing with them is to become aware that these categories do not exist on their own as *facts* but are created throughout the dialogue with the narratives, and thus details need to be appreciated more adequately, because they are not just *deviations* from what is categorized but the elements that make the story. Details regarding the aspects, such as, environment, personal expressions and unique situations are actually what are essential to a narrative through which the individual describes the *self* within a certain experience, practice, thought or emotion (Sarbin, 1986).

Within the context of this study, the symbolic interactionist tradition in ethnography comes close to the perspective of design in terms of sense making. Symbolic interactionists focus on explanations and are usually limited to issues of interpersonal communication. Although Mead and Blumer said nothing of design and their stake in the concept differs from that of designers, the social nature of meaning is what design semantics embraces in greater detail than that provided by these scholars. Along with Mead’s reasoning, linguistic meaning is never that of only one individual. Meaning is always social and the result of conversations, collaborations and histories of coordinations among people. The same is true for artifacts, interfaces and affordances of interfaces. They all have experiential histories, which are woven

into social or cultural histories, involving many people and their linguistic categories and artifacts (Krippendorff, 2006).

This dissertation is theoretically located under discursively informed design with a specific focus on the agency of users among other stakeholders. It concentrates on gaining insight of users' thoughts, practices and wishes by adopting the ethnographic approach and adapting this approach to user research in design. In this sense, the methodology of this dissertation is based on user-centered design which is a subsection of human-centered design approach.

User-centered design creates an interaction with the users from the start of the design process, and aims to maintain it all through the iterative process. The goal is to introduce an understanding of the user's needs into design work, and transfer it into the product specifications. Furthermore, the user's view is also utilized in the evaluation of the design solutions. According to user-centered design approach the product should be optimized around how users can, want, or need to use the product, rather than forcing the users to change their behavior to accommodate the product. It suggests that in the field of new product concept and technology development, designers need to talk to users, their team, executives and other stakeholders alike (Fulton Suri, 2004). For this, they need concepts that go beyond one discipline's boundaries, which are holistic and inclusive of all the aspects that need to be part of the design domain.

Bruce Hanington (2003) divided user-centered research methods according to their goals and results in three categories: traditional, applied and innovative methods. Traditional methods include market analysis, group discussions, inquiries and interviews, which typically produce knowledge of large masses of people, and result in figures, statistics and tables. The use of these methods is often based on their value in confirming or disproving things already known, but they do not necessarily offer any new prospects (Hanington, 2003). One of the known drawbacks with the traditional ways is for instance that people's account in the focus groups of their decision to buy something need not reflect their real-life conduct. Besides, the generalizable knowledge extracted from a study of the satisfaction in the market segments is not sufficient for designing mass-customized solutions, because they do not disclose the needs of an individual customer (Pine and Gilmore, 1998). Krippendorff (2014) claims that some of the unintended consequences of market-

driven design are that its designs are predestined to be conservative, confined to what supports the economy of leading institutions, and design is redesign of appearances; it leads to conspicuous consumption; and, the less fortunate and economically deprived communities and the advanced outliers are not being served while the majority of the population is pushed towards commercially beneficial averages.

The applied methods are typically qualitative, borrowed from the humanities. These include observation and ethnography, as well as human–computer interaction (HCI) studies through methods such as thinking aloud and heuristic evaluation. The difference between traditional research and user study of user-centered design is to be found in the aims of the research. An evaluative and critical study aims at identification and explication of phenomena. Many methods are originally based on approaches from which confounding variables have been excluded as much as possible. Design, on the other hand inventories, defines and produces alternative solutions. Well-established research methods such as self-documentation, used in ethnography, sociology and medicine, are used for determining user expectations and for understanding the use of technology (Adler et al., 1998; Van Vugt and Markopoulos, 2003). Altogether, it can be stated that designers are not merely the excavators of the dictates of market research or ethnographic accounts. They need to lead, have visions of what could solve others' problems, what would be acceptable improvements even if potential users have no clue to what they expect.

The innovative methods are creative and participatory, such as workshops in participatory design, collages and camera studies. These methods, necessary at the early stage of design in particular, are intended to understand people's feelings, pleasure, values and dreams. Sometimes the objectives are thoughts never really thought, let alone expressed in words. These questions require tools to help the users to express themselves through metaphors and associations, sometimes revealing very delicate and irrational motives. Creative and projective methods offer these ways of expression (Sanders, 2002). Projective tests, such as the Rohrschach test or the fill-in test, were originally developed in psychology to study a patients' character, problems and subconscious, intended to disclose things through association that do not emerge unaided. These projections reveal things that people do not wish to see, or are incapable of seeing. The principle of psychoanalytic interpretation is that the factors affecting the emotional reactions evoked by images are subconscious, not conscious

(Rose, 2001). In the design environment, similar methods can be applied and interpreted more freely as vehicles of understanding and interaction (Gaver et al., 1999). In user study, projective methods are used for collecting qualitative data about the users and their values, dreams and needs for understanding and inspiration, and for further development of design. The innovative methods typically produce visual and verbal knowledge for delineating and discovering design opportunities, for example in participatory design workshops the user's reflections and ideas are conveyed straight to the designers through visual methods. Hanington (2003) claims that since design work is creative and visual by nature, research aiming at design should offer the same qualities.

One of the most popular approaches in user-centered design is the participatory design approach. Participatory design involves many people having different backgrounds, experiences, interests and roles in various co-design activities throughout the design process. Participatory design practices have developed significantly since the pioneering work of Greenbaum and Kyng (1991) and Schuler and Namioka (1993). The tools and techniques have different origins and have been developed for different purposes. In the tradition of Scandinavian systems design there has been a strong emphasis on the cooperative aspect of participatory design, where designers and non-designers enter into what Ehn (1988) has called a meeting of language games with prototyping of shared artefacts as a centerpiece of design dialogues. Such approaches have been taken further in suggestions among others for codesign laboratories (Binder and Brandt, 2008) or design collaboratoriums (Buur and Bodker, 2000) where design dialogues are expanded to also include collaborative explorations of the everyday practices of people. The main tools and techniques originating in this tradition have been scenario techniques drawing on approaches from drama and forum theatre, design games providing materials and setting rules for the design dialogue and mock up and prototyping techniques enabling participants to jointly construct prototypes despite different professional backgrounds or interest in the design project (Sanders et al., 2010). Other traditions within participatory design have given more concern to how non-designers can articulate design proposals in such a way that these can provide a starting point for subsequent professional development work. Here it is aimed that various toolkits to support particular groups

of potential users in making robust representations of systems or products (Müller, 2007; Sanders, 2008).

In general, participatory design is seen as a way to consider users in the design process, and elicit their tacit knowledge originated from their experiences (Spinuzzi, 2005). In this way, designers can get feedback regarding what makes sense, could work, provides value and get ideas they could not have on their own. Such knowledge is important for the design process since it cannot be easily obtained by the designers. Although defenders of participatory design approach claim that the involvement of the user provides a democratic design process, it is criticized that generally only a partial involvement of the user, which is the preparation or data collection phase is preferred. Broadbent (1979) claims that total participation was tried in some cases; however they ended up with failures, since the outcomes had several major problems that were not predicted by the user-designers. Moreover he states that even if guidance by the designer was provided in some cases, participation did not provide successful outputs since the users still considered existing solutions that were already proposed by professional designers. In addition to this, the long-drawn-out process of integrating and disseminating co-design/participatory design methods throughout the design community was criticized mainly for the following reasons:

- The belief that all people are creative is not commonly accepted (Von Hippel, 2005; Seybold, 2006).
- Co-design research is looked at as an “expensive step” in the design process. (Sanders and Stappers, 2008).
- Co-design has been criticized for its lack of formalization, making it complex to implement. The creative process is very complex and seems to work differently in each individual; thus it is difficult to adopt the steps proposed.
- Co-design has been attacked for focusing on the early design phases while putting less emphasis on the later stages of the design process (Tollmar, 2001).
- Another difficulty associated with this method is reaching a consensus in the democratic process, taking place in a series of sessions, which “jeopardizes” its efficiency (Sanders and Stappers, 2008; Doll and Deng, 1999).

Considering the advantages and disadvantages of participatory design approach, it is possible to claim that it can be productive and creative in early design phase, while collecting data from users, since it includes interdisciplinary methods and techniques through which people can express their thoughts, experiences and dreams in an effective way. However, its performance on later design phases is still debatable due to factors listed above (Morales et al., 2012).

Overall, user-centered design relies on methods that elicit, describe and interpret user experiences on the one hand, and provide room for designers' subjective insights on the other (Fulton Suri, 2004). The methods usually employed include surveys (Pine & Gilmore, 1998; Hanington, 2003), post facto evaluations, user laboratories (Ehn, 1988; Binder and Brandt, 2008; Buur and Bodker, 2000; Hackos and Redish, 1998), brainstorming techniques, participatory design or co-design (Greenbaum and Kyng, 1991; Schuler and Namioka, 1993; Sanders, 2002; Mattelmaki, 2006), and ethnography (van Veggel, 2005; Gaver et al., 1999; DeLongis et al., 1992; Salvador et al., 1995). Among these methods, this dissertation explores the use of ethnography because it is the least obtrusive method of identifying users and eliciting data about how they live and what they do in their everyday lives. In user-centered design, ethnographic methods are used to observe, talk to, and understand users in order incorporate their views in evaluating design solutions (Sanders, 2002; Muller, 2007; Seybold, 2006; Schuler and Namioka, 1993; Spinuzzi, 2005). Ethnographies tend to bring much redundancy and broader contextual information to a design problem by focusing on how people live, while surveys – the epistemological opposite of ethnography – elicit answers to questions posed from the perspectives of producers or designers, leaving respondents no space to respond on their own terms. In the context of this dissertation, it is proposed that an ethnography for design should deviate from its traditional approach in certain aspects considering the specific issues designers can make use of. Thus, a way for eliciting design-relevant information is suggested while preserving the diversity from the conceptions of users, and this dissertation is located in the context of discursively informed design with a specific focus on user experience.

Discursively informed design is based on the premise that “Humans live in conversations” because conversational use of language is humans’ primary source of combinatorial diversity (Krippendorff, 2014, 2006). Considering the design

discourse, it consists of specialized vocabularies, methods, and instruments that guide professional designers to coordinate their practices and develop their designs. Similarly, design research investigates everything that designers do and say. It publishes recurrently successful design practices that educators translate into teachable (communicable) design methods (Krippendorff, 2014). Thus, design goes beyond the metaphor of ‘problem solving’, relying more on communication and interpretation.

Discursively informed design starts with articulation of visions and aims at encouraging all stakeholders to support or take part in the process. Therefore, it includes designers, users, manufacturers, marketers, engineers as well as institutions and governments. Among the different processes that need to be conducted with these stakeholders, this dissertation focuses on users and designers which makes it part of the user-centered design approach. In this sense the definition of ‘user’ is made as someone who physically (or potentially) interacts with a design, or is a (potential) customer of a service. Therefore, buyers, such as parents to buy products for their kids, or companies that buy machinery to be used by workers are not considered within the context of the ‘user’ in this dissertation.

3. PRELIMINARY STUDY: GENERATING USER STORIES THROUGH CULTURAL PROBES TO INSPIRE DESIGN

The Preliminary Study described in this section aimed to test a method that strikes a balance between the impositions of structured surveys and the broader outcomes of ethnographies, eliciting design-relevant information while preserving the conceptions of users. One such method is cultural probes. Conceived of by Gaver et al. (1999), cultural probes rely on participants' self-documentation through photographs and narratives. This method particularly is helpful in environments where an observer's presence can distract the everyday behavior of participants, such as in hospitals or domestic spaces.

In this Preliminary Study, it was investigated how data generated through cultural probes were interpreted by designers when they were expected to relate them to design ideas. To do this, cultural probes packages were prepared that consisted of daily tasks, and they were sent to users who voluntarily participated. Once these packages with participants' records of completed tasks were returned, they were communicated to designers by asking them to make sense of these data in terms of certain design tasks. Through follow-up interviews and a content analysis of designers' interpretations and idea generation, some concepts were determined that would be helpful in generating user narratives and embedding them into design considerations.

3.1 Cultural Probes and Design Processes

Since ethnography requires researchers to spend long periods living within a culture in order to study it, practical and ethical challenges arise when it comes to pursuing ethnography in private settings. An observer's presence can be disconcerting for the observed. Cultural probes offer a less obtrusive way of gathering information about everyday life by asking participants to generate their own visual and narrative data.

The cultural probes method was developed in the late 1990s in a research project entitled Presence, financed by the EU, with the participation of researchers and designers in many European countries. The aim of this project was to generate new ideas to support the activities of senior citizens in local communities (Mattelmaki, 2006). To gain an empathetic understanding of the details of people's lives in different places, Gaver et al. (1999) developed the method to create dialogue between designers and users by providing users with opportunities to self-document certain predefined tasks linked to design research questions. The probes were regarded as useful in situations where observations in people's private accommodation would have been disturbing (DeLongis et al., 1992; Carter and Mancoff, 2005; Csikszentmihalyi and Reed, 1987). The data obtained via cultural probes were then introduced into the design process to inspire designers' innovations through a deeper understanding of potential uses. As Gaver et al. (1999) state,

“Instead of designing solutions for user needs, we work to provide opportunities to discover new pleasures, new forms of sociability, and new cultural forms. We often act as provocateurs through our designs, trying to shift current perceptions of technology functionally, aesthetically, culturally, and even politically.”

A remarkable quality of cultural probes is their subjectivity and openness, as well as their ability to provoke discussion and encourage commitment to design processes. The idea of paying equal attention to the user and designer, a notion similar to that of user-centered design, is fundamental to cultural probes. Mattelmaki (2006) introduced the term “design probes” based on Gaver et al.'s (1999) cultural probes, within the scope of user-centered design, and particularly in participatory design, to describe a means of understanding human phenomena and exploring design opportunities. Probes support this goal by being initially subjective and aiming at design through understanding the individual. As Sanders (2002) describes:

(1) Probes are based on user participation by means of “self-documentation”. Users collect and document their own practices, work as active participants in what is called a user-centered design process. Probes are a collection of assignments in the course of which users record their experiences and activities and express their thoughts and feelings;

(2) Probes look at the user's personal context and perceptions. The purposes are to record what users do in order to enrich design. Therefore, the assignments focus on user's daily life regarding social, aesthetic and cultural environments in terms of needs, feelings, values and attitudes;

(3) Probes have an exploratory character for designers. They reveal new opportunities rather than solve problems that are already known supporting both designers and users in their interpretations and creativity. They encourage users to experiment, express and explicate their experiences. The openness and interpretive flexibility also provide room for surprising or unexpected results (Sanders, 2002).

As Silverman (2000) states, it does not make sense to apply this method to a large target group because the objective of cultural probes is not statistical generalizations. Rather, it is important that the participants are motivated and experienced in the subject so that they can productively contribute. To that end, probes packages should offer participant volunteers both encouragement and the tools they need to report rich and useful data.

3.2 The Probes Package: Tasks and Tools

A probes package, prepared by designers or researchers, or by both in partnership, usually consists of task books containing daily assigned tasks, along with any equipment meant to facilitate these tasks. These tasks call on users to document their experiences, including actions, thoughts, attitudes, hopes and moods, in physical, social and cultural contexts (Mattelmaki, 2006). Cultural probes packages typically contain:

- Means for visual documentation
- Diaries
- Illustrated question cards, maps and task books

Mattelmaki (2006) explains that each of these components has distinct aims: Diaries are useful to document daily thoughts and activities in the form of narratives. Photographs give users an opportunity to document what cannot be described easily; i.e., accounts of their physical environments. Lifestyle question cards direct participants' attention to stories and opinions that they might not record otherwise.

Maps and drawings provide designers with a sense of the living spaces and contexts in which the activities of interest take place. Collages, also, can work well in this context, when questions of a sensory or abstract nature are under consideration, or when associations with powerful experiences in people's lives must be captured (Serpiello, 2002).

The probes packages are prepared and given to participants who are asked to follow the instructions in the task books and to work on the assigned tasks within the allotted times. According to Sleeswijk Visser et al. (2005), probes packages should be playful and professional at the same time; they should encourage participants to do the work requested, but still make participants feel that they are taken seriously as experts of their own experiences. Moreover, the questions explored in the probes packages should be broader than the subject of the research they aim to support. The assigned tasks should begin with sensitizing exercises that encourage participants to start thinking about their lives, thoughts and feelings.

In summary, cultural probes aim to create a communicative link between users and designers in order to inform and inspire design. They reveal aspects of people's lives not easily accessible to designers, and the narratives they generate are meant to stimulate and inspire the design of provocative interactive devices and systems (Serpiello, 2002). The most important characteristic of a cultural probes study is to render participants as 'reflective practitioners' (Schön, 1983) of their experiences.

3.3 Stories of Everyday Practices: Ironing at Home

The subject of the Preliminary Study is ironing, one of the everyday practices of housework. Ironing requires basic equipment such as the iron, filling cup (for water supply), ironing board, and starch spray, along with adequate space in the home. However, considering ironing practices within the wider context of home laundry care, some additional equipment is always needed: After being washed, the laundry has to be dried, and needs to be collected in a laundry basket. Once clothes are ironed, they need to be folded or hung, and hangers enter the ironing environment. Ironed clothes have to be stored somewhere around the ironing environment until the ironing practice is paused or finished. After that, ironed clothes need to be placed in their everyday storage spaces in the home.

In order to collect ethnographic data on the complexities of ironing practices within the wider context of everyday household life, cultural probes packages were prepared and sent to users volunteered to participate.

The probing process

The preparation phase of the cultural probes method for this study included recruiting users, formulating tasks and tools, and preparing probes packages. The selection of participants was important; priority qualifications included the performance of everyday housework that included ironing, and the motivation to participate in the cultural probes process. Participant users included three women of middle class background who were married, had children, and performed housework and ironing on their own. Additional user characteristics are described in Table 3.1:

Table 3.1 : Demographic data of users.

User	Age	Marital status	Education
User 1	60	Married	University
User 2	67	Married	High school
User 3	41	Married	University

The cultural probes package included a task book that outlined specific tasks assigned for each day as given in Table 3.2, along with the necessary tools to complete these tasks (Figure 3.1).

Table 3.2 : Time schedule and tasks.

Day	Task
1	Write down your name, age, occupation, district Draw a family and friends map Draw a map of your life Mark the stages with stickers Draw a future map for your life
2	Draw a simple floor plan of your house Mark on the plan where you like to be most
3	Take a picture of the happiest moment of the day and write down a description.
4	Name it and take a picture of: What do you like about your home? What do you dislike about your home?
5	Name it and take a picture of: What couldn't you live without at home? What would you like to get rid of at home?
6	Identify house works with mood stickers Take a picture of your ironing materials wherever you store them (You don't have to tidy up before ☺)
7	What do you like about ironing? What do you dislike about ironing? Write down the greatest dangerous/pleasurable memory of yours while ironing.
8	Write down 3 ironing rules Please describe how to do ironing to someone who has no experience about it?
9	Ironing day: Take pictures of important moments before (3 pics), while (5 pics) and after (3 pics) ironing and write down short descriptions of what you think below.
10	Replace the 'ironing table' with any imaginary thing. You can draw and describe.

Figure 3.1 : Ironing probes package.

The ironing probes package included the following tools, as depicted in Figure 3.2:

A diary. Diaries are intended to capture the activities of users in the context of their own household environments, as well as the thoughts and motivations accompanying those activities. A diary is like a workbook that asks the user to do, write or draw something each day. The diary encourages the user to continually think about the subject, and optimizes the use of the time preceding each task session. DeLongis et al. (1992) state that when several events are documented, a more credible and solid description of the person can be realized than can be gained by a single observer from a single position. Diaries can provide rich insights into users' lives; the challenge, however, lies in motivating users and in analyzing the open and subjective entries (Hulkko et al., 2004).

A task book. The task book contains open-ended instructions to describe and draw or photograph the users' environment; e.g. to compose simple maps of the layouts of their homes. To make it easy for people to express themselves, stickers depicting thoughts or feelings are included.

Projective tools. In user studies, projective tools aim to stimulate associations in order to discover users' needs, values, feelings and dreams, so that such data can be used as starting points in design. The following tools were included in the ironing probes package:

- Drawing paper
- Paper instructions for a mind map
- Pencil
- Eraser
- Sharpener
- Pen
- Colored markers (3)
- Stickers and labels
- Envelope with letter from the researcher

- Piece of chocolate, as a gift

Figure 3.2 : Projective tools of the ironing probes package.

Usually, in studies incorporating cultural probes, users are sent disposable cameras and are asked to take pictures of things in their environment or things that appeal to them for particular reasons. Users also are asked to write comments to accompany each image. This technique offers users considerable freedom and delivers rich visual data. The ideal application of this method is to provide disposable cameras to users, with instructions to minimize the time between making an image and writing comments, so that reasoning is fresh. In this study, however, users were asked to use their own cameras to take photos related to ironing tasks. This was done in the expectation that visual data would give designers information taken for granted or not easily expressed in words by users and therefore not mentioned in the diaries.

Once packages were distributed to users, the probing process spanned seven weeks. The outcomes of the process included each user's completed tasks, daily narratives, maps, drawings, and photographs. Examples of data from completed tasks appear in Figures 3.3 and 3.4.

Figure 3.3 : Completed tasks (from left to right): Day 3, Day 4, Day 6, Day 8.

Figure 3.4 : Completed tasks: ironing day.

After all users returned their completed tasks, conversations with users were conducted to elicit insights about the probing process itself. The feedback from users is summarized below:

- Users claimed that a 10-day probes period seemed long and made tasks difficult to complete without distraction.
- Users could not complete all activities requested in the task book in 10 days; users took an average of 15-20 days to complete all tasks.
- Users had to ask for operational help from household members for tasks that required drawing skills.
- In multi-layered tasks, such as ‘take a photograph and write down a description’, users sometimes forgot or neglected one of the components of the task.
- Users experienced difficulties taking photographs, but had no problems writing narratives.
- Users enjoyed writing diaries.
- Users enjoyed taking photographs in response to abstract prompts, such as ‘best moment of your day’, but had difficulties while taking photographs to document concrete or discrete tasks, such as ‘preparation for ironing’. They were more motivated when instructions limited them to one or two photographs per task.

In terms of the ethnographic data collected a structured analysis of the outcomes of cultural probes was difficult for two reasons: (1) the sample size was too small; and (2) the subjective terms used by participants to convey thoughts, feelings and

experiences were difficult to compare, and such comparisons were not the aim of this research. At this point, the process of generating and analyzing ethnographic data was concluded, and the completed probes packages were transferred to designers for examination and interpretation.

3.4 Cultural Probes as a Tool for Designers to Understand Users

In order to gain insight about how these user data would be interpreted from a designerly perspective, two separate studies were conducted: In Study I, users' probes packages were communicated to individual designers; and, in Study II, they were communicated to design students through a workshop where the students worked together in groups.

3.4.1 Study I: Procedure with individual designers

3.4.1.1 Designers

Four designers voluntarily participated in this research: All were industrial product design graduates with an average age of 30. Each designer received a set of the completed probes packages for all users, and each was assigned the same design task. According to the given instructions, each designer worked independently with the data to complete the design task.

3.4.1.2 The design task

Instructions to participating designers were as follows: "Please take these ironing probes packages as a starting point, and write down how you would make sense of them for a new ironing board design. You can also make drawings if you think they are helpful." Considering that all participating designers had a product design background, it was assumed that they would tend to generate ideas toward the design of an industrial product; nevertheless, these instructions were intended to ensure that designers would focus on a new industrial product design rather than on service or system design.

3.4.1.3 The procedure

The procedure with designers consisted of two sessions: an information and work session, and a follow-up interview. The first session included a 15-minute information period and a 90-minute work period. First, the research subject and the cultural probes methodology were explained to them; the completed sets of probes packages were distributed; and designers were encouraged to ask questions or relate any concerns. Then each designer was left alone in a room with the probes data and the assigned product design task. All designers were asked to carefully review the completed tasks in the users' probes packages to extract anything they considered important or useful for generating ideas while completing their own design task. They were also asked to annotate the process of arriving at preliminary design ideas via their own writings and drawings. Designers were told that they could ask questions or request help at any time. Each designer spent about 90 minutes working in this session.

The second session consisted of individual, informal 20-minute interviews with designers. Each designer was asked about her/his 90-minute work session and about how s/he related the information in the probes packages to her/his design process. All designers were asked to help us to understand their notes -- their re-articulations of users' narratives and their interpretations in terms of generating ideas in response to the design task (Figure 3.5).

Figure 3.5 : Examples from designers' writings during the process.

3.4.2 Study II: Workshop with design students

3.4.2.1 Design students

The workshop started with a brief introduction on ethnographic research and the use of ethnographic data in design focusing on user-centered design principles and cultural probes method. There were eight industrial design students who voluntarily participated in this workshop and all of them were on their 6th semester. Following the introduction, design students were separated into three groups and received users' completed probes packages.

3.4.2.2 The design task

Instructions to participating design students were the same as in the case with designers and as follows: "Please take these ironing probes packages as a starting point, and write down how you would make sense of them for a new ironing board design. You can also make drawings if you think they are helpful."

3.4.2.3 The procedure

The participating design students worked in three separate groups. During the workshop, it was emphasized that they could ask for help whenever they found something hard to understand, and it was encouraged that they worked in interaction with each other.

The workshop lasted for about 3.5 hours. After each group completed its work, all groups gathered together, discussed and explained their examination of data including what they found valuable, interesting and/or useful and how they utilized them in generating design ideas.

The outcomes of the workshop were writings and drawings from each group where they summarized and re-articulated the user data from probes packages and utilized them to generate design ideas which led to different concepts, products or systems (Figure 3.6).

Figure 3.6 : Workshop outcomes - from design students.

3.5 Analysis of the Relation of the Probes to Designers' Inspirations

Each designer's and design student's interpretation of the completed probes were analyzed based on their design process annotations and the results of their interviews. Remarkable similarities were found in the processes of the designers and design students.

Each designer/design student first selected and summarized the ethnographic probes data for each user and then rearticulated the data through re-writing. After that, they generated preliminary ideas by interpreting the ethnographic data in terms of characteristics for a new design (what should be featured, what should be avoided), and considered any potentially original contributions their new design might make in the everyday lives of the users. Designers/design students then proceeded to a final stage in which they translated the probes data in terms of the assigned task -- making sense of the data for a new ironing board design. A significant point about this process is that these designers/design students were asked only to accomplish this final stage; however, all proceeded through the same formative steps, eliminating, categorizing and summarizing the probes data of each user by writing, reformulating and transforming them into design thoughts.

Designers/design students were encouraged to express themselves in any mode (writing or drawing) convenient for them, with the expectation that explanations would be obtained during interview/discussion sessions. The outcomes of this research demonstrated that they preferred to represent their thoughts by writing.

It was also found that designers/design students preferred to conceptualize and generate ideas for a new ‘system’ or a new ‘experience’ of ironing rather than solely for an ironing ‘product’ as instructed in the design task.

Designers’ attention to user responses

As expected, a content analysis of designers’/design students’ writings and interpretations revealed that designers/design students were highly selective when deciding what mattered among the data contained in users’ completed probes packages. Designers/design students explained their design ideas in terms of these data during interviews. In the analysis, some specific user tasks were identified that corresponded to these design ideas, as indicated in Table 3.3:

Table 3.3 : Time schedule and tasks that generated interesting user responses for designers.

Days	Tasks	Designers’ Response	Designers’ Focus
Day 1	Personal information	-	
Day 2	Environment	✓	Environment
Day 3	Happiest moment	✓	Emotional States
Day 4	Sentiment of home	✓	Emotional States
Day 5	(In)essentials at home	✓	Environment
Day 6	House work	-	
Day 7	Sentiment of ironing	✓	Problematic Situations
Day 8	Rules for ironing	✓	Conception
Day 9	Practice of ironing	✓	Process
Day 10	Replacement of ironing board	✓	Expectations

Users’ responses to tasks eliciting sentiments about the (in)essentials of home environments included thoughts and feelings, likes and dislikes:

“The thing I like most about my home is ... my balcony and my flowers.” (User 3)

“The thing I really dislike about my home is ... the bathtub. Because it is really hard to get in and out.” (User 2)

“I can’t live without ... a television in my home.” (User 1)

“I want to get rid of ... the old refrigerator in my home.” (User 3)

Users' tasks for Day 8 and Day 9 focused on ironing practices and related experiences. Responses included, for example:

“Ironing Rule 3: Cool times of the days should be chosen (if it is summer). If it is winter, it should be done while watching TV.” (User 3)

“It is important to iron the clothes sequentially that need to be ironed in the same temperature.” (User 1)

“While ironing shirts, first the shoulders and then the back parts should be ironed.” (User 2)

In recording their sentiments about ironing, users related likes and dislikes:

“What I like most about ironing is ... the smell of cleanliness that comes from the laundry at the beginning of ironing.” (User 2)

“There were a few times when I forgot the iron plugged in and continued doing other housework. I also have memories of dropping the iron to the floor and accidentally burning my arm.” (User 3)

For the task of replacing the ironing board, users responded with ideas, for example:

“... ironing clothes on the hangers” (User 1)

“I would like to be able to iron on the floor. I really hate setting up the ironing board and then carrying it back to its place.” (User 3)

Designers'/design students' notes tended to focus on narratives about users' home environments, the things users liked or disliked, and users' memories, experiences and practices of ironing. Users had responded to these tasks by recording their own descriptions, thoughts and feelings about ironing practices, and by relating experiences, rules, recommendations and imagined alternatives. Notes written by designers while using these narratives to generate preliminary design ideas, included the following:

“Considering the ideas, such as, ‘ironing on the floor’, we can assume that people don’t like standing while ironing. (...) An environment which provides the user with different sitting facilities can be designed.” (Designer 1)

“A new form of ironing board can be designed in a way that prevents the iron from falling.” (Designer 2)

“Users have a traditional perception of ironing and I don’t think they will be open for products that propose radical changes in their ironing practices. I think the new design should not be far from a traditional ironing board but it should offer more practicality.” (Designer 4)

“An ironing board which will motivate the user for ironing by combining this chore with other kind of works: for example, the ironing board transforms the heat energy, which comes out during ironing, into another form of energy to be utilized and thus helps economizing; or a system that helps losing weight.” (Designer 3)

“Balconies and gardens are places women mostly like. A new concept of ironing practice can be designed, which is related to women’s hobbies, such as, growing flowers. Since the water that is left in the iron needs to be evacuated at the end of each ironing session; we can use this waste water for flowers.” (Designer 1)

“The design of the ironing board can respond to the user’s senses: it can give off different perfumes during ironing; look aesthetically pleasant; it can ‘speak’ to the user, especially to prevent dangerous situations.” (Designer 2)

“Considering that the users are complaining about the boringness of the practice and the time it takes, a new process of ironing can be suggested which embeds daily activities, such as, watching TV, chatting with others, etc. into this practice. To do that, the ironing equipment to be designed should have flexible qualities so that it can be adapted to environments where the user can be in social interaction while ironing.” (Designer 4)

“Users have problems in carrying and storing the ironing board; a new ironing board can be designed which will have wheels so that the user can move it easily without carrying it and experiencing physical difficulties.” (Design student G1)

“We found that for the user, the time spent for ironing is perceived as wasted. To overcome this feeling we can design a system which can combine this chore with something the user would enjoy.” (Design student G3)

“From users’ descriptions of the ironing practice we found that it consists of certain stages which are physically separated from each other. Considering that users think that ironing takes too much time – they said that the most enjoyable thing about ironing is the feeling they get when it’s finished – we thought of an experience where the whole ironing practice will be divided into these stages and the user will get some

kind of reward after completing each single stage. In this way the monotony of this practice will be avoided the user will be motivated to continue.” (Design student G2)

During interview/discussion sessions, designers/design students elaborated further on what they found interesting in user narratives and how they transformed those aspects into design ideas.

In summary, the analysis revealed that designers/design students tended to selectively utilize certain categories of ethnographic data, such as lifestyle and environment; experience and practice; and visual information and imagination.

Lifestyle and Environment Related Analysis: In Figure 3.7 below, concepts such as ‘environment’ and ‘likes & dislikes’ refer to user narratives about issues surrounding the routines of everyday life, as well as to general thoughts and feelings, descriptions and confessions about daily situations, and references to things or situations they wished to have or to avoid in their domestic environment. Here, these responses are categorized broadly, as ‘lifestyle’. The transformation of the ‘lifestyle’ concept into design was accomplished by focusing on users’ positive emotions and expressions; that is to say, designers sorted from these narratives especially what users had declared ‘good’ and ‘meaningful’. Designers then used those selected lifestyle stories to stimulate ideas for making ironing practices more enjoyable, for example, the “connection between watering flowers with the waste water from the iron” or “a wardrobe that irons clothes while they are on hangers”.

Experience and Practice Related Analysis: Categories in Figure 3.7, such as ‘experience’ and ‘practice’, refer to users’ descriptions of their own current ironing practices and past ironing experiences. With respect to this category, designers focused on described practices as ‘problematic situations’ encountered by users, such as safety issues, physical stress and fatigue, difficulties with ironing board set-up and storage, and the time consumed in various phases of ironing. Accordingly, designers viewed problematic situations as opportunities to improve the functional qualities of ironing products. Conceiving of problems as opportunities led to preliminary ideas, such as, “a laundry basket that can be mounted below the ironing board” or “a foldable ironing board which looks like a piece of the furniture set of the living room when it is folded and does not need to be transported to or stored in another room”.

Visual Information and Imagery Related Analysis: One task in the probes package asked users to replace the ‘ironing table’ with any imaginary thing, and to illustrate their imagined alternative way of ironing with drawings and short captions. As expected, designers did not adopt the ideas of users directly, but took these drawings and narratives as prompts leading to a deeper understanding of users’ perceptions of ironing practices. Designers referenced these narratives to speculate on users' initial reactions to any potential new designs, and especially on whether users might welcome radical innovations. Accordingly, designers made inferences, such as, ‘the new ironing board design should not have a radical look, only practical solutions should be offered’ or ‘the user is not open to innovation, she should not feel a radical change in her ironing practice, but some practical support’.

Figure 3.7 : Designers’ analyses and interpretations of ethnographic data.

The preliminary categories derived from the analysis, as outlined in Figure 3.7, can help designers/design students in their initial encounters with ethnographic data. In

sum, they can serve as a start to systematic approach that enables designers and design students to manage the variety and complexity of ethnographic data.

3.6 Lessons Learned and Discussion for Improvements

In the examination of the cultural probes method as a source of inspiration for designers, it was explored how ethnographic data might be interpreted and translated into design ideas. In the process, two main issues were investigated: What types of ethnographic user data would be of interest to designers, and, how might designers make use of these data? The results and the analysis of this study demonstrated the usefulness of the cultural probes method for gathering ethnographic data relevant to design; it also revealed limitations of the method.

The Preliminary Study demonstrated that using cultural probes revealed many advantages. First, it was important that probes helped to minimize the possible effects of a researcher's presence and offered users the opportunities and means of self-documentation. Another advantage was that users had a certain time period in which to think and write about the issues probed via daily tasks.

The most salient limitations were that users considered the probe packages 'too structured' in terms of impositions on their daily lives, and that there was a lack of interaction between the researcher and users during the probing process. Users related that they enjoyed the writing tasks; however, they had difficulties understanding some of the tasks. They also had difficulties taking pictures and completing some tasks that required basic drawing skills.

Conducting cultural probes with large numbers of users would be infeasible. This makes it difficult to obtain data representative of a larger population of users. In addition, participation is time consuming and requires a higher level of commitment from participants than other methods. Finally, recording experiences, thoughts and feelings is a task quite unlike engaging in the everyday practices themselves, and the extent to which the probes and the data they produce are artificial or genuine is far from clear.

To recapitulate all findings briefly, one of the remarkable outcomes was that designers and design students followed a significantly similar path in working with the ethnographic data: Although it is usually assumed that designers prefer visual

data to written texts, or drawing over writing, it was observed that designers could be encouraged to document their own process of generating design ideas in the form of written texts, and to use these texts as tools in their creative process. In fact, in the context of this study, the designers' and design students' whole process of understanding and interpreting users' narratives was manifest in writing, and in thinking by writing. In addition, it was observed that again both designers and design students preferred to work on broader 'concepts' rather than only on the discrete 'products' of a design task. Although all designers and design students who participated in this research had an educational background in product design, they preferred to think in terms of experiences or services rather than products.

The content analysis of designers' and design students' writings and their explanations during interviews demonstrated that they were especially interested in users' narratives rather than in the drawings users made or the photographs they took. Among the many narratives available in the probes packages completed by users, both designers and design students focused on those that contained expressions about lifestyle – based on expressions related to emotional states in everyday life; experience – based on past memories and situated practices of ironing; and imaginary – based on wishes and expectations for a better ironing experience. In examining how designers make use of these narratives, it was discovered that their interpretations rely heavily on users' expressions about (1) situations that evoke positive emotions related to lifestyle; (2) problematic experiences related to the situated practice; and, (3) expectations and possible responses towards innovation.

Finally, the analysis of the findings from this preliminary study demonstrated that narrative is an important tool for gathering ethnographic data for design. It also provided insight on what kind of user narratives are mostly utilized by designers. By taking these narrative contents and emerging concepts that led to idea generation into consideration, the questions to be asked to users were revised and improved for the Main Study.

Regarding the use of cultural probes method, the limitations probes packages impose and the lack of interaction between the users and the researcher were important shortcomings for this study. Therefore, it was decided that using interviews and conversations (Merzali Celikoglu, 2014) instead of cultural probes would be less obtrusive in generating ethnographic narratives and more effective in retaining their

diversity, which would be more appropriate methods to be used within the context of this dissertation.

4. MAIN STUDY STAGE I: GENERATING ONLINE CONVERSATIONS TO INSPIRE DESIGN

Based on the findings from the Preliminary Study, certain decisions on the subject, method and structure of the Main Study were made, as explained below:

- The Main Study was structured in four steps:
 - i. First, an ethnographic research was conducted that was based on online conversations with different users of virtual communities.
 - ii. These conversations were transcribed into narratives. These narratives were grouped in terms of categories of answers to questions and selectively communicated to designers.
 - iii. Designers were instructed to go through these narratives and mark the ones that were surprising to them or stimulated design ideas. To keep the reading process as natural as possible for designers, they were asked to use highlighter pens to mark the narratives they found interesting or useful.
 - iv. Following this, designers were interviewed in order to hear their detailed explanations regarding their notes and additional thoughts.
- With lessons learned from the Preliminary Study, it was discussed that “ironing”, as the subject of ethnographic research in discursively informed design context would be limited considering that (1) it was completely dependent on the use of a product and (2) it heavily focused on a practice requiring a special environment, home. Thus it was far from being a topic of everyday conversations and describing the practice was harder for the users than its implication. Therefore, the subject of the ethnographic research was chosen to be ‘issues of health, eating, fitness, and overweight’ as these were related to much broad and diverse experiences, and popular subjects of

everyday conversations about which people like to talk, complain, share their experiences and give advice to others.

- Conversation was chosen as the most natural method for the ethnographic research in step (i) since in discursively informed design, the verbal expressions are the core data of the research subject, i.e. narratives, of this dissertation. This method is also one of the least obtrusive methods compared to interview or cultural probes. Moreover, it enables interaction between narrators and the researcher. At the beginning of the research, it was observed that there was a rich source of ongoing conversations and discussions among people in Internet-based platforms. Thus, for the ethnographic research in the first step (i), these virtual communities were joined and all conversations were conducted online.
- Another form of open-ended interviewing related to ethnography focused on experiences of designers when reading the narratives, conversing with the designers on their reading, marking, note taking and idea generating.

4.1 Selection of Participants or Self-Selection

As Hammersley and Atkinson (2007) state, the criteria by which to choose participants can vary considerably, even over the course of the same research project. When studying a large organization, the researcher may not have the time and resources to interview all the occupants of a particular role, and may therefore try to select a sample of them that is representative. Doing this may be approached in much the same way as in survey research, selecting a suitably sized sample at random, or a stratified sample that takes account of known heterogeneity among the members of the population. In such circumstances, the researcher will have to select interviewees as best s/he can in order to try to achieve representativeness – though it may be possible to check the success of this by asking participants for their judgements about what are and are not representative views, and/or by comparing the characteristics of the sample with what is known about the population as a whole (Hammersley and Atkinson, 2007). However, a representative sample of participants is by no means always what is required in ethnographic research. This is especially so where the primary concern is with eliciting information rather than with documenting perspectives or discursive practices. Here, the aim will often be to target the people

who have the knowledge desired and who may be willing to divulge it to the ethnographer. Identifying such people requires that one draw on assumptions about the social distribution of knowledge and about the motives of those in different roles. Dean et al. (1967) provided a typology that illustrates the sort of thinking that can lie behind such strategic selection of interviewees:

- Informants who are especially sensitive to the area of concern:
 - a. The outsider who sees things from the vantage point of another culture, social class, community, etc.
 - b. The rookie, who is surprised by what goes on and notes the taken-for-granted things that the acclimatized miss. And, as yet, he may have no stake in the system to protect.
 - c. The nouveau statused, who is in transition from one position to another where the tensions of new experience are vivid.
 - d. The naturally reflective and objective person in the field. He can sometimes be pointed out by others.
- The more-willing-to-reveal informants: Because of their background or status, some informants are just more willing to talk than others.
 - a. The naïve informant, who knows not whereof he speaks. He may be either naïve as to what the fieldworker represents or naïve about his own group.
 - b. The frustrated person, who may be a rebel or malcontent, especially the one who is consciously aware of his blocked drives and impulses.
 - c. The ‘outs’, who have lost power but are ‘in-the-know’. Some of the ‘ins’ may be eager to reveal negative facts about their colleagues.
 - d. The habitué, or ‘old hand’ or ‘fixture’, who no longer has a stake in the venture or is so secure that he is not jeopardized by exposing what others say or do.
 - e. The needy person, who fastens onto the interviewer because he craves attention and support. As long as the interviewer satisfies this need, he will talk.

- f. The subordinate, who must adapt to superiors. He generally develops insights to cushion the impact of authority, and he may be hostile and willing to 'blow his top' (Dean et al., 1967, p.285).

Within the context of this study, for the selection of participants, the main criteria were that the participants were actively involved in weight loss issues, willing to share their experiences and thoughts with others, and were easily accessible. A brief research was done on how to reach people who share their experiences and thoughts regarding weight loss issues, and the findings were that these people were generally involved in virtual communities where they talk about health, fitness and weight loss. There was also a large number of individual people who were called 'bloggers', meaning that, they were keeping online digital diaries of their stories of healthy living or weight loss. However, any communication with the blog owner or her/his followers through blogs was strictly limited due to the reasons, such as: the number of characters a post could include was very limited; the bloggers are more encouraged to write down monologues instead of joining conversations; and, the people posting to blogs are usually interested in making comments to the bloggers rather than conversing with each other. Therefore, blogs were utilized as sources of document analysis, which helped the researcher in familiarizing with the main issues in health and weight loss. Among many virtual communities, the ones that were seldomly active, required payment to be joined or had a small number of participants were eliminated and two were selected, which had large numbers of members who were focused on health concerns, especially on issues regarding overweight and fitness. These selected virtual communities were Weight Watchers Community and FitBit Community. The selection of the Weight Watchers Community and FitBit Community was based on the following reasons:

- the depth of their involvement and popularity in health issues,
- the volume of conversations,
- the ease of joining without disrupting ongoing conversations.

Weight Watchers is an organization founded by Jean Nidetch in early 1960's providing people with services and products who are trying to lose weight. The company offers its members services regarding the issues of motivation, guidance, calorie calculation, and support, such as PointsPlus® system, digital tools and mobile

apps, recipes and customized meal ideas, and, personal coaching and group meetings. After registering on the website and becoming a member, one can formulate discussion groups focusing on certain issues. These groups can be public or private. The group members can talk to each other online to discuss things, get advice, share experiences, provide motivation, and etc. In addition, a blog space is provided for each member where they can keep a digital diary, share recipes, and etc. Since the website's search engine offers main categories, such as fitness, recipes, weight loss, and etc. where certain groups and blogs are clustered, every member can easily access and participate in the conversations and blogs about the issues s/he is interested in (Figure 4.1).

Figure 4.1 : Conversations with Weightwatchers Community.

FitBit is a company founded by Eric Friedman and James Park in 2007 producing and selling wearable products for fitness and health that consist of sensors and wireless technology and mainly track and record certain exercise activities (Figure 4.2).

Figure 4.2 : Fitbit activity tracking products.

The company presents its products in three main categories, such as, everyday fitness, active fitness and performance fitness. To be able to use a product of FitBit, one has to register as a new member of the community on the website, and synchronize the product with her/his account on the website. Once s/he becomes a member of the community s/he can create discussion topics and participate in all discussions. The website's search engine offers main categories, such as fitness, recipes, weight loss, and etc. where certain groups and blogs are clustered (Figure 4.3).

Figure 4.3 : Conversations with Fitbit Community.

4.2 Framing the Conversations: Formulation of Questions

In this research, two types of approaches were adopted to gather ethnographic information:

- i. First, related online documents and ongoing conversations were identified and examined without active participation. These were group discussions among virtual community members and blogs written by individuals. The scope of this examination was based on the topics of ‘weight loss’ and it covered ‘most followed’ and ‘active’ blogs of Weight Watchers members, ‘hot topics’ of discussions between FitBit members, and ‘most followed’ blogs of individual people who are not members of these communities. This was the sensitizing phase of the research and enabled a general understanding of what these people talk about and how the conversations were structured. Along with the findings from the Preliminary Study, as described in the 3rd Chapter, this non-participant observation phase was helpful in formulating the main questions and issues for the forthcoming conversations that would be conducted with these members. Moreover, this non-participant phase provided the necessary information about how to approach these members and become one of them by learning their sensitivities, thoughts and practices about these issues.
- ii. In the second phase of the data gathering, a participatory approach was adopted where becoming a member of these communities, participating in ongoing conversations by raising and answering questions, starting new discussions and participating in their games took place.

During the conversations, contents with certain aspects were investigated more carefully while trying to avoid manipulation or disturbance of the natural flow of the conversations. These aspects were predefined as issues to be examined in form of questions by combining the findings from the Preliminary Study with the findings from the non-participant observation phase (i) of the Main Study. The main questions to be asked in these conversations were defined in general, as:

- What are you worried about?
- How is your problem manifest to you?

- What do other people say?
- What do you do about your problem?
- What calls for attention (time, money, effort)? What would you prefer instead?
- What draws you into difficulties?
- How do you measure progress or decline?
- What are the stories or difficulties you experienced in the past?
- What would you suggest to someone who has little/no experience about this issue?
- Could you imagine something extraordinary that could help you during this process (of weight loss)?

Although the main subject of each question was kept, the form of each question changed according to the flow of conversation. Thus, each question was asked in many different forms in each conversation.

4.3 Participating in Online Conversations: Method and Process

In the context of this research, it was aimed to find a balance between obtrusive and unobtrusive methods. Therefore ethnographic methods which are less obtrusive, such as participant observation and conversation, were used in combination with unobtrusive methods, such as, document analysis.

Considering that participant observation is the embodied emplacement of the researching self in a field site as a consequential social actor, it is the essential approach in ethnography. Through participant observation, ethnographers step into the social frame in which activity takes place. Becoming directly involved in the activities of everyday life provides an intimate view of their substance and meaning. Participant observation is not unreflective engagement; it is a refined craft that entails a particular kind of joining in and a particular way of looking at things that depends on the research question, field site, and practical constraints (Boellstorff et al., 2012). The ethnographer seeks a deeper immersion in others' worlds in order to grasp what they experience as meaningful and important. With immersion, the field

researcher sees from the inside how people lead their lives, how they carry out their daily rounds of activities, what they find meaningful, and how they do so. In this way, immersion gives the fieldworker access to the fluidity of others' lives and enhances his sensitivity to interaction and process. Furthermore, immersion enables the fieldworker to directly and forcibly experience for herself both the ordinary routines and conditions under which people conduct their lives and the constraints and pressures to which such living is subject. Goffman (1989, p.125), in particular, insists that field research involves "subjecting yourself, your own body and your own personality, and your own social situation, to the set of contingencies that play upon a set of individuals, so that you can physically and ecologically penetrate their circle of response to their social situation, or their work situation, or their ethnic situation." Immersion in ethnographic research, then, involves both being with other people to see how they respond to events as they happen and experiencing for oneself these events and the circumstances that give rise to them (Emerson et al., 2011).

For the cases where the sample group of participants is a virtual community, and where the interaction with this group occurs only through an online digital medium, the definition of participant observation is revised and adapted to the virtual context. As Hine (2000) and Boellstorff et al. (2012) describe, studying virtual communities can be described as 'virtual ethnography' where traditional methods of ethnography need to be adapted to online digital contexts. They redefine the participant observation in terms of virtual ethnography where the researcher participates in virtual activities of these communities, such as, participating in discussions, playing computer games, and the like, since these provide the researcher with a deeper understanding regarding the thoughts and experiences of these communities.

In this study, all conversations were Internet-based. The methods used to generate these data were ethnographic in their essence, with specific notions to virtual ethnography; however, they deviated from traditional ethnography. Here, the participant observation occurred in two ways: one of them was participating in group discussions, and the other one was participating in the games called 'challenges' of these communities. Challenges were friendly competitions between community members, which were basically won by the one who makes the highest progress towards her/his target of weight loss, healthy eating or exercising. Participating in these challenges provided the opportunity of getting closer to participants'

experiences such as keeping track, exercising, calorie counting, and the like. Furthermore it was helpful in learning how participants were talking to each other as friends.

In order to join ongoing conversations and stimulate new ones, the first step was becoming a member of the selected communities, i.e. Weight Watchers and FitBit, by registering on their websites and configuring a member profile. The member profile that was created in this context was open to all members of the communities and published the username, age, gender and profession of the researcher. In this sense, the researcher's identity was as exposed as every other member's identity in these communities. The researcher introduced herself to these communities as a design researcher having similar health and weight loss concerns and trying to hear about other members' feelings, experiences and advices on these issues. The researcher also spoke out that this information could be utilized by designers to develop new ideas. Thus, the ethnographic research conducted with these participants had an overt character rather than being covert. It was observed that these communities saw the identity and profession of the researcher as secondary and even irrelevant, to her experiences in health issues. The researcher received no questions about her profession or research although she mentioned them in each conversation she joined. This attitude signified that community members accepted the researcher as one of the members, and it provided the researcher with the advantage of observing and joining the conversations without disturbing their natural flow.

After becoming a member of these virtual communities, the second step was examining the relevant discussion groups by using the websites' conversation topic categories. These categories were formulated by different members of these communities. Among many different categories that included topics, such as, recipes, diets, pregnancy and etc., the categories related to weight loss and healthy eating were selected.

Following the selection of relevant discussion groups, the active participation in ongoing conversation took place. Although conversations had many different topics, such as, work, children, cooking and the like, the predefined questions (in section 4.2) kept the researcher focused on certain aspects, such as, the difficulties, experiences or advices of the participants. After a while, new conversation topics

were formulated and other members were invited to join these new conversations by the researcher.

4.4 Deviations of the Used Methods from Their Traditional Applications: Advantages and Limitations in the Virtual Context

The ethnographic research in this study was conducted in the virtual context, and the ethnographic methods used here had to be adapted to the virtual context. This adaptation was necessary in order to conduct the research properly through this specific medium and make this research process as efficient as possible considering the issues, such as, participant selection and data collection. Although the ethnographic qualities of these methods were kept, their applications deviated from the traditional ethnographic context, and these provided certain advantages in the virtual context along with their limitations (Boellstorff et al., 2012).

4.4.1 Selection of participants or self-selection

As Cannon (1992) states, a crucial issue that arises once the decision has been made to collect data via conversations is: with whom should the researcher converse? Sometimes, particularly in the context of participant observation, people select themselves or others for interview. While often welcoming self-selection the researcher needs to retain the leeway to choose people for interview. Otherwise there can be a danger that the data collected will be misleading in important respects, and the researcher will be unable to engage in the strategic search for data that was essential to reflexive approach (Cannon, 1992).

According to Evans (1991), gatekeepers or other powerful figures in the field sometimes attempt to select interviewees for the ethnographer. This may be done in good faith to facilitate the research, or it may be designed to control the findings. Sometimes the difficulty of getting access to participants determines who will and will not be interviewed. But usually there is a choice of potential interviewees, and then decisions have to be made about how many to interview and whom these should be (Hammersley and Atkinson, 2007). In virtual context, it is stated that the simplest and most widely used approach to gaining access to users of specific websites is for a researcher to contact website providers or discussion-board moderators directly (O'Connor et al., 2008; Kivits, 2005; Murray and Sixsmith, 1998).

Gaining access to participants was quite complex in the virtual context. In some cases it was necessary to negotiate with gatekeepers before the researcher could contact the people she wanted to talk. For instance, before posting a message to a discussion group for the first time, the researcher introduced herself to the moderator of the group and asked for her permission to join the group. This attempt ended up positively for the researcher and her first post to the group was responded by the moderator in a friendly manner which encouraged other group members to join the conversation.

As suggested by many scholars (O'Connor et al., 2008; Sharf, 1997; Orgad, 2005; Kivits, 2005), the Internet simplified matters in many ways, as it provided access to groups of users with tightly defined and narrow interests. The members of these groups were usually dealing with problems of overweight and similar health issues for whom face-to-face conversations on these issues could be disturbing or embarrassing. The issue of anonymity of these members in the virtual context had some consequences. Any profile that was created by a member could be a fake one, and most probably the researcher could hardly notice that. On the other hand, by being anonymous, members were more comfortable in talking about their problems and sharing personal stories. This was an important advantage for this research as the most important thing was hearing about these people's thoughts, feelings and practices in a way they could comfortably express themselves.

4.4.2 Data collection from blogs and online discussions

It has been suggested that the Internet provides an ideal opportunity for covert ethnography, since it is possible to lurk in many online environments without being visibly present to participants. This unobtrusive virtual research appealed through an idea that settings could be studied in their undisturbed natural state (Paccagnella, 1997; Hine, 2008). One of the ways to do that was data gathering from blogs, websites, and discussion groups. However, searching forums for specific information was time consuming, as they were not always organized in a way that makes searching for a particular point easy. Boellstorff et al. (2012) suggest that to use forums efficiently for this purpose, the researcher can seek guidance from group members as to where the salient historical details are buried. Noting who is adding

new materials versus editing, as well as periods of high versus low activity, can reveal a group's collaboration patterns.

Gathering data from discussion groups was a process of lurking for the researcher at the beginning. As Beaulieu (2004) documents, some researchers believe that lurking should not be taken as ethnography in itself, since to lurk implies a lack of engagement and ability to develop the in-depth understanding from the inside that ethnography requires. Nonetheless, it is clear from a part of the literature that the term 'ethnography' is sometimes being used in senses which stretch the notion of immersive learning to the limits and which rely, rather, on collecting a corpus of messages, or on observing interactions without making any attempt to interact with members. Such an approach risks losing the benefits of trying out emergent knowledge in practice that the 'participant' part of participant observation affords. Furthermore, Hine (2008) states that a researcher who simply lurked without ever participating would miss the experiential knowledge that come from feeling what it is like to post a message and wait to see if it will ever receive a reply. A lurking ethnographer would also find it hard to experience the mixture of forms of engagement that can prevail where the public space of a bulletin board is supplemented by various kinds of private chat and email (Mason, 1996; Hine, 2008, Boellstorff et al., 2012).

Keeping their shortcomings in mind, this passive gathering of data was, however, a useful part of the researcher's repertoire when it mirrored the practices of ordinary members of a group, and where it allowed for a period of cultural familiarization in order to facilitate a relatively smooth entry into active participation (Hine, 2008).

4.4.3 Participant observation and its application in virtual context

The discussion of participant observation illustrates both the flexibility and the rigor that emerge from the apparent paradox of combining "participation" with "observation". In this context, "flexibility" refers to the ways in which ethnographers calibrate the practice of participant observation to encounters in the field, and "rigor" refers to the ways that robust ethnographic insights are confirmed by participant observation in a range of social encounters with different participants and in different contexts over time. These qualities of flexibility and rigor contributed to the central role of participant observation in ethnographic methods (Boellstorff et al., 2012).

As Emerson and Pollner (2001) state, in learning about others through active participation in their lives and activities, the researcher cannot be a completely neutral, detached observer who is outside and independent of the observed phenomena. Rather, as the ethnographer engages in the lives and concerns of those studied, his perspective “is intertwined with the phenomenon which does not have objective characteristics independent of the observer’s perspective and methods” (Mishler, 1979, p.10). But, the researcher cannot take in everything; rather, s/he will, in conjunction with those in the setting, develop certain perspectives by engaging in some activities and relationships with those under study follow political fault lines in the setting, exposing the ethnographer selectively to varying priorities and points of view. As a result, the task of the ethnographer is not to determine “the truth” but to reveal the multiple truths apparent in others’ lives (Emerson et al., 2011).

Another issue about the participant observation method in traditional ethnography is that the researcher’s presence in a setting inevitably has implications and consequences for what is taking place, since s/he must necessarily interact with and, hence, have some impact on those studied. But “consequential presence”, of then linked to reactive effects (that is the effects of the researcher’s participation on how members may talk and behave), should not be seen as “contaminating” what is observed and learned. Rather, these effects might provide the very source of that learning and observation (Clarke, 1975, p.99). Relationships between the field researcher and people in the setting do not so much disrupt or alter ongoing patterns of social interaction as they reveal the terms and bases on which people form social ties in the first place (Emerson et al., 2011).

Considering the virtual context, the participation that usually occurs by actually being at the same geographical place and communicating with the participants through varied channels could not be performed in comparison to the traditional participant observation methods. Thus, important components of ethnographic research, such as, gestures and facial expressions were missing during the interaction with the participants. However, as Boellstorff et al. (2012) suggest in many cases, virtual worlds allow researchers fuller participation than in physical world contexts: “For instance, when observing slash-and-burn agriculture in Papua New Guinea, Bonnie lit no fires and felled no trees. Yet in Second Life (an online game played by virtual communities), Tom learned how to build things, including Ethnographia, his

home and office in Second Life, just as his participants had. (Boellstorff et al., 2012, p.69).” In the context of this study, considering that the ‘field’ is the online platform and practices to be investigated are conversations, games and the like, in virtual context, participant observation took place, for instance, whenever a message was posted to a discussion group and responses were awaited. Regarding this, Hine (2008) argues that researchers in virtual ethnography are already participants to some extent, since they employ computer mediation to observe and interact with their research subjects. The use of the same medium to interact with subjects as forms the topic of the research places a particular emphasis on reflexivity since ethnography in virtual context is “in, of and through the virtual” (Hine, 2008).

4.4.4 Online conversations and interviews

When considering conversations and interviews in virtual context, the first aspect they deviated from traditional conversations was the lack of visual indicators. In the disembodied interview, all the subtle visual, non-verbal cues, which can help to contextualize the interviewee in a face-to-face scenario were lost. This represented an immense challenge to the researcher, given that the traditional interviewing relied heavily on the use of visual and physical cues and pointers in order to build rapport and gain the trust of the interviewee (O’Connor et al., 2008). However, this lack of visual indicators was compensated by other advantages in the virtual context as O’Connor et al. (2008), Boellstorff et al. (2012), and Hine (2000) state. According to them, a key advantage of the anonymous nature of online interaction is that respondents, secure in the knowledge that they are anonymous, have been found to answer with far more candor than those taking part in face-to-face interviews. As Joinson et al. (2007, p.23) argue, ‘Visual anonymity increases identification with a group by increasing perceived homogeneity of the group ... the social cost of self-disclosure is reduced through relative anonymity.’

Online interviews and conversations had also the advantage when the participants were in a potentially embarrassing or stigmatizing condition and could better be communicated ‘at a distance’ when face-to-face interviewing and personal recruitment to a study might prove more troublesome (Stewart and Williams, 2005). Such research does not necessarily study ‘naturally occurring’ communities that exist in cyberspace, although in the course of setting up noticeboards and chat rooms

researchers can create temporary, research-situated groupings that approximate to online focus groups. Their advantage over face-to-face focus groups was that they could persist more or less indefinitely, and actors could be enrolled on a rolling basis, while participation was not restricted by constraints of time and travel. Researchers who use online means of accessing participants and participants are often tapping into existing networks of social actors who maintain ‘virtual’ communities through sustained interaction by digital means.

Regarding the identity of the participants, O’Connor et al. (2008) state that an advantage of online conversations is that although profile data can be gleaned by direct questioning of users or by more covert means, there is, in fact, no need for any of the participants to divulge personal information. This represented an advantage because it helped to minimize interviewer bias. As a disadvantage, however, participants may not always be what they seem, as it is possible in an online environment to hide or invent personas (Hewson et al, 2003). However, the question in this study was not who they were in the physical world or how to validate what they were saying. Even if someone adopted a persona that was unlike her/his real one during this research, the conversations were “real” in making sense to others in their responses. In fact, this has the advantage of tapping into possibilities that can be imagined, which is what designers are really interested in.

In overall, questions of truth and veracity can show up online and offline; it is often not possible to verify participant claims, nor is it typically necessary to do so, since researchers are interested in cultural meanings and practices and can usually confirm broad patterns through participant observation and conversations with other participants (Boellstorff et al., 2012).

5. MAIN STUDY STAGE II: TRANSCRIBING THE CONVERSATIONS INTO ETHNOGRAPHIC NARRATIVES AND COMMUNICATING THEM TO DESIGNERS

The generation of ethnographic conversations with the participants resulted in obtaining a large number of narratives that had a broad range of topics, which were relevant and/or irrelevant to the issues of health, weight loss and overweight. The next step of the research was to bring these narratives into design considerations. In order to be communicated to the designers, these narratives needed to be organized and prepared as a document.

5.1 Preparation of the Ethnographic Narratives

To start with the preparation of the ethnographic narratives, first the transcriptions of the conversations were examined and irrelevant contents that were, for instance, about the weather, fashion and the like were removed. The rest of the conversation contents were extracted as quotations and organized as a document that had sections based on the previously defined questions. The document was prepared in a way so that under each question-section quotations from different participants were listed.

Figure 5.1 below demonstrates a sample of the narrative document that was prepared.

(A) What are you worried about?

A1: (F) I want to lose weight because the way I feel about myself inside does not match what is on the outside. In my head, I'm a vibrant, young(ish), active woman, yet what I see on the outside is none of those things. I don't want my overweight body to be the first thing that someone notices about me, and I want to be healthy and fit. I have a few health issues that are directly related to being overweight - high blood pressure and high cholesterol. I don't want to wait around and develop more issues, I'd like to get it taken care of as soon as I can.

A2: (F) I feel like I've got to be healthy for my kids—to model good eating habits for them, to make sure that they're eating well, and so that I have the energy to nurse my son and keep up with my incredibly energetic preschooler

Figure 5.1 : Sample from narrative document.

Here, the title '(A) What are you worried about?' shows that narratives regarding participants' worries about health and weight loss issues were listed in this section. Each quotation under each section belongs to a different participant and is given a unique code. The code 'A1' here, means, that this quotation is related to the section (A), i.e. the question 'what are you worried about', and that it had the number '1' in this section. Each quotation was also marked with '(F)' or '(M)' indicating the participant's gender.

This coding was especially useful for the forthcoming process since there was a large number of quotations with which each individual designers was going to work. The coding enabled the standardization of the narrative document by providing easy tracking for the researcher and it avoided possible confusions.

All relevant quotations were organized into this narrative document, which was prepared in Microsoft Word format. The narrative document consisted of 125 different quotations. To keep the instructions as standard as possible, a reading protocol for designers was defined and added to the document as the front page. This front page gave brief information on the research, instructions to be followed and the contact information of the researcher.

5.2 Communicating Ethnographic Narratives to Designers

As this dissertation was targeted to designers and design students, two separate studies were conducted (1) with designers and (2) with design students, in order to obtain interpretations of these ethnographic narratives as broad as possible in terms of design.

5.2.1 Study III: Designers' case

5.2.1.1 Designers

Designers were invited individually via e-mail to participate in this research and they were sent the narrative document. A number of designers responded negatively pointing to the length of the document. Six designers responded positively and agreed to work with the document. All of them were product design graduates.

They were encouraged to be in communication with the researcher if they needed further explanations via Skype or e-mail.

5.2.1.2 The task

The task that the designers were expected to carry out was given in the front page of the narrative document, as in Figure 5.2 below:

The stories attached hereby are the result of online conversations within several communities that are concerned with issues of health, eating, fitness, and overweight. They tell of the problems, fears, and difficulties experienced in these communities and they contain advice given in response to their issues.

As ethnographic researcher, I became part of these conversations. I raised and responded to questions like everyone else, but my interest was to elicit narratives that would give designers a sense of these communities and pointers to what they could contribute to improve their lives.

Please consider these stories as a stimulus for the design of a product, system, service, or practice that might improve the life in these communities.

As you go carefully through these accounts of experiences, please:

- Use a yellow highlighter to mark all sections that tell you something you had not known or anticipated.
- Use a red highlighter to mark all sections that give you an idea for something, a design that could alleviate the conditions these stories describe.
- Keep a notepad to explore by sketching or in words, what you think you could do for people who have the experiences that these stories describe.

This would give me valuable feedback on the design research method that I am seeking to develop. At some point I hope to discuss with you whether and how these stories inspired you to think of something not yet available.

Thank you
Ozge Celikoglu
ozgmerzali@gmail.com

Figure 5.2 : The task defined for designers.

5.2.1.3 The procedure

The narrative document was sent to each designer individually via e-mail by stating that s/he was required to work on his own. The deadline for this work to be done was arranged according to the designer's schedule.

After each designer finished her/his work s/he returned the document to the researcher. This returned document included yellow- and red-highlighted words/sentences from the narratives, and also, writings and drawings of the designer.

Once the document was examined by the researcher, the designer was asked for a Skype meeting which enabled a conversation between the designer and researcher so that detailed explanations and further considerations could be obtained from the designer.

5.2.1.4 Interviews

Each designer was interviewed individually via Skype after s/he returned the narrative document. The interview was basically a conversation with some semi-structured questions.

During the conversation, the designer and researcher went through the whole narrative document that included markings and writings of the designer. The aim of the interview was to get detailed explanations from the designer, regarding why s/he highlighted a certain text and what s/he wrote or drew describing a design idea.

Each Skype meeting with an individual designer approximately took 1h 30 min. All the meetings were recorded using a voice recording program, and later transcribed by the researcher.

Designers usually told that they enjoyed reading the narratives, however, they complained about the lengths of the document, which required too much time to spend on it.

5.2.1.5 Initial analysis of the outcomes and revision of the narrative document

The initial analysis of the returned narrative documents from these six designers was conducted in order to find out which narratives they found most important. The frequency of being highlighted for each quotation was calculated. An example of the frequencies of the highlighted narratives under the section '(D) What do you do about your problem' is demonstrated in Figure 5.3.

Figure 5.3 : Frequency of yellow-highlighted (YH) and red-highlighted (RH) narratives under the section ‘(D)What do you do about your problem’.

In this chart, each two-colored pair of columns represents the frequency of being highlighted for each narrative in this section. For instance, the narrative ‘D16’ in the section ‘(D)What do you do about your problem’ was yellow-highlighted by 3 designers and red-highlighted by 6 designers.

This primary analysis was helpful in revising the narrative document and making it shorter by keeping the most frequently highlighted quotations. Thus, the revised narrative document consisted of 34 quotations (given as Appendix A), and it was sent to the designers who had responded negatively to the long version. As a result, seven other designers agreed to participate and worked with the revised document individually. Then, the whole process was executed with these designers in the same way.

In total, there were 13 designers who participated in this research, which included designers who were employed as design academics, professional designers at different companies, and both. These designers were product design graduates and had at least 3 years of work experience. All of them worked with the narrative document based on the main instructions defined on the front page, and once they completed their work they were interviewed. There were only two designers who could not be interviewed because of their busy schedules.

The outcomes of this process from each individual designer were:

- Yellow- and red-highlighted words and sentences on the narratives,

- Writings and drawings of the designer regarding how the highlighted narrative informed her/him, how s/he utilized this information for design,
- Voice record of the interview,
- Interview transcription (given as Appendix B) consisting of designer's detailed explanations on the highlighted parts of the narratives and her/his notes and drawings.

Figure 5.4 demonstrates samples from the returned documents with designers' markings and notes.

Figure 5.4 : Samples from returned documents by designers.

5.2.2 Study IV: Design students' case

For the study with design students, a workshop with senior design students was organized at Drexel University, Product Design Department. There were seven participants who volunteered to attend the workshop, and all were members of IDSA (Industrial Designers Society of America).

The workshop started with an introduction where the students were encouraged, through an opening speech by Prof. Klaus Krippendorff, to think about the principles

of human-centered design and how designers can utilize user data in their design process. Accordingly, they were given brief information about this specific research and its relevance to human-centered design. Following this introduction, participants were told what was expected from them.

5.2.2.1 First session

Each individual student received a copy of the same narrative document (which was the previously revised-shortened version) and a pair of yellow-red highlighters.

Figure 5.5 : Students working individually on narrative documents.

After the introductory session, they were instructed to work individually according to the instructions given in the front page: everyone highlighted whatever s/he found surprising and/or inspiring to be utilized towards design ideas (Figure 5.5). This first session took about 1 hour.

5.2.2.2 Second session

Once students completed their individual work, they were encouraged to continue working in groups so that they could converse with each other about what they found important or useful and generate initial design ideas.

It was observed that before students were instructed to work in groups, they started to react and speak publicly when they read something interesting, surprising or useful. This was a positive sign of their engagement in the subject matter and the potential

collaboration among design students. It also showed an agreement on which narratives had a potential use for design.

The second session started when the students were divided in two groups and started to converse. The conversations of both groups were recorded using voice recorders. The voice recorders were simply put on the tables of each group aiming to avoid any disturbance to the natural flow of conversation (Figure 5.6).

Figure 5.6 : Students conversing on the narratives and design ideas.

At the end of the second session, each group presented its initial design ideas explaining how narratives stimulated them. The second session also lasted for about 1 hour.

The whole workshop was recorded with a video camera, and the outcomes of this workshop were:

- The yellow- and red-highlighted words and sentences on the narratives by each individual student,
- Writings and drawings of individual students regarding how the highlighted narrative informed her/him, how s/he utilized this information for design,
- Voice records of the two separate conversations that were conducted in the groups,

- Transcriptions of the two separate conversations (given as Appendix C) that were conducted in the groups,
- Video record of the entire workshop.

6. ANALYSIS AND INTERPRETATION OF THE OUTCOMES

All outcomes from the empirical works described in the sections 5.2.1 and 5.2.2 were subject of a qualitative content analysis.

Qualitative content analysis is a method for systematically describing the meaning of qualitative material. This is done by classifying parts of this material as instances of the categories of a coding frame. The method is suitable for all material that requires some degree of interpretation. This can be verbal or visual, and it can be material that was generated for a specific research, or material that was sampled from other sources. Qualitative content analysis requires to focus the analysis on selected aspects of the generated material, as indicated by the research question; in this respect it differs from other qualitative methods of data analysis. Qualitative content analysis is systematic, flexible, and it reduces data. The method is systematic in three ways: all relevant material is taken into account; a sequence of steps is followed during the analysis, regardless of the generated material; and the coding needs to be checked for consistency. It is flexible in that the coding frame must be adapted so as to fit the generated material, i.e. be valid. And it reduces this material by limiting the analysis to relevant aspects of the material. Also, through classifying specific information as an instance of a category, it enables subsuming the specific information under a more general concept. At the same time, categorizing also produces new information about how different cases compare within the same identified categories (Schreier, 2013; Altheide, 1987).

Along with qualitative content analysis, discourse analysis is another prominent method in qualitative data analysis. Discourse analysis is based on the assumption that language does not represent reality, but constructs reality. The goal of discourse analysis is to analyze the ways in which language and language users do this (Phillips and Hardy, 2002). As Schreier (2013) explains, discourse analysis differs from qualitative content analysis in its assumptions about the relation between language and reality, its critical outlook, its concern with process, and taking into

account what is left unsaid. Therefore, it should be used if the aim of research is to find out how a phenomenon is expressed in discourse or how language and social reality are related. Compared to other methods that are prominent in qualitative data analysis, such as, discourse analysis, the qualitative content analysis was found more suitable considering the research questions of this study

The qualitative content analysis of the outcomes in this chapter aimed at responding to the main research questions of this study, which were:

- 1) What did designers find unusual and interesting towards a new design idea in these narratives?
- 2) What did it trigger, inspire or encourage designers to think of?

The first question (1) required to extract and examine the narratives (or specific words/sentences in the narratives), which were highlighted by the designers and then, conduct a qualitative content analysis with them in order to define appropriate categories that could be achieved through these selected narratives.

The second question (2) required to take these highlighted narratives, designer's writings and interview transcriptions altogether as subject to a broader qualitative content analysis. Thereby, the contingency analysis was utilized as a preliminary analysis to find out whether any meaningful associations were present among categories.

6.1 The Coding Frame: Defining the Categories

In qualitative content analysis, the coding frame is a structure, a kind of filter through which the researcher views her material. It consists of main categories (dimensions) specifying relevant aspects of the material and a set of subcategories for each main category specifying the meaning of the material with respect to the main categories. In this sense, the structure should be appropriate for answering the research question. In building the coding frame, the researcher can reduce the variety of meanings in her material to the distinctions specified by these categories (Schreier, 2013; Früh, 2007).

There are three ways of structuring the coding frame:

- The concept-driven strategy: Using a concept-driven, deductive strategy means basing the study on previous knowledge. This can come from different sources: a theory, prior research, everyday experience, or logic.
- The data-driven strategy: Using a data-driven strategy means to work inductively by letting the categories emerge from the material.
- The combination of concept-driven and data-driven strategies: Combining both strategies is the most widespread way in structuring the coding frame. In this strategy, a typical approach is to come up with important topics based on what is already known and to turn these into main categories. In this sense, the first step is usually the concept-driven part of the procedure, and the second step is specifying what is said about these topics by creating subcategories based on the material which is the data-driven part of the strategy (Schreier, 2013).

In this study, the coding frame was created by combining concept-driven and data-driven strategies: The results of the Preliminary Study described in Chapter 4 demonstrated that there were certain concepts, such as, positive emotions including hopes and wishes regarding the lifestyle and living environment; problematic practices and experience; and, expectations and replacement suggestions in user narratives which especially were found interesting and useful by designers in generating ideas. Based on these concepts interview questions were formulated that were raised in online conversations, which were held with different groups of Weight Watchers and FitBit Communities. These concepts were helpful in the initial formation of the main categories. Once the interviews with designers were completed and transcribed, these initial concepts were revised according to designers' explanations on why they highlighted certain narratives and how they utilized them. The subcategories were created by examining the data, i.e. what narrators and designers said, which the data-driven part of the strategy was.

As a result, six main categories were defined as explained in Table 6.1:

Table 6.1 : Main categories of the qualitative content analysis.

Category	Short Description	Explanation
C1	Difficulty	Contents regarding the difficulties and problems the narrator faces
C2	Obstacle	Contents about what prevents the narrator from overcoming the difficulty or problem
C3	Manifestation	Contents regarding the manifestation of the difficulty for the narrator
C4	Goal	Contents regarding the hopes, wishes and goals of the narrator
C5	Purposive Action	Contents regarding the narrator's method or practice to reach her/his goal
C6	Design Implication	Contents which lead to a certain design implication

The main categories were subject of a contingency analysis, which was utilized as an initial check to see whether there are any meaningful associations between these categories, which require further investigation.

6.2 The Contingency Analysis: Identifying Initial Associations

In order to identify initial associations between the categories that were present in the narrative parts selected by the designers, a contingency analysis was conducted.

Contingency analysis is a technique that enables researchers to infer networks of associations from patterns of co-occurrences in texts, whether they are generated by a source or attended to by readers. It started with the observation that symbols often occur in pairs of opposites, that concepts or ideas form clusters. Contingency analysis is based on the analytical construct that concepts that are closely associated cognitively will also be closely related proximally. Experiments have shown not only that statistical contingencies in messages, i.e. co-occurrences, are a reflection of the associations in the mind of their authors, but that exposure to them can cause corresponding association in their receivers as well, followed by the contingencies in speech, so that contingency analysis can be used to infer associations not only in the sources of texts but also in the audiences that are exposed to such statistical contingencies (Krippendorff, 2013; Osgood, 1959; Holsti, 1969).

As Osgood (1959) describes, in the application of the contingency method as a kind of content analysis, researchers are limited to events in messages, and from them try to make inferences about the association structure of their source. The message is first divided into units, according to some relevant criterion. The coder then notes for each unit the presence or absence of each content category for which s/he is coding. The contingencies or co-occurrences of categories in the same units are then computed and tested for significance against the null (chance) hypothesis. Finally, patterns of such greater-than- or less-than-chance contingencies may be analyzed (Osgood, 1959; Krippendorff and Bock, 2009; Krippendorff, 2013; Holsti, 1969).

Here, contingency analysis explores the co-occurrences or associations among a set of concepts and evaluates whether the observed co-occurrences are above or below what could be expected by chance. It calls for data in the form of a list of units that contain or do not contain the concepts of interest. Based on the fundamental assumption underlying the analysis of contingencies that co-occurrences in text indicate associations in someone's mind or in existing cultural practices (Krippendorff, 2013), the contingency analysis was found suitable for this study in order to identify the networks of associations between the categories enabling inferences related to research questions.

In this study, contingency analysis served as an initial filter to identify the associations between the categories C1 through C6 in each unit to warrant further qualitative analysis. Here, the units were defined by the parts of the narratives that designers highlighted in red, meaning that it stimulated design ideas: For example, the unit coded as 'DES1(A10)' stands for text from the narrative A10, highlighted by designer DES1. To conduct the contingency analysis, first, the raw data matrix had to be formulated in order to identify the presence or absence of the categories C1 through C6 for each unit DES1(A10)-DES13(E2).

The contingency analysis was conducted separately for data provided by individual designers and for data provided during the above-described workshop with design students.

6.2.1 Designers' case

6.2.1.1 Formulation of the raw data matrix

In the raw data matrix, each row in the table represents a different unit and each column a different category (Osgood, 1959). The raw data matrix for designers' case consisted of 253 units which were parts of narratives that were highlighted in red by designers. In Figure 6.1, a sample part of the raw data matrix is given.

Units	C1: Difficulty	C2: Obstacle	C3: Manifestation	C4: Goal	C5: Purposive action	C6: Design implication
DES1(A10)	P	P		P	P	P
DES1(A11)	P					
DES1(A12)	P	P				
DES1(B2)			P		P	
DES1(B6)			P	P		P
DES1(D5)	P	P			P	P
DES1(D11)					P	P
DES1(D13)	P	P		P		P
DES1(D14)				P	P	P

Figure 6.1 : Sample of the raw data matrix from designers' case.

The raw data matrix demonstrates which categories are present or absent in each unit. The presence of any category for a certain unit is marked with 'P', while the absence of any category is demonstrated by leaving the cell blank. In the sample of the raw data matrix as given in Figure 6.1, by looking at the red framed row for instance, we can say that in the unit that was highlighted by designer 'DES1' from the narrative 'B6', the categories 'C3: Manifestation', 'C4: Goal', and 'C6: Design implication' are present while the categories 'C1: Difficulty', 'C2: Obstacle', and 'C5: Purposive action' are absent.

The complete raw data matrix for designers' case is given as Appendix D.

6.2.1.2 Formulation of the contingency matrix

The contingency matrix provides the information necessary for comparing expected or chance going-togetherness of categories with actual obtained going-togetherness. The expected or chance contingency for each pair of columns is obtained by simply multiplying together the sheer rates of occurrence of these two categories, that is, pA

times pB, in analogy with the probability of obtaining both heads (HH) in tossing two unbiased coins whose PH are both 0.50 (Osgood, 1959; Krippendorff and Bock, 2009).

For instance, in order to calculate the expected co-occurrence of C1 and C2, first the number of presence (P) in all units were counted separately for C1 and C2. Then, the frequency of each was calculated by dividing these numbers in the total number of units. Thus, the obtained frequency for C1 was calculated as 0.40 and for C2 as 0.26. By multiplying these two frequencies 0.40×0.26 , the expected co-occurrence value, that could happen by chance, of the categories C1 and C2 was calculated as $0.40 \times 0.26 = 0.11$. After that, the actual co-occurrence of C1 and C2 in the raw data matrix was counted, that means in how many rows there is the (P) present in C1 and C2 columns at the same time and its frequency was calculated as 0.22.

Derived from the raw data matrix explained in the previous section, the Table 6.2 below demonstrates the contingency matrix for designers' case:

Table 6.2 : The contingency matrix derived from designers' raw data matrix.

	C1: Difficulty	C2: Obstacle	C3: Manifestation	C4: Goal	C5: Purposive action	C6: Design implication
C1: Difficulty		0.11	0.08	0.19	0.26	0.31
C2: Obstacle	0.22		0.05	0.12	0.17	0.20
C3: Manifestation	0.12	0.04		0.10	0.13	0.15
C4: Goal	0.13	0.13	0.04		0.31	0.37
C5: Purposive action	0.17	0.14	0.02	0.38		0.49
C6: Design implication	0.32	0.22	0.16	0.36	0.49	

The contingency matrix in Table 6.2 involves cross tabulating the co-occurrences of the categories C1-C6:

- The upper triangle written in bold lists the probabilities that would be expected if no association existed, if the concepts in question were randomly used.

- The lower triangle of this cross-tabulation, called contingency matrix, lists the probabilities of any two categories actually co-occurring.

It is observed that this initial analysis brought about some associations between certain categories, i.e. there are certain categories that co-occur in the narratives that designers highlighted. The significance of the associations is determined through the difference between the expected and observed values of each co-occurrence, meaning that, a higher difference signifies a stronger association. The list of the contingencies from this matrix is given in the Table 6.3 below:

Table 6.3 : Deviations from chance for designers' case (from largest difference to the smallest).

Contingency - Designers			
Above chance (Associations)	Associations Difference	Below chance (Dissociations)	Dissociations Difference
C1-C2	0.11	C3-C5	0.11
C4-C5	0.07	C1-C5	0.09
C1-C3	0.04	C1-C4	0.06
C2-C6	0.02	C3-C4	0.06
C1-C6	0.01	C2-C5	0.03
C2-C4	0.01	C2-C3	0.01
C3-C6	0.01	C4-C6	0.01

In looking for a statistical justification of the contingencies, the significance of the deviation between the obtained and expected contingencies was computed. To do that, the simple standard error, σ , was utilized, as Osgood (1959) suggested, which represents a simple error of a percentage as $\sigma = \sqrt{[p \cdot (1-p)/N]}$, where p is the expected value and N is the total number of units sampled. The result is an estimate of how much an obtained percentage may vary around its expected value. If the deviation of the obtained from the expected value proves to be significant at the 5 per cent level it can be said that the two categories are substantially associated or dissociated. As a result of these calculations, it was found that the associations between C1-C2 and C4-C5 had statistical significance.

6.2.2 Design students' case

The same procedure of contingency analysis was conducted with the material received from design students.

6.2.2.1 Formulation of the raw data matrix

The raw data matrix for design students' case was formulated by following the same procedure as in designers' case, and it is given as Appendix E.

6.2.2.2 Formulation of the contingency matrix

The contingency matrix derived from design students' raw data matrix is given in Table 6.4 below:

Table 6.4 : The contingency matrix derived from design students' raw data matrix.

	C1: Difficulty	C2: Obstacle	C3: Manifestation	C4: Goal	C5: Purposive action	C6: Design implication
C1: Difficulty		0.19	0.12	0.29	0.25	0.34
C2: Obstacle	0.32		0.07	0.16	0.14	0.19
C3: Manifestation	0.20	0.07		0.11	0.09	0.12
C4: Goal	0.21	0.09	0.06		0.21	0.29
C5: Purposive action	0.15	0.07	0.02	0.34		0.25
C6: Design implication	0.35	0.15	0.14	0.21	0.19	

The list of the contingencies from this matrix is given in the Table 6.5 below:

Table 6.5 : Deviations from chance for design students' case (from largest difference to the smallest).

Contingency - Design Students			
Above chance (Associations)	Associations Difference	Below chance (Dissociations)	Dissociations Difference
C1-C2	0.13	C1-C5	0.10
C4-C5	0.13	C1-C4	0.08
C1-C3	0.08	C4-C6	0.08
C3-C6	0.02	C2-C4	0.07
C1-C6	0.01	C3-C5	0.07
		C2-C5	0.07
		C5-C6	0.06
		C3-C4	0.05
		C2-C6	0.04

The same significance test was conducted also for design students' case and it was found that the associations between C1-C2 and C4-C5 had statistical significance, as they had in designers' case.

6.2.3 Interpretation of results from both contingency analyses

Based on the results of both contingency analyses, designers' and design students' cases, it was observed that the strongest associations emerged between the same categories in both cases, such as, 'Difficulty (C1) - Obstacle (C2)', 'Goal (C4) – Purposive action (C5)', and 'Difficulty (C1) – Manifestation (C3)'. The detailed comparison of both cases is demonstrated in Table 6.6 below:

Table 6.6 : Comparison of results from both contingency analyses.

Contingency - Designers		Contingency - Design Students	
Above chance Associations	Association Differences	Above chance Associations	Association Difference
C1-C2	0.11	C1-C2	0.13
C4-C5	0.07	C4-C5	0.13
C1-C3	0.04	C1-C3	0.08
C2-C6	0.02	C3-C6	0.02
C1-C6	0.01	C1-C6	0.01
C2-C4	0.01		
C3-C6	0.01		

From Table 6.6, it can be stated that in both cases there is a remarkable resemblance in associations and dissociations of certain categories:

Both in designers' and design students' cases, common associations between categories C1-C2, C4-C5, C1-C3, C1-C6, and C3-C6 emerged. This means that both designers and design students mostly highlighted narratives where the co-occurrence of categories emerged as 'Difficulty (C1) - Obstacle (C2)', 'Goal (C4) – Purposive action (C5)', 'Difficulty (C1) – Manifestation (C3)'. In addition they both utilized mostly the co-occurrence of categories 'Difficulty (C1)' and 'Manifestations (C3)' for Design Implication (C6). The deviations of designers' case from design students' were that there were two additional associations in designers' case, such as, 'Obstacle (C2) – Design implication (C6)' and 'Obstacle (C2) – Goal (C4)'.

Figure 6.2 represents the network of associations between categories for designers' case. Here, the connecting lines represent the closeness between each category in a proportional matter according to the difference values as given in Table 6.6: Shorter

and thicker connecting lines demonstrate that the categories have a closer relation, meaning that they have a stronger association; while longer and thinner connecting lines demonstrate that the categories have a weaker relation but still a meaningful association.

Figure 6.2 : Network of associations in designers' case.

The interpretation of the network of associations in designers' case as depicted in Figure 6.2 enables us to make the following inferences:

- One of the closest relations emerged between difficulties, obstacles and their manifestations, meaning that they co-occurred in the highlighted parts of the narratives. This makes sense considering that one of designers' focus was difficulties that were mentioned by the narrators. This network demonstrates that designers paid almost equal attention to the specific reasons (obstacles) of these difficulties as well as their varied manifestations which were based on narrators' personal life stories.

- Another close relation emerged between goals and purposive actions, meaning that designers were interested in stories where goals and personal actions to reach these goals were told. The close connection of goals and purposive actions is so similar to the connection between obstacle-difficulty-manifestation that it can be interpreted as having equal importance for designers.
- By looking at weaker associations, it is observed that difficulties and manifestations have equal importance in generating design implications. The triangle between manifestation-difficulty-design implication represents that the co-occurrence of difficulties and manifestations in a narrative mostly led to a design implication.
- A similar interpretation can be made for the triangle between difficulty-obstacle-design implication. In this triangle, however, it was observed that difficulties are closer to design implications than manifestations are, meaning that, difficulties play a more important role in the generation of design ideas in this association.
- Considering the dissociations, the below chance co-occurrence of categories, such as, manifestations-purposive actions, difficulties-purposive actions, and difficulties-goals are confirmed as they have no connections to each other. This makes sense since in the highlighted parts of the narratives these category pairs are mostly unlikely to be included together. For example, if the narrator was telling about the difficulties s/he was facing regarding a certain issue, it meant that she could somehow not overcome this difficulty yet and thus, could not tell about her/his purposive action that could solve her problem or that could help her/him to reach her/his goals since they are already not mentioned in the narrative. This dissociation among these category groups can also be explained based on their temporal dimension: Narratives that include difficulties-obstacles-manifestations are usually located in the past or present time while narratives that include goals-purposive actions are located in the future.

Accordingly, Figure 6.3 demonstrates the network of associations for design students' case:

Figure 6.3 : Network of associations in design students' case.

From the network of associations derived from design students' case as depicted in Figure 6.3, the following inferences are made:

- One of the closest relations emerged between difficulties, obstacles and their manifestations, meaning that they co-occurred in the highlighted parts of the narratives which is the same in designers' case. This network demonstrates that design students also paid equal attention to the specific reasons (obstacles) of these difficulties as well as their varied manifestations which were based on narrators' personal life stories.
- Again, similar to designers' case, the other close relation emerged between goals and purposive actions, and it was similar to the connection between obstacle-difficulty-manifestation association.
- By looking at weaker associations, it was observed that difficulties and manifestations were utilized in generating design implications. The triangle

between difficulty-manifestation-design implication represents that the co-occurrence of difficulties and manifestations in a narrative mostly led to a design implication.

- Considering the dissociations as shown in Table 6.5, the below chance co-occurrence of categories such as, difficulties-purposive actions, difficulties-goals and goals-design implications, was also confirmed as they have no connections to each other.

A comparison between the association networks of designers' and design students' cases clearly demonstrate which associations are common and which deviate from each other:

- Designers utilized the narratives where the obstacles that prevent the narrators from overcoming the difficulty they mentioned were present more effectively in generating design implications than design students did.
- Designers found obstacles and goals related, although weakly, while design students did not.
- Designers also utilized narratives where difficulties and obstacles occur together whereas design students' work showed no specific association between these three categories, i.e. difficulty-obstacle-design implication.

However, this comparison also shows that there are more resemblances than deviations, such as:

- The co-occurrence frequencies of the categories, such as, difficulty-obstacle, difficulty-manifestation and goal-purposive action were almost identical in designers' and design students' cases.
- In both cases the relation between difficulty-obstacle-manifestation is the strongest and the relation between difficulty-manifestation-design implication is triangular. This means that both designers and design students highlighted narratives that included these three categories and both made use of difficulties and manifestations to generate design implications.
- Goals and purposive actions are found equally important and related by both cases, and they are the second strongest association after difficulties and obstacles.

- The resemblances of both cases emerge also in terms of dissociations. For instance, there are no connections between difficulty-purposive action and difficulty-goal. Similarly, the rest of the dissociations were also confirmed by these comparative networks.

As a result of this analysis, it can be interpreted that designers' and design students' approach showed no remarkable distinction in selecting and utilizing certain narrative contents which actually confirms the findings of the Preliminary Study described in Chapter 3, i.e. both designers and design students made sense of and utilized the ethnographic narratives in a similar way. Thus, all participants will be referred as 'designers' in the next sections of this dissertation to prevent complications, although the rest of the analyses were conducted separately.

On the whole, the contingency analysis fulfilled the aim of making an initial check for the presence of associations and highlighted certain narrative contents designers and design students utilized for design implications. However, it was less conclusive than expected, the differences between associations were statistically less significant in general, and it was observed that some semantic connections got lost in the numerical representation. Considering that despite its shortcomings, the contingency analysis offered certain directions, the qualitative content analysis was continued with a more direct approach to look into the connections between what designers found interesting in the narratives they were given and how they utilized them.

6.3 The Elaborate Qualitative Content Analysis

Based on the findings of the contingency analysis, it was decided that a more detailed qualitative content analysis could be utilized to define more specific connections between categories. To do that, the material from designers' work was re-examined, and subcategories were identified. The in-depth analysis of the associations between these subcategories revealed detailed answers to the research questions.

6.3.1 Subdivision of the coding frame: Defining the subcategories

A further review on the narrative contents and designers' interview transcriptions revealed that the main categories could be divided into subcategories as in Table 6.7 below:

Table 6.7 : Main categories, subcategories and sample quotations.

Main Category	Subcategory	Sample Quotations
C1: Difficulty	C1.1: Overweight causes health issues	<i>obesity being pregnant and overweight type II diabetes</i>
	C1.2: Difficulties with exercise	<i>wasted money for exercise equipment can't do exercise outdoors</i>
	C1.3: Problems with self/other people because of size	<i>accept the fat status my old pictures disgust me</i>
	C1.4: Organization of everyday life	<i>falling behind the program setting priorities</i>
	C1.5: Difficulties in preparing/planning food	<i>can't follow a diet difficult to prepare fruits</i>
C2: Obstacle	C2.1: Personal life details (family, medical issues, living/working environment)	<i>have kids winter weather have physical pain gym is too far</i>
	C2.2: Things/practices that are boring, tiresome, confusing, forgettable	<i>it's boring forget tracking it's time consuming measuring food is tiresome</i>
	C2.3: Habits, mental/social states that are hard to overcome	<i>emotional eating turn back to old habits expect perfection from self</i>
C3: Manifestation	C3.1: Changes in medical situations	<i>pregnancy my doctor told me my father had diabetes</i>
	C3.2: Situations that evoke comparison/confrontation of/with the physical appearance/self-image	<i>look at my old pictures high school reunion my clothes don't fit</i>
C4: Goal	C4.1: Being/eating healthy for the kids	<i>model good eating habits for my kids eat healthier to carry a child have good breast milk</i>
	C4.2: Staying motivated	<i>getting back on track find something to enjoy exercise observe improvements</i>
	C4.3: Tracking/measuring food/exercise/change	<i>track your food plan your meals measure food</i>

Table 6.7 (continued) : Main categories, subcategories and sample quotations.

Main Category	Subcategory	Sample Quotations
C5: Purposive action	C5.1: Getting social/professional support	<i>buddy system helps have some kind of release (blog, diary) have a dietitian, nutritionist</i>
	C5.2: Things done to track food and activity (apps, writing, counting calories)	<i>use app for recording write down food weigh in your food count calories</i>
	C5.3: Things done to increase daily activity/exercise	<i>cut off cable at home walk the dogs use exercise DVDs at home use indoor exercise equipment</i>
	C5.4: Things done to stay motivated	<i>set small goals keep it simple use reminders 2 week test of consistency</i>
	C5.5: Things done to measure change	<i>use scale and pedometer try jeans measure many spots take pictures in mirror</i>
C6: Design implication	C6.1: Things that were found interesting for design without knowing how they could be utilized	<i>I found the word pair 'health and look' interesting. These can be utilized for design but I don't know yet how I can use them.</i>
	C6.2: Things that were taken as possible criteria for a yet undeveloped design idea	<i>Here, I took this as an input regarding how that person spends her time throughout the day. If I will design a product for her, when and where will she use it; what is her living environment? In this case, that means I will design a product for someone who sits at a desk all the day.</i>
	C6.3: Things that lead to the description of a design idea, concept, scenario, etc.	<i>I think this can go to an experience design, a totally new gym experience. You can combine an activity she likes to do with exercise. Consider that you have a movie night at gym. You meet your friends and go together to gym -to watch a movie and exercise at the same time.</i>

The subcategory 'C6.3: Things that lead to the description of a design idea, concept, scenario' included two more subcategories in the third dimension based on the novelty of the design idea. These were 'C6.3.1: Description of improving or redesigning an existing design concept, product, service, system', and 'C6.3.2: Description of a new design idea, concept, product, service, system'. In overall, the final coding frame was structured as in Figure 6.4:

Figure 6.4 : Hierarchical structure of the coding frame.

According to the coding frame structure as depicted in Figure 6.4, all units were analyzed by checking the presence or absence of the subcategories that were listed above. Figure 6.5 demonstrates a sample from analysis table:

Units	C1: Difficulty	C2: Obstacle	C3: Manifestation	C4: Goal	C5: Purposive action	C6: Design implication
DES4(A2)	C1.5	C2.2		C4.1	C5.2	C6.3.1
DES4(A5)				C4.2	C5.3	C6.3.2
DES4(A7)	C1.1	C2.3	C3.2			C6.3.2
DES4(A11)	C1.1		C3.2			C6.1
DES4(B3)	C1.3		C3.2			C6.3.2
DES4(B5)	C1.3					
DES4(B6)			C3.1	C4.1	C5.2	
DES4(B9)			C3.2			C6.1
DES4(B11)			C3.1			C6.3.2
DES4(B13)	C1.1		C3.1			

Figure 6.5 : Sample from the analysis sheet.

In the analysis sheet, the presence or absence of the subcategories for each unit was marked: In Figure 6.5, in the red framed row, for example, the unit ‘DES4(B3)’ represents the highlighted part of the narrative ‘B3’ by the designer ‘DES4’. This row indicates that the subcategories ‘C1.3: Problems with self/other people’, ‘C3.2: Situations that evoke confrontation with the physical appearance’, and ‘C6.3.2: Description of a new design idea, concept, product, etc.’ were present. This means that by taking a psychological/social problem and its physical manifestation into account, the designer described a new concept, product or system based on these contents. The complete analysis sheet is given as Appendix F.

The elaborative qualitative content analysis was conducted for both unanticipated (yellow-highlighted) and idea-stimulating (red-highlighted) narrative contents for designers. In the next two sections the results were interpreted separately.

6.3.2 Findings related to narrative contents that stimulated design ideas

In order to explore the associations in detail that were roughly addressed by the contingency analysis, the first step was the identification of subcategories and checking their presence or absence in the units of analysis. The next step to elaborate

this process was the division of the identified subcategories based on their source: The subcategories between C1.1 – C5.5 heavily relied on the narrative contents that were the results of the conversations with the users while the subcategories between C6.1 – C6.3 originated from the interviews with the designers. The contingency analysis provided more information about the associations between the categories C1 - C5 than their relation to designers' ideas and explanations. In these sections, these relations are investigated in detail.

6.3.2.1 Frequencies of main categories and subcategories in the units of analysis

To start, each main category's occurrence frequency was calculated, and thus the results demonstrated, which narrative contents were mostly highlighted by the designers (Table 6.8).

Table 6.8 : Frequency of occurrence for main categories.

Main category	C1: Difficulty	C2: Obstacle	C3: Manifestation	C4: Goal	C5: Purposive action
Frequency	103	75	46	105	183

The pie chart in Figure 6.6 demonstrates the distribution of these frequencies, i.e. how frequent each main category is present in the narrative parts that were highlighted by designers in overall.

Figure 6.6 : Percentage of each main category in highlighted narrative parts.

According to this chart (Figure 6.6), designers mostly focused on purposive actions of the narrators, which were personal methods or solutions the narrators developed for themselves in order to deal with the difficulties or reach their goals. Following this, designers paid equal attention to narrators' stories about the problems or difficulties they were facing and the goals they set for themselves. The obstacles that prevented the narrators from overcoming their problems were found less useful by the designers and the manifestations of these problems were the least highlighted parts of the narratives.

Similarly, the frequencies of the subcategories were calculated. Through these calculations, the distribution of the frequencies of the subcategories under each main category was obtained separately.

As depicted in Figure 6.7 and Table 6.9, the most highlighted narrative contents that were stated under difficulties or problems were social/ psychological problems that the narrators were facing. These situations were stated by the narrators, such as, *“I look at the pictures that used to make me laugh and brought back some of my best memories, and all I see is how overweight I was. (...) For right now, they disgust me.”* The pie chart shows that among many difficulties which included health problems, time plan and food preparation, designers found the social/psychological issues most useful to inspire design ideas.

Table 6.9 : Frequencies of occurrence of subcategories under main category ‘C1: Difficulty’.

	C1.1: Overweight causes health issues	C1.2: Difficulties with exercise	C1.3: Problems with self/other people	C1.4: Organization of everyday life	C1.5: Difficulties in preparing food
Subcategory					
Frequency	23	19	28	11	22

Figure 6.7 : Percentages of subcategories under main category ‘C1: Difficulty’.

What designers found most useful regarding the obstacles that prevented the narrators from overcoming the difficulties were practices about which narrators complained because they thought they were time consuming, boring or tiresome (Figure 6.8 and Table 6.10); for instance, one of the most highlighted narrative parts was the sentence *“I always find it difficult to include fruit in my diet – it’s so time consuming to wash and peel and chop it all up.”* As the chart in Figure 6.8 shows, personal life details of narrators, like having kids or having diabetes, and mental/social states, such as being an emotional eater, were also found important by designers since their frequencies are very likely to each other.

Table 6.10 : Frequencies of occurrence of subcategories under main category ‘C2: Obstacle’.

	C2.1:	C2.2:	C2.3:
Subcategory	Personal life details	Practices that are tiresome, boring, etc.	Habits, mental/social states
Frequency	26	29	20

Figure 6.8 : Percentages of subcategories under main category ‘C2: Obstacle’.

Considering the situations where the problems and difficulties became manifest to the narrators, designers’ interest was divided equally between the narrative contents where changes in medical situations, such as having diabetes or losing a beloved one because of a medical condition related to overweight, and confrontations with the self-image, such as seeing an old picture or meeting an old friend where the narrator feels herself/himself ugly and desperate (Figure 6.9 and Table 6.11).

Table 6.11 : Frequencies of occurrence of subcategories under main category ‘C3: Manifestation’.

	C3.1:	C3.2:
Subcategory	Change in medical situations	Confrontation with the physical appearance
Frequency	23	30

Figure 6.9 : Percentages of subcategories under main category 'C3: Manifestation'.

Among the most frequently highlighted narrative contents which included narrators' statements about their goals, wishes and desires, designers found the goal of staying motivated most useful to create design ideas. In addition to that, narrative contents that were about the wish of tracking food and exercise were also remarkably utilized by designers (Figure 6.10 and Table 6.12).

Table 6.12 : Frequencies of occurrence of subcategories under main category 'C4: Goal'.

Subcategory	C4.1: Being healthy for the kids	C4.2: Staying motivated	C4.3: Tracking food and exercise
Frequency	12	50	43

Figure 6.10 : Percentages of subcategories under main category ‘C4: Goal’.

The last pie chart in Figure 6.11 and Table 6.13 demonstrates that among the narrative contents that were based on the purposive actions of the narrators, the most frequently highlighted ones by designers were related to the personal methods for recording/tracking food and exercise; for example, “*I usually write everything that I am going to have for all of the meals of the day. I even preplan snacks.*”

Table 6.13 : Frequencies of occurrence of subcategories under main category ‘C5: Purposive action’.

	C5.1: Social support	C5.2: Record food and exercise	C5.3: Increase daily activity	C5.4: Find motivation source	C5.5: Measure change
Subcategory					
Frequency	36	49	37	32	29

Figure 6.11 : Percentages of subcategories under main category 'C5: Purposive action'.

Considering the case for the category 'C6: Design implication' that heavily relied on the interviews conducted with the designers, the distribution of its subcategories' frequencies is given in Table 6.14 and Figure 6.12 below:

Table 6.14 : Frequencies of occurrence of subcategories under main category 'C6: Design implication'.

	C6.1: Interesting expression for design	C6.2: Design criteria	C6.3: Design idea
Subcategory Frequency	64	66	81

Figure 6.12 : Percentages of subcategories under main category 'C6: Design implication'.

According to the pie chart (Figure 6.12) it is observed that the three types of design implication had similar frequencies to each other. However, the most frequent design implication was the detailed description of a design idea, i.e. when the narrative stimulated the designer to consider designing a product, service or system; for instance, *“I think this can go to an experience design, a totally new gym experience. You can combine an activity she likes to do with exercise. Consider that you have a movie night at gym. You meet your friends and go together to gym -to watch a movie and exercise at the same time.”*

Following this, the second most frequent design implication came in the form of identifying design criteria. This means that designers utilized certain narrative contents to set certain design criteria, such as age, disability, need of social support, etc., although they did not develop or describe a design idea, such as *“Here, I took this as an input regarding how that person spends her time throughout the day. If I will design a product for her, when and where will she use it; what is her living environment? In this case, that means I will design a product for someone who sits at a desk all the day.”*

The third most frequent type of design implication was defined as just an interesting expression for design, meaning that designers found the expression or the content somehow interesting or stimulating but they did not know how to utilize it yet; for example, *“I found the word pair ‘health and look’ interesting. These can be utilized*

for design but I don't know yet how I can use them.” As exemplified in this quotation, these contents were usually word pairs, rhymes, specific concepts or special practices that were told by the narrators.

6.3.2.2 Relations between subcategories among both sources

After the frequencies of the subcategories were calculated and the results were interpreted, a more in depth examination was conducted in order to identify the meaningful associations between the subcategories and their meanings.

The frequency of co-occurrence for each subcategory pair was calculated and presented in the charts as Appendix G. Considering that the units of analysis originated from two different sources, the interpretation of these charts provided two types of information:

- i. For the units of analysis that heavily rely on narrators’ statements, the associations between the subcategories under C1, C2, C3, C4 and C5 were identified.
- ii. For the units of analysis that heavily rely on designers’ interviews and their relation to the units that were based on narrators’ statements, relations of the subcategories under C6 to the subcategories C1, C2, C3, C4 and C5 were identified.

Here, the findings from (i) demonstrated in detail what designers found useful from the narrative contents. These confirmed the previously conducted contingency analysis and went beyond its limitations by revealing the numerically unobservable semantic connections. In this context, the strongest associations between subcategories around which design implications occurred are listed below:

C1.1: Overweight causes health issues – C3.1: Change in medical situation

C1.2: Difficulties with exercise – C2.1: Personal life details

C1.3: Problems with self/other people – C2.3: Habits, mental/social states hard to overcome

C1.4: Organization of everyday life – C2.1: Personal life details

C1.5: Difficulties in preparing food – C2.2: Practices that are boring, tiresome, time consuming

C3.2: Confrontation with the physical appearance – C4.2: Staying motivated

C4.1: Being healthy for the kids – C5.2: Record food and activity
 C4.2: Staying motivated – C5.1: Social support
 C4.3: Tracking food and activities – C5.2: Record food and activity
 C5.3: Increase daily activity – C2.1: Personal life details
 C5.4: Find motivation source – C4.2: Staying motivated
 C5.5: Measure change – C4.3: Tracking food and activities

The graphical representation of these associations is depicted in Figure 6.13 below.

Figure 6.13 : Network of relations between subcategories from C1.1 to C5.5 with each other.

From the network of relations demonstrated in Figure 6.13, the most significant inferences are explained as below:

- Designers found the goal of staying motivated important and they utilized such narrative contents by combining them with,
 - a. The moments of confrontation with the self image as a kind of manifestation: As told by the narrators, these confrontations took place at a doctor's visit, a reunion with old friends, in the changing room of a shopping mall or just by looking at the old photographs, and these moments evoked strong feelings of being shocked, frustration, embarrassment, fear and even disgust. In this context, designers became aware of the strength of these negative feelings and confrontation for the narrators. By focusing on these narrative contents which were dense in psychological and social aspects, designers utilized these confrontation incidents as a source of motivation. Most of the designers developed ideas based on showing the narrators their old photographs where they were overweight as a warning to bring them back on track whenever the narrators lose their motivation.
 - b. The difficulties in organization of everyday life: Many narrators told that they had difficulties in organizing their daily life because of various obligations, such as, work, children, special occasions and the like. This was an issue based on social and psychological dimensions. The narrators had several roles, such as, being an overweight woman, a working woman, a wife, a mother, a patient suffering from depression, at the same time. What designers identified in these difficulties, that the narrators were facing, was that there was a broad spectrum of variances in these personal life stories that made it hard for the narrators to overcome these difficulties. As told by the narrators and mostly highlighted by designers, these personal life details directly caused the difficulties in doing exercise, because, for instance, the narrator who recently had a baby could not leave her alone, or the narrator who had limited time for cooking at home. In many similar cases, the narrators were looking for alternative ways of increasing their daily activities, for example, by playing with their children, walking their dogs, buying exercise equipment for home use, and etc. Designers' first considerations were to remove the obstacles that were hidden in the personal life details of the narrators, and to

do this, most of the designers tried to find out how the narrators dealt with these obstacles, which is the purposive action, and then they proposed how to improve these methods. In this sense, designers took narrators' purposive actions as hints to understand what kinds of methods the narrators were familiar with, and used this information either to improve their experience or to create a totally new experience that would still correspond to the practices the narrators were used to. In this context, designers mostly focused on the action of getting social or psychological support, as many narrators told that having friends with similar problems or having a therapist who helps them relax helped them a lot in dealing with their problems.

- Designers identified that for most of the narrators it was important to track and measure their food and activity since a large number of narrators had to follow certain diets to lose weight. The narrators told that along with the issues of staying motivated and keeping active, tracking and measuring food was essential for weight loss and they explained how they accomplish that or how they cannot. Designers found out that the narrators developed specific methods to keep track of their food, such as writing down everything they eat, calculating calories, measuring food with measure cups, logging them into their social media account and the like. However, most of the narrators claimed that they still had difficulties in applying the method they developed. For instance, the narrator who told that she was writing down everything she ate complained that writing is tiresome and forgettable; similarly, the narrator who claimed that using measure cups was more practical than counting calories told that the measure cups could be confusing because there were no standards in the measurement. By taking these statements into consideration, designers proposed ideas that could provide the narrators with their habit of tracking food but alleviate the difficulties they mentioned. For instance, some designers proposed to create a smart phone application which could calculate and record the calories of any food by just scanning it without requiring the narrator to write down or login anything.
- Designers took the narrative contents that included health issues and their manifestations in medical situations together. Although most of the designers found this medical aspect important, they usually claimed that this kind of

information was hard to be utilized towards a design idea because they needed an expert's guidance, such as, a medical doctor, a nutritionist or a dietitian. Design ideas that were derived from this kind of narrative contents usually benefitted from them in setting design criteria. For instance, when designers became aware that type II diabetes was strongly related with overweight, they proposed a system that would arrange periodic doctor visits; similarly, when they learned that overweight could cause knee and back pain they realized that they had to reconsider the exercise equipment they would design for people with certain disabilities.

- There was a large number of highlighted narratives where narrators told about the psychological and social problems they were facing because of being overweight. The narrators usually felt alone, desperate and ugly because people around them teased with them or gave them names because of their sizes. Moreover, the general definition of beauty as made by the society never corresponded to them and they always felt like outsiders. Many of the narrators told that there was a certain time they hated themselves and many of them said that they could not overcome this problem unless they got professional help. As stated by most of the designers, this was the most surprising issue to them since they never thought that overweight could cause such important psychological problems. Although the designers admitted that this was a hard issue to solve they still found this information useful for design. In fact, for many of the designers the psychological/social issue became the most interesting part and the core of their design ideas. For instance, designing a smart phone application with 'harmless reminders' which would remind the narrator certain things such as calories or exercise without evoking feelings of inability, failure or disappointment; or similarly, the idea of a talking calendar which would help the narrator to plan and track her/his meals and compensate without discouraging the narrator in case s/he fails to follow the meal plan.
- While looking at narrative contents that included statements regarding the difficulties in food preparation, designers focused on the reasons of these situations. The narrators basically claimed that they wanted to eat healthy foods, such as, fruits and vegetables, however, the preparation of these kind

of foods was difficult and time consuming because it required a chain of activities, such as, washing, peeling and chopping. In this context, designers thought of existing products, such as multi-purpose kitchen appliances, and claimed that although there was a variety of these products they were still not working for a lot of vegetables or fruits. For designers, the existence of these products brought about ideas for their improvement, however, it also limited them to already existing practices that were described by the narrators. Almost all ideas regarding the difficulty in food preparation were directed towards designing a better kitchen appliance. Another reason for this limited view could be that the problem defined here was too determined that designers could or did not prefer to think beyond existing practices.

In order to continue with the interpretation on how designers utilized these narrative contents in detail, the findings from (ii) needed to be examined. These were findings from the units of analysis that heavily relied on designers' interviews and their relation to the units based on narrators' statements; this means that relations of the subcategories under C6 to the subcategories under C1, C2, C3, C4 and C5 were identified. These relations were demonstrated from Figure 6.14 to Figure 6.18 and explained as below:

The subcategories of the main category 'C6: Design implication' derived from designers' interviews were:

- C6.1: Interesting expression for design, meaning that designers found the narrative content (a phrase, a concept, a word pair, a special practice) remarkably interesting and thought that it would most probably lead to an original design idea, however, at that moment, they did not know how they could utilize them.
- C6.2: Design criteria, meaning that designers considered the narrative content as an important input for design (people with certain disabilities, pregnant women, environmental conditions such as cold weather) but they did not develop any design idea based on it.
- C6.3: Design idea, meaning that the narrative content stimulated specific design ideas regarding a product, system or service, which were described by designers in detail.

The chart in Figure 6.14 demonstrates how frequent the subcategory ‘C6.1: Interesting expression for design’ co-occurred with each other subcategory. Thus, this chart shows what kind of narrative contents were mostly found interesting towards a design but were insufficient to develop a detailed idea. Judging by the highest frequency, it is obvious that what narrators did to keep motivated in increasing their daily activities as alternatives to gym were found most inspiring by the designers. These included activities, such as, cutting off cable TV at home, keeping active with the dogs, taking walks with the baby stroller, and etc. Similarly, narrators’ special methods for tracking and measuring change on their bodies were found interesting by designers, as most of the designers highlighted the narratives where, for instance, trying jeans was mentioned as an enjoyable measuring method. For the rest of the chart, it can be stated that the distribution of the frequencies look similar, however, by looking at the most outstanding frequencies it can be interpreted that inspirations with the least degree of certainty towards a design idea came out of the narrative contents where the narrators told about their goals (C4: Goal), personal methods (C5: Purposive action) and related obstacles that are hard to overcome (C2: Obstacles) with respect to their daily lives.

Figure 6.14 : Frequencies of co-occurrences of C6.1 with other subcategories.

Figure 6.15 demonstrates that designers defined their design criteria by heavily relying on the purposive actions of the narrators, the things they were doing to find motivation source, get social support, record food and exercise, measure change and increase daily activity. This means that designers took into consideration the things that the narrators were doing to reach their goals, things they enjoyed and things they tried to avoid. For instance, many narrators told that they hated stepping on the scale but enjoyed trying jeans to check whether they lost weight. As a result many design ideas eliminated the use of scale with the justification that the scale evoked negative feelings for the narrators. Design propositions to solve this measuring issue included, for example, photograph cabinets that would take pictures of the narrator and be able to show even the smallest change in their size; or test clothes which would be designed and specified according to the exact size narrators would like to be. In overall, the chart in Figure 6.15 can be interpreted that designers defined most of their design criteria by looking at the personally invented and performed practices of the narrators (C5: Purposive action) that they sustained to reach their goals.

Figure 6.15 : Frequencies of co-occurrences of C6.2 with other subcategories.

The chart in Figure 6.16 shows that for a detailed idea development and description, designers utilized narrative contents including goals and purposive actions at most, however, they also utilized certain narrative contents that were based on manifestations and difficulties.

Figure 6.16 : Frequencies of co-occurrences of C6.3 with other subcategories.

To interpret this chart more in detail it needed to be divided into two charts based on the secondary subcategories (subcategories of the subcategory ‘Design idea’) which were defined as ‘C6.3.1: ‘Description of improving or redesigning an existing design concept, product, service, system’, and ‘C6.3.2: Description of a new design idea, concept, product, service, system’. These detailed charts are presented in Figure 6.17 and Figure 6.18.

Figure 6.17 : Frequencies of co-occurrences of C6.3.1 with other subcategories.

The chart in Figure 6.17 demonstrates that there are three subcategories in narrative contents, which were significantly utilized by designers in order to generate ideas that proposed improvements or redesigns of already existing products, services or systems. In this context, the most frequently occurring narrative contents included the special practices (C5: Purposive action) that the narrators developed to record food and activities and measure change. Following these, designers also took the difficulties in preparing food (C1: Difficulty) into consideration by proposing for instance, redesigning the existing kitchen appliances. In altogether, by looking at the existing practices which had a predefined aim, method and certain tools, designers were limited to the present understanding. This was the result of the following:

- Designers respected narrators' methods and did not want to interrupt their rituals, rather they took these methods as hints to understand narrators' behavior.
- Designers did not want to propose some radical ideas that these narrators were not familiar with because designers thought that narrators would probably reject these ideas.
- Practices that were thoroughly determined by the narrators and seemed to work well were limiting for designers because they could not think beyond them.

As Figure 6.18 demonstrates, when it came to create new ideas rather than redesigns, designers mostly utilized narrative contents where narrators told about their goals, especially, the goal of staying motivated (C4: Goal). In addition, narrators' stories of manifestations or moments of awareness, such as meeting old friends and recognizing that they gained a lot of weight since their last meeting, were productive contents for designers.

Figure 6.18 : Frequencies of co-occurrences of C6.3.2 with other subcategories.

Overall, the social/psychological contents were mostly utilized by designers instead of practical ones in this context. According to this situation, following inferences were made:

- Goals stated by narrators included their wishes, hopes and short term or long term targets. Narrative contents about goals included less determined situations, i.e. they were all about future and the narrators usually told about them without having found out how to reach them. Thus, this was a totally free space to generate new design ideas because there were no predefined conditions, practices or concepts. Similar to manifestations, goals were also defined quite specific according to different situations, such as, to look good at the highschool reunion, or to stay on track during the holiday time by avoiding treats. Among the narrative contents related to goals, the most idea stimulating contents were based on the issue of staying motivated. While narrators told about how much they wanted to stay motivated they usually mentioned what they enjoyed or avoided in their everyday lives. In this context, designers combined the practices that were making the narrators feel good with the practices or obligations for which they needed motivation. For instance, one of the narrators told that she cut off cable TV at her home so that she could motivate herself to go to gym because she could watch TV

there. Design ideas, such as, designing a system where an indoor exercise equipment would be connected to the television and provided the electricity necessary to make the television work, or designing a gym concept which would offer movie nights during exercise came directly out of this narrator's story.

- Manifestation of a problem had more importance than the problem definition itself for designers when it came to create new design ideas. While narrators defined their problems in very general frames, the manifestations were quite specific and described more in detail. For instance, the problem stated by the narrator was that she was overweight, and that alone provided very limited information for a new design. However, when she told that she had a shock when her doctor called her 'obese' and that she would do anything to not feel that way again, it became a whole story. Thus, the details that provided the narrator with the awareness of a certain problem were found more useful by designers to create a new design than the problem statement itself. For designers, knowing about the manifestation of the problem enabled a better understanding and definition of the problem. Moreover, while most of the problems were sort of predictable by the designers, most of the manifestation forms were surprising for them. They were more varied than the problems because they provided detailed information regarding their narrators' personalities.

To summarize, the elaborate qualitative content analysis confirmed the findings regarding the initial associations that arose through the contingency analysis. These indicated that the co-occurrences of narrative content categories 'Difficulty-Obstacle' and 'Goal-Purposive action' were most strongly associated and related to design implication. As a result of the elaborate qualitative content analysis, other semantic connections that were lost in the contingency analysis also showed up. Here, the secondary and tertiary categories were helpful in the identification and variation of the network associations that occurred between different narrative contents and their relation to different types of design implications.

6.3.3 Findings related to narrative contents that were surprising to designers

Designers used a yellow highlighter pen to mark all narrative contents that were surprising to them but not necessarily stimulated any design ideas; that told them something they had not known or anticipated. In order to analyze these yellow highlighted narrative contents, each subcategory's occurrence frequency was calculated. The outcomes are demonstrated in Figure 6.19.

Figure 6.19 : Frequencies of subcategories in yellow highlighted narrative contents.

The chart in Figure 6.19 shows that the most frequently highlighted narrative contents included the issues of 'C5.1: Social support', 'C2.3: Habits, mental/social states that are hard to overcome' and 'C1.3: Problems with self/other people'. The distribution of the remaining subcategories' occurrences seems to be balanced.

Each of these three subcategories belong to a different main category: Getting social support is located under 'C5: Purposive action'; Habits, mental/social states that are hard to overcome is under 'C2: Obstacle'; and, Problems with self/other people is under 'C1: Difficulty'. Judging just by the main categories, this situation could be interpreted like designers were less familiar with the issues of difficulties, obstacles and purposive actions that the narrators told. However, the subcategories provided us with much more information since each of them were directed towards psychological/social issues that the narrators stated. Thus, a proper explanation for this situation is that most of the narratives that contained stories about the

psychological/social difficulties that the narrators were facing because of being overweight; their habits or mental/social situations that made it harder to overcome these difficulties and the methods they developed or used; such as getting professional support, to deal with these psychological/social issues were issues that the designers had not anticipated.

During the interviews, most of the designers said that they were surprised to read narrators' feelings of hate, disgust and fear for themselves. In some of these cases, designers made use of these situations while they created ideas, which were explained in the previous section. However, there was a large number of yellow highlighted narrative contents regarding psychological and social difficulties that were simply surprising to designers. Many designers told that these narrative contents enabled them to empathize with the narrators and that they felt sorry for they had not heard that overweight could cause such psychological or social damage for those people.

7. CONCLUSION

In the context of user-centered design, there are several ways of gathering ethnographic data and these data can be visual, such as, photographs and video records, and/or verbal, such as, notes, transcriptions of conversations and interviews. Among these different kinds of data, this dissertation focused on verbal sources, in particular, conversations, which can discursively inform design. The results of this study offers design researchers, designers and design students a systematic way to generate ethnographic conversations, transcribe them into narratives and utilize them for design.

7.1 Summary of the Findings

Throughout this dissertation, ways of generating ethnographic narratives and utilizing them for design were investigated in the context of discursively informed design.

In Chapter 3, first, a Preliminary Study was conducted by using the cultural probes method in order to generate user data and check how designers utilized them. The findings from this Preliminary Study revealed that designers utilized user data mostly in the form of narratives which were about (1) situations that evoke positive emotions related to lifestyle; (2) problematic experiences related to the situated practice; and, (3) expectations and possible responses towards innovation. This information provided insight on what kind of user narratives are mostly utilized by designers and contributed to the question formulation for the ethnographic research conducted in the Main Study. Furthermore, by conducting the research separately with designers and design students, it was observed that designers and design students had a remarkably similar approach: Both groups focused on and utilized narratives with similar contents to generate design ideas.

In Chapter 4, the first stage of the Main Study was presented, which was the generation of online conversations to inspire design. Along with the findings from

the Preliminary Study, a set of questions was formulated to be asked to users, addressing the issues that can provide useful information for design. Here, it was found that joining virtual communities in their ongoing conversations without manipulating or disturbing the natural flow of these conversations provided an important insight for understanding the members of these communities.

In Chapter 5, the transcription of the conversations into ethnographic narratives and their communication to the designers and design students were described. In this chapter, two separate studies, one with designers and one with design students were conducted. It was found that designers' and design students' approach to the ethnographic narratives were significantly similar. Both, designers and design students, highlighted same type of narrative contents and utilized them for similar design implications, and thus, the related finding from the Preliminary Study was confirmed. Considering the workshops that were conducted with design students in Turkey and in the United States, it was determined that even cultural differences were less important in choosing and utilizing certain narrative contents. An important reason for this situation was that all designers and design students who participated in this research were instructed to solely focus on the given ethnographic narratives without taking other stakeholders into account, such as manufacturers, marketers and the like. Through the findings of this study it became evident that there is a common understanding or *spirit* of design that is shared by both designers and design students that goes beyond cultural and geographical distinctions.

In Chapter 6, the analysis and interpretation of the outcomes from the Main Study were presented. For the initial analysis of the large amount of textual data from the Main Study, the contingency analysis was utilized. Due to the relatively small number of units of analysis, the results of the contingency analysis were less conclusive than expected. However, these results were still helpful in identifying the most significant associations between narrative contents and provided a certain perspective and direction for a more detailed analysis for the relation of these associations.

In overall, the findings of this dissertation led to the development of a specific design research method, which focuses on generating ethnographic narratives through conversations with users and utilizing these narratives to inspire different design implications.

7.2 Presentation of the Design Research Method Developed Throughout This Dissertation

The method developed throughout this dissertation suggests design researchers, designers and design students to follow certain steps while generating and utilizing ethnographic narratives to inspire design ideas (Figure 7.1):

Figure 7.1 : Steps of the developed design research method.

Framing the conversations with the users: Conversations are one of the less obtrusive ways to generate ethnographic narratives, especially if the researcher has the opportunity to join ongoing conversations. In a genuine conversation, the researcher does not dominate the conversation, rather s/he asks and answers questions like everyone else without disturbing the natural flow of the conversation. These conversations can have very broad and diverse topics, which may would be important for an anthropologist or sociologist to investigate, however, for a design researcher or designer, it is possible that most of these topics are irrelevant. In this sense, the design researcher or designer needs to be able to find the issues that can be utilized for design, and to do this s/he needs to raise certain questions that stimulate discussions or stories from which s/he can make use of. One of the findings of this dissertation was the formulation of these questions which were generated based on general issues to be investigated in these conversations. In order to identify narratives that can provide input for design, design researchers or designers need to ask the users the following questions:

- What are you worried about?
- How is your problem manifest to you?

- What do other people say?
- What do you do about your problem?
- What do you want?
- What calls for attention (time, money, effort)? What would you prefer instead?
- What draws you into difficulties?
- How do you measure progress or decline?
- What are the stories or difficulties you experienced in the past?
- What would you suggest to someone who has little/no experience about this issue?

These questions were prepared in general formulation so that each of them can be modified and adapted according to the subject of ethnographic research and the flow of the conversation that will be joined. The important thing while asking these questions is being a real part of conversations rather than trying to make covert interviews. This means that the researcher should not force the participants to answer these questions, rather s/he needs to actively join the conversation and raise these questions whenever they are allowed by the natural flow of the conversation.

Transcribing the conversations into ethnographic narratives: Once the data obtained from the conversations point to the degree of saturation they need to be transcribed into narratives in the form of quotations. As another finding of this dissertation, it is recommended that these narratives can be organized under main themes to prevent the loss of context and confusion. These main themes were already addressed by the questions that were asked during the conversations, however, in order to provide an easier track while going through the narratives, they can be presented as in the Table 7.1.

Table 7.1 : Main themes to organize the narratives.

Theme	Questions
Difficulties	<ul style="list-style-type: none">• What are you worried about?• What draws you into difficulties?• What are the stories or difficulties you experienced in the past?
Obstacles	<ul style="list-style-type: none">• What are you worried about?• What calls for attention (time, money, effort)?
Manifestations	<ul style="list-style-type: none">• How is your problem manifest to you?• What do other people say?
Goals	<ul style="list-style-type: none">• What would you prefer instead?• What do you want?
Purposive actions	<ul style="list-style-type: none">• What do you do about your problem?• How do you measure progress or decline?• What would you suggest to someone who has little/no experience about this issue?

The transcription phase is especially important for design researchers if they aim to communicate the narratives to designers. It is suggested that each narrative needs to be coded (with a different number, letter, etc.) so that the designer and the researcher her/himself can easily keep track of the narratives while proceeding with her/his work.

For the communication of these narratives to designers, it was found that preparing a reading protocol with a defined design task was helpful in terms of keeping the designers focused without limiting them. The reading protocol prepared in this study instructed the designers to work with highlighter markers while they were going through the narratives. It occurred that the process of highlighting worked well in this situation since it did not disturb or interrupt the process of reading, in opposite, it stimulated the process of thinking in depth and became an auxiliary tool for understanding and interpreting the narratives. Being one of the least obtrusive instructions for reading, the process of highlighting provided the designers and the researcher with a simple yet effective code for communication.

An additional recommendation for design researchers in this phase is to conduct a pilot research to test whether designers will be interested in reading and responding to these narratives. It is possible that designers would not prefer to spend long time with reading exhaustive texts. A pilot research can help the researcher in identifying the narratives from which designers make use of mostly. The findings from this

dissertation point that a number of 5-8 different narratives for each theme would be an ideal length for designers to deal with.

Making sense of the ethnographic narratives towards design ideas: Reading, highlighting and summarizing the narratives that were organized and communicated to designers provide the designers with a start point. However, the diversity of the narratives can still be a challenge for designers in interpreting and utilizing them. Although interpretation of these narratives and generation of design ideas include subjective processes of design, the findings of this dissertation offer certain instructions for designers and design students in dealing with ethnographic narratives as explained below:

- If the designer is looking for setting design criteria, the most productive narrative contents to focus are purposive actions, which are described as personal methods and practices that the users have invented to reach their goals or fulfill their wishes. These practices demonstrate the diversity of users' thoughts, practices and perceptions instead of forcing their qualities into personas. When these contents based on purposive actions are taken together with difficulties and/or obstacles, they enable the setting of more varied design criteria (Figure 7.2).

Figure 7.2 : Associations of narrative contents that help in setting design criteria.

- If the designer aims to improve or redesign an already existing product, system or service, narrative contents where users state the difficulties and problems they face along with their reasons, i.e. obstacles that are hard to

overcome in dealing with these problems, are especially helpful. Among many types of obstacles, practices that are tiresome, boring or time consuming, i.e. evoking discouraging feelings, provide the most useful information for design (Figure 7.3).

Figure 7.3 : Associations of narrative contents that led to improvements on existing designs (1).

In addition, goals within their purposive actions of users regarding the practices, which are dependent on the use of certain tools, products or services, are also worth considering in order to make improvements on existing design (Figure 7.4).

Figure 7.4 : Associations of narrative contents that led to improvements on existing designs (2).

- If the designer aims to generate original and novel design ideas, it is useful for them to focus on narrative contents where they can explore the manifestations of mentioned difficulties and problems. Similarly, narrative contents where users' wishes, hopes and goals and related purposive actions occur together provide an important source of inspiration for generating novel design ideas. Here, designers can utilize the goals and wishes of users along with the details of their personal lives in order to redefine these goals and purposive actions. In this context, users' stories of manifestations which have a social/psychological dimension are the most new idea stimulating narrative contents for design, and they can be utilized more productively when they are taken together with the contents where future goals are explained (Figure 7.5).

Figure 7.5 : Associations of narrative contents that led to new design ideas.

Narratives that contain goals and purposive actions together can be helpful in gaining insight on the subject of research. They inform the designer about the present personalized practices and future orientations or wishes by transmitting specific concepts or expressions that can be found interesting and utilized as a starting concept for design (Figure 7.6).

Figure 7.6 : Associations of narrative contents that were found interesting for design.

To conclude, designers and design researchers can make different use of different ethnographic narratives, however, throughout this dissertation it was found that some categories of narrative contents and also the co-occurrence of these contents can be more specifically utilized while generating design ideas. Here, it is proposed that a systematic way of ethnographic narrative generation for design can reduce the redundancy of the elicited data and accordingly, a systematic way of looking at this collected narratives can provide the designer with a more precisely defined direction in order to utilize them in design.

In overall, the findings indicate that narratives containing manifestations and goals are helpful in generating new design ideas, while narratives that focus on difficulties and obstacles or goals and purposive actions lead to improvement ideas on existing designs. Moreover, narratives of goals and purposive actions contain personal expressions and specific concepts that give the designer the starting point for a yet undeveloped idea. Finally, in order to set design criteria, narratives with contents of difficulties, obstacles and purposive actions can be utilized since they provide information about problems, their reasons in different life styles and personally invented solutions to them.

7.3 Lessons Learned and Recommendations

Considering the Preliminary Study, it was found that despite its advantages, such as, minimizing the possible effects of a researcher's presence and offering users the

opportunities and means of self-documentation, the limitations cultural probes packages imposed on users and the lack of interaction between the users and the researcher were important shortcomings in generating ethnographic narratives in this study.

Regarding the use of ethnography and, in particular, conversation in virtual context in comparison to face-to-face conversation, it was found that the biggest challenge in gathering data from virtual communities was that the time and length of the conversations are completely dependent on the members of the community, however, that the researcher had little control over conversations reduced the researcher bias and offered the researcher to observe the natural flow of ongoing conversations. Another issue of consideration was that the participants had virtual identities, which could not be confirmed to be true or false. However, in this context, the authenticity of identities does not matter because their stories are vetted in conversations with others. They would not be acceptable if they were too far removed from everyone's experiences. The anonymity of identities usually made it easier for participants to talk about their thoughts, experiences and personal stories, which enabled the researcher to gain a detailed understanding of their lives. Furthermore, members of virtual communities were changing continuously, and it was hard for the researcher to communicate with the same people throughout the whole research process. However, despite its limitations, joining virtual communities provided the researcher with the opportunity of easily accessing the target group of participants on a certain research subject. In addition, the virtual platform provided access to a high number of participants in little time compared to face-to-face conversations, and thus, enabled gathering a large and diverse type of user narratives and made the whole process more efficient. Based on its significant benefits, the use of ethnography in virtual context is highly recommended to design researchers, designers and design students who aim to generate user narratives to inspire design ideas.

About the transcription of the ethnographic conversations into narratives and their communication to designers, it was found that designers and design students did not prefer to read long texts and the average number of narratives they could go through without distraction or loss of interest was about 5-8 per topic or question. Moreover, it was discovered that providing designers with a reading protocol with instructions and asking them to use highlighter markers as they went throughout the narratives

kept them focused and alert to contents from which they could make use of. This method worked well with designers because designers usually do not have to read as much as scholars, and highlighting is conventional and easy for everyone.

About the methods used for qualitative data analysis, it was found that, although most of the semantic connections got lost in the numerical representation of the contingency analysis, it was helpful in leading the way to a more detailed analysis when dealing with qualitative data. Conducting a following elaborative qualitative content analysis enabled to identify the network relations between the narrative contents that were found useful by designers and revealed the connections of these specific narratives to different types of design implications.

The method developed in this dissertation was based on the research that was conducted with virtual communities, however, it can easily be generalized and utilized for any user research that aims at generating ethnographic narratives where the researcher prefers to have a face-to-face communication with the users.

The findings of this dissertation can enable further studies to be conducted in user-centered design context from which design researchers, designers and design students can benefit.

7.4 Further Studies

The approach and findings of this dissertation propose a projection of the use of ethnographies of possibilities into other areas of design, for different stages of design, and other approaches of design including the cases where designers may have to work for and/or with small number of users or experts.

The approach described here can be helpful in using different media in which ethnographic insights can be found. These can be formal complaints, customer feedback on websites, letters to the editors of newspapers and magazines, trip advisories, and the like. The questions that were formulated and asked to participants during the ethnographic research can be modified according to different communities and subjects of research. These questions address the main issues to be investigated, and therefore, they can be helpful for stimulating design ideas also in other research cases.

The method developed in this dissertation can be applied focusing on different design problems. Many design problems have different starting points like improving existing products and extending their use; making a product competitive; updating something in view of new technologies; teaching people to accept a service, etc. which ought to be amenable to an ethnography of possibilities.

Furthermore, the analysis methods that were utilized in making sense of narratives in terms of design can lead to the exploration of other methods of data analysis, for example data from social media (Twitter, Facebook, etc.), which are huge in volume (big data). In this case, computational methods might substitute the transcriptions of virtual conversations and organization of them based on their relevance to design considerations. Ultimately, the approach described in this dissertation might well be providing designers with one or more search engines they could use to discover whatever would help them to find new products, services, practices, or informational resources; to improve existing artifacts or to discover a new trend.

In addition to generating conversations, as a method of communicating with virtual communities, other ways for doing ethnographic research with these communities can be explored where visual elements can be utilized effectively. It was observed that members of virtual communities are or can usually be encouraged to share images or photographs related to their living environment or tools they use in their practices. These visual elements they like to share can be the subject of another research.

To conclude, according to the aim and scope of this dissertation, only the generation and use of verbal and textual ethnographic data were examined. The findings of this research can be combined with the findings of studies that focus on generation and use of visual of ethnographic data for design. Thus, further studies in this context can provide design researchers, designers and design students with more specific methods in dealing with various types of ethnographic data.

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APPENDICES

Appendix A: Narrative Document

Appendix B: Interview Transcriptions

Appendix C: Conversation Transcriptions

Appendix D: Raw Data Matrix - Designers' Case

Appendix E: Raw Data Matrix - Design Students' Case

Appendix F: Analysis Sheet with Subcategories

Appendix G: Frequencies of Co-Occurrence of Subcategories in Design Students' Case

APPENDIX A: NARRATIVE DOCUMENT

The stories attached hereby are the result of online conversations within several communities that are concerned with issues of health, eating, fitness, and overweight. They tell of the problems, fears, and difficulties experienced in these communities and they contain advice given in response to their issues.

As ethnographic researcher, I became part of these conversations. I raised and responded to questions like everyone else, but my interest was to elicit narratives that would give designers a sense of these communities and pointers to what they could contribute to improve their lives.

Please consider these stories as a stimulus for the design of a product, system, service, or practice that might improve the life in these communities.

As you go carefully through these accounts of experiences, please:

- Use a yellow highlighter to mark all sections that tell you something you had not known or anticipated.
- Use a red highlighter to mark all sections that give you an idea for something, a design, that could alleviate the conditions these stories describe.
- Keep a notepad to explore by sketching or in words, what you think you could do for people who have the experiences that these stories describe.

This would give me valuable feedback on the design research method that I am seeking to develop. At some point I hope to discuss with you whether and how these stories inspired you to think of something not yet available.

Thank you

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(A) What are you worried about?

- **A2: (F)** I feel like I've got to be healthy for my kids—to model good eating habits for them, to make sure that they're eating well, and so that I have the energy to nurse my son and keep up with my incredibly energetic preschooler.
I've also heard that different flavors of foods pass into breast milk, so if I want to my son to have a healthy, varied diet, I've got to include lots of healthy, varied foods. I always find it difficult to include fruit in my diet—it's so time consuming to wash and peel and chop it all up. So I've bought a bunch of frozen fruit—peaches, raspberries, blueberries—and plan to make fruit smoothies each morning. Hopefully, this will up my filling fiber, increase healthy antioxidants, and give me a good start for the morning. Plus, I can share it with my three year old as a way to increase her fruit intake. Here's a great basic smoothie recipe. You can use frozen fruit instead of fresh and just omit the ice cubes."
- **A5: (F)** Losing weight isn't really important to me personally. I have an active job and two nutty dogs so I burn calories just waking up. Mostly it's about keeping toned. I shudder at the idea of having jiggle thighs or bat wing upper arms. I'm proud my legs and arms are hard muscle. My weight bounces around 130 more or less and I'm good with that.
- **A7: (F)** My worries are health and look. When I face a health issue regarding the things I eat or regarding the lack of movement (because I'm working on my desk all the time) I decide to get some discipline about eating and exercising. But once the health issue is solved I turn back to my old habits. It's pretty discouraging. How I look is of course another issue. It's frustrating seeing my favourite dresses not looking good on me.
- **A10: (M)** Actually after seeing both my parents (who by the way ate very healthy all their lives but didn't exercise) sort of go downhill - as far as their bones and walking - it has taught me to stay more active - I have a big support system - that I am in sync with every day. A buddy system really helps because if you fall behind and life does not permit your steps - you can get back on track - it helps to see what others are doing not only on the leaderboard but as far as talking to them and seeing their posts and stats. Hope this helps :smileyhappy:
- **A11: (F)** I cannot remember a time when I have not struggled with my weight. I have been up and down and up and down over the years, but it has been a very long time (since before my first child 27 years ago) since I weighed less than 200 pounds. My size has always caused me a lot of emotional angst and until not too long ago, I didn't like myself very much. I have always been my own worst enemy -- very self-critical. I am the only one I expect "perfection" from. If I could only extend the grace I so freely extend to others to myself, I might not be in this position.
- **A12: (F)** I know this will be familiar to people who have been overweight for most of their life (i.e. not post-pregnancy, or after an injury, etc.) but we have spent so much time being defined (by ourselves, society) as fat, that we've come to accept our fat status. But for me, it's more about the mentality. I'm not talking attitude, because in my mind I'm Jessica Rabbit. I'm talking about the mentality of fear -- that if I'm not vigilant every moment of every day, the pounds will return. They won't return slowly, but the fear is that I will gain all 50lbs back overnight. I know, so weird. But that's why I say I'll always be a "Fat Girl" -- it's the mentality of fear. I'm not disparaging my body or my journey. It's my way of recognizing where I've come from and what scares me most.

(B) How is your problem manifest to you?

- **B2: (F)** It was a series of events that began when I got pregnant, freaked out, and got into therapy. I ended up having a miscarriage but stayed in therapy. In short, therapy led to a desire to start living again, and not just existing. I was so desperate for change that I went to my doctor hoping she'd recommend gastric bypass surgery. Instead, she recommended Weight Watchers. Thank goodness for that. I joined Weight Watchers in 2007 at 233.8 pounds.
- **B3: (F)** I'm 18 years old- I look at pictures of the past 10 years of my life, pictures that used to make me laugh and brought back some of my best memories, and all I see is how over weight I was. I contemplated throwing them away time and time again, but I convince myself that one day I'll appreciate those memories. For right now, they simply disgust me.
- **B5: (F)** I entered graduate school immediately after undergrad. Within the year I was over 200 pounds. Nothing fit. I had to buy a business suit for graduation 2 sizes larger than I've ever worn. I was horrified, depressed, and mad at myself for not doing anything about it. I now longed to be that "chunky" girl in high school. I looked at pictures of myself in disbelief. I was skinny! What the heck was I thinking back then?
- **B6: (F)** Then, in the summer of 2004, my husband and I decided we would try to start a family. I still had losing weight on the brain and I thought I would try Weight Watchers. It seemed like a healthy alternative to what I was doing. I knew I couldn't cut all carbohydrates out of my diet and I had to start eating healthier to carry a child. I tried the point system. It seemed so simplistic and easy, I had to try it. In the next 4 weeks, I lost about 11 pounds. I could not believe it. I didn't feel deprived. I was eating real foods, including carbohydrates, and losing weight.
- **B9: (F)** I just found out that my 20 year high school reunion is this summer. After I got over the initial shock of the fact that I'm that old, I realized that I had to get into shape, if only for this event. While I'm sure most of my former classmates will look a bit older and pudgier than their 18 year old selves, I definitely want to put my best foot (and tummy and butt and arms!) forward. I know there will be old flames and former rivals and girlfriends I haven't seen in forever. I gotta shed this extra 15 by the summer, or I'll just run and hide!
- **B11: (M)** I am facing some very real obstacles, physically. I have fairly severe back and knee problems, and struggle with chronic headaches. I cannot do what an average person can do physically, or even what I could do two years ago. But my doctor tells me weight loss could make all the difference.
- **B13: (F)** Hi everyone. My name is Judy. I am from Pittsburgh, Pennsylvania. I am 71 years old. I wanted to tell everyone about how I finally lost weight with a healthy lifestyle change. I have been on many diets over the years and I would lose weight and then gain it all back and then some. Back on March 3, 2014, I was told by my doctor I was Obese! I had never been told that before, so it was a real awakening.
- **B14: (M)** I've battled my weight ever since college, which was nearly 35 years ago. In medical school my life was eat/sleep/classes and labs/study. It was total emersion!! I also had the great fortune of marrying a woman who could really cook...man, can she!!! And the way she demonstrated her support and affection was through food. Of course, I was soon to discover that I had the appetite of a vulture and the metabolism of a turtle. In 10 years, I added over 120 pounds to my frame!
And I didn't weigh in. Yep, a doctor who doesn't check his weight!!! All too often, we are more concerned with taking care of others than with taking care of ourselves. It's a character flaw for sure.
About 12 years ago, I really saw the need to step up and do something. I was 41 years old, 350 pounds, and it felt inside like I wouldn't see 50 if I didn't start moving. So, exercise, diet, all the good things.
But I wasn't really into the ""scales"" thing yet.

Then my Dad developed type II diabetes, and he's built like me and a retired surgeon.
OUCH!!! I have 50% of his genes. Then my Mom's twin brother developed type II diabetes
and he's built like me, too!!
Shots fired across my bow! I got the message.

(D) What do you do about your problem?

- **D5: (F)** For recording, I use my fitbit app on my phone.
Comparing and understanding them is a bit trickier.
Thus far, I'm following the KISS rule (keep it simple sweetheart)
Processed=not so good
Fresh from the earth=good.
More veggies and fruit= good
There is SO much conflicting info out there so it's hard to know where and how to educate oneself.
I think we all have it in us....we inherently know what is good for our bodies and what isn't.
Simple changes like choosing a handful of nuts over a bakery muffin make sense to me. A fresh orange vs a glass of manufactured orange juice.
Keep it simple sweetheart
- **D11: (F)** If I bite it, I write it.
If I snack it, I track it.
If I drink it, I ink it.
Before my utensil, I use my pencil!
It is SO true that:
If you ""kinda"" track, the Plan ""kinda"" works.
But if you REALLY track your food, drink, and activities, it REALLY works!
These are not my words, they are Darryl Z. But I like how he worded this because it is true.
- **D13: (M)** Exercise is like work, if you find something you enjoy, it is not exercise but a fun time of day. Something to look forward too. I do my walking early in the morning that way I don't have to worry the rest of the day about it.
- **D14: (F)** I also go to the gym (treadmill) only because I cut off the cable at home. So I actually go there to watch tv when there is a show that I REALLY love and want to watch. (I'm addicted to hockey in the winter & big brother in the summer) so I have no choice but to go to the gym to feed my tv addictions :smileyhappy: I figured that was better than sitting on the couch watching tv.
- **D16: (F)** I've counted calories since I was in high school and I'm 61 now. So that works for me because I'm so familiar with it. When I really want to drop a few pounds I'm pretty strict in my calorie counting and in logging. Otherwise I just count my calories in my head each day. I also exercise quite a bit. I'm primarily a runner but walk a lot too. I also do some weight lifting. I have a treadmill, stairstepper, stationary bike, weight bench and free weights. The indoor equipment keeps me active in the Winter as I live in the northeast. I'm a firm believer in calorie counting and exercise. Whatever plan anyone can develop for themselves with that in mind should work with some tweaks and balancing along the way. There are always adjustments to be made. It really comes down to finding something that works for you as an individual and most plans are calorie based. Add in some exercise and you should see some changes. Set small goals and as you have success you will be encouraged to set more goals. One step at a time.
- **D17: (F)** I always liked and have done exercise (which isn't needed for weight loss, but body transformation so it's the right weight that is lost, like fat, not muscle), so no motivation there needed. Enjoy pushing body to see what it can do, seeing improvements, ect.
Logging you just accept fact you cannot burn more than you eat unless you have some clue regarding both sides of that equation. And if you want success you'll find it the more accurate you are.
Motivation to do so was found through a 2 week test of being super consistent and actually seeing expected results, compared to iffy logging gave iffy results. Simple as that.

Motivation to do the whole thing was to do races like I did 15 years ago, or at least close to it (better actually now). And making backpacking and playing with my son more enjoyable because easier.

Health from decent diet and exercise rarely actually enters the mind, though in the past I've gotten motivated after blood test results and high cholesterol numbers.

(F) What draws you into difficulties?

- **E1: (F)** For me, I instinctively knew that I needed someone to hold my hand throughout the weight loss process and thankfully I have that in my dietitian Amanda now. I wish I had realized this when I first started dieting after my son was born 17 years ago! I would have saved myself a lot of time, money, and heartache if I had just reached out to someone that I could be accountable to for the long haul. I will say that I am at the point where I can look back and remember that each time I tried a new diet or weight loss program, I learned something. I try to take all that knowledge and use it now in my current efforts. I have a Specialized Ruby Elite road bike and a Marin Hawk Hill mountain bike. These were pre-kids purchases, back when I had disposable income. I'm glad I invested in good equipment back then. And if you spend any time on a bike, get some padded cycling shorts.
- **E2: (F)** I usually write everything that I am going to have for all of the meals of the day.. I even preplan snacks. Tracking everything this way leaves no room for error. You know that you are within your points and you know exactly what you are going to eat. My problem is just getting myself to write it down. LOL! Tracking works long term for me when I continue to do it.
- **E3: (F)** I wasted too much time driving to exercise, such as to the gym. Now I realize how precious time is to get in enough exercise during the week. I have a gym now where i live which is great, no wasted time driving or additional costs. Like many Fitbitters, I try to weave as many steps and stairs into my day.
I've purchased a treadmill and a boflex that I didn't really use enough considering the cost. I have some small exercise equipment that were a waste of money, in my opinion, They included a 2 lb and 3 lb fitness balls (gifts from a coworker) and exercise straps. So, for the month November, it's mostly biking combined with South East Outings weekend hikes.
- **E7: (F)** I will be the first to admit that it (the treadmill) does not get used as much as it should. I bought it a few years ago and thought to myself, "Now I will get in shape, lose some weight and feel great!" Well it sounded good. I had it in the living room for a while. I had good intentions of using it while watching TV, or at least the commercials. Then my boys would want to play on it and when my nieces came over they thought the hand rails were monkey bars. After cleaning and rearranging bedrooms, the treadmill made its way into the small spare bedroom.
- **F11: (F)** Now that it's cold, I'm finding exercise even more challenging. For a while I was taking lots of walks with the baby in the stroller or heading to the playground with my daughter. But now, I feel pent up. I belong to a gym but haven't been motivated to go because I don't want to drop the baby at the daycare and have him get sick. So that leads me to exercise DVDs. While they aren't my fave way to get some exercise in, they certainly help me break a sweat.
- **H3: (F)** Priorities. I will be the first to admit that it's hard. I have had internal struggles with walking out the door to the gym while my kids chase after me, tears, arms outstretched, saying ""mommy don't goooooo!"" That is not easy. But I do it. And 95% of the time it's without tearful dramatics. I remind myself why I'm doing this, and in part it is for them. I am a better mother, more fun, more energetic, less stressed, when I am fit. I know they don't get it yet but I know they benefit from it. So I prioritize. What's more important, staying home for bedtime with the kids or the gym? The gym. I have to put the gym up top. It's that old oxygen mask story. On a plane they say, ""if traveling with small children put your oxygen mask on first, then theirs."" Goes against our instincts but the reality is, if I'm not well, nothing much else will work either. And most of the time I don't miss bedtime since I go to the gym right after work. It means the kids are in preschool for an extra hour at the end of the day. It also means mommy doesn't have to take Valium so I think it's worth it.

Work with your schedule and do what you can. Research shows that even a small amount of activity can lead to big health improvements. If you have less time, up the intensity. Don't get into rigid ideas (like I had a bad habit of doing) about what ""counts"" as exercise. Wear a heart rate monitor that tracks calories burned and you might be surprised. I do things like go to the gym after the kids go to bed or get up for a 5:30am boot camp so I'm done before they wake up. Find the desire and you will find the time.

(G) How do you measure progress or decline?

- **G1: (F)** For immediate feedback, I use a scale and a pedometer. I weigh myself once or twice a week and I use my pedometer every day to gauge my activity. I also have a pair of jeans in my closet that are brand new that I've never worn because I gained weight shortly after I bought them. I try those jeans on from time to time to see if I'm getting any closer to fitting in to them. I have also learned to look at the bigger picture and realize that I have come a long way from where I was just a year ago - my dietitian will remind me of how my habits have changed for the better when I'm feeling discouraged or frustrated. Remembering how my behavior around food was so demoralizing to me at the time helps me to see that I am indeed making changes.
- **G6: (F)** Sure, find some tight clothes that are test clothes - don't wear them normally, and do NOT wash them.
Very discouraging to shrink them and think you gained weight.
Measure many spots, take pictures in mirror (you'll want those later anyway).
- **G17: (F)** I weigh in every thursday and measure every saturday. At least when I remember lol.
The only times I don't is during my TOM since I know my body is retaining liquids.
My vote goes to weigh in at least once a month or every 15 days, since when you are starting to lose weight, you won't really see instant changes on your body, but on the scale.
If you really really hate it, ask someone to take a photo with the same outfit, tank top and shorts should do it. Take the front, sides and back with your arms open.
Final word, weigh in at the beginning. You'll prefer the numeric motivation than a photo that may not be changing yet or affected by a personal view of yourself (I've been there, I've lost 35+ and I see myself the same).
- **G18: (F)** Go visual, get reminders everywhere!

(I) What would you suggest to someone who has little/no experience about this issue?

- **I1: (F)** I would suggest start by taking a walk every day and talking to a dietitian or a nutritionist to get started. Go to the experts and let them help you - there are so many certified and trained professionals whose job it is to help. Get support and don't try to hide the fact that you want to get healthy and lose weight - the more people that know, the more opportunities will come your way. Also...it's very important to find what works for you. Just because your friend lost 50 pounds on Weight Watchers doesn't mean it will click with you - and that's okay!! If the program doesn't fit you, then it doesn't fit. Find the thing that clicks for you. Also, if you are an emotional eater, no diet in the world is going to help unless and until you get your head straight. Go talk to a therapist or read some books on emotional eating and work on that first...it will save you a world of time and energy! Also, have some kind of release - a journal, a blog, a therapist, a trusted friend, or an activity that will allow you to release frustrations and fears - this has been invaluable to me.
- **I3: (F)** 1. Never give up. 2. Follow your motivation. 3. Tread water when you need to.
1. On never giving up...Commitment is primary. You have to draw a line in the sand, stand up, tell yourself that you don't know what the future holds but from here on out things will be different. Not perfect, but different. Making a commitment to not give up, under any circumstances, is key. This journey is about maintaining weight loss, not losing weight. If you lose weight and regain it, you've won the battle but lost the war. Write down your goals.
2. On following your motivation... Ask yourself what you are motivated to do and do that. When I started WW in 2007 the only thing I was motivated to do was go to meetings. So that's all I committed to. No exercise, no plan following, just go to the meetings. Soon the motivation to do more arrived and I started following the plan. Still no exercise. Eventually that motivation came too. Motivation is like riding your bike down a hill, everything is easier when you're motivated. Ride that whenever you can. But motivation comes and goes so....
3. On treading water when you need to...There will be times when you're not into it, when you don't care, when chocolate and the couch feel like more of a priority than anything else in your life. It's ok. Ride those times out. Remind yourself that your drive will come back. During these periods the key is to maintain your progress, to not go backwards. View weight maintenance as a success. When your fire comes back, and it will, you want to be ready to pounce. Recognizing ""down"" periods (what I call a slump) in your journey and hanging on for dear life to the progress you've made so far – well, that goes back to #1 – NEVER GIVE UP!
There's so much more I could say – stop judging yourself (and others), make reasonable goals, ask yourself what you **really** want, write down your goals, your reasons for wanting to change, surround yourself with motivation (subscribe to fitness mags, read motivational books, invest in the clothes/gear for exercise), focus on establishing new habits instead of weight loss, eventually find exercise you love (walking, swimming, zumba – keep looking until you find it), take one step at a time, change your behaviors, change your thoughts and your weight will change.
- **I7: (F)** I'm on a weight loss journey myself and so far I've lost 35 pounds.
Best advise I can give is weigh in your food, it may be tiresome at first, but then you'll get used to it, avoid measuring since even measure cups can be altered and portions may not be the ones as described on a product's package. Second, meal prepping. It is super important to have an idea and plan ahead for your meals of the day or week, this way

you'll prevent any temptations and have room to play with your caloric budget for the day (plus, it will save you a ton of money in the long run, trust me!).

Third, enjoy it! Dance it out, go for a walk, rock out your cookbook! It will take time and effort, so don't beat yourself up if you did not walk as much or if you had an unplanned treat, you'll make up for it!

PS: I'm against restricting foods, since you are most likely to binge on them when they are near you (nutella I am watching you) enjoy them with moderation and fit them in creative ways within your caloric budget.

- **H7: (M)** I decided that my lunch bag works best. I pack it with what I am going to eat, add up the points, write it down. So far so good. Still need to go to a meeting and WI.
I kinda feel silly taking my lunch box to work to my part time job as a cook. Better to eat my own food then to try to add up points at work. "

APPENDIX B: INTERVIEW TRANSCRIPTIONS

Designer: DES1 (F)

Date: 08.04.2015

Duration: 94 min

Ö. Ç.: Birinci sayfadan başlıyorum. Sarılar, buradan öğrendiğin şeyler...

DES1: Bazılarında da ikisi çıkıyor gibi oldu. Onları da turuncuyla çizdim.

Ö. Ç.: Evet çok güzel onları da gördüm.

DES1: Şimdi şöyle... Hissettikleri şeylere şaşırdım aslında. Bunu nasıl düşünüyor dediğim şeyler genelde sarıyla çizdiklerim oldu. Bir de bu sayfada mesela çocukları için iyi model olmak... İnsanlar yemek yerken bunu mu düşündür dedim, ilginç geldi hani yani.

Ö. Ç.: Anladım.

DES1: I feel about myself inside does not match what is on the outside mesela... Psikolojik olarak iç ve dış uymaması beklediğimden daha üst bir bakış açısı gibi geldi. Bir de ilk başı olduğu için daha mevzuyu da bilmeyince ne okusam ilginç gibi geliyordu. Sonradan biraz tekrar etmeye başladı falan.

Ö. Ç.: Tamam. 3. Sayfaya geçiyorum. Burada mesela fikirlerin var real company diye yazmışsın...

DES1: Evet. Acaba birine mi ihtiyaç duyuyor birlikte birşeyler yapmaya gibi. İşte başkalarının ne yaptığını görmek istiyor. Acaba hani onunla birlikte mi devam etmek... Hani birisi olsa ya da işte sanal birşey olsa, bir ürün olsa, neyse, ona daha iyi hissettirir falan gibi birşey geldi aklıma.

Ö. Ç.: Bu yani birlikte aktivite yapmak için mi?

DES1: Hani orada şey diyor ya buddysystem falan. İşte o buddysystem'dan aklıma geldi. Buddysystem'ı görünce sanki birşeyin company'sine ihtiyaç duyuyormuş gibi.

Ö. Ç.: Burada mesela çizdiğin şey mi bu? Koluna taktığı birşey gibi mi?

DES1: Evet evet. Mesela telefondaki birşey ya da koluna taktığı adımsayar olsa mesela. Onu acaba üzerinde taşımanın bir etkisi mi var hani işte bana eşlik ediyor, yakınımnda, işte, yalnız değilim hissi mi verse acaba gibi.

Ö. Ç.: Anladım. Burada mesela gerçek biriyle konuşuyor gibi mi yoksa bir program mı?

DES1: Aslında onun kafasındaki muhtemelen gerçek kişi ama ben bunu ürünle sağlar mıyım gibi bir düşünceydi o. Yani, onun oradan aldığı tatmini bir ürün verebilir mi;

ürüne aktarmak gibi düşündüm. Gerçek kişi yerine bu tatmini bir ürünle sağlayabilir miyim diye düşündüm.

Ö. Ç.: Tamam. Burada I didn't like myself kısmını çizmişsin...

DES1: Evet. Hani böyle cidden şaşırdım yani insan kendini böyle düşünüyor mu falan diye.

Ö. Ç.: En sonda but the fear kısmı var...

DES1: Evet evet.

Ö. Ç.: 4. Sayfaya geçiyorum.

DES1: Mesela buna çok şaşırdım gerçekten.

Ö. Ç.: When I got pregnant mı?

DES1: Evet evet.

Ö. Ç.: Evet. Burada niye şaşırdın?

DES1: Hamile kaldığı için korkması garip geldi. Ne bileyim. Sonra niye korktuğunu anladım, miscarriage falan şeyleri söylemiş. Aslında kilonun ona sebep olması ilginç geldi. O kilo hayatındaki herşeyin etkilenmesine, korkmasına, sebep oluyor. Mesela living again diyor sonra. Hani, o kadar... Tamam, bu ciddi bir problem ama insanlarda bu kadar büyük problemler yarattığına şaşırdım.

Ö. Ç.: I had to start eating healthier to carry a child kısmı var çizdiğin...

DES1: Farklı motivasyonlar olması. İşte bebek sahibi olmak için, bebeği daha sağlıklı hale getirebilmek için falan işte. Bu motivasyonları onlara hatırlatacak birşey olabilir mi; ama hatırlatırken de aslında bir yandan kilolu olduğunu da hatırlatıyor. O yüzden acaba daha dengeli bir hatırlatma biçimi olabilir mi? O yüzden harmless way dedim yani reminding ama bir yandan 'sen şişkosun'u da hatırlatıyor hani yani. Üzüldüm yani ben bunları okurken valla, insanlara bayağı üzüldüm.

Ö. Ç.: Evet doğru aslında...

DES1: Çok büyük korkuları var falan.

Ö. Ç.: 5'e geçiyorum.

DES1: Doktoru beğenmiştim.

Ö. Ç.: Burada neyi mesela doktorun söylediklerinde...

DES1: Şey hani böyle ben doktorum havalarda değil de böyle bayağı dürüst ya işte... Başkalarının hayatını yani önemsiyor da kendi hayatında aynı şeyi uygulayamıyor falan filan. Bir de açıkça yazması hoşuma gitti böyle dürüst dürüst olması.

Altta yazdığım da şey yine motivasyon ama kötü şeyleri hatırlatmadan. Yani, mesela bu adamda da aynı şey vardı. Açık açık yazması falan, farkında olması, paylaşıyor

olması, hoşuma gitti. Ona böyle bir iyilik yapmak istemiş olabilirim ürün tasarlayıp kötü şeyleri hatırlatmadan.

Ö. Ç.: Sonra stressing the motivations var...

DES1: Evet, onları motive edecek ama işte hastalıklarını, kötü görüntülerini, zorunluluklarını hatırlatmayacak.

Ö. Ç.: Şeyi sorayım... Bu altta yazdığın şeyler için, sayfanın sonunda topladığın, bu sorudan aldığın veriyle mi böyle bir fikir çıktı yoksa baştan itibaren olan herşeyle mi genel olarak?

DES1: Ben baştan hiçbir şey düşünmedim, yani, bir ürün düşünerek başlamadım. Burada okuduğum şeylerde genelde aklıma geldi. O yüzden işte o doktoru sevmemin sebebi de örneğin tasarım girdisi gibi değil de... Bunda da öyle, işte, insanlarla empati kurmaya başlayınca sanki böyle birşey ihtiyaç duyuyorlarmış gibi. Ya da mesela orada bir kelime aklıma getiriyor belki de. Normalde o kelime o amaçla yazılmamış ama mesela az önceki gibi, mesela, buddy kelimesini görünce aklıma direkt o geldi yani, cevabı company olabilir mi diye. Belki orada ondan hiç bahsetmiyor ama o, benim aklıma onu getirdi. Burada da hani öyle; farklı motivasyonlar olabilir düşüncesi, mesela, çocuk sahibi olma motivasyonundan geldi aklıma. Direkt buradan yola çıkarak, kelimeler üzerinden...

Ö. Ç.: Peki en sonda yazdığın şeyler özellikle bu sayfadan aldığın anlatılardan mı çıktı yoksa genel mi?

DES1: Önceki sorunun da şeyi var mutlaka. Onların o endişelerinden yola çıkıyor sonuçta. Orada endişeleri okudum, bu iki sayfada 4 ve 5'te mesela, belki hiç hastalıkla ilgili birşey yazmıyordu, onlar ilk sayfalarda yazıyordu belki. Ama orada bazı endişeleri burada bazı endişeleri okuyunca insanların değişik değişik motivasyonları var kilo vermek için düşüncesine toplamda geldim aslında.

Ö. Ç.: 6'ya geçiyorum. Turuncu olan I hated myself as long as I can remember var...

DES1: Hani şey aslında 'as long as I can remember' oradaki şeyim galiba. Evet. Kendilerini sevmelerini sağlayacak bir ürün olabilir. Yani bunlar bana çok temel sorunlar geldi, onları yaşadığı sorunlar. İşte kendimden nefret ediyorum, işte içimdekiyle dışımdaki bir değil, işte ben çocuğuma örnek olacağım falan gibi... Hani kendilerinden nefret etmeleri sanki daha temel problemmiş gibi geldi, yemelerinden çok. Birazcık daha psikolojik yaklaşmış olabilirim yani. O yüzden hani acaba onların kendilerini sevmesini de sağlayacak birşey olabilir mi? Ama, mesela, bu direkt bu cümleden çıkan birşeydi. İşte çocukluk travmasından bahsediyor orada, işte, 12-13 yaşındayken saklamaya çalışıyordum falan gibi. Onlar belki psikolojik açıklamalar yaptığı için ben de belki o yöne yönelmiş olabilirim. Aslında yemek yemekle ilgili çok şey yok aslında burada; direkt yemek ünitesi veya sağlıklı beslenmeyle ilgili birşey değil de daha çok kaflarının içindeki gibi bir ürüne o yüzden yönlendirmiştir. Yani, hani buradaki bilgiler çoğunlukla ey, ne hissettikleri olduğu için ben de ona response etmeye çalıştım gibi.

Ö. Ç.: Mesela diğer sarıda mental cure var çizdiğin...

DES1: Orada da diyor ya chemical genetic problem. Beni yansıtmış.

Ö. Ç.: Burada design of something dediğin kısım bu mental cure'un devamı değil mi?

DES1: Evet evet aynen. Onlar farkında olmadan onlarla iletişim kuracak, onlara kötü şeyleri hatırlatmadan bir yandan iletişim kuracak.

Ö. Ç.: Ürün fikirlerin var sonra...

DES1: Evet işte application ile desteklenebilir, bir hizmet olabilir, falan gibi.

Ö. Ç.: Tamam. Bunu mesela sarıyla çizdiğin şey tetiklemiş gibi görünüyor burada, doğru mu anlıyorum?

DES1: Evet o tetikledi ama bir birikim var yine. Sadece bu diyemem diğer okuduklarımın da etkisi var yani.

Ama şey oldu o ilk başta çıkan fikir, o mitovasyon fikri oluştuktan sonra, sürekli onu besleyen birşeyler olmaya başladı ve artık onları highlight etmeye başladım. Bak bu da aynı şeyi söylüyor falan gibi. Böyle birşey yapsam cidden işe yarayacak, işte, böyle birşey yapsam bunun da işine yarar gibi.

Ö. Ç.: 7'ye geçiyorum. Selvera program var...

DES1: İşte o company fikrini destekledi gibi oldu.

Ö. Ç.: Tamam. İkincideki notların... Fitbit app on my...

DES1: Şey işte o biraz önceki düşüncemi destekliyor, app olabilir gibi. KISS rule'un da ne olduğunu bilmiyordum, öğrenmiş oldum.

Ö. Ç.: Evet aynen, ben de buradan öğrendim.

DES1: İşte yine aynı şey aslında hepimizin içinde var ama nasıl biliyoruz, kendimizi nasıl eğiteceğiz gibi. Yani böyle hep self-education, işte hep bir içe dönme gibi bahsedildiği için, sanki o ilk düşündüğüm bunlara uyacak gibi hissettirdi bana.

Ö. Ç.: Body weight demişsin...

DES1: Bağımsızlığını falan ilan ediyor. Tartıya savaş açıyor. Şey gibi, sanki, orada şey diyor ya, tartının size yönlendirmesine izin vermeyin gibi. Onu bir yönetici gibi görüyor ve ona isyan ediyor. Bu bana şey düşündürdü, yine o tartı ona sürekli kötü şeyi hatırlatan... İşte motivasyonu var, bir de işte hep o kötü şeyi hatırlatma yönü var. İşte onu egale etmek, o tartıyı iyi birşey haline getirmek gibi... İlk düşüncemi besleyen birşey olarak...

Ö. Ç.: I went to kısmını çizmişsin... App fikriyle mi bağlantılı bu da?

DES1: Birşeyleri yapıp yapıp sonra online account'una gidip güncellemesi ilginç geldi. Ben de bunu yapmaya başladım aslında. Belki de bunu okuduktan sonra başladım, bilinçaltıma girdiyse. Demek ki böyle bir ihtiyaç duyuyor; insanlara da bunu gösterecek, paylaşacak, yaptım diyecek, ondan tatmin olacak falan. Burada mesela başka bir motivasyon buldum.

Ö. Ç.: 8'e geçiyorum. Burada şey var...

DES1: O track your food and activities diyor işte, bunları tutacak bir app. Yine orada dijitalle gitti aklım, işte bunları tutacak bir app.

Ö. Ç.: How can they actually measure food demişsin..

DES1: Orada işte ‘actually measure food’ cümlesiyle tam olarak ortaya çıktı çünkü mesela glisemik indeks tabloları var örneğin çiğ patate 100 gr falan kadasr diyor bu kadar kalori alıyorsun diyor yani. O zaman ben bunu pişirdiğimde, 250 gr olduğunda, içine domates falan girdiğinde ne oluyor ben bunu bilmiyorum hani. Acaba gerçekten aldığı kaloriyi ya da glisemik indeksi nasıl bilecek bu insan?

Ö. Ç.: Anladım...

DES1: Bir hesap yapıyorlar ya, şu kadar kalori alacak diye. Ama o kalori hesabı işte 100 gr lahana diyor mesela; sen lahanayı belki yağsız pişiriyorsun, başka biri belki çiğ yiyor, içinde domates-havuç oluyor falan. Neye göre hesaplayacak o zaman? Belki birisi çok pişirmiş olacak, birisi az pişirmiş olacak. Yani bunun bir sabit tablo olması yerine yediğim şeyin kalorisini ölçen birşey... Şu an önümde bir tabak var ve ben onun kalorisini ölçebiliyor olsam...

Ö. Ç.: Ne güzel olur...

DES1: Kimyasal deneylerle...

Ö. Ç.: Bu fikrinde yemeğin içine bir şekilde birşey mi sokuyorsun?

DES1: Evet, damlalık mesela sokuyorsun. O an o orda işte kalküle ediyor; glisemik indeksi bu, kalorisini bu, yağ oranı bu, protein oranı bu, falan gibi birşey mesela.

Ö. Ç.: Tamam. Devam ediyorum, 9’a geçiyorum...

DES1: Bir de 8’de sol tarafta şey var ‘again’ diye not almışım ya... Onu da mesela baştan beri aklımda sevdikleri birşeyle link etme fikri vardı. Hani orda da öyle birşeyden bahsediyor, işte, televizyon izleme yerine orada yapmak iyi geliyor spor yaparken diyor ya... Yani, o yaptığı şeyi sevdiği birşeye bağlamak, yine o kötü etkileri azaltmak gibi, aklıma oradan geldi o da.

Ö. Ç.: 9’a geçiyorum. Birinci çizdiğin I have a treadmill... Senin notlarına bakıyorum...

DES1: Hani gym’e gitmek zorunda değiller ama ne yapmaları gerektiğini de bilmiyorlar. Sonuçta, hani benim de mesela gym’e gitmede en büyük isteğim bana birileri şunu şunu yap desin, ya da ölçsün mesela işte böyle bir yağ oranının var, o yüzden bu hareket uygun olur desin. Ama ondan sonra ben o gym’e gitmeyeyim, yani, açık havada yapayım sporumu.

Ö. Ç.: Anladım.

DES1: Ama sonuçta o adama ihtiyaç duyuyorum neyi nasıl yapacağımı bilmediğim için. O yüzden de belki bu bilgileri alabilecekleri birşey lazım onlara diye düşündüm. Yani, çünkü o adam mesela diyor ki bu sporu yaparken diyetinde de bu olsun, bu olmasın diyebiliyor mesela. Bu konuda bilgisiz birisi kendi başına karar veremiyor. Bence gym’in böyle en önemli noktası o.

Ö. Ç.: Evet doğru...

DES1: İşte o yüzden benim tasarlayacağım sistem acaba böyle bir hizmet verebilir mi? Yani, o adamı devre dışı bırakacak bir hizmet verilebilir mi? Çünkü sonuçta bunu takip eden bir sistem yaparsam, bu insanın hareketini, diyetini, herşeyini, belki ona şimdi bu hareketi yap falan diye komut verebilir. Mesela, sen bugün artık yağlarını yaktın diyor; bu hareketi bu kadar yapmana gerek yok, şimdi kas yapıcı hareketler yapman lazım diyor mesela.

Ö. Ç.: Bunu mesela bir sistem olarak düşünüyorsun sanırım. Yani, gerçek bir insan değil mi?

DES1: Aynen. Çünkü o app fikrinden yola çıkarak bunu söylüyorum. Çünkü bu insanlar birileriyle bunu konuşmaktan da çok hoşlanmıyor olabilirler. Hani, kendilerine özel birşey olsa... O trainer da sonuçta ona bakıp aa ne şişko adam diyor hissi yaratıyor olabilir yani. Karşısında çok fit bir adam var, sen şimdi bunu ye, bunu yeme, bunu yap, bunu yapma diyor. Kendine özel birşeyde olması, telefonda olması, ne bileyim işte, bir alette olması daha iyi olabilir diye düşündüm.

Ö. Ç.: Yine önceki fikrinle bağlantılı olabilir belki...

DES1: Aynen. Harmless fikrimin üstüne kurguladım gibi oldu.

Ö. Ç.: Tamam, devam ediyorum. Firm believer kısmı var...

DES1: O şey, believe olması... Öyle tanımlaması ilginç geldi yani. Bu hassas birşey yani. İnanç dinde olan birşey. Din de hassas birşey hani, bu da hassas birşey. Bu insana bu konuda birşey söylerken dikkatli olmak gerekiyor. Yine o aynı mesele yani, harmless olayı. İşte o vereceğin feedback'ler önemli, yani, bu insanların motivasyonunu kırmaması. Çünkü bir inanç gibi bunu sahipleniyor.

Ö. Ç.: Tamam, devam ediyorum. Enjoy pushing body... Sonra en sonuncuya geliyorum calory budget demişsin...

DES1: Evet. Sevdigi birşeyle onu bağlama, işte, özgürlük.

Ö. Ç.: Tamam. 10'a geçiyorum. Dietitian...

DES1: Orada öyle birşeyden bahsediyor ya, işte, diyetisyenimi çok seviyorum diyor ya. Sanki ona psikolojik destek veren biri gibi tarif ediyor. O yüzden hani bayağı bu işin psikolojik kısmına takıldım yani.

Ö. Ç.: Evet çok vurgulanmış gerçekten... Sonra 'she's an expert' demişsin...

DES1: Evet işte. Bir sürü araştırma yapıyor işte mountain bike da falan filan. Bayağı yatırım yapıyor yani.

Ö. Ç.: Sonra, buna gülmüşsün...

DES1: Evet. Orda da şey var, yani, ben paramı boşa harcamadım, arkadaşım aldı, parasını boşa harcayan o oldu gibi.

Ö. Ç.: Tamam. 'Nice observation it helps' notun var...

DES1: Doğru bence, çok iyi birşey anlatmış.

Ö. Ç.: Sayfanın sonuna geliyorum. Burada ‘make the users’ var...

DES1: Gün içinde birçok şey yapıyoruz ama farkında değiliz ya. Mesela, ben buradan tuvalete gidiyorum geliyorum falan orada birşey harcıyorum ama haberim yok falan. Belki o motivasyonlarını arttıracak birşey olur; aslında sen gün içinde egzersiz yapıyorsun diye hatırlatırsak belki onu da arttıracak yani bu sayede, ve mutlu olacak. Ben mesela, şu an Nike’ın yürüyüş kilometresini falan sayan app’i var, onu kullanıyorum. Mesela, eve giderken falan yürüyorum; bana göre 15-20 dakikalık bir mesafe ama 1.5 kilometreymiş. Farkında değilim; bana sorsan, 500 m derim belki yani. Sırf ondan motive olduğum için mesela açıyorum her gün. Ablam ve annemlerle challenge yaptık. Dolayısıyla sırf o challenge var diye de açmayı unutmuyorum. O bir motivasyon oluyor aslında. Ben günde 5 km falan toplamda yürüyormuşum. O hidden exercise dediğim o yani. Farkında olmadıkları şeylerin, farkına varınca da hoşuna gidiyor. O bir motivasyon sağlıyor. Hidden exercise dediğim o yani, günlük hayat şeyleri. Onu takip eden birşey, app olunca farkediyorsun. Ben aslında bugün bu kadar kalori yaktım diyebilir yani.

Ö. Ç.: Bu, mesela, Fitbit’te de benzer birşey var...

DES1: Doğru. Adım saydığı için... Bence bayağı motivasyon sağlıyormuş. Ben önceden böyle şeylere öf asosyallık falan diye bakıyordum böyle telefon uygulamalarına ama bayağı işe yarıyor yani.

Ö. Ç.: Sosyal bir ortamı var aslında. Benim mesela bir sürü arkadaşım oldu...

DES1: Evet. Bence de. Eski düşüncelerimi kırdım yani o konuda.

Ö. Ç.: Tamam. Burada hep yürüyüş bazlı konuşuyoruz değil mi?

DES1: Sadece yürüyüş değil tabii ki. Başka kategoriler de olabilir bu hidden exercise’a giren.

Ö. Ç.: Tamam.

Ö. Ç.: 11’e geçiyorum. ‘Children creativity’ dediğin şey var...

DES1: Evet evet.

Ö. Ç.: Bu bir fikir veriyor mu sana mesela?

DES1: Şöyle, direkt üstüne düşünsem belki fikir verir diye düşündüm. Şey geldi aklıma, bir ürün mesela, örneğin sandalyeyi oturma dışında ne için kullanırsınız gibi birşey yapmıştık lisansta. O yüzden onu bir tasarım fikri olarak çizdim. Hani çocukların ona öyle asılıyor olmasından belki healthy living’le ilgili birşey çıkmayabilir ama ürünün formuyla ilgili aslında design fikri verebilir yani. Ya da safety için bir input olabilir, yani, çocuklar buna asılıyorlar, güvenlik problem yaratabilecek birşey bu diyerek bir design input’u olabilir bu. Yani benim buradaki düşüncem, bir yürüyüş bandı tasarımı değil ama o başka bir tasarım için input olabilir gibi.

Ö. Ç.: Anladım. Sonra no way for me var...

DES1: Onun için o kadar net yani.

Ö. Ç.: Sonra you basically...

DES1: Bu, şey, hani senin için siteye kilonu yükleyen birşey için 130 Dolar ödüyorsun yani, bayağı ciddi bir para. Yani bu bence önemli bir tasarım girdisi olabilir. Bunu ödemeye hazır bu ve sadece sosyalleşmek için bunu yapıyor. Sen de girebilirsin mesela kilonu ama o daha güvenilir birşey sanki; yalan söyleyemezsin. Mesela sen orada 100 kg görünüyorsun ama 70 girebilirsin ama o girdiği zaman sanki daha güvenilir birşeymiş gibi. Bir de sen buna daha fazla para ödüyorsun. Sonra to take 5 seconds demiş, 5 saniye ayırıp kendim yapabilirim diyor ya işte, o benim düşündüğüm tasarımı destekleyecek birşeymiş gibi geldi. Bir app takip edip onu güncelleyecek belki onun için ve 130 Dolar vermesine de gerek kalmayacak.

Ö. Ç.: Tamam.

Ö. Ç.: 12'ye geçtim. Trying to eat healthy...

DES1: Şey bu benim de çok yaşadığım birşey olduğu için de çizdim hem de o tasarım fikrine mesela. En sonda cooking set fikrinin ilk çıktığı yer burası aslında, bu çizdiğim. Yani sağlıklı yemek istiyor fakat nasıl yiyeceksin; dışarda yiyemiyorsun işte senin pişirmen gerekiyor. Orada sanki bir ürün olabilir gibi geldi bana, işin içine pişirme falan girdiği için.

İkincide de işte hani diyeti bir must olarak görmesinin kötü birşey olması, hani obligation olunca kötü.

Yine aynı o 2 saat gym'de kalamam diyen birisi gibi, 45 dakika bir machine'de kalmamak. Sanki gym'e hapsedince kendini o sporu orda yapmak zorunda ama orda uzun süre yapamıyor. Güne yayabilir yani kendi başına yapabildiği birşeyi gym'e gitmek zorunda olmasa 10 dakika sabah yapsa, 15 dakika öğlen yapsa gibi, belki o zamanı ayırabilir. Aslında biraz onu spor salonundan kurtarmak gibi oluyor benim yaptığım şey.

Ö. Ç.: Tamam. Meaning stop...

DES1: Evet. Kendilerini sevmeleri falan...

Ö. Ç.: Arada bir sarı çizmişsin ya join an online platform kısmı...

DES1: Bir yandan sen ne yaptığını göstermeye çalışıyorsun aslında forumlarda. Hani bakınca, benim düşüncem oydu yani; bunu yaptım, bunu yapmadım, bir günah çıkarma gibi ama bir başka yönü daha var. Senin yapmak istediğin şeyi bir başkasının yaptığını görerek de motive oluyorsun aslında, o ilginç geldi.

Ö. Ç.: Tamam. 13'e geçiyorum.

DES1: Evet, bu, bayramların kötü olması...

Ö. Ç.: Düzeni bozuyor yani...

DES1: Aynen.

Ö. Ç.: No matter how kısmı için 'needs a reminder' demişsin...

DES1: Evet. Kendime ne kadar söylesem de yemek için zaman yaratmayı diyor ya, sanki hani öyle birşeye ihtiyaç duyuyormuş gibi geldi. Belki düzenli saatlerde yemesi gerekiyor fakat o saatleri kaçırıyor falan. Bir reminder'a ihtiyacı var gibi...

Sonra I don't want to drop the baby... Burda da evin içinde çocuk da olduğu için mecbur kalıyor, evde yapması gerekiyor, gidemiyor çocuğu bırakamayacağı için. O da bir ihtiyaç.

Ö. Ç.: Şeyi çizmişsin, emotional eating...

DES1: Evet, o ne demek diye bir düşündüm. Mutlu olma motivasyonlarını değiştirmesi hani o yönde birşeyler yapılabilir mi gibi düşündüm. Şey vardı bir ara, sigara bırakmak için mesela, sigara içme alışkanlıklarınızı değiştirin gibi. Mesela kahveyle içiyorsan, kahveyi bırakın gibi. Hani o manipulation onun üzerinde olabilir mi? Mesela işte, burda da çikolata yiyince mutlu oluyorsan bu davranışa sebep olan emotion'a müdahale etmek... Biz hep eating kısmına müdahale etmeye çalışıyoruz ya, tersten baksak, o emotion'a müdahale etsek belki o olay çözülmüş olacak gibi.

Ö. Ç.: O emotion'ı oluşturan davranışı değiştirmek gibi mi?

DES1: Evet evet. Aklıma onu getirdi. Acaba o emotion'ı bir şekilde engellersek, o habit'i değiştirerek veya belki de sağlıklı yiyerek mutlu olmasını sağlayacak birşey.

Ö. Ç.: 14'e geçiyorum. They don't actually...

DES1: İlginç geldi, bayağı bilgilendirici birşey var orda. Bir de mesela ethnicity vesaire bunlar yok diyor mesela, çok doğru geldi.

Ö. Ç.: 15'e geçiyorum. İlkinin metodunu beğenmişsin anladığım kadarıyla...

DES1: Evet evet. Pantolon deneyerek, değişik bir yöntem. Ne kadar kilo vermişim diye bakıyor. Ben giyince mutlu oluyorum ama vermiş miyim diye giymek ilginç geldi.

Ö. Ç.: Evet aynen. Sonra burada weighing once a week, cheat var...

DES1: O kendini kandırma meselesi... Bunların hepsi app tasarımında önemli olan girdiler. Mesela, ne sıklıkta tartıldıkları orda önemli bir girdi olacak, işte, programı kandırıp kandıramamaları önemli birşey olacak, ondan sonra orda bir every month var, daily weighing falan var... Mesela, daily olduğu zaman keep many focused falan. Belki daily olmasına teşvik edecek birşey lazım demek, bu sayede keep focused olacak.

Mesela bazı dar kıyafetler, onları hiç yıkamıyorsun... Bir yöntem geliştirmiş olmaları falan ilginç olabilir, yani, onlara motivasyon sağlayacak birşey olabilir. Birkaç açıdan fotoğraf çekip... Mesela, app'te böyle birşey olabilir; bir alan olabilir, her gün fotoğraf çekip oraya kaydediyorsun yan yana. Mesela sonra sana bunları bir film gibi gösterebilir. Bu arada şu an yeni şeyler de söylüyorum yani.

Ö. Ç.: Tabii tabii. Yine jeans var çizdiğin...

DES1: App belki kendine bir kıyafet belirle ve hergün onun giy diyecek belki. Öyle bir tasarım girdisi bile olabilir.

Ö. Ç.: Tamam. Devam ediyorum 16'ya...

DES1: Burda da mesela doktoru bekliyor tartıya güvenmiyor. Bu önemli birşey. Diyelim ben tamamen insandan bağımsız birşey yapacağım, kendi kendilerine bunu devam ettirecekleri ama trust meselesi var yani, nasıl güvenecek? Bir insanın onaylamasına ihtiyaç duyuyor bir şekilde; o da belki bir tasarım girdisi olabilir yani. Mesela orda Weight Watchers'ın kendini tartması için tek sebep olduğunu söylüyor, bir motivasyon sosyal grup. O sosyal grup belki doktorun yerini alacak bilmiyorum. Kendine güven meselesini o şekilde sağlayacak belki.

Ö. Ç.: I'm a numbers freak var...

DES1: Evet. Yani o sayılara düşkün biri için o app'te chart'ların olması yine önemli birşey olacak.

Ö. Ç.: As we all know...

DES1: Bir bilgi olarak. Araştırmışlar, yani o belli.

Ö. Ç.: Since when you're starting...

DES1: Evet. İşte mesela yine app için faydalı olabilir. Bir görüntü değişikliği bir de bilimsel değişiklikler var. İkisini birden görmek önemli çünkü bir tanesinden doğru sonucu alamıyor olabilir. Ya da belki sağlık problemi olarak da ortaya çıkabilir. İşte sen kilo kaybediyorsun ama görüntünde bir değişiklik yok; belki bu sağlıkla ilgili birşey, yani, doktora git diyecek sana. Burdan yola çıkarak o yöne gidilebilir.

Ö. Ç.: Sadece ölçmeyecek aynı zamanda da değerlendirecek birşey yani...

DES1: Evet aynen. İnteraktif birşey yani. Çünkü çoğu kişi de onu arıyor ya. Hani company gibi, çok mekanik olmamalı bir yandan, ona feedback veriyor olmalı falan gibi...

Ö. Ç.: 17'ye geçiyorum. Burda unrealistic expectations...

DES1: Bunlar hep app içinde bulunabilir diye düşündüğüm şeyler, dikkate alınması gereken. Mesela hergün bir motivasyon sözü gelecek, onunla açılacak, bilmiyorum. Mesela oradaki cümle de hoşuma gitti, bu, uçak cümlesi gibi... Mesela bu cümle şey olabilir, o harmless motivation cümlesi olabilir. Direkt sana birşey söylemiyor ama esprili bir dille hatırlatıyor gibi.

Ö. Ç.: Anladım.

DES1: Basit bir app olmak yerine bayağı üzerine düşünülmüş birşey gibi.

Ö. Ç.: Tamam. I remember eating...

DES1: Çeşit çeşit insan var yani, onu da göz önünde bulundurmak gerekiyor gibi... Bazıları, yememi durdursun diyor, bazıları bana yemeği hatırlatsın diyor. Belki onunla ilgili birşeyler gireceksin sen, app de sana karşılık verecek.

Ö. Ç.: Kişisel şeylerini girmek gibi mi?

DES1: Evet, belki huylarımı soracak. Bu app başta bir test yapacak sana, senin nasıl bir karakter olduğunu çözecek.

Ö. Ç.: Evet...

DES1: Seninle ilgilenildiğini de hissediyorsun ya, öyle bir durumda belki herkese aynı yapacak o app yine ama en başta sana bir test uygulamış olması, sende bana özel bir program yaptırıyor hissiyatı uyandırıyor yani. Çünkü bana soru soruyor, cevap veriyorum, ona göre birşey veriyor bana diyorsun.

Ö. Ç.: 18'e geçiyorum. Sefer tası demişsin..

DES1: Evet. Aptal görünmeyen sefer tası.

Ö. Ç.: Bu, herhalde biçimsel birşey, değil mi?

DES1: Evet. O adama kendini aptal görüntüde hissettirmeyecek, çünkü o yemeği yanında götürmeye üşeniyor, bu yüzden belki çok cool görünen birşey olsa...

Ö. Ç.: Olabilir tabii..

DES1: Alttaki de fazla scientific geldi bana. Çözmeye bile çalışmadım yani.

Ö. Ç.: Devam ediyorum, 19. Yine emotional eater...

DES1: Motivation yani...

Ö. Ç.: 20... Burada da fikir var. Şimdi bunu biraz açıklayabilir misin?

DES1: Tamam.

Yemek hazırlama problemlerini çözecek bir set, hem yediklerinin ağırlığını ve kalorisini ölçecek. Örneğin o damlalık ölçüp app'e gönderecek. O app de bunu kaydediyor. Böylece hem kaydını tutuyorsun hem küçük birşeyse yanında taşıyabiliyorsun, dışarıda yemek yediğinde de bunu yapabiliyorsun. Özellikle dışarıda yenilen yemeklerde, tabağın içine batırıp ölçüyorsun.

Set dediğim şey product-service-app falan var ya...

Ö. Ç.: Tamam. Look at the menu beforehand var burada...

DES1: Evet evet, işte buradan aklıma geldi. Bayağı yanında kimyasal deney taşıyorsun aslında. Bence birileri uğraşa yapar gibi geliyor, çok imkansız değil gibi.

Ö. Ç.: Evet, yediklerini girmek problemli olabiliyor mesela gerçekten...

DES1: Bir app denemiştin. Bütün gün yaptığın hareketleri ve yemekleri giriyorsun. Ortalama değeri var hep, ama, belki ben daha çok yakıyorum veya daha az yakıyorum. Oradaki listede olmayan birşey yiyiyorsam ne olacak mesela, evde kendi yaptığım ayrıntı içiyorsam ne olacak...

Bir de unutuyorsun girmeyi yedikten sonra. Mesela adım ölçer ondan tuttu bence, açtığın an kaydetmesi önemli olan.

Ö. Ç.: 21'deyiz. Weighing your food...

DES1: Ötekiyle bağlantılı yine.

Ö. Ç.: Since you are... var...

DES1: “I’m against restriction” diyor ya, yine orada aynı şey obligation olunca kötü, zorunluluk olunca kötü, sınırlar olunca kötü. Böyle bir onlara sanki özgürlük hissini yaşatan birşey olması gerekiyor. Sana kötü gelen şeylerden uzaklaşınca sanki bu iş daha kolaylaşacak gibi. O yüzden, buradaki kötüyü ondan çizdim. Kötü hissettiren şeyleri çizdim, bunları çıkartırsan motivasyon sağlayıcı birşey olacaka.

Ö. Ç.: 22, sona geldik. Burada onların fikirleri, senin yorumun var...

DES1: Buzdolabı yerine daha kompakt birşey olamaz mı, damlalık fikri gibi...
Aslında güzel birşey buzdolabından alırken bir daha düşün diye...

Ö. Ç.: Şimdi topladığın şeye geliyorum, bir üstünden geçmek için...

DES1: Bunlar, hepsi beraber de olabilir, tek tek de olabilir dedim.

(1) Dışarıda yemek yediğinde kullanmak için, damlalık fikri. Sadece sebzelerin tek şeylerini biliyoruz, bir araya geldiğinde ne oluyor, ağırlığını ölçecek belki. Birimdeki kaloriyi ölçüyor, bir yandan da tartıyor, sen ona göre çarpıyorsun. Bunun kaydını tutuyor bir yerde, yanında taşıyabiliyorsun.

(2) Kendi yemeğini hazırlarken kullanmak için. Onun içinde pişirip götürüyor olabilir, sıcak/soğuk tutuyor aynı zamanda, sefer taşı gibi. Pişirme ünitesi gibi... Evde de oluyor, dışarıda da oluyor. Pişirirken ölçebiliyorsun kaç gram patates koydum, bunun kalorisi ne... Çok cool görünen birşey olursa da kötülerini hatırlatacak birşey olmayacak – şişko gibi değil de, sağlıklı yaşama kafayı takmış gibi. Aynı zamanda record tutacak. Sosyal medyada paylaşabilecek şekilde.

Bunların tamamı da bir set olabilir.

(3) App.

Bugün konuşurken ekledim aslında bayağı.

Ö. Ç.: Genel olarak baksak, özellikle faydalı buldum dediğin narrative içeriği veya içerikleri var mı?

DES1: Sorulara çok takılmadım. Yazdıkları şeylerden çıkan şeylere baktım, mesela hamilelik ilginç geldi, konudan bağımsız bakmışım. Soruyla ilgili düşünmedim, cevabı mı diye.

Ö. Ç.: Narrative içeriği olarak...

DES1: Psikolojik çözümlemelerin olması, hem kendilerinin yapması, hem de bazı cümlelerden benim çıkardıklarım... İlk okuduğumda, bundan nasıl ürün çıkar ki diye düşündüm, çünkü konuşmalar ürünle ilgili değil gibiydi. Ama, okudukça kafamda birşeyler oluşmaya başladı. Psikolojik kısmı önemli geldi, oradan motivasyona yöneldim.

Designer: DES2 (M)

Date: 22.04.2015

Duration: 1.07 min

Ö. Ç.: Notlarına bakıyorum... Inner external...

DES2: Evet. Hissettikleriyle dışavurumu arasında birşey yaşadıklarını düşünüp bir not aldım. Aslında, çok sağlıkla ilgili geldi birkaç yeri, benim de ilgim az olduğu için konulara. Birşey teşhis etmeye çalışıyorum, sonra da onun üzerine birşey yapacağım diye düşündüm, anlatabildim mi?

Ö. Ç.: Tamam.

DES2: Genel yaklaşımımı söyleyeyim, okudukça aklımda profiller oluştu, onları çıkarmaya çalıştım açıkçası. Onlara uygun birşeyler yapılabilir belki diye düşündüm. Genel yaklaşımım, bu.

Ö. Ç.: Tamam. Zaten bunlardan bir çıkarım yapman bekleniyor...

DES2: Çokça bir uzman ihtiyacı hissettim. İşte, belki bunları çıkarırım, inner-external gibi onunla konuşabiliriz, işte bu conflict için yardımcı bir ürün olabilir mi, servis olabilir mi... Belki de uzmana soracağım notlar olarak bile düşünebilirim dedim.

Ö. Ç.: Zaten burada birşey çizmemişsin, o yuzden mi?

DES2: Olabilir. Çizme konusunda çok tutarlı olmamış olabilirim. Bazı fikirleri kaçırmış olabilirim, yani onun farkına vardım. Belki bi süzdukten sonra tekrar üstünden geçebilirim dedim, ama, bir kere geçebildim.

Altını çizdiğim şeyler galiba çok somut olanlar. Başta neleri çizeceğimden emin degildim, baktım çok somut şeyleri çizdim, baktım az geliyor, okudukça daha çok şey bulmaya başladım. Bu conflict'te bir sıkıntı olduğunu hissettim. Kendim keywords çıkarma gibi birşey aslında.

Ö. Ç.: 2'ye geçiyorum, anne var...

DES2: Az önce dediğim şeyi yapmışım, profil çıkarma derdine dustuysem... Buradaki gerçek insanlar var, onlardan persona çıkarmaya çalıştım. Burada persona'nın detay düzeyinin çok yüksek olması gerekiyor. Çok genel kişiler yetemeyecek persona'nın oluşturulma şeyi öyle aslında detaylı bilmek gerekiyor empati kurmak için. Ben sonuçta anneliği bilemeyeceğim ama buradaki veriler beni öyle düşündürtmüş olabilir yani o bağlamda. Ne yapar, ne düşünür çocuğuyla ilgili, onunla ilgili fikir elde etmiş oldum. Belki persona oluşturuyorum kafamda. Şu an düşününce, persona oluşturmaya çalıştığımı düşündüm. Yaptığım yöntem böyle ama, kendi çelişkilerime de odaklanmışım. Anne – çocuk iletişimi ile ilgili birşey düşünmüştüm. Çünkü çocuğuna

birşeyler yapmaktan bahsediyor, ama, ne yapacağını da bilmiyor. Neyin faydalı olduğunu da tam anlamamış gibi. Üşengeçlik vardı orada.

Ö. Ç.: Senin notlarına göre okuyorum. Buradaki fikrini açıklayabilir misin?

DES2: Bir düzey sonra bunu genelliyorum. Atıyorum bisküvi aldı, bunu bir yere kaydediyor bir şekilde, beslenmeyle ilgili yaptığı şeyleri kayıt altına aldığı ya da monitor edildiği birşey var. Sonra, bunlar bir yerde toplanıyor ya da anlık olarak instant message olabilir bir danışmana gönderiyor. “Ben şu bisküviyi aldım” diye atıyor. Danışman da “evet hayır bilmiyorum” gibi kısa birşey olabilir yani. Çünkü çok da uzun uzadıya yapılacak şeyler değil, anlık kararlar için bu. Whatsupp gibi birşeyden anlık olarak danışmana gönderiyor, oradan yani hızlı karar verme aşamalarında danışmandan hızlı feedback alma sistemi... Bu büyüyebilir de, haftalık rapor da gönderebilir, uyduruyorum... Şu an anlık söylüyorum çünkü “yes no” diyor. Hem daha feasible duruyor bu sistem bana, hem de satın almak da anlık, birşey yapmak da anlık aslında, mesela “buzdolabında çilek var bunu kullanıyım mı”, şu an hoşuma gitti. Anlık olması özellikle daha feasible geldi bana çünkü anında feedback alacaksın, danışman için de daha kolay...

Ö. Ç.: Şöyle birşeyden mi bahsediyoruz, elimde bir alet var...

DES2: Evet. Elimde bir alet var, mesela fotoğraf çekiyorum, bunu alayım mı diyorum, yes-no sorusu soruyorum.

Ö. Ç.: “Bunu yemem faydalı mı?” gibi mi?

DES2: Evet, çocuğum için, benim için faydalı mı. Yes-no question olsun, şu anda biraz daha detaylandırıyorum. Danışmanın ekranında da tik ve çarpı var mesela.

Ö. Ç.: Bunun başlangıç kurgusunu nasıl yapıyorsun? Bunun bir adım öncesi nedir mesela?

DES2: Onu düşünmedim açıkçası, ama, zaten danışmanlar vardır, bunun bu platforma taşınması...

Belki bunlar havuz; sosyal medyada diyetisyen, pedagog, uzman, psikolog havuzu var. Hızlı pedagoglar gibi... O andaki bo° olan pedagog cevap veriyor, böylece hızlı cevap verme - alma olasılığım da artmış oluyor.

Ö. Ç.: Fear of death demişsin...

DES2: Evet. Burada uzmana ihtiyaç duyduğumu çok hissetmiştim.

Ö. Ç.: Evet, yazmışsin. Burada bir üründen bahsediyorsun...

DES2: Böyle küçük bir insan şeyi var, simülasyonu. İşte, o ayağa kalkabiliyor, oturabiliyor ve belli yerlerinde ışıklar var, işte kafasında, dirseklerinde ve dizinde. İşte ne bileyim, onu önceden programlıyorsun, herhalde yarım saatte bir kalkıyor, kolunu oynatıyor, sende onun yaptığını yapmayla ilgili bir motive oluşturuyor. Eğer sen de yaparsan, o ışık işte yeşil oluyor, falan...

Ö. Ç.: Tamam, devam ediyorum.

DES2: Kendimi doktor gibi hissettim demişim.

Ö. Ç.: 4'te conflict demişsin...

DES2: Bir yerden sonra kategorileştirmeye başladım demiştim.

Ö. Ç.: Burada nutty dogs var...

DES2: Bazı şeyler için, işte beni aşan durumlar için öneri yapamadığımı düşünmeye başladım. Confliction'a birşey öneremiyorum, yani role model kadına birşey önerdim, ama, buna öneremedim.

Ö. Ç.: "Uzman ihtiyacı duyuyorum" dediğin şey, değil mi?

DES2: Evet. Ama yani, bunu okurken doktorlukla kesişen yerler mi var bu alanda, bilemedim. Burada konu sağlık olunca, kendimi yakın hissettim.

Ö. Ç.: Genel olarak obezite durumu var gerçekten...

DES2: Bazı yerlerde anlayamadım şeylerini. Bulundukları yerler itibarıyla da olabilir, kültürel fark olabilir. Amerika'ya özgü şeyler var, tam anlayamamış olabilirim.

Ö. Ç.: Mesela?

DES2: Bunu dile getirme şeyleri bile farklı geldi. Belli yerlerde oldu, çok fazla değil de.

Ö. Ç.: Köpekleri olan... Burada hayvanları sayesinde demişsin...

DES2: Companion fikrim oluştu bundan itibaren. Hareketli bir companion fikri işte aslında.

Ö. Ç.: Yaşam koçu gibi mi?

DES2: İkiye ayırabilirim, ya da bir skala gibi. Hayvan şeyini buraya bağlamak ne kadar doğru ama... Yaşam koçu, evet.

Ö. Ç.: Bir insan mı yani?

DES2: Evet. Bir insan olarak düşünmüştüm. Beni motive edecek, spora teşvik edecek bir companion. Az önceki teknik destektir, danışmanlık olan. Bu, daha, bayağı samimi birşey, bahsettiğim. Hadi spora gidiyoruz falan. Ya da bilmiyorum, başka türlü nasıl motive edilir...

Ö. Ç.: Health and look ilginç geldi demişsin...

DES2: Bilmiyorum, kelime olarak ilginç durdu herhalde. Sağlığım ve görüntüm arasındaki ilişki... Bu kelime çiftini böyle görmek ilginç geldi, öyle birşey beklemiyordum. Sağlıklı olunca iyi görünmek ilginç geldi. Şey denir ya, yanakların kırmızı olması sağlık göstergesidir. Aslında, brainstorming için belki de kelimeler çekiyorum kendime. Buradan mesela, sağlıklı olduğumu gösteren ne tür şeyler, indikasyonlar vardır vücudumuzda, mesela dik durmak falan gibi devam ettirebilirim. Beni bir yerlere götürebilir diye düşündüm ikisini de çizebilirdim. Aslında iki rengi de çizebilirim burada. Sağlıklı birşey dışarıya nasıl görüntü verir ve ben buradan neler bulabilirim diye düşünebilirim.

Ö. Ç.: Üçüncü sayfaya geçiyorum. Sekizde notların var...

DES2: Evet işte burada şaşırdım, çok medeni olduklarını düşündüm. Benden, yaşadığım toplumdan daha farklı geldiğini düşündüm.

Ö. Ç.: Dokuz, shyness. Mayo giymeye...

DES2: Bunu engelleyecek ya da iyileştirecek birşey önerebilir mi companion mesela, öyle birşey kurgulamıştım ya...

Ö. Ç.: Tamam. 10, buddysystem. Bu senin...

DES2: Bu konuya bayağı uzağım olan şeyleri de önermiş olabileceğimi düşündüm. Onaylanmak hoşuma gitti bu arada. Demek ki doğru yoldayım.

Ö. Ç.: 12'ye geçiyorum. Fat status... Burada "birşey öneremiyorum" demişsin?

DES2: İlginç bir çıkarım gibi geldi. Yine uzmanına danışmak gerekir gibi.

Ö. Ç.: Tamam. 4'e geçiyorum. "15 memories" demişsin..

DES2: Bu türden şeyler değerlendirilebilir diye düşünüyorum. Yine burada uzman şeyi bence bu. İşte atıyorum, eskiden ne kadar şişman olduğunu görmek mi iyi gelir, yoksa zayıf haline bakıp istediği pozisyona erişmek mi daha motive edicidir, onu bilemiyorum. Hani ideal olanı görmesi mi daha motive edici, yoksa kötüyü görüp değişimi görmesi mi daha iyi, uzmana sormak lazım. Ama yani fotoğraflara bakabilirler, bu eski şeylere hangisi işe yarıyorsa işte...

Ö. Ç.: Burada yazdığında, onu zayıf gösterecek bir fotoğraf yaratmak mı?

DES2: O da olabilir ya da ideal oldukları bir durum varsa önceden... Mesela 5 yıl önce zayıf olduğu fotoğraf varsa o gösterilebilir, ya da yoksa öyle bir fotoğraf oluşturulabilir. Bu, tabii çok sıkıntılı bir süreç olabilir, tabii ki. Yani hangisi iyi bilmiyorum. Kötüyü bir anda göstermek mi, yoksa ideal olanı görmeleri mi hayal edebilmeleri mi iyi...

Ö. Ç.: Burada mesela bu durumlardan biriyle karşılaştıracak birşey öneriyorsun...

DES2: Evet bir distance yaratmak belki de... Şu anki halinden farklı şeye bir comparison yaratmak olabilir.

Ö. Ç.: Motivasyon gibi mi?

DES2: Evet evet. İkisi de öyle. Hızlıca ilerletirsen, bir app olur oraya fotoğraflar atılır, işte seni zayıflatır falan gibi şeylere dönüşebilir, sadece şu anda initial idea olarak...

Ö. Ç.: Tamam. 19, Weight Watchers erişim...

DES2: Evet. Halihazırda kullanılan birşey var, daha efektif neler yapılabilir diye düşünülebilir belki...

Ö. Ç.: 5'e geçiyorum. Burada 20-21, hislerini de kaydetseler... Burada bir çizimin var, bunu biraz daha açıklayabilir misin?

DES2: Evet az önceki fizikseldi, bu da emotion capturer gibi... Bu da yine bir app ya da küçük bir device. İşte kilo verdim anında basıyorum, işte kötü hissettiğim anda yine belki bir uzmana danışılabilir birşey olabilir, işte atıyorum bir hafta tracking device gibi birşey pozitif negatifken basıyorsun, belki bir de nötr de olabilir, gayet basit birşey olması lazım. İşte, sonunda doktora bununla gidiyor, işte bu. Ya da, şöyle olabilir; motive olduğu ya da olmadığı anda basıyor gibi. Sonunda, bunları doktoruyla paylaşıyor. Ne zaman motive oluyor, nasıl motive oluyor, herkesin motive olma şekli farklıdır. Atıyorum bu, birisi çağırdığında motive oluyordur, işte mesela basıyor ses kaydı da olabilir "şu an şu yüzden motive oldum artı", "şu an şu yüzden demotive oldum eksi" gibi uyduruyorum...

Ö. Ç.: Ses kaydı da diyorsun?

DES2: Evet, yoksa eksik kalır, sadece positive negative olması bir işe yaramaz. Bir şekilde emotion capture eden günlük falan da olabilir bu.

Ama hayatlarının çok içine girsin de istemiyorum. İki taraflı zaman kaybı olabilir, hem onun için, hem de danışman için uzun uzun notlar alması... Hızlı kısa notlar alabileceği ve bunu hızlı bir şekilde aktarabileceği, yani tabii ki aylık görüşmeler de yapabilir ama... Hızlı günlük feedback'ler daha efektif olabilir gibi geliyor. Fotoğraf çekmek gibi duyguyu alacak ya ses kaydı ya bir yere hızlı not alabilir. App de olabilir. İşte bir cümle ve positive mi negative mi onu belirleyebileceği birşey olabilir. Daha pratik bir sistem düşünüyorum aslında.

Ö. Ç.: Bunları kaydedip doktora götüreceksin, bir de share demişsin...

DES2: Bunu başkalarıyla share etmek, share iyi bir fikir mi bilmiyorum, ama forumlara bakınca herhalde iyi bir fikir... Çünkü bu paylaşımdan doğan motivasyonlar var. Ama ilk amaç, benim düşündüğüm uzmanla paylaşmak, ama community'lerle de paylaşılabilir belki. Atıyorum, makarna yerken positive tıklıyor, uyduruyorum salata yerken negative...

Ö. Ç.: Doğrudan yemek ve egzersiz için mi?

DES2: Evet evet, tabii ki.

Ö. Ç.: Tamam.

DES2: Motive olmayla ilgili olabilir belki... Ya da, motivasyon kaynağı arama ile ilgili... Bunun sayesinde motive kaynakları belirlenmiş olacak. Mesela, sen bir companion bul diyecek uzman. Ya da sen planlı bir tipsin.

Kişiyi özel motivasyon kaynakları oluşturacak.

Ö. Ç.: Bu başlangıç aşaması için gibi, değil mi?

DES2: Evet. Ama compare etmek için süreçte de alınabilir. Atıyorum, başta böyle hissediyormuş da işte bak positive şeyin artıyor. Track etmek önemli ya, aslında kiloyu track etmekle aynı şey. Başta emotion'ım -8'di, yeni yaşam tarzımla +15'e çıktım, uyduruyorum tabii ama... Motivasyon şeyi sağlamak için...

Ö. Ç.: Track'i kolaylaştırmak için...

DES2: Motivasyon track'i gibi, emotion'a track etme gibi... Sadece, "bugün şu kadar kalori yedim" gibi değil de...

Ö. Ç.: Tamam. 22 demişsin, üstteki gibi herhalde?

DES2: Sürekli öncekilerden etkilenecek ilerliyorum, detaylandırıyorum. Ya fikrimi doğruluyorum, ya da detaylandırıyorum. Galiba yukarıda capture ve track etmekten bahsetmiyorum. Başta record ve share derken, burada capture ve track eklemişim, daha uzun vadeli... Anladın mı...

Ö. Ç.: Evet anladım. Sonra 23 fiziksel şeyler için...

DES2: Aslında bu çok ilgi duyduğum birşey değil. Ergonomik birşey mi yapılabilir...

Ö. Ç.: Ne gibi?

DES2: Neresi ağrıyorsa... Ergonomik sırtlık gibi.

Ö. Ç.: Medikal ürün gibi mi?

DES2: Evet evet. Bu fiziksel şeyler çok ilgimi çekmedi açıkçası, üzerine de çok fazla düşünmedim. Bu bir başlangıç işte, yine ben pek ilgilenmem ama... Bu adama daha fiziksel sorular sorulacak, fiziksel bir ağrı azaltıcı birşey yapılabilir, tam olarak ürün tasarımı olacak burada.

Ö. Ç.: 6'ya geçiyorum. "32 post-pregnancy" diye not almışsın...

DES2: Bu post-pregnancy kavramından bihaberim, o yüzden. O evreler tanımlanmışsa, özelleşmiş ürünler önerilebilir diye düşündüm. Evre olarak bunlar ilginç geldi, atıyorum ameliyat, şeker, tansiyon gibi... Bir derecelendirme yapılabilir.

Ö. Ç.: Spesifik?

DES2: Evet, medical çözümler için spesifik durumlara çözümler ürünleşebilir, sistemleşebilir ya da servisleşebilir. Tam bu isimlerler pazarlanırsa, mesela "post-pregnancy unit" gibi... Hem o alana özgü özelleşmiş bir pazarı da olacağını düşünüyorum.

Ö. Ç.: 7'ye geçiyorum. Burada 36 "to track or a hard time" demişsin...

DES2: Aynı galiba yine, kendimi gerçekleştirmişim.

Ö. Ç.: Burada app'leri çizmişsin...

DES2: Kendi device'im bu tür hesaplar yapabilir diye...

Ö. Ç.: Hesaplayıcı app kalori mi?

DES2: Bu da kullanılabilir, bir ek özellik olabilir. Şey gibi, emotion counting gibi mesela.

Ö. Ç.: Tamam. 8'e geçiyorum. 43, motivasyon olduğunu düşündüğün şeyler mi kırmızıyla çizilmiş?

DES2: Evet. Aynen dediğin gibi. Motivasyonun orada önemli olduğunu anladım tekrar ve bunu artırıcı birşey yapılabilir diye düşündüm.

Ö. Ç.: Tekerlerme gibi şeyler var...

DES2: Onu çok beğendim. Bunları okuduktan sonra baskül aldım bu arada.

Ö. Ç.: Ben de.

DES2: Valla bundan sonra aldım.

Ö. Ç.: Tamam, bakıyorum şimdi... Exercise için fun'lar bulmak diyorsun...

DES2: Evet. Play eklemek çalışmayı şey yapabilir. Çok kişisel deneyimden bunlar. Ben bu tür fitness şeylerini çok sıkıcı bulduğum için aslında insanların takım ve rekabet oyunu geliştirdiğini, çünkü sadece kalori yakmak çok sıkıcı buna bir rekabet unsuru katmak motive edici ya da takım oyunu oluşturmak motive edici... Ne bileyim, basket, tenis, vs. aslında kalori yakmayı eğlenceli hale getirmek için yapılmış icatlar olarak düşünüyorum. Oradan yararlanıp, oradaki play şeyine exercise'lara embed edebilir miyim diye düşündüm.

Aslında tracking de kendinle competition gibi, "ben dün bu kadar yapmıştım, bugün bu kadar" diye.

Ö. Ç.: Fitbit'te de var bunlar. 47, devam ediyorum... Bunu sevmişsin...

DES2: Çok iyi ya bu!

Ö. Ç.: Burada devamında...

DES2: Madem böyle birşey var, hemen ben fikir kapmaca. Buradaki sıkıntı, oturarak izlemekse eve bisiklet alsın tv koltuğu bisiklet olsun. Tv elektriğini de bisiklet üretsın. İşte, çevirdiği sürece tv açık kalabilsin falan...

Ö. Ç.: Domestik bir ürün mü olacak?

Evet aynen öyle. Sporun hareketliliğiyle evin tv'sini alıyorum. Onun tam tersini yapmış. Ben de sporu eve taşımış oluyorum. Onunki daha iyi tabii.

Ö. Ç.: Eve aldığımız bisikletten biraz farklı mı?

DES2: Tabi bir sistem gibi olabilir, yani tv'yle ilişkisi de daha şey kurulabilir. Mutlaka bisiklet de olmak zorunda değil. Hem rahat izleyebileceği, hem de hareket edebileceği birşey olması gerekiyor. Belki şınav çekecek.

Ö. Ç.: Bisiklet iyi olur ama...

DES2: Evet vücudun sabit.

Ö. Ç.: 9'a geçiyorum. Calorie counting'leri çizmişsin...

DES2: Günlük mü tutsalar, logging'den aklıma geldi.

Ö. Ç.: Cihazınla ilgisi var mı?

DES2: Yok, bir anda aklıma geldi.

Ö. Ç.: Günlük derken, hayatla ilgili mi?

DES2: Yok, kiloyla ilgili, hayat tarzıyla birlikte ilgili. Yine onlar değerlendirilebilir diye düşünüyorum. Bunlar okunabilir sonra. Çünkü bu insanlar, paylaşmayı da önemsiyor ya... Ya yazıp belli aralıklarla okuyacak, ya uzman okuyup yönlendirecek. Share etmekten hoşlanıyorsa paylaşılabilir. Ya da, istemiyorsa da kendi belli aralıklarla okuyup, farkı görebilmesi için, yine competition bir distance oluşturması... Normal rafa kaldırılacak bir günlük değil de track edebilecekleri yoklayabilecekleri...

Ö. Ç.: Dance dance...

DES2: Dansla ilgili birşey yapılabilir.

Ö. Ç.: 10'a geçiyorum.

DES2: Bir sayfadan, birşey çıkaramadığımı hatırlıyorum.

Ö. Ç.: Çizdiğin şeylere bakalım...

DES2: Yine aynı şeyler, company ve tracking...

Ö. Ç.: 11'e geçiyorum.

DES2: Burada işi bitirmişim, artık biliyorum diyorum yani.

Ö. Ç.: Önemli bulduğun birşey yok herhalde?

DES2: Evet, ya da çok tekrar ediyor.

Ö. Ç.: 12'ye geçiyorum. "Sweet tracker" demişsin...

DES2: Bu da ters tracker. Tatlı yediğinde kayıt alsın, sonra azaltmaya çalışsın mesela. Diyelim 15 yedin, 15 tane çikolata, ertesi gün 14 olmaya çalışsın, azalta azalta.

Ö. Ç.: Nasıl?

DES2: Yine aynı o device'la. App olabilir. Sweet tracker olabilir, ya da tracker diye genel birşey olacak, işte bir olumlu-olumsuz olanlar. Atıyorum, salata yediğinde birşeye basıyor, tatlı yediğinde tatlıya artı koyuyor, birini arttırıp birini azaltmaya çalışıyor.

Ö. Ç.: Baştaki gibi mi, iki tane ok olan?

DES2: Evet, şu an onunla birleştirdim. Tatlı yediğinde ona artı koyuyor, salata yediğinde ona artı koyuyor.

Ö. Ç.: Bu şimdi daha komplike birşey mi, başka birşey mi?

DES2: Olabilir, iki şey track etmek istersek de olabilir. Sweet tracker diye ayrı birşey de olabilir. Aslında bir sürü değişken varya... Atıyorum, bu pazarlama kararı gibi değişebilir. Set yapılabilir, herşeyin tracker'ı ayrı ayrı görünür olur, tek bir ürün olabilir.

Ö. Ç.: Bu, tek başına da olabilir mi?

DES2: Daha iyi olur bence, daha patlar. Bir tane daha yeni tracking device çıktı değil de, işte sweet tracker denen sweet tracker ters etki ediyor... Belki rengi değişiyor olur. Onu yeşil yapmaya çalışacaksın mesela...

Ö. Ç.: Tatlı tüketimi ortak bir problem...

DES2: Atıyorum çikolata bir tane yedi, kalorisini mi yazacak, bir dilim pastayı mı yazacak... Aslında öyle yapmaları daha güzel, yani küçük küçük ikonlar olsa, pasta yedim 1 dilim mesela, artık ufak hesaplarla da uğraşmayacak işte kremalı kremasız mı diye, çünkü hızlı ya bu, tıklıyorsun; çikolata bitter mesela... Candy üç tane mesela... Sweet şeyler belli, atıyorum beş kategoriye ayrılabilir, sub olabilir ile. Kaloriyi girmeyeceksin sayısal olarak, ama tıklayacaksın. Sweet, yani gerçekten kendisi de sweet birşey olacak.

Ö. Ç.: Küçük bir device gibi mi?

DES2: Evet evet, anahtarlık gibi.

Ö. Ç.: Evet. Kalori girmek zor.

DES2: Evet hem matematiksel birşey, bence hem de çok anlamsız. 200kal ne ifade ettiğini bilmiyorum. Arayüz komplike hale gelecek sayılar çıkacak biraz. Bir daire var, beşe bölünmüş pasta, çikolata, candy, meyve... Belki mesela candy yemek yerine, o sırada alternatifleri içinde meyveyi de gördüğü için meyve seçecek.

Aa mesela iki şey olabilir. Bir mesela tatlı krizi eşiği var ve bir de bunların sağladığı şeyler var, sağlayan şeyler var sekiz meyve ya da iki candy. Başta eşimi belirliyorum belki, yedi benim eşim uyduruyorum, hem kendi içinde bir eşitlik sistemi yaratır, hem de gün gün track edebilir.

Ö. Ç.: Mesela bana diğer ünitlerdeki dengini mi gösterecek?

DES2: Evet aynen öyle. Belki daha az kaloriyle o hazmı sağlamış olacaksın, mesela atıyorum kuru üzümle... Tatlı krizi denen şeyi somutlaştırmak da iyi olabilir, çok soyut birşey ya... Orada mesela bir tane koca pasta yesen de belki geçmeyecek, ama mesela o device soyleyecek sana "senin tatlı krizin bitti, eşini yedin" diye daha şey bence ikna edici olabilir diye düşündüm.

Ö. Ç.: Güzel fikir bence. Burada kendi kendime track ediyorum değil mi, başkalarıyla bir etkileşim yok?

DES2: Evet, ama o güzel birşey işte çok personal bir obje çünkü... Sana ait. Böyle gerçekten şey gibi, o soyut şey somut bir yerde oluşuyor. Eşini tam bilmiyorsun ya, manyak gibi yiyebilirsin. Bir de eşini görmek de iyi olabilir. Kesinlikle daha fiziksel birşey, böyle sadece arayüz değil.

Touchscreen ama üç boyutlu da yer kaplayan birşey, flat değil yani.

Ö. Ç.: Anladım, sweet dediğin sevimli. Evet. 67, tracking...

DES2: Tekrarlayan.

Ö. Ç.: 68, motivation...

DES2: Motivations come and go çok güzel. İşte motive olduğunu hatırlatacak birşeye ihtiyaç var.

Ö. Ç.: "Motivation reminder" demişsin fikir olarak...

DES2: Ben anlamsızlığa düşüyordum, bu da düşmüş. Mesela yatıp kalkarken "Allah'ım ne yapıyorum" diye anlamsızlığa düşmemek için ya da düştüğünde ondan kurtulmak için. Ya da herhangi bir vakitte, mesela şu an otururken masada ordan birşey pörtlüyor mesela.

Ö. Ç.: Nasıl yani?

DES2: İşte, "şu anda spor yap" diye.

Ö. Ç.: "Exercise" demişsin...

DES2: Mesela bir device aldım, ama app uzantısı da var. Ben app'e motive'lerini yazıyorum, baştakinde doktorla belirledim ya... Atıyorum, mesela çok zayıf olacağım, herkes bana bakacak... Kişisel mottolar yazıyorum kendime. Ne bileyim, "companion'la iletişime geçsem mi acaba" diyorum. Böyle cümleler yazıyorum kendime mesela. Sonra o device da gerçekten böyle pörtleyen birşey. Arada mesela otururken bana, "herkes bana baksın" diye birşey çıkıypr. Ben de hatırlıyorum motivasyonumu ve ansızın çıktığı için de otomatikleşmemiş oluyor, ya da belli şeylerde değişkenlikler olabilir iste, sürekli ya da sıkıcılıktan kurtarmak lazım ya diyor ya motiv comes and goes diyor ya onu trigger etmek için...

Ö. Ç.: Bu nasıl oluyor, device'ta çıkması?

DES2: Ben yazıyorum işte app'ime. O, oradaki device'ta da bunu bir şekilde normal pozisyonunda statik bir haldeyken bir anda üç boyutlu hale geliyor, ekrandan okuyabiliyorum. "Zayıf ol, herkes sana baksın" diyor mesela. Bu motivator...

Mesela otobüste girdim app'ime diyelim, "aa zayıf olsam bana bakarlardı şimdi" diyorum çünkü o anda aklıma geldi. Çünkü unutabilirsin motivasyonlarını belki, atıyorum otobüste motive olman bir anlam ifade etmeyebilir belki ama o anda kaydedebilirsin. Eve geldiğinde de işte birşey pörtlüyor, işte fiziksel olarak. Mesela tavandan sarkıyor birden...

Ö. Ç.: Yani bir app ve üç boyutlu birşey... Saati kurmak gibi mi?

DES2: Evet evet. Aynen öyle. Detay şeyini bilmiyordum, şimdi düşününce daha şey oldu. Duvar şeyi de olabilir. Dikkatini çekecek bir pozisyon değişikliği önemli bence, dinamik birşey... Bu her kurguda olur, duvar olur, tavan olur, masa olur, yani o kadar objeleştirmiyorum ben.

Ö. Ç.: Tamam. 13'e geçiyorum...

DES2: Az önce hayvanlar hareket ettiriyor demiştin ya, şimdi de çocuklar hareket ettiriyor. Bunu duymuştum, çocuğum olunca bilmem kaç kilo verdim peşinde koşturmaktan.

Aa babysitter olsunlar, çocuğun peşinde kostursunlar.

Ö. Ç.: Tamam. 14, "I do travel" var. Gezerek yemek mi demişsin, sana fikir oluşturmuş galiba, açıklayabilir misin bunu?

DES2: Mesela akşam yemeğim 200 cal uyduruyorum, onu yemek için önce 300 cal harcamam lazım, sonra onu yiyebilirim. Mesela tepsi kapağı var, mesela akşam

yemeğim ona bastım kilitlendi. 300 cal giriyorum. O benim şeylerimi track ediyor. Evde hareket ediyorum, o sayıyor, olursa açıyor. O beni sayıyor, 300 kaloriye ulaştığım zaman kapağı açıyor. Manyakça bir fikir ☺ Hapishane gibi, saçma aslında.

Ö. Ç.: Ama önceden yaktırma fikri bana saçma gelmedi.

DES2: Ödül var burada da, evet.

Ö. Ç.: Devam ediyorum 79, sarı çizdiklerin var Aria scale gibi...

DES2: Hoşuma gitmişti. Ölçmüyorlar, oranlıyolar. Ben de, nasıl olacak hiç aklım almıyor. Marketlerde böyle parayla çalışan tartılar vardı. Metal kısımları var, ayağını oraya koyuyorsun falan... Yağ oranı için buradan tutun falan... Tartılarda da bunun için metak kısımlar vardı.

Ö. Ç.: Devamı, "they reading is" ...

DES2: Bunlar kişisel birşey, ilginç geldiği için çizdim, bilmediğim için...

Ö. Ç.: Tamam. 15'e geçiyorum. 85 track diye çizdiğini tahmin ediyorum. Sonra scale kullama sıklığı...

DES2: Evet.

Ö. Ç.: Moderation...

DES2: Haftada bir gün çalışsın. Ama bu tip fikirleri iyi bulmuyorum. Bu meslekten edindiğim birşey olduğunu düşünmüyorum. Herkes düşünebilir bence. Hepsinde sweet tracker gibi bir inovasyon yapamıyorum ☺

Ö. Ç.: Bu bunu trigger etmiş ama...

DES2: Sorunum var diyen bir cümleyi tersten kurduğun anda sorunu çözmüş gibi oluyorsun. Bir çıkarım yapmıyorsun gibi düşünüyorum.

Bunu yazmayabilirdim yani bence.

Ö. Ç.: Tamam. Devam ediyorum. 89, take pics in mirror, burada bir fikrin var...

DES2: Bunu başkalarının önereceğini düşünerek hoşlanmamıştım. En başta memory altını çizmiştim ya... Hatırlıyor musun... Bu da onunla ilgili birşey olabilir. Bence kalori hesaplaması ve 85 kilo mesela bence soyut bir kavram. Atıyorum, "70 kilo olsam" demem birşey ifade etmiyor olabilir, hem kendime hem de başkasına. Dolayısıyla bu türden bir görsel veriyle kaydedilirse mesela "70'te böylesin", "65'te böyleydin"... Ya da "83'te şunu giydiğinde, saçın şöyleyken böylesin" gibi hatta... Bu sayılar anlam kazanacak o zaman. Hem kaloriyle hesaplamayı yakınlaştırmış oluruz. Neyse yani, bu tür hesapları okunur, algılanabilir, anlamlandırılabilir hale getirmeye çalışıyorum galiba.

Ö. Ç.: Şimdi şöyle, benim buradan anladığım; çıkıyorum basküle, fotoğraflarımı çekiyor, sonra kayıt mı ediyor?

DES2: Evet evet. Hem kilomu hem resmimi kaydediyor, arasında bir ilişki kuruyor. 85 kilodayken bir gün kendimi zayıf, bir gün şişman hissedebilirim, belki saçımın alakalı

o farkı da anlamış olurum. Compare ediyor. Hem aynı kilolar arasında farklı görsellik, hem de farklı kilolar arasında belki aynı görsellik.

Ö. Ç.: Bu health and look'u burada kullanmış olabilir misin?

DES2: Aa, evet olabilir. Hem de memory'e de bağladım, hani vardı ya... Hem o, hem fotoğrafa, hem de kiloya anlam kazandırmak için. Mesela, 75 olayım değil de, 75 kilodaki şu görünümüme geleyim gibi yani.

Ö. Ç.: Dışarıdan nasıl görüldüğünü de...

DES2: Evet bütünsel birşey, sadece kilo ya da matematik hesabından daha anlamlı.

Ö. Ç.: Tamam. Go visual...

DES2: Yine beni doğrulamış. Bu iş bitti.

Ö. Ç.: Ortaya çıkan reminder'la mı bağlantılı?

DES2: Evet, olabilir.

Ö. Ç.: 17'ye geçiyorum. Notun yok.. Even a small amount, tamam. Burada sanırım küçük hareketlerin...

DES2: Evet, nasıl kullanılır bilmiyorum.

Ö. Ç.: 18'e geçiyorum. Kalori ölçerli lunch-box demişsin. Tamam. Nasıl birşey yani bu?

DES2: Öğrenci projesi gibi, bu fikri de sevmedim. Öyle tabaklar da vardı. İçine koyduğun şeyin kalorisi yazıyor. Otomatik ölçüyor. Bir sürü örneği var onların. Conceptual olduğu için öğrenci projesi dedim zaten.

Pratik şeyler aldırıyorum ya, ama spreadsheet'e böyle yazanlar da var, onu da düşünmek lazım. Ama basit olması daha iyi bence, detaylı oldukça obsesif hale geliyorlar.

Mesela sweet tracker bunlar için daha karmaşık üretilebilir. Detaylı istedikleri için karmaşıklâşabilir arayüzü.

Ö. Ç.: Tamam 109 yazmışsın. 19'a geçelim.

DES2: Artık benim 21'e kadar notum yok.

Ö. Ç.: Tamam. Altını çizdiklerine bakalım istersen. Burada doğrulama gibi mi yine?

DES2: Evet. Kendi şeylerimi highlight ediyorum. Motivation. Emotion. Attitude. Terapist.

Ö. Ç.: Yine exercise buddy. Water var. Drink water var...

DES2: Su içmeyi kolaylaştırıcı birşey yapılabilir.

Ö. Ç.: 21'e geçtim. Meal prepping... Burada planlama şeyinden bahsediyor...

DES2: Bunu niye çizdiğimi bilmiyorum, detaylandırmadım herhalde.

Ö. Ç.: Tamam. Devam ediyorum. 120 tracking, destekleyen bisey...

DES2: Evet.

Ö. Ç.: Tamam son sayfa 22. Bunlar, onların fikirleri...

DES2: Zihni Sinir olduğunu düşünmüştüm, ama güzel.

Ö. Ç.: İşe yarayabileceğini düşünüyor musun?

DES2: Olabilir. Bence güzel, hepsi başlangıç olabilecek şeyler.

Ö. Ç.: Tamam, şimdi senin notunun son sayfasına geliyoruz. Özetle demişsin. Burada bir chart yapmışsın...

DES2: Kendimce öyle birleştirmeye çalıştım işte. Inner external vardı ya, o işte physical emotional diye ayrılabilir o. Hissettiği ile dış görünüşü arasındaki... Motive kaynağı olarak kullanmak için demiştim ya... Her bir alan için birşeyler bulunabilir. Physical tracking – emotional tracking mesela iki ayrı grup... Bu alanlar genel şemsiye olabilir diye düşündüm. Bunlara belki motivation eklenebilir buna, ama o da bunların hepsini kapsıyor.

Ö. Ç.: Bunların her biri bir kategori gibi mi, mesela physical tracking bi kategori?

DES2: Evet. Ya da birarada da olabilir, burada farkındalığımı oluşturmak için oluşturdum. Mesela böyle bir matriste iki dimension'ı nasıl güçlendirebilir... Belki hepsini içerecek ama fikir geliştirme süreci olarak aşamalar oluşturabilir. Hem ideation için... Ya da belki sadece o kategori için birşey yapacaksın. Ya da gap bulmak için de yardımcı olabilir. Piyasada şu alanda ürünümüz yok gibi...

Ö. Ç.: Kategori çıkarmışsın gibi...

DES2: Evet kendime birşey çıkardım daha süzölmüş işime yarayacak hale getirdiğimi düşündüm.

Ö. Ç.: Genel olarak baksak, özellikle faydalı buldum dediğin narrative içeriği veya içerikleri var mı? Bir yerde en çok "what do you do about your problem'dan faydalandım" demişsin...

DES2: Evet öyle.

Ö. Ç.: Soru bazında düşünmenin dışında içerik olarak birşey söyleyebilir misin?

DES2: Emotional kısımları yakalamak konusunda, ya da motivasyonları bulmak konusunda dikkat kesildim. Ergonomiyle ilgili mesela birşey var, çok spesifik medikal bir ürün mesela birşey yapabileceğimi düşünmedim, mesela ilgimi çekmedi. Sorulara da sonradan baktım.

Biraz yoğun geldi açıkçası. İşaretlemediğim ya da ilgilenmediğim şeyler oldu. Ama kesinlikle bunlarla ilgili şunun ihtiyacını duyuyorum, devam edecek olsam bu kişiyi bulup daha çok konuşmak isterdim.

Designer: DES3 (M)

Date: 13.04.2015

Duration: 81 min

Ö. Ç.: Şimdi 2. sayfadan başlıyorum. Sarılar beklemediğin şeyler, kırmızılar da tasarım fikri verebilecek şeyler...

DES3: Evet. Ama yani burada tam uyamamış olabilirim onlara, sarı-kırmızı.

Ö. Ç.: Tamam üstünden geçerken netleştiririz. "Feel like" ... Bu sarı...

DES3: Çocuklar için model olmak, bilmemek değil de farkında olmak.

Ö. Ç.: Devam ediyorum. Tasarım fikri verebilecek olan...

DES3: Yıkama zorluğundan kesme.

Ö. Ç.: Evet...

DES3: Aslında meyve bana daha basit gibi geliyordu yemekle karşılaştınca. Ama meyvede bile mesela böyle bir zorluk düşünülmüş.

Ö. Ç.: Bir tasarım fikri olarak işe yarayabilir...

DES3: Evet, yani kolaylaştırmak için birşey düşünülebilir. Çok mantıklı bulmayabilirim ama yani kisisel şeyimin dışında, yani bence çok zor olmasa gerek herhalde kullanıcı yorumundan çıkarak öyle dedim.

Ö. Ç.: Ondan sonra "fear" diye notun var...

DES3: En son not kısmında şey yaparım, ya rol modelleri ya da sevdiği biri bir olaydan ya da onlar gibi olmak istiyor veya istemiyor. Mesela çocukluğunda öyle bir anı vardı öyle gruplamıştım onları.

Ö. Ç.: "It's about keeping toned"u çizmişsin...

DES3: Muhtemelen şeyden mi... Bunda şey diye gruplamıştım galiba... Çok kilo vermek değil de daha dikkat etmek gibi bir grup da var gibi. Yani, bu mesela "sadece dikkat ediyorum zaten aktif bir hayatım var ama" gibi...

Ö. Ç.: Tamam anladım. Limit dediğin, üst limit yazmışsın...

DES3: Evet evet. Burada zaten ondan bahsediyor değil mi, 330 olunca şey yaptım gibi... O sayısal hedefler veya işte sınırlar, işte şey olabilir mi diye...

Ö. Ç.: Bu mesela sayısal hedefleri ne olabilir mi diye düşündün?

DES3: Yani çözüme yönelik birşey düşünmedim açıkçası, ama daha nümerik birşey olduğu için tasarım yolunda daha şey olabilir diye... Zaten app'lere gidiyor bir yerden

sonra. Mesela, işte o hedefleri belki insan kafasında düşünüyor birşeyler, ama onu kayıtl altına almak da motive edici birşey olabilir mi...

Ö. Ç.: Anladım.

DES3: Şu an özellikle.

Ö. Ç.: 3. sayfaya geçiyorum...

DES3: En altta birşey vardı ama "but once..."... Bunlar aslında tek tek ben biraz orada şey yaptım, direkt bu cümleden bir tasarım şeyi çıkabilir diye değil de, işte bunların bütünü bunları bir araya getirince işte bu eskiye dönmek mesela direkt buradan şöyle bir tasarım çıkar gibi, tam düşünmedim.

Ö. Ç.: Tamam.

DES3: Bunları bir araya getirip sınıflandırma gibi. En son geri dönüp, bakıp, bunları derledim gibi...

Ö. Ç.: Üçe geçiyorum. Health – targets devamı gibi...

DES3: Evet, o paragraf da yine öbürünün devamı gibi.

Ö. Ç.: "Motivations & Observable changes" dediğin, bu cümleyle ilgili birşey değil mi?

DES3: Direkt o cümleden değil galiba, ama oradaki genel hissiyatımı not almıştım.

Ö. Ç.: Tamam. Burada "desired things" de var...

DES3: Onlarla da ilgili, genel bir not almışım oraya, yani birşeyin karşılığı değil de...

Ö. Ç.: "Too shy.." çizmişsin...

DES3: Bir iki yerde daha benzerleri vardı. İşte belli kriterlerle, işte eski kıyafetler olabilir en son grpladığım yerde vardı, tartılma bir aşama eski kıyafetin olamaması veya o kıyafeti tekrar giymeye öykünme gibi şeyler. Desired things de bununla alakalı. Hem toplumdaki sosyal psikolojik boyutla ilgili, işte nasıl görüldüğüne dair, hem de işte bir mankindir ekrandaki biridir yani ona özenme gibi kişisel şeyler.

Ö. Ç.: Sonra "buddy system" var. Burada sen toplu terapi yazmışsın...

DES3: Evet. Yani bu psikolojik boyutu çok önemli, muhtemelen bunları okuyunca benim çıkardığım bir sonuç, yani öncesinde çok bilgim yoktu açıkçası. Belli gruplar içinde daha motive olabiliyorlar, ama yalnız başına bunu yapan biri için daha zor olabilir diye düşünüyorum.

Mesela teyzemden örnek vereyim. O da işte şey, kilolu falan böyle ve çok motive böyle başlıyor ara ara, ama ailece de böyle işte çok çeşitli yemekler işte öyle bir aile yani. Mesela o yüzden muhtemelen hep geri düşüyor çok, çevresinde de bildiğim kadarıyla öyle birşey yok yani, bir community. Zaten biraz Amerikan tarzı birşey ya bu muhtemelen, bir araya gelmeleri falan. Bizde öyle birşey de yok. O yüzden biraz psikolojik olarak mesela zorlandığını hissetmişim, yani depresyon falan değil ama...

Yani çok takıntılı olmasa bile insan onu her zaman şey var yani.

Ö. Ç.: Devam ediyorum. I have always been..., burada "self critical" demişsin...

DES3: Evet.

Ö. Ç.: Being defined..., "korku" yazmışsın...

DES3: Evet aynen.

Ö. Ç.: Şimdi bunun sonunda keyword'ler dediğin, bu sorunun sonundaki herşeyi toparlamışsın gibi anlıyorum...

DES3: Evet. 2. ve 3. sayfanın özeti gibi, yani özeti değil de bendeki şeyi...

Ö. Ç.: Burada yazdıkların...

DES3: O psikolojik boyutunda hassas bir konu ya, atıyorum mesela buradan bir tasarım yapmam bekleniyor olsaydı orada daha detaylı mutlaka bakardım diye bir sonraki tasarım aşamasında psikolojik boyutuna dair, yani hassas bir konu işte, daha işte uzman desteğiyle, daha işte bilinçli birşey yapılması gerekiyor gibi.

Ö. Ç.: Burada mesela zedeleyici...

DES3: Evet, yani o korkular zaten çok kritik o kişinin ruh halinde onu daha da gerecek veya işte korkularını yükseltebilecek ya o şeyden aslında işte...

DES3: Endişeleri alttan ok ayırmışım. İşte fiziksel sağlıklı, ilgili ve bireysel toplumsal ikinci grup da.

Ö. Ç.: Sanki toplumsal şeye biraz daha çok vurgu yapmışsın gibi geldi bana...

DES3: Evet, ya burada biraz üzıldüm psikolojik şeylere. Muhtemelen onun etkisi de olabilir. İnsan, yerine koyuyor böyle biraz.

Ö. Ç.: 4'e geçiyorum. Burada "old look" ve "mirror" demişsin...

DES3: Burada şey gibi gruplamışım, o farkındalık anı gibi. Eski fotoğraflara bakınca, eski görüntüsünü hatırlıyor işte. Veya aynaya bakınca, tartılınca... Yani bu kötü giden bir süreç var, onu değiştirmeye yönelik o karar verme anı gibi. O tip şeylerden bahsediyor zaten.

Ö. Ç.: Burada mesela turning points'i tasarım fikri olarak nasıl düşündüğünü açıklayabilir misin?

DES3: Yani şey, muhtemelen kötü giden birşey var ve onun iyileşmesine dair birşey yapılıyor, o iyileşme anında tasarım birşey devreye girebilir, olabilir. O an için tasarımın başlangıç noktası da kişinin "bireysel birşeyler yapmam lazım" dediği nokta, ama o nokta da biraz subjektif birşey, yani insan farkında olmayabiliyor, işte o limitini arttıranlar vardı ya belki orada işte yine kişisel bir hedefler, belki yani kişiye artık birşey yapmalısın o noktayı belki tasarım marifetiyle şey yapılabilir mi... Soyut birşey olarak söylüyorum şu anda da.

Ö. Ç.: Mesela özellikle o point'i yaratacak olan şey mi, farketirecek olan şey mi?

DES3: Anlık birşey yani. Tam o noktada artık şeye başlamalıyım, spora gitmeliyim işte artık dikkat ediyorum bundan sonra... Yani onu belki daha nesnel hale nasıl getirilir gibi birşey olabilir.

Ö. Ç.: Tamam. 5'e geçiyorum...

DES3: Yani ben kişisel olarak da mesela şu an hadi görünüş şeyini bıraktım ama sağlık olarak birşeyler yapmaya ihtiyacım var, ama o benim beynimde olan birşey ve yani çok emin değilim yani, gerçekten var mı... Ama atıyorum bir doktor görse, işte "artık birşeyler yapman lazım" dese onu ciddiye alacağım muhtemelen. Ya onun gibi öyle dışarıdan, belki bir onun benim farkına varmamı sağlayacak birşey. Eski fotoğraflara bakmak gibi mesela şeylerden bahsediyolar ya...

Çok güvendiğim bir arkadaşım söylese gibi.

Ö. Ç.: 5'teydim. Şimdi burada yeni olan "special days" var, "physical difficulties", "accusing others"...

DES3: Başkalarını suçlama, suçu kendinde aramama gibi. Ondan da çok yerde vardı ya, yani işte "çocuklarım var yapamıyorum", ya da işte ya da ne bileyim "hergün okulda yemem gerekiyor o yüzden dikkat edemiyorum" işte salladım o yoktu da.

Sağda "idols-nonidols" yazmıştım.

Ö. Ç.: Sonunda yazdıkların?

DES3: İşte o anı sağlayan etkenlere nasıl karar verdiği, işte eski fotoğraflar, kıyafetin olmayışı, işte bir arkadaşın şey demesi, "şişmanlamışsın" demesi falan, veya doktorun birşey demesi işte... Fiziksel zorlanma vardı.

Ö. Ç.: Biri gibi olma olmama, farkındalıkla mı ilgili?

DES3: Evet. Onun biraz psikolojik tarafında. Tartılma martılma işte daha görünür somut birşey belki, kıyafetler, fotoğraflar da yine nispeten somut ama burada tamamen daha kişisel birşey işte. Ne bileyim, babası gibi olmak istiyor veya istemiyor falan, daha kişisel şeyler, psikolojik şeyler devreye giriyor.

Özel bir güne hazırlık diye yazmıştım, ama o biraz daha ayırık birşey. Bu daha kısa süreli olarak da, öyle bir örnek vardı, lise arkadaşlarıyla tekrar buluşacak da onlara iyi görünmeliyim hazırlığa başlıyor.

Ö. Ç.: Evet, 6'ya geçiyorum. Burada kültürel farklılıklar demişsin...

DES3: Evet. Ailesi şey demiş ya buna, annem mesela bana hayatta demez "kilo almışsın" diye, "aa çok iyi olmuşsun" falan der yani.

Ö. Ç.: Anladım. Bir sonraki, "small percentage"...

DES3: Tahmin etmediğim birşeydi. Devam ediyorum, 7.

Ö. Ç.: Tamam.

DES3: Kahvaltıdan önce birşeyler yapması gerekiyormuş, öyle birşey var mıydı onu da bilmiyordum. "Yapılması doğru mu acaba" diye...

Ö. Ç.: Çok katı diyetler yapmayanlar için... Geriye dönük kayıtlar...

DES3: Birkaç yerden daha o kayıt tutmaya dair daha detaylı şeyler geliyor. Yani hakikaten o dün ne yediğini hatırlamama bende de var, mesela takip etmek kritik bir rol üstleniyor ya tabii app falan demiştim. O kayıt tutma da bir tasarıma gidecek birşey sonuçta.

Ö. Ç.: Don't trust the scale'i sarı çizmişsin aşağıda...

DES3: Evet. Ona da çok bir güvensizlik varmış mesela, onu da ben düşünmezdim, "daha nesnel bir bilgi" diye düşünürdüm. En büyük sorun, güvenmeme şeyi galiba, her kafadan bir ses çıkıyor ya, böyle işte diyetisyenler, doktorlar tv'de de, işte basın... "Hakikaten birşey yapmak istiyorum, çok azimliyim ama hangisini yapacağım?" İşte bir arkadaşım "ben şunu yaptım çok iyi" diyor, öbürü "o çok kötü sakın yapma" falan diyor. Zaten o kırılgan psikolojisi şey, bir de bunlarla iyice kafayı yer insan hakikaten. Neye güveneceğini bilememe şeyi.

Ö. Ç.: 8'e geçiyorum.

DES3: Bunda paragrafın tamamını işaretlemiştim.

Ö. Ç.: "Günlük rutinin içinde.." demişsin...

DES3: Evet bunu en son şey diye kurgulamıştım... Belli yaşam kalıplarına göre kurgular var, reklamlar işte ne bileyim işten çıkıyorum spor salonuna gidiyorum. Aslında o kadar tanımlı günler yok yani. Belli bir personaya göre belki onu yapıyor, ama o kalıbın dışında bir rutinin varsa zorlanıyorsun, işte bunu esnek bir şekilde kendi rutininin içine entegre edebileceğin birşeyler olabilir mi diye, yine soyut tabi birşey.

Ö. Ç.: Evet devam ediyorum. Kendini zorunlu bırakmak...

DES3: Tv izlemek için olan... Buna kişisel olarak çok katılmıyorum, yani bir sonraki aşamada devam etmezdim muhtemelen. Tasarımı, toplum mühendisliği aracı olarak kullanmayı eleştirdiğim için ☺

Ö. Ç.: Sonunda bunları toparlamışsın...

DES3: Demin dediklerimin hepsi yani.

Ö. Ç.: Burada mesela, sonunda bu çıkardığın şeyi bu section'ın sonucu mudur, yoksa genel birşey mi?

DES3: Tam burada çıkmış çünkü bir sonraki sayfayı beklememişim, orada da devam ediyor aynı soru. Burada hemen not alayım demişim. Burada işte o günlük rutin içindeki uygulamadaki sıkıntılar işte nasıl severek yapma gibi şeyler, bu sayfadan çıkardığım şeyler.

Ö. Ç.: Tamam. 9'a geçiyorum. Burada calorie counting'i sarı yapmışsın...

DES3: Evet, "bu nedir ki" diye çizmiştim.

Ö. Ç.: Tamam. Devam ediyorum. "Görülebilir"den mesela neyi kastettiğini açıklayabilir misin?

DES3: Evet, yani tamamen fiziksel bir görünürlük gibi. Mesela şey de bir motivasyondur ya, arkadaşına "zayıflamışsın" dersin, hoşuna gider, onun gibi daha fiziksel somut görünür şeyler. Bunların kayıt altına alınması da işte, mesela eski bir fotoğrafını görüp, orada daha şişman olduğunu hissedince, şu anki haliyle o da bir motivayson. Ya bunun tamamen beyninde tartıda görmekten öte, belki farklı şeylerde görmek motivasyonun sağlanmasında iyi olabilir. Önemli bir aşama, orada da bir tasarıma katkısı olur mu acaba..

Ö. Ç.: Tamam, 10'a geçtim...

DES3: Hani şeyler vardı ya, hergün kendi fotoğrafını çekip klip yapan şeyler vardı ya, orada değişimi gözlemliyorsun belki, işte mesela öyle birşeye gider mi, şu anda düşündüm.

Ö. Ç.: Tamam 10'a geçtim. Bu, güven problemiyle ilgili olan şey sanırım?

DES3: Evet.

Ö. Ç.: Experience, equipments.. bunları çizmemişsin mesela. İki kategoriye de sokmadığın için mi çizmedin, yoksa...

DES3: Tek bir cümleden birşey çağrıştırmadı, sadece böyle başlıklar var. Yani, ben şu an tasarıma geçecek olsam, buradaki tek bir cümle veya burada söylediği birşeyden değil onu almıyorum ama başlık olarak öyle bir konu var, sonra şeye aktarmalık keyword gibi, veya işte bir alt başlıklardan bir yerde yerini bulur mu diye...

Ö. Ç.: Yine bu paragraflardan herhalde?

DES3: Tabii tabii, buradan okuyup şey yaptığım şeyler.

Ö. Ç.: Tamam. 11'e geçiyorum. Buradaki notların, başarılı bir ürün... Bunu biraz açıklayabilir misin, burada yazdığını, misuse'lara öngörebilmeli...

DES3: Burada gym aletlerinden bahsediyor sanırım, değil mi?

Ö. Ç.: Evet.

DES3: Tartılardan bahsediyor, işte o güvenmeme gibi falan...

Yani bu aletler üzerinde düşündüm, o fiziksel işte bisiklettir, şudur budur... Yani çok iyi işlevini görüyor olabilir. Ama, işte o psikolojik boyutuyla işte yine alakalı, yani o süreçte geri planda olduğu için ona motive edici... Mesela klasik tipolojisi var ya o aletlerin, ve orada aslında düşman gibi görünmeye başlıyor belki bir süre sonra, çünkü yapması gerekiyor ve yapmıyor, veya alıp da kullanmamış işte o kadar para verip. Yani, o tipoloji ve o malzeme o görüntü atık böyle bir duygusal birşey kuruyor, işte onun önüne geçilebilir aletler üzerinde.

Misuse'lardan bir yerde bahsediyordu, onu çocuklar için... Yani, onların da önüne geçebilmeli ya da bilmiyorum belki daha hayatın içine entegre olup sadece şu an bunu da söylüyorum misuse'larıyla birlikte öngörülmüş olsa, belki yani onun tamamen şimdi spor saati yarım saat bunu yapacak değil de, belki işte günlük bir kullanım nesnesi de olup daha eğlenceli bir hale, eğlenceli değil de, yani o psikolojik olarak soğukluğu kırmak adına... Belki öyle birşeye gidebilir.

Ö. Ç.: Yani, mesela gündelik hayatta başka bir fonksiyonu da olacak birşey gibi mi düşünüyorsun?

DES3: Evet. Daha genel görünüş, mesela tasarımcının öngördüğü bir şekilde öyle birşey de olabilir belki.

Ö. Ç.: Şimdi daha iyi anladım o soğuk tipoloji notunu.

DES3: Evet evet. O şey, bende bile var, işte hiçbir experience'ım olmamasına rağmen o aletlerle, yani almak istesem böyle yani emin olamam, yani duygusal olarak bir şey var, kopukluk.

Ö. Ç.: Tamam.

DES3: Sonra zamana yayılı... Muhtemelen alıp işte üç gün kullanıp, sonra kullanmıyorum kastettim.

Ö. Ç.: Burada mesela kullandırmaya devam ettirecek gibi birşey mi?

DES3: Evet öyle. En altta birşey yazmışım.

Ö. Ç.: "Saving money", değil mi?

DES3: Evet, o da bir motivasyon gibi görünüyor. Zaten o söylediğini özetlemişim aslında.

Ö. Ç.: Evet.

DES3: Aslında bunu da sarı çizebilirmişim, belki şey diyet yapmak aslında pahalı gibi düşünüyoruz ya, özel gıdalar almak lazım gibi. Ama yani aynı zamanda o tasarruf yaptırabileceği birşey de olabilir gibi. Benim ilk algım o olurdu muhtemelen, işte "bu ara param yok baslamayayım diyet" ... Ama aslında öyle olmayabileceğine dair sarı çizmişim.

Ö. Ç.: 12'ye geçiyorum. Burada motivasyonla ilgili şeyler çizilmiş. Burada, sonunda bahaneler.. Bu sayfanın özeti herhalde, değil mi?

DES3: Evet evet. Sürekli bahane bulma durumu var, o da dikkatimi çekmişti. Bir de, insan sırf diyetle değil, başka şeylerde de işte çalışmıyorsan "şu yüzden çalışamadım", işte bir sorumlu arar insan. Onları minimize etmek iyi olabilir gibi.

Ö. Ç.: Tamam 13'e geçiyorum. Özel gün ve davetler...

DES3: Evet. Buradaki özel gün şey, bir de öncekinde özel bir güne hazırlık gibi vardı, burada devam eden bir diyetin var, onu bozuyor işte ne bileyim "yemek var gitmem gereken, ama uymam gereken bir plan da var, işte o yüzden bozuldu" gibi diyor. Veya "tatillerde uyamıyorum" diyor.

Onlar için esneklik yazmışım yine.

Ö. Ç.: Burada da gym, çocuğu olduğu için... Emotional eating...

DES3: Ya aslında o da bildiğim birşeymiş, ama bu kalıp olarak bilmiyordum. Altıları okudukça anladım sonra.

Ö. Ç.: Burada özel durumlar ve esnek ürünler...

DES3: Az önce de konuştuğumuz şey.

Ö. Ç.: Tüm sistem esneyebilir, revize olabilir mi? Burada mesela gym sisteminden mi bahsediyorsun?

DES3: Yok, aslında daha büyük birşeyden...

Ö. Ç.: Mesela neleri içeriyor bu sistem?

DES3: Ya aslında, bu ürünler ve hizmetler yoluyla önerilen herşey. Yani bu ideal rutine yönelik yapılmış şeylerin, herşeyin esneyebilmesi. Mesela işte app'ler bunun için bir daha kolay esneklik sağlayabilecek, bir üründe yani fiziksel bir üründe daha zor birşey olabilir mi...

Ya da, gym çalışma saatleri de bir esneklik, onun farklılaşabilmesi, veya işte bu dvd'ler falan hakikaten yani tv'de her sabah olan bir programdansa, ben o dvd'yi takıp mesela her zaman şey yapabiliyorum, ya o da bir esneme olarak belki alabilirim. Yine o aktif-pasif kullanıcı dediğim kısımla belki bağlantılı.

Ö. Ç.: Tamam, 14'e geçiyorum. "Disabled" demişsin...

DES3: Engelli gibi düşündüm. Bu kurguda onlara da yer yok, açılabilir mi?

Ö. Ç.: Fiziksel zorluklardan dolayı mı böyle birşey düşündün?

DES3: Evet. Yaşlı, hasta falan demiştim. Onları da gruplamışım, böyle de bir alan var, onların exercise yapmasındaki zorluk gibi.

Ö. Ç.: Sonra yine "disbelief" var...

DES3: Hem ürünler, hem tıp tarafında.

Basically'yi işaretlemişim. Tartıdan da yola çıkarak teknoloji bu kadar ilerledi ama nasıl bu kadar, hadi söylenenler güvensizlik yaratabilir ama burada daha nesnel birşey olması gerek, hani güvenebileceğim gibi ben düşünüyordum. Mesela tartıyı çok fazla sorgulamayabilirdim. Bu teknolojiye dayalı ürünlerde özellikle daha katı ve güvenilir olabilir diye düşünürdüm, ama yokmuş aslında. Evet, buralarda sarı da çizibilirdim belki. O öğrendiğim birşey gibi oldu.

Ö. Ç.: Sonra "nursing mom"...

DES3: Evet, o da şey gibi aslında, o old sick disabled'a ek olabilir diye...

Ö. Ç.: Tamam, 15'e geçiyorum. Burada farklı periyotlarla tartılma şeyi var, onları çizmişsin sanırım?

DES3: Evet.

Ö. Ç.: Test clothes var.

DES3: Evet, bu da aslında en baştaki şeyin devamı gibi, kıyafet üstünden ne durumda olduğunu anlama gibi.

Ö. Ç.: 16'ya geçiyorum. My enemy...

DES3: Fiziksel bir soğukluk değil, demin bahsettiğim güvenmeme şeyi. Sarı daha uygun aslında.

Ö. Ç.: Tamam.

DES3: Çok nesnel, her markanın kalıpları farklı muhabbeti var ya, çok da bilmiyorum ama... Veya işte mesela evdeki kendi kıyafetim de yıkanınca çekme olayı var ya, ben güvenmeyip şeye yorabilirdim, bu çekmiştir herhalde, ben bu kadar şişmanlamış olamam falan... Sabote edilebilecek bir tarafı var aslında.

Ö. Ç.: Evet.

DES3: Daha nesnel birşey de olabilir belki.

Ö. Ç.: Sonuna geliyorum.

DES3: Onu da gruplamışım aslında.

Ö. Ç.: Tamam, 17'ye geçebiliriz. "Preparation" yemek hazırlama anlamında mı?

DES3: Evet.

Ö. Ç.: "Partnership" dediğin... "New recipes food design", bunu biraz açıklayabilir misin?

DES3: Çok detaylı düşünmemekle beraber, biri sürekli aynı şeyleri yemenin sıkıcılığından bahsediyor. Burada tabi uzman görüşü gerekiyor, çok genellenebilir birşey olamayabilir, ama esneklik yaratacak, yani orada var olan tarifler var, muhtemelen yani diyet olan. Bunları olduğu gibi uygulamak, kullanıcıyı pasif kılan birşey. Belki bilinçli bir şekilde işte kendi yaptığı birşey, işte yeni bir belki işte o aile şeyleri de vardı ya, işte çocuğuma yapamıyorum diyor ya, hani belki o bütün döngüyü de onları entegre edecek şekilde çocuğun da sevdiği sağlıklı birşey, kendisi formülleriyle yapmış olan, hem motive edecek birşey, hem de sürdürebilirliğini arttıracak birşey, yani yeni şeyler yapmasına olanak sağlayacak şeyler olabilir mi... Belki onun bilincinde olmak gibi bazı recipe'ler var uyguladığı, ama işte ne bileyim, karbonhidratı bilmemesi aynı sağlıklı veya kalori miktarıyla kendi başka birşey yapabilir mi... Daha uzman bilinçli bir kullanıcıya yönelik...

Ö. Ç.: Mesela belli şeylerin değerlerini bilip de kendi kendine mi karıştıracak, yoksa...

DES3: Kendi de yapabilir ya da bunlar için esnek birşey önerilebilir, yani çok katı tarifli bir yemek kitabı değil de, ürün olarak tabii, kitap değil de yani işte belli birimler belki, ne bileyim tamamen sallıyorum şu anda, 100g patates ve 30g fasulye eşittir... Orada belki "bugün 100g patates değil de, 30g et koyayım" diyecek. Yani o denklikleri şey yapıp hem daha eğlenceli hale getirip hem de kullanıcıya kendisi birşeyler yapmış olacak, motive edecek birşey olabilir gibi.

Ö. Ç.: Tamam. En sonunda "Getting comfortable with artificats"...

DES3: Evet, bu en sonunda altını çizdiğim aslında direkt tasarıma dair birşey söylüyor diye düşündüm. Demin de bahsettiğim o ürün iletişiminde, duygusal iletişimi kurduğu önemli diye düşündüm. Yani psikolojik olarak da çünkü zor bir süreç. Sürekli haşır neşir olması gereken şeyler var, işte fiziksel nesneler var, bunları seviyor olması ya da

psikolojik ya da duygusal bir yakınlık, yani nefret etmiyor olması en azından. Yani biçimsel anlamda bir tasarım, tamamen biçimsel bu.

Fiziksel aletin kendisi işte, o gym aletinin, app'in arayüzü de...

Ö. Ç.: Tamam, 18'e geçiyorum. Lunch-box...

DES3: Bu da, kendi içinde tasarım şeyi olabilir diye çizdim. Yani daha iyi bir lunch-box tasarlanabilir diye, ama çok bağımsız birşey olduğu için üstünde durmamışım.

Ö. Ç.: Numbers...

DES3: Record etmeyle ilgili veya kendi gelişimi şey yapma, "observable change" demişti. Ama yani buna güvensizlik de var bir yandan, şimdi düşününce yani. Nesnel tarafı biraz sıkıntılıymış meğerse.

Ö. Ç.: Evet.

DES3: Tartıya güvenmiyor mesela, veya işte aynı kiloda kalıp zayıflıyor olabilir belki. O yüzden zor.

Ö. Ç.: 19'a geçiyorum. Experts...

DES3: Uzman desteğini almak ve açık etmek.

Ö. Ç.: Change your...

DES3: Bunlar bana, kişisel gelişim şeyleri, çok negatif gelir de, genel olarak o yüzden çok uzak durmuş olabilirim, kişisel şey olarak. Böyle hatta Amerika'daki piyasa çok öyle yürüyodur, ya işte Dr. Öz tarzı.

Ö. Ç.: Bunu negatif birşey olarak mı alıyorsun?

DES3: Evet. İşe yarayacağını düşünmüyorum.

Ö. Ç.: Tamam, 20'ye geçiyorum. "Food design", bundan bahsetmiştik...

DES3: Nefsini terbiye etme şeyi tabii irade istiyor yine.

Ö. Ç.: App record...

DES3: Oyunsu şeylerden bahsetmiş.

Ö. Ç.: Devam ediyorum. 21, burada bir sarı var.

DES3: Bunda öyle bir ilişki olduğunu, stress şeyini bilmiyordum.

Ö. Ç.: Rewards...

DES3: Bunların da çok çalışacağını düşünmüyorum, ama gruplamak adına şey yapmışım.

Ö. Ç.: Devam ediyorum, 22...

DES3: Bana da çok uzak gelmiyor gerçekten. Çok teknik bir taraf tabii ki, daha mühendislik tarafı var ya, ama yani şey olabilir, diyet buzdolapları. Şeyler var galiba,

barkodlardan son kullanmayı test eden şeyler var ya, bu da ona çok uzak birşey olmayabilir.

Ö. Ç.: Tamam. En sonda fikirlerini üçe ayırmışsın...

DES3: Evet, kendi çıkarımlarım denebilir. Benim çok uzak olduğum bir alandı, hakikaten tasarıma geçmeden şu önerilere kadar gelen yer biraz öyleydi. Aslında yanlarına aldığım notların özeti gibi. Mevcut durumu belgeleme bunun üstüne şey yapma gibi... Kişisel çalışma tarzımla alakalı muhtemelen.

Ö. Ç.: Üç tip kullanıcı grubu olarak mı?

DES3: Evet evet.

Ö. Ç.: "İki ana aşama" dediğin herkes için geçerli mi, üç grup için de?

DES3: Evet, genel bütün sistem için düşündüm. Bu gruplarla direkt ilişkilendirmedim.

İki aşama var, ikisi için de iki farklı tip ürün gibi. Tam birşey yapmaya karar verdim, ondan sonrası işte beslenme tarafı, hareket tarafı, takip tarafı...

Ö. Ç.: Bir turning point kısmı için, bir de başladıktan sonrası için iki tip ürün yani?

DES3: Evet evet. Before after gibi, belki o anı merkeze alıp, öncesindeki anı sonrası gibi gruplamışım.

Ö. Ç.: Tamam, önerilere bakıyorum.

DES3: 1) Çok ticari olması da güvensizlik yaratıyor. Şu an başlasam kimin dediğini yapacağım, reklamlara ne kadar inanacağım... Güven verecek birşey, benim inanabileceğim şey devam ettirmek için önemli, onun doğru şey olduğuna inanmam.

Daha bilimsel bir taraf güvenilirlik için görmem lazım gibi. İşte o aleti kullanırsam, vermek istediğim kilo tipine uygun bir alet gibi mesela. Veya şeker sorunun varsa onu, yani tamamen bilimsel birşeye güvenme gibi aslında.

Ö. Ç.: Anladım. Sonra 2...

DES3: Evet, daha önce konuştuğumuz gibi.

Ö. Ç.: 3...

DES3: Bunu da konuştuk. Deneysellik gibi.

Ö. Ç.: 4...

DES3: Aynen. Sadece görsellik değil, iletişimi de aslında.

Ö. Ç.: 5...

DES3: Hem yemek, hem exercise için tüm süreç dair.

Ö. Ç.: 6. Oyunsu derken...

DES3: Evet, bir yerde competition'dan bahsediyor.

Ö. Ç.: 7...

DES3: 7) Bunun bu kadar önemli olduğunu düşünmeyebilirdim öncesinde. Toplu hareket etmek önemli. Aynı dertten muzdarip başka kişilerle olma şey. Aynı ürünü kullanan kişilerle iletişimde olmak, veya işte ayrıca gym'e beraber gitmek. Yani kendisiyle aynı durumdaki insanlarla fiziksel olarak da görüşmek önemli herhalde. Toplu şey işe yarıyor, hakikaten hani uyuşturucu bırakma şeylerinde de yapılıyor ya, etrafında öyle biri yoksa muhtemelen kendisini çok yalnız hissediyor, ama başka insanlarla beraber daha motive oluyor diye düşündüm.

Ö. Ç.: Genel olarak baksak, özellikle faydalı buldum dediğin narrative içeriği veya içerikleri var mı?

DES3: Aslında, hepsini özetlemeye çalışmışım. Bu psikolojik tarafı önemli buldum. İlk kısımlarda zaten hep o konuştuğumuz taraf. O aslında seyde de, karar vermeye başlama süreci de önemli, sonrasında motive de önemli. Zaten bir sosyal sorun da yaşıyorlar, özellikle bu over-weight olanlar ve en büyük korkuları da o zaten, sosyallik üstünden işte insanların ne düşündüğü, başkalarının yaptığını yapmamak falan gibi... Yani çok böyle teknik kısımdan da o tarafa önem verilmeli gibi dusundum, bir de işte o güven meselesini de önemli buldum. Aletlere uzmanlara güvenmemesi, ne yaptığının bilincinde olmak, hem bilmek hem de progress'i takip etmek.

Sosyal boyut.

Notları alırken, sorulara göre yaptım da, aldığım notlardan anlaşılır aslında.

İlk kısımlar daha şeydi ama, kümülatif birşey oluyor ya, o yüzden bilemiyorum.

Bu son sayfa aslında bir brief gibi çok bilmediğim için. Böyle kitleler var, böyle aşamalar var, zamansal şeyler böyle gibi.

Biz ofiste de böyle şeyler yapıyorduk. Bu son yaptığım gibi, arada birinden gelmiş veri oluyordu ya da focus gruplardan gelmiş 30-40 sayfa cümleler de oluyordu. Onları da okuyup, işte böyle keyword'ler çıkarıyorduk.

Designer: DES4 (F)

Date: 15.04.2015

Duration: 116 min

Ö. Ç.: 2. sayfa ile başlıyorum. Şimdi burada bakıyorum, ilk izlenim + sağlık yazmışsın. Onların önem verdiğini tespit ettiğin birşey mi?

DES4: Şey, bu ilk izlenim + sağlık, mesela ilk olarak kendisinin kilolu birisi görünmesini istemiyor bir de şey yapıyor sağlık da önemli ama diyor, ikisini birlikte götürüyorum diyor. Hem görüntü hem de sağlığın düşünülebileceği birşey üzerine belki gidilebilir. Ama öncelikli olarak, mesela ilk izlenimi yazmış buna ek olarak diyor ani işte artık kan basıncı yüksekliği, yüksek kolesterol falan da getiriyor diyordu.

Ö. Ç.: Evet. Tamam, devam ediyorum. To model...

DES4: Evet, bunu mesela hiç düşünmemiştim. Yani çocukları biz besliyoruz, ama aynı zamanda kendi yediklerimizle örnek olduğumuzu hiç düşünmemiştim. O anlamlı bir veri gibi geldi. Sonrasında da, çocuklarıyla ilgili hikayelerini paylaşanlar var. Dolayısıyla, hem kendini kontrol etme, hem de örnek olma çift yönlü birşey var orada, o önemli olarak gelmişti.

Ö. Ç.: Tamam. Devam ediyorum. Meyvelerle ilgili...

DES4: Evet, "it's so time consuming..." diyor ya, burada da çocuğu varmış mesela, hani biz hep böyle fresh meyve olsun diye düşünüyoruz, yani en azından dondurulmuş meyve yedirmeyi düşünmem ben herhalde, ama bu kadının pratik olması, soyulmuş meyve dondurulmuş meyvelerden frozen falan yapması enteresan geldi, onun hayatında bayağı değişiklik yapmış herhalde. Bu tarz küçük kritik noktalar, soymayı vs.yi daha pratikleştirecek şeyler hayatta farklılık yaratabiliyor demek, yani tasarım verisi olabilir diye düşündüm o açıdan. Sadece soyma değil, farklı sunum farklı tüketim önerileri de getiriyor.

Ö. Ç.: Bu mesela, hazırlama aşamasında kullanılabilecek bir ürün fikri gibi mi?

DES4: Yok, daha çok şey gibi, bunları ben bir hizmet tasarımı yapılabilir diye düşündüm. Mesela, bunun için bir ürün grubu çıkarılacak, hem soymayı kolaylaştıracak hem de hazır yemek olarak da birşeyler düşünülebilir. Çoklu açılardan galiba.

Ö. Ç.: Anladım, tamam. Devam ediyorum. "Nutty dogs.." var aşağıda...

DES4: Evet. Bu da, daha önce bildiğim ama üzerinde aydınlanma yaşamadığım bir nokta. Evet, hayvanın varsa ister istemez hareket ediyorsun, özellikle köpeklerde köpeği varmış iki tane, bir de. Hem hayvanlarla içli dışlı olup hem otomatik olarak

kalori yakmak iyi bir pratikmiş gibi. Hani düşündüğüm servisler ağının içinde, o servisin içinde kritik bir nokta olabilir diye işaretlemiştim.

Ö. Ç.: Hayvanları dahil etmek gibi mi?

DES4: Evet, gibi ya da hayvan da olmaz. Bir şekilde birşey yapmanız gerekiyordur, atıyorum onu yapmak duygusal artı birşey getirecektir. O hayvan sevgisine benzer, paralel birşey olabilir. Onu yapınca, hem duygusal anlamda tatmin ya da fiziksel anlamda kalori yakılabilir. O duygusal tatminle ilgili, hani burada köpek gezdirmek, çocuklarıyla ilgili şeyler, ileride giyimle ilgili şeyler parayla ilgili şeyler birçok şey var. Hem duygusal anlamda tatmin etmek, hem de kalori yakmak gibi.

Ö. Ç.: Evet, konuşunca daha iyi anladım şimdi. Devam ediyorum, bir sonrakinde...

DES4: Onda mesela, ben aslında hepsini işaretledim. Burada önemli bir nokta, hemen yanına not düştüm. O önemli mesela. Yine duygusal veya bilişsel birşey olarak kendini kandırıyor, sürekli bir üst sınır koyup erteliyor. Nasıl tasarım girdisi olur, bilmiyorum ama bir köşede dursun diye not etmiştim.

Ö. Ç.: Tamam. Ondan sonra "health and look var"...

DES4: Evet, bu mesela en baştaki şeyler benzer. Hem görüntüsüne, hem de sağlığına önem veriyor. Bir de, devamında bir kere sağlık sorunlarını çözünce iyi hissedip hemen geri dönüyor. Tasarlanacak sistemde geri dönüşleri engelleyecek birşey olmalı demek ki. Onu düşünmemiştim, o yüzden çizdim. Bir de, görsel olarak, mesela en sevdiği elbise içinde kötü durmak onu motive eden şeyler, yine duygusal şeyler var orada da onu bağlayan.

Ö. Ç.: 3'e geçiyorum...

DES4: Bir dakika, bir de şey vardı üstte yazdım. Aile üyelerinin deneyimi şimdi mesela sağlık ve görünüm önemli, ama sağlıkta şey oluyor, kişisel görünümümüzü önemsiyoruz, bir de etrafımızdaki insanlara ilk izlenim. Ama sağlıkta şey var, mesela aile üyelerinin geçmişi, şurada şey vardı mesela babası diyabetten ölen biri vardı, çocukları, babasının geçmiş deneyimi onlar bayağı önemli görünüyor. Özellikle babası falan olunca, birebir kendi yaşama ihtimali çok önemli birşey oluyor galiba. O yüzden yapılacak hizmette şöyle birşey olabilir, aile üyelerinin vefat etmiş ya da yaşayan mesela dökümünü çıkarıp hani "o şöyle yapmıştı, şunlar oldu" gibi o yüzden ikna metodu gibi olabilir belki.

Ö. Ç.: Tamam, 3'e geçiyorum. "Diabetes..." olan kısım...

DES4: Yani, sadece hastalıkla da ortaya çıkan birşey olabiliyor gibi.

Ö. Ç.: Tamam. "Shy..."...

DES4: Evet ya, o çok enteresan geldi. Onu hepimiz hissediyoruzdur mutlaka, ama hiç düşünmemiştim. Zaten kilolusun, oradasın falan... Garip bir paradoks. Zaten kilo vermek için gidiyorsun, ama nedense orada görüntünden de rahatsız oluyorsun. Galiba "spor salonu sosyalleşmesi" diye birşey de var sanırım, yani sosyalleşmek için giden insanlar da varsa...

Ö. Ç.: Tamam, devam ediyorum. "up and down" diyor...

DES4: Mesela bunda, yaşına göre çıkıyor iniyor. İstikrarsızlık bir çoğunda var galiba, ondan şikayet ediyolar. Yani o kiloyu korumak, bir de sürekli verip almak fiziksel olarak da yıpratıcı, duygusal olarak da rahatsız edecek birşey. "Bu insan, sürekli kilosunu düşünerek yaşamış herhalde" diye düşündüm, ondan nasıl kurtulabilir. Kilosunu herhalde sabit tutucak birşey olacak, onun için gerçekten ideal kiloyu bulup.

Ö. Ç.: Tamam. 4'e geçiyorum...

DES4: Şimdi burada "I just wanto see...", çocukları olduktan sonra kilo almaya başlamış herhalde. Bunda mesela, "Mentally and physically" diyor ya, onlar önemli. Hep, o kilo düşüncesi kafasında var. Yine bu aynada eski halini görmek istiyormu°.

Ö. Ç.: Bunu da tasarım verisi olarak aldın, aynada eski halini görme isteği?

DES4: Yani şey olarak dedim ya, bu sistem bir şekilde duygusal şeyleri desteklemeli, o destekleyeceği konular başlığı altına bu da eklenebilir. Hani sevdiği elbiseyi giyme, çocuklara örnek olma, hayatı boyunca kiloyu düşünmüş, onu düşünmeme isteği, aynada kendini güzel görme, bunlar hep o duygusal destekleyici unsurların içine yerleştirilebilir, işte o servise tasarlayacağımız.

"Bunu, sosyal ortamınıza yayın" diyorlar hep ileride. Kilo verme şeyini... O konuda ortak şeyiniz olan insanlarla sosyalleşin falan. Mesela, Weight Watchers sanırım aklımdaki hizmetin bir kolu gibi birşey. Duygusal anlamda destekliyor, fiziksel şeyler de sağlıyor.

Ö. Ç.: "Kanısı" demişsin...

DES4: Evet. Bunda şey var mesela, eniyi anılarını düşünmesine rağmen kilosunu düşünüyor. En iyi anılarını düşünmesine rağmen, idealize bir durum var. "En iyi anılarımda kilolu olmamalıyım" gibi. Hani bunda da şey olabilir, şu an uyduruyorum, mesela hani en iyi anılarının fotoğraflarını istersin, oradaki halini kesip zayıf halini koyarsın. "Bak böyle olacaksın" falan filan işte. Hem de anıları yenilenir, motive olur belki. Yine servisin bir parçası olarak, "bak anılarını yeniden yarattık" gibi.

Ö. Ç.: Tamam, yine bir servis gibi heralde?

DES4: Evet, sanırım ben pek ürün gibi düşünmemişim, hep servis gibi işte. Hayatını tamamen kapsayacak bir ağ daha iyi olur gibi düşündüm.

Ö. Ç.: Devam ediyorum, sonrakinde...

DES4: Bunda da, artık o anda kilo vermezse hayatı hiçbir zaman düzelmeyecekmiş gibi hissediyordu galiba. Bunu mesela, düşünmemiştim. Yani, başka şeylerde de yaşadığımız birşey. O bilinci kazanması enteresan geldi, o bilinç kritik bir nokta olabilir. Hani tasarımda yapılacak şey, o bilinci kazandırmak, tamam artık burada müdahale etmen gerekiyor, kafasına gelmesini sağlayacak birşey olabilir. Mesela deminki örnekten gidersek, fotoğrafları yan yana koyarsın, film şeridi gibi ölçeğiyle oynayıp büyütürsün, "aa bak artık yeter" gibi gösterirsin. Sonra da, şöyle de gidebilir "bak ama şu noktada" gibi.

Ö. Ç.: Görsel olarak algılamak gibi... Devam ediyorum, "depressed"...

DES4: Bu da, "yeter artık yapmadığım için delireceğim" noktasında.

Ö. Ç.: Diğeriyle bağlantılı gibi mi?

DES4: Evet.

Ö. Ç.: Sonra "to carry a child" var...

DES4: Burada "point system"ı deniyordu. Bu sistem, mesela yeni serviste de kullanılabilir, böyle birşey diye düşünüyorum şimdi mesela.

Ö. Ç.: Sonra, "my life", tamam...

DES4: Bunu Weight Watchers'ın bir artışı olarak düşündüm. Şurada belki, "No longer medication" da işaretlemek şey olabilir. Şundan dolayı işaretledim, üç ay boyunca bunu yaparsa gözle görünür değişiklik oluyor yani, kendi de algılıyor. O anlamda önemli bulmuştum, yani kritik bir zaman dilimi diye çizmiştim.

Ö. Ç.: 5'e geçiyorum. Lise toplanması...

DES4: Bu da, mesela şey belli etkinlikler için iyi görünmek. Bunlar da kritik zaman dilimi olarak görüşüp motive olarak kullanılabilir demek ki.

Ö. Ç.: Sonra fiziksel zorluklardan bahseden var...

DES4: Evet, mesela iki yıl önce yaptığı şeyleri şu an yapamıyormuş. O da kritik birşey, bununla yüzleşmesi sağlanabilir. Mesela atıyorum, ben iki yıl önce koli taşımam gerek ve biliyordum öğrenciyken. Ama şu an öyle bi ortamım yok, ben onu unuttum. Artık yapmadığım için taşıyamadığımı bilemiyorum. Ama bugün taşımak zorunda kalsan anlayacağım. Bu sistem içinde daha önce yaptığımız ama şu an yapmadığımız şeylerle yüzleşme eklenebilir. Bunun için detaylı hikaye alıp, oradan veriler alıp "bakalım şu an bunu yapabiliyor musun" gibi. Dijital anlamda sağlık verileri çok etkili olmayabiliyor, insanın birşey yapamadığını görmesi gerekiyor, verilerden daha ikna edici olabilir.

Ö. Ç.: Sonra "damage done"...

DES4: Bunu şöyle düşünmüştüm, kemikler taşıyamaz artık ağırlar başlar diye düşünmüştüm kemikleri zarar da görüyormuş onu bilmiyordum.

Ö. Ç.: "Obese dr" var...

DES4: Evet. Şok etmiş, yani yüzleştirmiş durumda. 71'inde obezlikle yüzleşmiş. Mesela, belki 71'e gelmeden yüzleşmesi gerekiyor. Zaten yaşlanınca, insanın hareketleri çok azalıyor. Bu noktada kilitlenip kalabilir, buraya gelmeden yüzleşmesi gerekiyor.

Ö. Ç.: Tamam.

DES4: Baştaki sürekli erteleyen de ona benzer. İnsanlar hep kritik yüzleşme anlarında "tamam ben vereceğim" diyor herhalde gibi geldi.

Ö. Ç.: Doktorun tartılmama durumu... "Aile üyelerinin hikayelerinden etkilenmek" demişsin...

DES4: Evet. Burada da "benim başıma gelmez" düşüncesi. Hani doktor zaten sağlığın içindeyim diye dikkatini çekmedi muhtemelen. Sonra bir anda işte babasının durumuyla yüzleşiyor. Aslında şey biraz, önceki kadın da obez olduğunu 71'inde anlıyor ya, kendinle ilişkini daha açık şeffaf hale getirme gibi, altına sığınacak birşey bırakmama durumu. Hani "2-3 kilodan ne olacak" düşüncelerinin ne gibi kritik sorunda çıkarılabileceğinin farkında olmayı sağlayacak birşey, hani o noktaya varmadan ilerdeki sorunların farkında olmayı sağlama. Mesela orada hep aile üyelerinin hikayelerinden çok etkileniyorlar. Aile üyelerinin hikayelerinden çıkarılabilir mesela, "babam da dikkat etmedi 71'de diyabet oldu ama sen 35'indesin" gibi bilinçlendirmeye dayalı bir sistem olabilir.

Ö. Ç.: 6'ya geçiyorum. Sarıyla çizdiklerin var...

DES4: Daha önce de üstünden geçmiştik, o tekrar önemli. O üç ay mesela, yine kritik bir zaman, fiziksel problemler var.

Kronik baş ağrısına neden olabileceğini düşünmemiştim, bel ağrısını düşünmemiştim, diz ağrısını biliyordum ama.

Ö. Ç.: "Psychological issue" demiş birisi...

DES4: O mesela çok şaşırtıcı. Obezitenin psikolojik olduğunu düşünmesi çok şaşırtıcı benim için.

Ö. Ç.: Devam ediyorum, "mentality of fear..". Bir anda geri alma korkusu var...

DES4: Bu mesela, korkusunu kullanıyor galiba. Böylece kilo almamaya çalışıyor.

Şurada mesela işaretlemedim, ama şekerden vazgeçmiyor o çok enteresan. "Şekerimi de yerim egzersizimi de yaparım" diyor. Herkeste işler mi bilmiyorum, ama küçük ödül mekanizmaları için kullanılabilir belki.

Ö. Ç.: Tamam.

DES4: "For recording"de de Fitbit app'i de bu servisin içine alınabilir diye düşündüm.

Ö. Ç.: KISS rule var...

DES4: Bu insanlara bir yaşam felsefesi seti gerekiyor diye konuşmuştuk ya. O açıdan güzel bir kuralmış. KISS güzel birşeymiş, böyle sloganlar arttırılabilir.

Ö. Ç.: "I think we all have it..." var...

DES4: Evet, mesela kendi kendini eğitme sistemini besleyici bir tasarım olabilir.

Ö. Ç.: "Right combo"...

DES4: Evet.

Ö. Ç.: Devam ediyorum...

DES4: Burada mesela vitamin de düşünmek gerekiyor servis sisteminde.

Ö. Ç.: 8'e geçiyorum. Soğuk hava...

DES4: Evet, onu hiç düşünmemiştim. Burada farkına vardım. Spor salonuna gidemeyen vardı, dışarı çıkamadığı için evine alet alıp nasıl kullanacağını bilemeyen vardı, o ciddi bir sorun gibi görünüyor. Onlar için birşeyler düşünülebilir.

Ö. Ç.: "If I bite it..." var...

DES4: Evet, çok iyi bir tekerlemeymiş. Mesela o slogan, böyle tekerlemeler de eklenebilir.

Ö. Ç.: Track edersen...

DES4: O da bir nevi laf oyunu gibi yapmış, o da enteresan geldi.

Ö. Ç.: "Exercise is like work" var. Sabahları yürüten...

DES4: Evet, mesela bu "yapıyorum kurtuluyorum" mantığıyla... Enteresan geldi yani. Buradan mesela insanların karakterleriyle ilgili de çok enteresan analizler çıkarılabilir, çok ilginç yazılar. Bu mesela, her işini zamanında, mesela erkenden bitiren bir tip.

Ö. Ç.: Evet doğru. Devam ediyorum...

DES4: Bu da çok ilginçti. Tv bağımlısı onu kullanıyor, egzersiz yapmak için çok zekice. Bunun gibi yöntemler geliştirilirse bir servis olarak mesela herkese yaygınlaştırılabilirse çok ilerleme katedilebilir. Bir de, mesela kendi sorunlarını böyle bir avantaja çevirmek, bravo.

Ö. Ç.: Evet gerçekten.

DES4: Şöyle de olabilirdi, işte "tv bağımlıyım evde hep tv izliyorum, o yüzden spor yapamıyorum" diye şikayet de edebilirdi ama tam tersini yapmış.

Ö. Ç.: Devam ediyorum, 9'a geçiyorum. Yine "soğuk - egzersiz" demişsin. Sonra "get small goals"...

DES4: Evet, küçük adımlarla ilerlemek. Böyle bir adım atacaksın, motive edecek gibi bir set olacak.

Ö. Ç.: Tamam, sonra yine motive şeyi var. İki hafta, yine kritik diye mi?

DES4: Evet. Mesela o motive unsurları iki hafta üç ay sonra yapılabilir, olabilir.

Ö. Ç.: 10'a geçiyorum. İlk çizdiğin...

DES4: Bu da öğrenme sevdalısı mesela. Öğrenmek isteyenler için de bir kanal düşünülebilir.

Ö. Ç.: Sonraki, planlama diyen var...

DES4: Bunda şey çok komik gelmişti, herşeyi yazacak, ama yazmaya üşeniyor ☺

Ö. Ç.: Evet. Kendisi de gülmüş.

DES4: Belki buna uygun bir app olabilir ya da yazmaya teşvik edici birşey mi olacak. Demek ki, bu iş yoruyor bu insanı. Sürekli kayıt altına almak... Onu kolaylaştıracak birşey olacak.

Ö. Ç.: Evet. Devam ediyorum. Eve aldığı şeyler...

DES4: Evet. Eve alma, gym, dışarıda yürüme, onun kararını vermek gerekiyor, eve alacaksın kullanacak mısın, spor salonuna mı gideceksin, köpeğin mi olacak onunla yürüyecek misin... Kişiye uygun birşey gerekiyor. Mesela, herkesin ortak şeyler var, ama bir de çok kişisel doneler de var, onlar önemli.

Ö. Ç.: Tamam. "gym member" var...

DES4: Bu da, yine aynı yani.

Ö. Ç.: 11'e geçiyorum. Kullanım alanı demişsin...

DES4: Yer bulamamamış kullanmak istediği halde. Bir de çocuğu kurcalamak istiyordu. Alana ihtiyacı var demek ki insanın evde yapacaksa.

Ö. Ç.: Tamam. Devam ediyorum. "I divided", bilmediğin...

DES4: Devam ediyormuş, ama fit olmuyormuş hiç bir zaman ve ac oluyormuş sürekli. Belki az yemek + efor sarf etmek eşit değil "being fit"e orada başka şeyler var.

Ö. Ç.: Evet tamam.

DES4: Şurada "clothes" dedim. Biri, mesela şey olarak uygulamış kilo verdikçe kendine yeni kıyafetler almayı motive unsuru olarak kullanmış biri, bu da en büyük beden aldığı için "para sarfiyatı yaşıyorum" diyor.

Ö. Ç.: Evet enteresan. Devam ediyorum, bu da başka bir yöntem bulmuş...

DES4: Mesela, bu tasarruf etmiş. Hem bisiklete biniyor kalori harcıyor, hem de park parasından kurtulmuş. Zekice bir çözüm. Bir de hesaplamış ya.

Ö. Ç.: Evet. 12'ye geçiyorum. "trying to eat healthy"...

DES4: Evet evet. Onu düşünmemiştim.

Ö. Ç.: İkinci çizdiğin...

DES4: Bunda aslında deminki kızın şeyi etkili olabilir, belki şekerden vazgeçmiyormuş ya... Ne kadar şeker, o kadar egzersiz, belki öyle bir çözüm olacak. Hiç yemeyince aramıyorsun, ama biraz yiyince kendini alamıyorsun.

Ö. Ç.: Bir sonrakinde...

DES4: Bu değişik bir hayat istemiş, sonra kendi kendine başlamış, bike falan. O isteme noktasına nasıl varılıyor, o önemli. Bir de, mesela bunda duygusal bir artı da var, mesela diyor "active mom" orada kendini sosyal anlamda bir tır yaratıyor. Onda olumlu bişey yaratıyor. Belki insanlara belki sosyal anlamda kendilerini değerli hissettirecek birşeyler verilecek galiba mesela active mom, ya da fit bir baba gibi. Onlara sosyal anlamda değerli hissettirecek, kendilerini bir yere oturtacak birşeyler verilmesi gerekiyor.

Ö. Ç.: Devam ediyorum...

DES4: İşte şey, o servisin sürekli bezdirmeden motive eden unsurları olması gerekli.

45 dakika için zaman ile ilgili olarak.

Fitbit'i iki hafta kullanmış.

Ö. Ç.: Evet.

DES4: İyi uygulamalar gibi geldi bana. Herşeyi yüklüyormuş. Üşenmemiş mesela. Belki işte yüklemeyi kolaylaştırıcı birşey olabilir. Bir de, insan hatırlamak istemeyebilir. Mesela, ben yarım kilo tatlı yediysem sonra onu hatırlayıp girmek istemem. Sürekli yemeycek noktada tutmak gerekiyor.

DES4: Temptation noktasına hiç getirmeyeceksin. Sürekli sağlıklı beslenme kafasında olması gerekiyor ve gündelik hayatının parçası olması, köpek gezdiren adam ya da bisiklet kullanan gibi.

Parti davet, çok enteresan. "Yemezsen darılırım" muhabbeti. Ekstra tabak istemeyeceksin, çocuklara kendi tabağından yedireceksin, böylece yiyemeyeceksin. Çok aç kalmak da sıkıntılı. Bir düzen olması gerekiyor. Boğucu gelmeden. Sürekli geri beslemelerle gündelik yaşamının o şekilde akması normal gelecek.

Çocuklar hasta oluyormuş ya, onu bilmiyordum.

Emotional eating - annesine bağlıyor. "Ego depletion" diye birşey öğrendim. Çok yorgun olup birşey başardığımızda, sonra kendimize ödül veriyormuşuz herşeyi yiyebilirim diye. Onun önüne geçecek birşey, mesela ödül olarak şeker yerine elma, ya da dansa gideceksin kalori harcayacaksın.

Kids + soğuk - o insanlar için özel bir çözüm gerekiyor.

DES4: Bilinçlenme anı.

Travel with breakfast – servis içinde. Breakfast'i hazır vermek değil de kendininkini hazırlayacak ve daha az kalorili olacak şekilde. Sabah mesaj olabilir. Uyandığında alarmla birlikte kahvaltıda şunları yapmak ister misin diye... Yanında da güzel bir fotoğraf olur, mesela işyerinde güzel bir kahvaltı yaparken falan.

Kilo veremeyenler için ne yapacağız... Bireylere odaklanmak daha iyi olabilir.

Aria – çok güzel gelmişti, çok mantıklı. Etnik köken, atletiklik vs. çok önemli, hiç düşünmüyoruz.

Sürekli geri bildirim verecek birşey istiyor galiba.

Nursing mom – kritik seviye şu galiba... Bilimsel veri olarak bu insanlara sunmak gerekiyor galiba. Şu ölçüde yersen, çocuğa şu ölçüde geçiyor, gerisi sana kilo olarak dönüyor diyor.

DES4: Zamanla küçük değişimler yapmış. Yine bir öz bilinç kazanma durumu... Öz bilinç çok önemli anladığım kadarıyla.

Kilo alınca aynaya bakmıyor insan. Israrla bir aynayla karşılaşınca, belki kilo vermek zorunda hissadersin. Mesela, evin giriş çıkışı ayna olabilir, orada mecburen karşılaşacaksın.

DES4: Tartıdan nefret ediyor. Düşman olarak görmeyeceği bir tartı yapacaksın. Mesela, öyle bir tartı olacak ki 60-70 demeyecek de, kilo aldıkça oradaki resim genişleyecek, kilo göstergesini öyle bir yapacaksın ki. Tombik gözükeceksin. Şişince; portakal, hamburger gibi olacak, zayıflayınca kuşkonmaz gibi olacaktım. Biraz çocuklara davranıyormuşsun gibi davranmak belki.

Giyim – çok enteresan bir yaklaşım. Yapıyordum, ama bilincinde değildim.

Tape measure – kasların genişlediğini ölçüyor.

Mesela pazarları ölçüyormuş, kendine gün belirlemiş, böyle yapılabilir.

DES4: Evliydi, eşi diyet istemiyordu. Mesela bir telefon app'i olacak, eşine karşı argüman geliştirecek.

Spor salonunun çocuk oyun alanı falan olması gerekiyor galiba. Öyle birşey yok, değil mi... Alışveriş merkezinde olup da orada olmaması garip. "Spor salonuna genç, güzel, atletik insanlar gider" algısı var. Böyle saçma bir paradoks var. Baştaki kızın shy olma durumu gibi mesela...

Ne zaman yemesi gerektiği, sosyal hayatıyla mı, kendi verileriyle mi ilgisi olacak. Mesela, herkesle öğlen yemek yemezse sosyal hayattan kopmuş olacak, ona uygun birşey düşünmek lazım.

DES4: Chart – nasıl yapmış diye düşündüm. Başkasında da işe yarar mı diye düşündüm. Ben kendime yapmam, ama demek bazı insanlarda işlerliği var.

Lunch box – bunda "own food" kelimesi çok önemli bence, sahiplenmiş gibi.

İşi yok belini incitmiş depresyonda – günlük hayatındaki aksama da exercise durumunu etkiliyor demek ki.

DES4: "Emotional eater" demiş biri, ama ben bu olayı biraz reddediyorum galiba. Daha bilişsel birşey galiba kilo vermek. O seviyeye gelince başlıyorsun, sonra biraz verince o seviyeden düşüyorsun. Sanırım tasarım o anda birşey yapabilir düşmemen için.

Track track – ben istemezdim, ama istenebilir demek ki.

Toplantıya gitme iyi gelmiş. Sırf kilo vermek amaçlı değil de, biraraya gelmek ve o deneyimin ortak bir ruh haline gelmesi.

Şeker yiyenin tersi, bu da hareket etmiyor ama yemiyor.

DES4: Grup işlevsel olabilir, programın içerisine katılabilir.

Şu an aklıma geldi. Bir ara sanal bebek besliyorduk ya, öyle bir arkadaşla ihtiyacı var bu insanların. Yarı gerçek ya da sanal bir arkadaş. Bir ara furby'ler vardı ya. Yaşam koçu gibi ama garip kaçmayacak bir ürün. Onlarla yürüyor, ne yemesi gerektiğini söylüyor falan. Mesela, doktora gidecek değerleri ölçülecek ve değerler bu furby'e yüklenecek. Belli zamanlarda bununla konuşacak. O mesela, "hadi arkadaşım, kahvaltımızı yanınızda götürelim", "Exercise saatimiz geldi" müzik çalacak mesela. Şeker yiyiyor mesela o sırada şişman görseller mi gösterecek, annesi babası gibi mi

olacak. App veya üç boyutlu bir ürün de olabilir. O dönemin şarkısı neyse artık, lambada mı neyse... Şimdi konuştuğça gelişti. Sonra da aylık furby toplantıları mesela sosyalleşmesi gerekecek, sen gitmek istemezsen de onun canlı kalabilmesi için diğerleriyle bir araya gelmesi gerekecek. Sosyalleşmiş olacaksın istemesen de. Mesela çocukları da oyalayabilir sen evde exercise yaparken. Belki "akrabanın ilk kalp krizi geçirdiği yaştasın şunları yemezsen" diyecek. Arada gezdirmeye çıkarman gerekecek, köpek gibi. Bir porsiyon belirledin, bir kısmını ona yedireceksin, kimyasal analiz yapacak, hafızasına kaydedecek, ne kadar ne yedin gibi. İnsanlar bunun kedi köpeğiyle de yapıyor, ama zihinsel aktarım olamıyor. Bunu aldığın zaman belli bir ücret ödeyeceksin ki ölürse yeniden alamayacaksın. Spor salonlarında giyim şeylerinde indirim olacak furby'si olanlara. Giyim firmaları bir beden düşen insanlara indirim yapacak, o indirimi de furby haber verir. Böylece reklam olarak sistemi de besler ☺

Yapıp götürme – bu da çok zekice bence, self control olmama durumu için iyi.

Cupcake – artı değeri olan bir yaklaşım olarak düşündüm. Sadece tasarımsal açıdan değil de, biraz da kendine uyan şeyleri de işaretleme eğilimi gösteriyor insan.

Walk water – stratejiler şeyi...

DES4: Shopping – baya iyi bir strateji. Benim furby'i kredi kartıyla da eşitleyebilir. Limitini olumlu gelişme oldukça arttırsın, olumsuz durumda düşürsün. Mini robot gibi birşey olacak.

Ö. Ç.: Toparlamışsın bunları...

DES4: Olumlu şeyler olarak aldım (Weight Watchers, Fitbit, ölçüm). Neler motive ediyor...

Diğer kritik şeyler (para, spor), sistemi destekleyen şeyler.

Negatif şeyler hava, birlikte yaşadığı insanlar.

Kıyafetler, olumlu ve olumsuz etkileri.

Sürekli alıp veriyorsa kilo onu da masraf olarak görüyordu.

Yanlarına arkadaş olması, olumlu görüyorlardı.

Psikoloji çok etkili, stres, motivasyon, utanmak falan – bunları içine alan birşey olması lazım. Bunları içeren bir servis tasarımı. Takip mekanizmasını sağlayacak bir app temel olan şey. Telefonda olması çok ikna edici mi bilemiyorum, belki üç boyutlu olması daha iyi olabilir. Seninle konuşurken çıktı bu fikir. Yanında taşırken insanların komik duruma düşmeyeceği, biraz da statü gösterecek. Lunch box gibi. Bunu taşıyan, "ben kiloluyum" diye bağarmayacak da, "kendime özen gösteriyorum" gibi görünecek.

Ö. Ç.: Genel olarak baksak, özellikle faydalı buldum dediğin narrative içeriği veya içerikleri var mı?

DES4: Spesifik hikayelerini anlatmaları veriyi sağladı. Belli stratejileri uyguladıkları, tamamen kişisel olacak şekilde anlattıkları hikayeleri veriyi sağladı. Kendilerinden çıkan çözümler, öz yaşamları.

Designer: DES6 (F)

Date: 09.05.2015

Duration: 75 min

Ö. Ç.: Kişileri asıl motive eden... Burada motive eden şeyleri mi çizdin?

DES6: Hepsi aslında da, ama benim ilk dikkatimi çeken ya da benim algımda hani insanların düşünceleri ilk health'miş gibi geliyor, ama altını çizmeye başladığım zaman mesela kids to model çizmişim, orada bir emotion konusu daha fazla aslında hani. Duygusallık var, bu seyde sadece ben yüzde yüz sağlık için yapıyorum değil de. Karışık çizdim aslında. Herşey var. Fitbit'i ilk defa duydum ben burada.

Ö. Ç.: Mesela enjoy the pool but too shy...

DES6: Orada da bir duygusal olay var. Çizdiklerimi bir süre sonra karıştırmaya başladım. Neyi biliyorum, önceden biliyor muydum, karıştırdım sonlarda yani.

Ö. Ç.: Tekrarlanan şeyleri çizdim demişsin...

DES6: Aynen. Fitbit'i örneğin bu sayfada da çizdim, sonra da çizdim.

Ö. Ç.: Tekrarlandığı için veri olarak alıyorsun?

Aynen öyle.

Ö. Ç.: Çoğu kişi ani bir uyanma yaşamı demişsin. Burada galiba o anları çizmişsin gibi anladım...

DES6: Aynen, evet öyle.

Ö. Ç.: Bunları karar verme anı olarak aldın, buradan tasarım fikri çıkabileceğini düşünüyorsun...

DES6: Evet.

Sürekli hatırlatsınlar, "bunlara bak ne kadar kötüydü o an" diye.

Ö. Ç.: O anı yaratmak için mi?

DES6: Aklıma ilk gelen o. Bu da yine şey gibi, biraz şeyle birleşiyor, ilk o emotional birleşiyormuş gibi geliyor bana. O uyanma da yani.

İkisi birşeye gidebilir.

DES6: Ay insanlar çok kötü. Hepsi çok kötü olmuş burada.

Ama öyle, herkes böyle şey insanlardan nefret etmiş yani. Onlarda bir fat girl var, o yeter zaten.

Ö. Ç.: Buradan fikir çıkabilir diyorsun?

DES6: Emin değilim, bayağı çizdim de. Çıkar mı çok emin de değilim yani. Burada birşeyler yaşamışlar, insanlar kötü davranmış bunlara, ama tasarımda birşey çıkar mı emin değilim.

Bilemedim.

Ö. Ç.: Support gruplar fikri...

DES6: Çünkü o şekilde geçiyor. Fikrin çıktığı yer bu olmuş, evet. O cümleden çıkmış.

Ö. Ç.: Çoğu kişi kilo problemiyle nasıl başa çıkacağını...

DES6: Hepsini biliyor yani, ben bayağı birşey öğrenmiş oldum. Ne yiyeceğim, ne içeceğim, ne zaman yiyeceğim, hangi programlar var, direkt girdim baktım yani neymiş diye. Bunların hepsi gayet expert'ler. Şeyden de kaynaklanıyor galiba, Amerika'nın kapitalist, "şunu da alın, bunu da alın"... Hepsinde var yani bu şeyler. Pazarlama şeyleri. Hepsini, hepsini denemiş yani. Adım sayma, ürün kullanma ya da bi expert'e gitme. Hepsinde birşey var. Onları bayağı çizmiştim.

Ö. Ç.: Çoğu gerçekten overweight.

DES6: "10 kilo fazlam var", "beş kilo yaza kadar vereceğim" gibi tipler de var.

Ö. Ç.: Sen çözüm olarak "exercise" demişsin ya... Çizdiklerin de sanırım insanların ne çözüm bulduğunu.

DES6: En çokları bunlar, hani farklı şeyler de var da... Zumba da var, doktora gitme de var, ama en çok kalori sayımı. Kalori sayımı dediğim, örneğin fitbit'te de birkaç programda da var. Onlarda da hep kalori sayımı üzerine selvera program, "mypoints plus total" gibi. Bayağı bir mention edilmiş, kalori sayımı özellikle.

Ö. Ç.: Buradan bir yere gidilebilir...

DES6: Buradan kesin gidilir. Bir de, aslında bilinmesi de iyi birşey, hani kalori sayımı biliyor ya, herkese familiar birşey. Yani, familiar birşey onlara da. Yani yepyeni birşey değil de, bildikleri alışageldikleri birşey, daha iyi belki de geliştirme anlamında.

Ö. Ç.: Kalori sayımıyla ilgili şeyler vardı... "Track etmeye çalışıyorum, ama yazmaya üşeniyorum" gibi...

DES6: Aynen, evet.

Hem takip edeceksin, hem spor yapacaksın.

Biliyorlar zaten, çoğu herşeyi biliyor yani. Önemli olan, o şeyi devam ettirebilmek ve başlamak gibi görünüyor.

App'i kandırırın gibi. Aslında üç gram yedim, beş gram yemiş oluyorsun. Ya da porsiyon var, porsiyon var. Sandviç var, sandviç var, onu ne kadar giriyolar onu bilmiyorum. Kendilerini kandırma ihtimalleri çok yüksek o programlarda.

Biliyorlar hepsi, gayet şey biliyor yapmıyorlar sadece. Bayağı bir çizmişim zaten burada. Yok şeye kadar biliyorlar, işte "1500 kalori almam gerekiyor günde, ama 1800 kalori ile başladım" demiş. Bunu bile biliyor, nereden yani. Bayağı herkes bir expert.

Ö. Ç.: Harekete geçme konusunda problem var gibi. Burada çizdiklerin, onları harekete geçirecek şeyleri bulmak mı?

DES6: Hem o, hem de biraz analiz gibi. Aynı şeyi tekrar çizmişim. Kendim de baktığımda, tekrar tekrar çizmişim mesela exercise, biraz keyword vermek gibi, motivasyon da var, biraz da to the point problemin ne olduğunu, nasıl çözüleceğini belirlemek de var.

Çizmeye başladım, bilinçli de yapmadım açıkçası bir baktım çözüm için onları seçiyorum.

Ö. Ç.: Unique şeylerden çok, genel sanki...

DES6: Aynen. Çünkü problem tanımaya çalışıyorum ben de, nasıl bir problem var. Sonuçta çok da bildiğim bir konu değil bu, insanlar kadar çok bilmiyorum. Ne var, ne yok biraz öğrenmeye çalıştım ben de. Biraz dersimi çalıştım.

Ö. Ç.: Senin notun...

DES6: Evet, çoğunda öyle birşey vardı.

Ö. Ç.: Boşa giden para, zaman sorusu vardı...

DES6: Hepsi gitmiş zaten, paraları da zamanları da gitmiş. Aldıkları tracker'lar, treadmill'ler, hepsi birşeye para vermişler.

Belki, hani o şeylere spor salonuna olan üyelikler, dışarı çıkıp koşsa aslında aynısı, ama sanki spor salonu daha çok işe yarayacakmış gibi. Ya da, eve alıyorlar. Mesela "hava çok soğuk diye dışarı gidemiyorum" diyor, eve alıyor ama sonra da kullanmıyorlar.

Ya da, örneğin normal bir tartı yetecekken, gidiyor 130 dolara şey almış. Ama hani çok mu gerekli, biraz gereksiz gibi geliyor bana.

Ö. Ç.: "Beş sn'de kendim de girebilirdim"...

DES6: Aynen. "Kendi kendimi motivasyon" demişim.

Yaptığımda çünkü, yazayım da kurtulayım modundaydım.

Kendi kendimi analiz ettim, neyle motivasyon oluyor diye.

Ö. Ç.: Motivasyon en önemli sorun diyorsun. Motive edecek şeyleri mi buldun?

DES6: Aslında biraz da şey, şu an farkediyorum da... Şimdi senin sorular var ya, soruyu o başlık içerisinde çok incelememişim gibi geliyor.

Önceki şey gibi, analizin aslında total olarak bakmışım. Bu 22 sayfayı, 22 sayfa olarak değerlendirmişim. Sorduğun soruya özel, altını çizme yapmamışım.

Başlıklar iyi olmuş, soru soru gittim ben de. "Bugün de bir soru bitireyim" diye oturdum.

Ö. Ç.: Exercise dvds... It's cold...

DES6: Genel baktım hep.

Weight Watchers iyiymiş. Çoğu yalnız hissediyor bunların, psikolojik olarak hem insanlar çok kötü davranmış bunlara. Bir de, hep uzun süreli anladığım kadarıyla, sorunları çocukluktan beri, ya da gençlikten beri. Böyle birilerinin olması iyi.

Çok hassaslar, bayağı bir şeyler.

Bayağı duygusallar.

Advice'ta döktürmüşler ya ☺ Kendileri 10'da birini yapsalar, yetecek zaten.

Ö. Ç.: Burada şeyi çizmişsin, sarıyla "devices are useful"...

DES6: Aria için. Yine programlar da öyle ya hani. Porsiyon ne kadar üç patates mi, beş mi porsiyonda çok farketmiyorsun ya, o device'larda da anladığım kadarıyla yine aynı şeyler var, değil mi?

Ö. Ç.: Evet. "I do travel with my own breakfast" var...

DES6: Evet.

Ö. Ç.: Bu, kahvaltınla...

DES6: O çözüm, yani direkt çözüm olarak gördüm ben onu.

Ama, direkt exercise'dan nefret etme de var.

Ö. Ç.: Motivasyon gibi?

DES6: Evet, çoğunluk şey, yani bence emotional burada çoğu şey hepsinde.

DES6: Hee pantoloncular ☺ Bunlar sonlara doğru daha iyi sorular, daha acılmışlar. Önce daha depressed'ler hepsi. O sıralama iyi yani çalışmada.

Ö. Ç.: "Take pictures in mirror" var...

DES6: Bunlar direkt çözüm.

Ö. Ç.: Buradan fikir...

DES6: Diyetisyen. Aynen bunlar direkt somut şeyler. Tape measure, uniform, doctor... çoğunluğu zaten aynı şeyleri tekrarlamış. Bazıları hergün scale, bazıları ayda bir.

Ö. Ç.: Biri şey demiş, "go visual"...

DES6: Direkt buzdolabının üstüne, ya da telefonlarına mı artık. Before after çok vardı internette, öyle birşey herhalde diye düşündüm.

Ö. Ç.: Fotoğrafları...

DES6: Direkt çözüm.

Ö. Ç.: Geçmiş deneyimleri var. Buradan da senin çıkardığın...

DES6: Yine "motivasyon" demişim.

Ö. Ç.: Çok söyleniyor da ondan. Burada mesela evde iki tip yemek yapmak...

DES6: Ay bir tanesinin kocası falan desteklemiyordu onu. Üzüldüm ona. Kadıncağız yemek yapıyor iki çeşit.

Hepsi böyle mutsuz, ama hepsi de biliyor. Hep aynı şey aslında, yani öncekilerle.

Ö. Ç.: Burada "I remind myself"...

DES6: Çocuklar için yapma. Bir duygusallık motivasyon şeyi. Burada, aslında tasarım sürecinde kullanılabilir.

Duygusal ya, bu iş çok duygusal bir işmiş ben onu farkettim. Yani fiziksel şeyden çok duygusal. Kilo almaları da çoğunlukla duygusala bağlı, vermeleri de duygusal. Öyle görünüyor.

Yoyo diyetler. Biri de chart'ini koymuş. O tam visual aslında, önceki şey gibi. O da güzel bir görsel çözüm aslında. Güzel yani. Görünsün.

Ö. Ç.: Tartılmaktansa, kot dene...

DES6: Kot dene. Çünkü çoğu tartıya güvenmiyor. Şey yazmış biri bir yerde, "kas yağdan daha az hacim kaplıyor" gibi birşey. Öyle birşey var. Yağlarından kurtulmaya çalışıyorlar gibi. O da, işte tartıyla belli olmuyor, 60 kilo sırf kaslı olanla yağlı olan biri 30, biri 35 beden giyer. Beden daha doğru sonuç veriyor sanki orada. Yani tartı o kadar güvenilir olmayabiliyor.

Kişiyeye bağlı, neyi motive ediyor onları. Birisi böyle daha görsel birşey görmek istiyor, biri kotla, biri çocuğunun "annecim çok zayıfladın" demesi... O motive eden şeyleri bulmak gerekiyor. "Bazılarında işe yarayan, diğerlerinde yaramıyor" diyor ya.

Spor ona çözüm olmuyor çok, belki de.

Bir sürü çözüm var, ama her çözüm herkese de yaramıyor. Zaten bir de duygusallar bunlar, özel bir program uygulama, tracking şeyi, onlar daha çok hoşuna gider sanki.

Ö. Ç.: Burada işte advice'lar başlıyor. Senin notların. Tracking ilğini çekmiş?

DES6: Evet, çoğunda track var.

Kendilerini de motive ediyorlar belki de. Yeni başlayanları da...

Şey demiş burada, "journal blog" veya "activity". O da ilginç birşey olabilir. Çünkü çok mekanik bir çözüm olmaya başlıyor bir süre sonra, tracking yaz bugün şunu yedim doktora git günde en az 10000 adım at 1500 kalori yeme. Ama bu tarz journal blog arkadaşlar ya da Weight Watchers buluşmalar farklı bir motivasyon. Diğer türlü çok sıradan, aynı düzeni yapıyormuşsun gibi. Bunlar da, ondan bir süre sonra sıkılıyorlar.

Sosyal etkileşimi zaten şeyden dolayı kesmişler, yaşadıkları o insanlarla ilgili kötü tecrübeler, başkasından destek bulamamaları, sosyallikleri iyice azalmış, iyice kabuklara kapanmışlar gibi. Bu tarz şeylerle açılırlarsa o da motive edebilir.

Tek başına kalıyorlar, destek support birşey istiyor.

Kendini kandırıyorsun, başkasını kandıramazsın gibi.

Ö. Ç.: "Exercise buddy" var en üstte...

DES6: Aynen, bu da aynı gruba giriyor aslında hani. Başkasıyla olması.

Genel işe yaracak şeyler.

Ö. Ç.: Yine yapılabilecekler devam ediyor...

DES6: Aynen.

Motivasyon da burada çok fazla geçiyor. Yine kendi kendilerine geçiyor, benim çizmem dışında. İşte goal'lerini yazmak, hedeflerini yazmak, bir motivasyon da var. Birisi kendine para veriyormuş, o da ilginç. O iyiymiş yalnız ☺

Ö. Ç.: Burada şey var, söylediğin şeye onu düşünerek mi çizdin bilmiyorum ama "özelleşmiş durumlar" demiştin ya, en sonunda bu mesela çok kişisel birşey gerçekten alışveriş.

DES6: Kendi çözümü bulmuş. Yoksa hepsi biliyor.

Ö. Ç.: Burada onların düşünceleri var...

DES6: Gerçekten güzel şeyler var.

İlk şey güzeldi, buzdolabı var ya. Ben de beyaz eşyada çalışıyorum. Bizim de hep concept yaptığımız birşey akıllı buzdolabı gerçekten düşündüğümüz birşey. Barkod okutup, buzdolabına yerleştirme, sonrasında o sana kalori, besin değeri, hangi gün aldın, son kullanma hatırlatacak gibi birşeyler düşünülüyor. Bir tanesinin hayali gerçekleşebilir yani. Şu anda mümkün, ama piyasaya çıkmaz sadece. Akıllı telefonlarla birleştirilir, ona göre alırlar, buzdolabına yerleştirirler gibi.

Ö. Ç.: Evet.

DES6: Buzdolabını açıp açıp kapatmak. Ya da buzdolabında yemediği büyük bir kek yapıyor, bir dilimini yiyiyor, sonra atılmasın diye hepsini yemek zorunda kalıyor.

Summary

DES6: Sürekli hep aynı şeyler çıktı; exercise, calorie count, fitbit hep aynı şeyler tekrarlanıyor, demek ki var bu işin bir doğrusu, herkes aynı şeyleri dediğine göre.

Bunlar artık fact işte. Başka bir konu da olsaydı sürekli tekrarlanan birşey demek ki var birşey bunun altında.

Savaş halindeler ama. Support gruplar falan.

Ö. Ç.: Servis gibi mi?

DES6: Vardır belki böyle birşey de bana öyle geldi. Ya kalori say, ya bilmem ne ama şey demiyor işte. Doktora gidiyolar, ama biraz da şey de bekliyor sanki diyetisyeninden gaz da bekliyor, ikisinin de olması gerekiyor. Uygulama da olabilir, ürün de olabilir diyetisyen servisi.

Ö. Ç.: Buradan mesela "teknoloji geliştii" yazmışsın. Servis gibi birşey anlamıştım...

DES6: Aynen.

Uzman ya da exercise buddy gibi diyet buddy'si ona soracak. Sanki şey, kalori falan sayıyorlar ya, kendi kendine sayıyor halbuki, "1500 almam lazım, ama 1800 alıyorum" falan yazmıştı, belki 1400 alacak onun için achievement ya onu support edecek "aferin" falan diye oradan bir support kapacak.

Paylaşmak gibi. Bir expert kısmı olur, bir de buddy kısmı olur. Arkadaşı gazlar, expert de farklı bir gözden bakar. Belki "az kalori yiyiyorsun, ama exercise yapıyorsun" der expert olan. İkisi de...

Ö. Ç.: Kalori track etme kısmını expert'e mi bırakıyorsun?

DES6: Yoo, hep beraber yapacakları birşey bu. Kişi kendisine bıraktığında yapmıyor gibi görünüyor. Gerçi yapanlar da var. Kendine güvenen biriye, kendi yapsın ama bir ezikliği varsa, ona bi buddy bulunsun gazlayacak. Ya da, ömrü boyunca overweight oldu, onlara bir expert girsin, müdahale etsin.

Ö. Ç.: Bu konu hakkında konuşmayı seviyorlar.

DES6: Platform sağlamak, varsa hep konuşsunlar. Pazartesi buluşsunlar. Bu konu hayatlarında anladığım kadarıyla bayağı büyük birşey; eşim, çocuğum ve diyetim gibi birşey. Mesela nasıl insanlar çocuğu olduğu zaman bütün gün anlatıyorlar ya, bunlara da öyle bir ortam gerekiyor. Sürekli aynı şeyleri anlatıyorlar çünkü.

Ö. Ç.: Bir nevi challenge...

DES6: Ödül birisinin çok hoşuna gitmiş, yazdığı "tracking programlarının bir tanesinde programı yendim" gibi birşey.

Şeyde bile çok salak app'ler olur ya, "tarlama domates ekdim", "tarlamdaki bilmem ne puanları arttı"... İnsanlar, ondan bile mutlu oluyor.

Küçük bir trophy vermesi bile, sanal olarak o bile çok motive olabilir. Bu alkoliklere falan cip verirler, Amerikan filmlerinde gördüğüm 60 günlük alkol almadı cipi. Bunlarda da "10 gün boyunca 10000 adımı mı tamamladım", küçük birşey bile onları mutlu edebilir.

App de olabilir, support grubu içinde ödül de olabilir.

Ö. Ç.: Pantolon içine sığma şeyi?

DES6: Genel olarak ödül evet.

Ö. Ç.: Kilo hep bir obstacle olmuş. "Başarma duygusu" demişsin...

DES6: Nasıl bilmiyorum ☺

Birşey olabilirmiş gibi. Biraz başaramadıkları için çekiniyorlar.

Ö. Ç.: Ödülle alakalı mı?

DES6: Evet, olabilir.

Nasıl başardıklarını anlatmaları da onları biraz loser'lıktan çıkartıyor.

Ö. Ç.: Mekanik...

DES6: "Mekanik" dediklerim tracking, kalori, low carb bunlar direk çözümler.

Ö. Ç.: Porsiyonu söylemişsin...

DES6: Tracking herkes biliyor, ama sanki biraz eksik biliyor gibi geldi gördüğüm kadarıyla.

Belki o yüzden de tam veremiyorlar. Hepsi track etmeyi biliyor, ama kendini kandırma demiştik ya ya da şey kısmında da tek tek girmek zahmetli geliyor. Yine uygulama geliyor aklıma. Öyle birşey olur ki fotoğrafını çek koy, tek tek yazma yarım patates falan yazma, program kendi onu görsün, kalorisini kendi hesaplasın.

Tek tek 10 gram mıydı tavuk, 20 gr mıydı... Diğer o kadın gibi, herşeyi tek tek tartıyormuş. O da olmaz, diğeri de olmaz.

Bu çoğu kişi için imkansız. Ona uygunmuş, ama çoğu kişiye zor.

Ö. Ç.: Görsel destek bu heralde...

DES6: Evet, aynen.

Bu uygulama ya da gadget'ların, ne kadar accurate... Nümerik mi görsel mi...

İkisi de olabilir, kişiye göre değişir belki de. Bazıları görsel seviyor, bazıları nümerik seviyor ya. İkisini de sunmalı belki de. Kişiselleştirme benim programım.

Birinin çok umrunda değildir, sadece bir level görmek ister. Uygulama olabilir.

Belli sınırlar olsa, 1400-1500 yerine. Nerede olduğunu gösterse.

"Aman dikkat haa, çok gitme" dese. Çok yaklaştığında hemen senin buddy'ni uyarıyor, "bak Özge çok yemeye başladı" diye. Ya da expert'i uyarıyor, expert de seni arıyor "bak çok yemişsin, akşam salata ye" diye.

Sosyalleşme kısmı da olur böylece buddy'le.

Ö. Ç.: Kişiselleşme durumu dediğin...

DES6: Mesela ofiste çalışan biriyse yürümeyi tavsiye edecek. Ya da, işte sevdikleri şeyler arasında çoğu tatlı seviyor, ama bazıları meyveyi de seviyordur, işte meyveyi tavsiye edecek.

Ö. Ç.: Genel olarak baksak, özellikle faydalı buldum dediğin narrative içeriği veya içerikleri var mı?

DES6: Aklımda ençok kalan 8. sayfada birisi şey demiş "if I bite it, I write it". Ben aralarından çekip bulmuşum, hep bu yazmış. Bu çözüm aklımda en çok kalmıştı.

Bir tanesi sıralama yapmıştı.

"What do you do about your problem" kısmından belki de şey yaptım.

Diğerleri çünkü biraz daha psikolojik ve duygusal ya.

9. sayfada en altta "caloric budget".

Ö. Ç.: Daha çok problem ve kişisel çözümler...

DES6: Belki de ilk kısmı. O emotion kısmı aslında hemen tek cümleyle yazılabilecek birşey değil ya. Aslında geneli de psikolojik şeyleri anlatıyor. Motive'i etkileyecek herşey aslında.

Ö. Ç.: Fact'lere yoğunlaştın diyebilir miyiz, mekanik şeylere?

DES6: Belki de ben konuyu bilmediğim için bana daha çok aklıma yatan hemen bulabileceğim çözümler direkt bunlar çünkü.

Designer: DES7 (F)

Date: 28.05.2015

Duration: 35 min

Ö. Ç.: Birinci sayfadan başlıyorum.

DES7: Şimdi mesela ilk sayfada şeye bakıyorum ben, burada biri meyve chop çok zor demiş..

Orada böyle blender'ımsı birşey yapmak geldi aklıma. Kaloriyi de ölçen blender'ımsı birşey.

Taze meyveden yapabileceği birşey yani, donmuş meyve kullanmasın da. Ürün için çizdim onu.

Ö. Ç.: Şeyi çizmişsin iki tane köpeğim var demiş..

DES7: Yani orada aslında bir ürün düşünmeden çizdim. O cümle fikir verebilir diye. Hızlı bir yaşantısı var adamın işte.

Hızlı yaşantı kalori yakma için bir girdi olabilir.

Ö. Ç.: "Health and look" diyen var...

DES7: Orada şeyi düşündüm. Böyle lunapark aynaları olurdu ya. Bu kadar takıntılıysa öyle esprili birşey yapılabilir diye düşündüm. Kilosu beni ilgilendirmiyor.

Ö. Ç.: "Lack of movement" var...

DES7: Yardımcı olsun diye çizdim.

Ö. Ç.: "Buddy system" var...

DES7: Orada şey, bu Nike'ın falan var ya bileğe takılan, sürekli seni takip eden öyle birşey.

Ö. Ç.: Ürün yani?

DES7: Evet.

Ö. Ç.: "My own worst enemy" var...

DES7: Orada galiba psikolojik nedenlerden falan çizmişimdir. Birşey düşündüğümü sanmıyorum.

Ö. Ç.: Toplum tarafından hep as fat var...

DES7: Orada da ürün düşünmedim.

Ö. Ç.: Bunları nasıl yorumladın?

DES7: Değiştirilebilir birşey olarak aldım. Sanki orada birçok insanda bir çaba var, düzeltmek istiyorlar. Dolayısıyla birşeylerden yardım alıyorlar falan filan.

Ö. Ç.: "10 sene önceki fotoğraflarıma bakıyorum" diyen...

DES7: Orada da yine dijital bir fotoğraf albümü gibi birşey düşündüm. Önceki fotoğrafları göster, çek. Öncesi sonrası yapacağım, ama anında yapacağım. Şimdiki hali ve eski hali yan yana olacak. Böyle bir albüm olacak anlık.

Ö. Ç.: "Karbonhidratları bırakamıyorum" diyen var...

DES7: Orada da diyetle ilgili ne yapılabilir diye... Bir diyet yapmaya çalışıyor ama. Bilemedim.

Ö. Ç.: Planlamaya yönelik birşey mi?

DES7: Olabilir, diyetle ilgili düşündüm de.

Ö. Ç.: 20 yıl sonra buluşma...

DES7: Onda da kıyafet düşündüm galiba. Yılsonu balosunun 20 yıl sonrası gibi birşey. Korsemi birşey düşündüm.

Ö. Ç.: Fiziksel zorluk yaşayan var...

DES7: Zaten var olan aletlerin rahatsızlıklar için olan durumlara uygun versiyonları.

Ö. Ç.: 71 yaşında obez...

DES7: Sadece, 71 yaşında olmasını çizmiştim.

Ö. Ç.: Diyabet için...

DES7: Tatlandırıcı şeyler düşündüm.

Ö. Ç.: Eşitlik çizmişsin...

DES7: Tam olarak birşey bulamadığım için çizdim. Aslında hiç çizmeyebilirdim.

Ö. Ç.: "Aslında içten içe biliyoruz" diyen var...

Ö. Ç.: Kiss rule...

DES7: İş gibi görürsen, hayatının bir parçası olursa daha eğlenceli olur. Günlük aktivitelerin içine nasıl sokulabilir diye düşünerek birşey yapılabilir sanki.

Ö. Ç.: Evdeki yayını kesip...

DES7: Zorunda bıraktığı için tercih etmiş. Ona nasıl bişey yapılabilir. Bu adam tv izlemeyi çok seviyor, aynı zamanda da kilo vermek istiyor. Gym'e gitmesi yerine evde tv izlerken ne yapabilir, nasıl bir çözüm bulunabilir. Gym'i eve getirmece.

Ö. Ç.: Soğuk havalarda evde kullanılan aletler var...

DES7: Soğuktan dolayı.

Ö. Ç.: Set small goals...

DES7: Yine oyuna çevirmek. Takip etmek. Program gibi birşey.

Ö. Ç.: Motivation to do races...

DES7: Evet, aynı şey.

Ö. Ç.: Destek olacak birine ihtiyaç...

DES7: Siri gibi birşey. "Her" filmi vardı ya, öyle birşey. Sürekli onu motive edecek. Sanal bebek.

Ö. Ç.: Sanal bir arkadaş gibi. Herşeyi yazıyorum...

DES7: Yine bilgisayar ortamında software onu takip edecek. Sürekli seni takip edecek. Ben açtığımda gelmeyecek, hep başımda olacak. Kaloriyi de hesaplayacak.

Ö. Ç.: Gym'e gitmek...

DES7: Evde kullanılacak şeyleri daha etkili hale getirmek. Beline bağladığın şey gibi.

Ö. Ç.: Tv izlerken...

DES7: Normal otururken de sen onu yapabileceksin.

Ö. Ç.: Çocukların oynadığı...

DES7: Oyun parkı gibi. Hem oyuncak olabilen. Çocuklar uzak dursun diye.

Ö. Ç.: Bebeği olan...

DES7: Bisikletin önünde bebek konabilir. Bisiklet düşündüm yani. Normal bisiklet düşündüm. Bebekle birlikte yapabileceği birşey.

Ö. Ç.: Çocuklar mommy...

DES7: Duygusallık için çizdim. Çocuk anne arasındaki bağ. Anne gitmesin evde yapsın.

Ö. Ç.: Pantolon giymeyle deniyordu.

DES7: Deneme pantolonu olabilir. Uygun kiloya gelmek için, mesela "50 kilo için şu pantolonu alınız" gibi. Daha ticari boyuta getirmek. Annem zaten yapıyor mesela pantolona göre kilo vermece.

Ö. Ç.: Belli günlerde tartılma yapanlar var...

DES7: Onda da şeyi düşündüm, uyaran birşey, alarm. Uyaran baskül ne zaman tartılacağını söyleyecek.

Ö. Ç.: Reminders visual...

DES7: Evet hatırlatma buradan.

Ö. Ç.: Walk everyday...

DES7: Bilmiyorum, evet yani. Başlangıç olarak.

Ö. Ç.: Emotional eater...

DES7: Emotional olmasını çizdim, tabii ki duygusal.

Daha önce hiç duymamıştım.

Ö. Ç.: Commitment...

DES7: İşte, sürekli seni rahatsız eden. Çünkü asıl problem galiba hatırlayamama. Arabanın kemerini takarsın ya, sestem rahatsız olup. Öyle rahatsız etmeli.

Başkalarıyla da paylaşılır, yarışılır.

Ö. Ç.: Kiloyu koruma...

DES7: Dukan diyeti geldi aklıma. Yine aynı sistem bitmeyen bir diyet sabitlemek için uğraşıyor.

Ö. Ç.: Porsiyonu anlamak için...

DES7: Standart ölçü. Ölçü tabağı düşünmüştüm.

Keyifli hale getirmek.

Ö. Ç.: Lunch bag var...

DES7: Onda da tabii ki lunch bag yapma fikri. Sefer tası.

Designer: DES8 (F)

Date: 03.06.2015

Duration: 25 min

Ö. Ç.: 2. Sayfada chop it all var en başta çizdiğin...

DES8: Mesela, it's so time consuming to wash and peel and chop it all up bölümüyle ilgili, bu sorunla ilgili bir ürün tasarlanabilir diye düşündüm. Burda bir probleme işaret ettiği için, bu problemi çözecek bir ürün olabilir diye... Ama ürünün nasıl birşey olabileceğine dair düşünmedim.

Ö. Ç.: Tamam. Bu mesela, yıkama ve doğrama problemine spesifik mutfak ürünü gibi anladım ben...

DES8: Evet evet

Ö. Ç.: Tamam. Devamında buddysytem var...

DES8: Bu buddy system üzerinden bir ürün olabilir. Buddy'ler arası iletişimi sağlayacak mesela, bu sistemi kolaylaştıracak.

Ö. Ç.: Yani bu var olan sistemi destekleyecek?

DES8: Bu sistem içine entegre olup sistemle beraber çalışacak bir ürün.

Ö. Ç.: Tamam. Burada sanki biraz sosyalleşme meselesi var gibi...

DES8: Etkileşim, sosyalleşme...

Ö. Ç.: Evet. Tamam. 3. sayfaya geçebiliriz...

DES8: Bu bilgiyi bilmiyordum doktorlar hakkında. Genelde onların da çok dikkatli olduklarını düşünürdüm.

Ö. Ç.: Tamam. 4. sayfaya geçebiliriz. Burda kinda track...

DES8: Tracking ve planning üzerine bir ürün olabilir diye düşündüm.

Ö. Ç.: Bunlar işe yarıyor diye düşündüğün için mi okuduklarından?

DES8: Evet. İşe yaradığına göre iyi bir tracking system. Yine bir ürün üzerinden...

Ö. Ç.: Tamam. App gibi mi ya da Fitbit gibi birşey mi örneğin?

DES8: 3 boyutlu bir ürün de olabilir, app de olabilir.

Ö. Ç.: Tamam. Food ve exercise track edecek yani değil mi?

DES8: Evet.

Ö. Ç.: 5. Sayfada çizdiğin birşey yok...

DES8: Pedometer nedir, bilmiyorum. O nedenle sarıyla çizdim.

Ö. Ç.: Tamam. 7'ye geçiyorum. Burda best advice var...

DES8: Evet şimdi okuyorum... Evet, measuring device olabilir burda da.

Ö. Ç.: Food için mi?

DES8: Evet. Food için paketler, olabilecek değişikliklere göre ayarlanabilecek belki.

Ö. Ç.: Yani standart ölçü gibi mi?

DES8: Evet. Farklı standartlara uygun, değişik standartları barındıran belki.

Ö. Ç.: Tabağına ne kadar alacağını anlamak için gibi mi örneğin bir öğünde?

DES8: Evet evet. Kalori gibi şeyleri de hesaplaması da iyi olabilir tabii.

Ö. Ç.: Bununla, mesela tracking device, farklı ürün fikirleri değil mi? Yoksa aynı ürünün parçaları gibi mi?

DES8: Tracking device daha geniş zamanlı gibi. Ama belki aynı ürün üzerinde de olabilir.

Ö. Ç.: Anladım.

DES8: Belki burda yemeğin kalorisini hesaplayıp sonra genel kalori alımıyla bağlantılı hesaplar.

Ö. Ç.: Tamam. Genel olarak baksak, özellikle faydalı buldum dediğin narrative içeriği veya içerikleri var mı?

DES8: Belki kilo sorununu çözecek bazı yollar yöntemler olabilir.

Ö. Ç.: Kendi geliştirdikleri yöntemler gibi mi?

DES8: Evet o da, bir de bazı genel olanları da bilmiyordum.

Designer: DES9 (F)

Date: 01.06.2015

Duration: 59 min

Ö. Ç.: Highlight ettiğin yerlerle ilgili mesela üzerinden geçeceğiz, "nasıl birşey aklına getirdi" ya da "bunu nasıl kullanabilirsin" gibi açıklarsan yeterli.

DES9: Tamam, okey.

Ö. Ç.: İlk sayfadan başlıyorum. Different flavours of foods pass into...

DES9: Şimdi birincisi, şeyden çizdim. Ben biraz kendim şu anda app falan yapıyorum ya, yani ürün olarak tasarım yapmıyorum ya... Açıkçası bazı şeyler burada ürün tasarımı değil de, aslında bununla ilgili mesela bir app olsa. Atıyorum, uyarıları olsa. App'in mesela. Onda hani birşey tüketmesi için hatırlatıcı şeyler. İşte, hani "bebeğinize daha güzel besinler verebilmeniz için şunları yiye", işte "sütünüzü de ona geçirin" falan yani. Mesela notification'lar olacak falan diye düşündüm.

Ö. Ç.: Annelere özel?

DES9: He evet, mesela annelere özel bir şey app olsa, onda da böyle notification mı olmalı ya da işte bununla ilgili yüreklendirici, onları motive edici böyle işte. Böyle birşeyin üzerinden birşey çıkabilir. Hani "çocuğunuzu böyle" işte "daha farklı lezzetlerle besleyin" falan gibi işte. Böyle hani böyle birşey düşündüm.

Daha doğrusu, healthy varied diet falan da. Annelere yönelik, hamilelere yönelik olabilir, yeni doğmuşlara yönelik bir app olur işte bunun üzerinden.

İkincisinde "wash and peel and chop it all" demiş. Bunda da bir ürün tasarımına gider diye düşündüm aslında. Çünkü birşeyi doğramak falan zor oluyor, işte bu rondolar gibi birşey, ne bileyim, farklı bir tasarıma falan gider dedim. Ürün bazlı birşey olabilir dedim. Ne tasarlayacağımı bilmiyorum da, buradan işte mesela o direkt şey alıyormuş ya meyveleri dondurulmuş alıyormuş, onun yerine işte belki daha kolay doğrayan bir ürün falan gibi birşeyler olabilir. Yıkamasıydı, bilmem nesiydi...

Ondan sonra diğerinde ne yazmışım, "I decide...". Evet. Burada da benim genelde herhalde bakış açım, böyle şeyleri biraz yine bir app. Aslında hep böyle hatırlatıcı bir app yapmaya, ya da işte bir app olsaydı dedim. Mesela, disiplin edici bir app ya da işte disipline edici bir ürün. Yani bir ürünün içindeki app olabilir. Yani anladın mı, bir i-watch gibi birşey olabilir. İşte daha uyarıcı falan birşeylerde kullanılabilir.

Ö. Ç.: Temel olarak uyarıcı, hatırlatıcı, kontrol edici birşey değil mi?

DES9: Evet, aynen. Disipline sokucu, uyarıcı. Hani artık herşey, eskiden biz bunları ürüne yediriyoorduk da, telefonlar bunları yaptığı için, ben app diye düşünüyorum. Tabii ki şeyler falan da, saat gibi taktığın ya da işte ya da fitbit miydi öyle şeyler falan

var. Aksesuarlar var yani, wearable şeyler var, o yüzden hani onlara yönelik birşey diye düşündüm bunları.

Ondan sonra "it helps to see..."... Yani, burada da şey diye düşündüm demek ki iletişimin aslında bir işe yaradığı motive edici bir faktör olduğunu düşündüm. O yüzden, sadece kolunda taşıdığın bir bileklik değil de, iletişimine yardımcı olacak bir ürün, yani başkalarıyla iletişim kurduğun bir ürüne gidebilir mesela yaptığın birşey bu konuyla ilgili.

Sonra, "that if I'm not vigilant..."... Yani burada da işte sürekli hatırlatma, çünkü burada aslında psikolojik birşeyin, işte hani ürüne yansması nasıl olabilir. Demek ki sürekli hatırlatmak isteniyor, belki hani kişiden kişiye değişen birşey olabilir dedim. İşte, bazı insanlar çok hatırlatılmasını sever, işte birşeyin bazı insanlar az hatırlatılmasını sever, hani bundan irite de olabilirsin. Hani belki bunun ayarlanabilmesi daha adjustable birşey, hani işte uyarılmayla ilgili, nekadur uyarıldığın kişiye bağlı birşey onların ayarlanabileceği birşey olabilir işte, bir ürün, app.

Ö. Ç.: Mesela burada "uyarılma" dedin ya, uyarmak derken şu an yapması gereken şeyleri hatırlatmak...

DES9: Şu an yapması gereken şeyleri hatırlatmak, hani istikrarlı olmasını sağlamak gibi, hani anladın mı...

Ö. Ç.: Anladım.

DES9: Şu anda yapacağı birşey varsa, işte spor yapmalıysa onu hatırlatmak, ya da az yemesini hatırlatmak falan gibi. Eski kilosunu hatırlatmak değil, "sen böyleydin" diye.

Ö. Ç.: Üçüncü sayfaya geçtik herhalde...

DES9: "Pictures that..." , burada da şey diye düşündüm biraz önce dediğin gibi yani eski hatıralar da bu birkaç yerde daha vardı. Bir eski hallerine baktıklarında, hani "ne kadar iyiymişim" diyenler vardı, bir de hani "ne kadar kötüymüşüm" diyenler de vardı. Hani aslında belki fotoğraf, ya da görsellikle desteklenebilir birşeyler. Yani eski halim, o aslında çok motive edici birşey zaten, normalde de insanlar böyle before after şeyleri çok koyarlar ya, böyle instagram'a da koyarlar hani, "100 kiloydum, 60 kilo oldum göbeğim gitti" falan. Belki eski fotoğraflarını göstermek, ya da daha iyi olan birilerini göstermek, ya da eski hali daha iyiyse daha iyi olmasını göstermek belki görsellikle de desteklenmesi gereken birşey olabilir. Motivasyon diye düşündüm.

Ondan sonra "I looked at picture..." . Burada da aynı şeyden dolayı çizdim.

Ö. Ç.: Bir şekilde, o eski haliyle yüzleştirecek bir deneyim tasarlamak gibi birşey mi yoksa?

DES9: Evet evet. Aslında öyle. Şey gibi düşün, mesela en sevdiğin halinizi koyun mesela, anladın mı ilk işte yani ben hani motivasyonu en kaybettiğin zamanda ya da işte olmak istediğin hal oysa.

Onu mesela yüklerse, sen hatırlatırsın işte böyle olmak istiyorsun motivasyon için de. Ya da, en çok beğendiğin vücut tipini yüklersin, hani kendin yoksa öyle birşeyin ya da

en kötü olduğun halini yüklersin, hani böylesin falan diye hatırlatır. Anladın mı, böyleydin hani bir daha böyle olma falan gibi hatırlatır. Kız diyordu ya, hani "eğer dikkat etmezsem, yine eski halime dönebilir" mesela bu işte şey, burada da mesela kalorini giriyorsun mesela atıyorum iki gün üst üste kalori hesabını geçtiysen, o eski fotoğrafını gönderecek mesela. Böyle olmak ister miydin, falan... Bence işe yarayabilir.

Ö. Ç.: Kesinlikle yara, tamam. Yani, hem iyi hem kötü örneği motive etmek için kullanırım diyorsun...

DES9: Aynen. İşte atıyorum, kalorini geçtiysen kötüyü gösterip, mesela buna geri dönmek üzeresin, "emin misin?" falan deyip ya da işte iyi gidiyorsan daha da motive etmek için işte "evet, bak buna yaklaşıyorsun" falan gibi, anladın mı...

Ö. Ç.: Evet, süper. İyi fikir...

DES9: Orada bir böyle gaz...

Ö. Ç.: Tamam.

DES9: Ondan sonra burada birşeyin yüzüne çarpılması olduğu için bunu çizmiştim, hani "I was told by my doctor..." diyor ya, hani. Orada aynı mantık aslında böyle birşey yüzüne vurulduğunda böyle şok olup farkediyorsun falan. Hani, o işte belki fotoğrafın gösterilmesi de olabilir, hani böyle bir dürtülme duygusu, onu o yüzden yazmıştım. Bir app de olabilir, hani böyle gidersen bilmem ne olacaksın, hani anladın mı, "obezliğe doğru gidiyorsun" diye. Meğer gaddar bir yapım varmış ☺

Ö. Ç.: Motivasyon önemli ya gerçekten...

DES9: Evet, bence de.

Ö. Ç.: Sen mesela bunu app'le...

DES9: Ben hep şu anda onlarla ilgileniyorum ya, aklıma daha çok onlar geliyor. Bu bir benim için app bir ürün şu anda, o yüzden hep o açıdan düşündüm.

Ö. Ç.: Önemli olan fikirler zaten...

DES9: "Never been told before...". Bu, benim aklımda bilmediğim birşey olduğu için çizdim. Hiç düşünmemiş olduğum birşeydi böyle birşey.

Ö. Ç.: Bu yüzüne çarpılması şeyi mi?

DES9: Evet.

Ö. Ç.: Tamam. 4'e geçiyoruz herhalde...

DES9: "I use...", işte bu benim genelde aklıma gelen şeyler, oradan ya, yine bir app getiriyor aklıma diye.

KISS rule diye birşey hiç duymamıştım. Hani "keep it simple sweetheart" falan diyor ya, böyle güzel geldi bana, hoşuma gitti. Hani böyle hiç duymadığım birşeydi, hani bu "processed not so good" falan hani ne bileyim, böyle bir mantık da duymamıştım. Hani belki bu, illa kullanacağım diye değil de, ama belki kullanıla da bilir yani. İnsanlara

akılda kalıcı şeyler vermek için yine bir ürtünde olabilir, bir ürtünün adı verilirken de olabilir, yani böyle bir kısaltmayla insanların aklında kalacak falan birşey.

Ö. Ç.: Anladım.

DES9: Hoşuma gitti çünkü. Ona bir şey verme, ürtünün ismini falan.

Ondan sonra "if you kinda...", yani işte burada track etmenin çok önemli olduğu, sürekli yapacağın şeyde bunu kullanman gerektiği. Sürekli yediğine içtiğine herşeyi sürekli izlemen gerektiği, işte nedir hani bir yere girmen bu fitbit'te olduğu gibi. Böyle işte her kalorini giriyorsun, tek tek her yaptığın şeyi giriyorsun, ya da herşeyini senin için izleyen birşey olması, seni sürekli haberdar etmesi. Birşeylerin bir yerde toplanıp count edilmesi ve hani sonuçta birşeylere dikkat etme, yani bir yerde toplandığını bilirsən daha fazla dikkat ediyorsun. Bir yerde yüzüne çarpılacağını bilirsən falan gibi. Onu kullanabilirm diye düşündüm.

"So I actually..."... Aynen, ya bu çok iyi ama gerçekten çok iyi. Ben bunu sarıyla falan da çizebilirdim. Böyle birşey dünyada aklıma gelmez yani. Bu böyle şey, yani bir deneyim tasarla, bundan komple... Böyle bir spor salonu yaparsın bu mantıkla. Sevdikleri şeyleri izletip, onlara spor yaptırırın bence bu bayağı iyi birşey. Çok iyi fikir. Takdir ettim yani yazan kişiyi, bunu yapıyor olması çok iyi bence. Çok enteresan geldi bana.

Ö. Ç.: Bayağı da irade işi...

DES9: Evet. Ama şey de olabilir, evet bununki irade işi ve eve tv almıyor ama insanları oraya çekmek için hani evinde tv olsa da onu kullanabilirsin belki.

Ö. Ç.: Gym'de birşey yaratıp diyorsun, değil mi?

DES9: Evet evet. Gym için böyle konsept bir gym yaratmaktan bahsediyorum. Böyle odalar var, duvar böyle komple ekran falan ve birşey izliyorsun ve izlerken koşuyorsun.

Ö. Ç.: Anladım. Değişik bir fikir.

DES9: Çok yaratıcıyım canım ben ☺ Yani aklıma öyle şeyler geldi açıkçası.

Ö. Ç.: Burada mesela tv demiş, ama konsept gym dediğin zaman başka birşey de olabilir yani hoşuna giden...

DES9: Tabi tabi. Aynen. Yapmayı sevdiği birşeyle bir insanı spora bağlamak gibi. Aslında spor yapmayı sevmiyor, çünkü ama sevdiği birşeyle sporu birleştirmek o hareketi birleştirmek gibi birşey olabilir yani. Tv olur, bilmiyorum başka ne ama sevdiği bir film de olabilir, ya da grup olarak da işte hep beraber gidip bir film izlerken koşabilirler de, böyle saçma sapan anladın mı ☺ Film izlemeye gidiyoruz falan.

Ö. Ç.: Toplu mesela film gecesi.. ☺

DES9: Evet. Yani ya da tamamen konsept böyle değişik değişik şeyler de olabilir. Tek başına gittiğin birşey de olabilir, ama bunu böyle grup olayına da çevirebilirsin.

Ö. Ç.: Tamam.

DES9: Bu konuşan kişinin fikrini çok sevdim, gerçekten female'mış bu kadın.

"Set small goals and...". Burada da biraz küçük hedefler falan demiş ya, hani belki direkt böyle 20kg vereceksin falan değil de işte önce bir 3 kilo vereceksin diye yönlendirme yapacak. Kalori. Tansiyonunu düşüreceksin falan gibi, daha motive edici olabiliyorsa hani daha ufak hedefleri belirleyip yavaş yavaş ulaşmayı kullandıracak bir app'te onu da sağlayabilirsin falan dedim. Sonuçta şey gibi, level atlamak gibi. Atıyorum "3 kg verdin level1'i geçtin" falan. İşte "5 kg verdin, aferin level2'desin" falan. Anladın mı, bunu bir oyuna dönüştürmek gibi.

Ö. Ç.: Anladım. Mesela artık skinny'sin falan gibi mi?

DES9: Evet, aynen aynen onun gibi işte. Ne bileyim sebzeler kraliçesisin, mesela sebze girmişsin şeye.

Ö. Ç.: Mesela hayvanları kurtardın, şu anda et yemeyerek falan gibi... ☺

DES9: Böyle hani senin için küçük küçük hedefleri atladığın, hani ne yaparsam bunu geçebilirim falan diye, olur ya küçük atlamalara dönüştürecek ama seni motive edecek falan diğer insanların da belki göreceği, bunu işte bir hani şeyse eğer komünitiye şöyle şunu atladi bunu atladi falan filan gibi...

Ö. Ç.: Oyun gibi değil mi?

DES9: Evet evet, aynen. Biraz daha oyunsu birşey geldi aklıma, böyle küçük goal'ler deyince. Benim aklıma böyle birşey getirdi, one step at a time böyle küçük bir, hani daha böyle sevimli oyunlu level atlamalı falan birşey geldi.

Ö. Ç.: O stepleri de hep tanımlıyorsun...

DES9: Evet, aynen. Onların bir tanımı var, "senin buna ulaşman için, şunu yapman lazım" falan gibi. İşte dediğim gibi "3 kg vermek lazım", "kan şekerini şu kadara düşürmen lazım", belki öyle şeyler vardır hani bilmiyorum, "şu kadar adım yol yürümen lazım" böyle birşey. Ya da işte, atıyorum şu kadar sebze yemen lazım, işte böyle birşey.

Ö. Ç.: Toplu birşey vermesi çok anlamlı olur aslında level olarak...

DES9: Evet. Hem de daha böyle birşey atlamışsın hissi veriyor aynı zamanda. Bir de, diğerleriyle ölçebilirsin belki hani "o bunu geçti, ama ben bunu geçtim", "ben şu level'dayım, ama o bu level'da". Ya da, "o bu level'da, ben de o level'a çıkayım" falan gibi. Motivasyon olabilir.

Sonra "motivation to do so...", bu da yine aslında kısa dönem şeylerden bahsediyor burada değil mi?

Ö. Ç.: Evet.

DES9: Deneme gibi böyle. İşte bu da böyle birşeyi yaptırıyorsan, işte bir app falan birşey, 2 haftalık test bilmem nesi yapın, işte görün bakın ne oldu. Hani böyle olacak falan diyip, önce oradan böyle insanları çekip daha böyle motivasyonlarını sağlamak gibi düşündüm. Hani kısa deneme şeyleri falan. Mesela, işte iki hafta şu kadar yürüyün, bakın görün.

Ö. Ç.: 5'e geçebiliriz istersen?

DES9: "I needed someone..." işte bu hani yanında birinin olduğunu hissetmek falan gibi birşey var ya. Bu, sonuçta birileriyle paylaşmak, mesela insanların senin yanında olduğunu hissettiriyor olabilir. Ya da, işte sürekli ondan bir uyarı birşey almak. Yine böyle anladın mı, birinin yanında olduğunu hissetmeyi şey, böyle destek olacak herhangi birşey diye düşündüm. "Someone" dediğini işte başkaları da olabilir, ya da sana bir koç atanması olabilir. Yani daha önce atıyorum, bu süreçte vermiş birinin sana koçluk yapması gibi. Aynı app'i kullanarak sana bir koç atanıyor, mesela o da seninle deneyimlerini paylaşıyor, hem de seni motive ediyor. "Ben de böyleydim" falan diyor.

Ö. Ç.: Birebir tanışmak zorunda bile değilsin yani...

DES9: Aynen. Senin hedeflerine ulaşmış biriyle seni match ediyor gibi düşün. Sen de online birşey, destek alıyorsun belki.

Ondan sonra "I usually write...". Şey, bir de önceden planlıyordum falan snack'lerini, belki senin için planlayabilir dedim. Zaten şeyleri, mesela yazdığın programlar var, her yaptığın şeyi, ama onlar senin için birşey planlamıyor sanırım.

Ö. Ç.: Evet.

DES9: Belki bir yandan da, planlaya da bilir. Planladıklarına sen check atarsın kendin direkt girmek yerine.

Ö. Ç.: Evet.

DES9: Ya da işte "değiştir" dersin, o senin için birşey. 1400 kalori alacaksın günde o 1400 kaloriyi nereden alacağını, o sana bir plan verebilir, ona uyup uymamak belki sana kalmış olur.

Ö. Ç.: Burada aslında her seferinde yazma işini kolaylaştırıyorsun gibi, değil mi?

DES9: Aynen evet. Hem senin... Hani çünkü böyle şeylerde insanlar şaşırıyorlar ya, aklına gelmiyor falan. Hani öneri gibi yani aslında. "Bugün bu listeyi uygulayabilirsin" diyor mesela. İşte sen de belki beğenmediklerini işte "change" diyorsun. Hani sonra başka birşey öneriyor, ya da sen kendin birşey girebiliyorsun. Hani en azından bir süre sonra da senin sevdiğin besinleri öğrenmiş oluyor. Ondan sonra, sana daha uygun diyetler menüler çıkarıyor her seferinde. Onu arkaplanda tutup bilgiyi...

Ö. Ç.: Çok iyi. Personal değil mi...

DES9: Hem yardımcı olacak, hem senin bilgini tutucak sana uygun şey verecek, sevdiğini sevmediğini bilecek, çünkü "change" dediğinde "bu demek ki hindiyi sevmiyor" diyecek, sen onun yerine o gün tavuk yazacaksın "tavuğu seviyor" diyecek. Sana bundan sonra belki hindi değil de tavuk daha çok önerecek falan.

Ö. Ç.: Anladım.

DES9: Sonra "haven't been motivated...". Bunun için de yine bir servis gibi birşey, hani çocuğunu bırakmak değil de, beraber çocuğuyla yapabileceği spor belki. Atıyorum, hani olur ya çocuğunu taşıyarak yaptığın sporlar falan. Vardır ya... Ağırlık olarak onu kullanırsın falan. Beraber hem eğleniyorsun, hem spor yapıyorsun falan.

Ö. Ç.: Bu tip aktiviteleri ayarlayan...

DES9: Bir servis gibi bunu yapabileceğin bir alan olabilir, çocuklarla spor gibi. Çeşitli aktiviteleri o çocuklarla yapabileceğin tool'ların olduğu birşey. O tool'lar da ürün oluyor aslında, hani bir ürün tasarımının böyle bir servisle buluşması gibi birşey olabilir, farklı spor şeylerini çocuğunla yapabilme ürünleri.

"I'm a better mother...", yani bu böyle ilgimi çekti sadece süreç. Anne olmak önceliklerini belirlemek, fit anne falan. Hani böyle kesin bundan birşey çıkar diye değil de, ne bileyim bu konuyla ilgili düşünmemiştim çok fazla. Anne olmak ve hani önceliklerini belirlemenin zor olmasıyla ilgili birşey düşünmediğim için ilgimi çekti.

"Your schedule...", orada zaman biraz daha yoğun olan insanlar için zamanı uydurmanın zor olması, belki daha önceden belirlenmiş olmak. Hani yiyecek için de öyle yapacaksın, spor için de öyle hani doğaçlama yapamıyorsun da belki çok böyle strict schedule'lar sana çıkarıp bunu yapmanı sana dikte etmesi birşeyin olabilir.

"Wear a heart monitor...", ne bileyim, bu da aklıma gelmemiştir, bu bir ürün için falan kullanılabilir birşey olabilir dedim, kalori yakması falan. Gerçi kullanılıyor şu an wearable şeylerle falan herhalde. Hiçbirşey kullanmadım böyle, ama herhalde bakılabilir ne kadar yaktığın koşarken falan. Ortalama birşey veriyor heralde.

DES9: "I also have...", bence bu çok iyi ya. Jean değil de, bir kıyafet olabilir. Bunun için birşey satılabilir, mesela işte "36 beden olmak için bunu al", "buna girebildiğin zaman oldun demektir" falan. Bunun için ürünler yapmak gibi kıyafetler tasarlamak. Bu şortu giyebiliyorsan mesela yani bunu bir pazarlama aracı gibi düşünüyorum aslında.

Ö. Ç.: Evet...

DES9: Yani bir tişörtü giyebiliyorsan istediğin kiloya ulaştın falan gibi ya da şey de olabilir, bunu yapan bir app'se, sana onu yolluyor olmak istediğin kilodaki şeyi yolluyor, "ne zaman girdin bunun içine" gibi. Öyle seni daha motive edici birşey olabilir, yani gerçekten ölçülebilir birşey sonuçta, fiziksel birşey yani.

Bu hani "find some..." var, işte dediğim onun gibi, hani gerçekten ölçülüyor yani o dar şeyleri giyebildiğinde "evet oluyor" falan.

Sonra mesela "take pic..." demiş ya, hani bu da mesela process olarak da çekip, daha böyle şey çekimler yapıp düzgün çekip sana gerçekten inceldiğini gösteren bir process çıkarabilir. Yani iki fotoğraf arasında değil de, giderek inceldiğini gösteren. Bu bir tool da olabilir, böyle bir kabin gibi, sen içine girersin ondan sonra senin fotoğrafını çeker, atıyorum sen o zaman 90 kilosun, sonra işte iki hafta sonra yeniden girersin yeniden fotoğrafını çeker, ama bu sanki seni ölçümlüyormuş gibi fotoğraf diye düşün. Ondan sonra ikisinin arasındaki farkı sana gösterir, o gelişimi görebileceğin görsel olarak. Hani hamilelerin process'ini görürsün ya, yandan giderek artar göbekleri öyle 9 aylık şey yapılır ya. Onun gibi bir süreç görüntüsü giderek zayıfladım falan. İstikrarlı bir şekilde zayıflıyormuşsunu gösterecek birşey.

"Take the front...", ha bu zaten fotoğraf çekmek için değil mi, işte dediğim aynı şey.

DES9: Sonraki sayfaya geçiyorum" there are so many...". Burada da işte ben şey falan demiştim ya, biri atıyor falan daha önce yapan. Onun gibi, yani istersen sertifikalı biriyle çalışıyorsun da olabilir. Ama yüz yüze olman gerekmiyor illa da, o yine sana motivasyon , destek falan oluyor diye düşündüm.

"Emotional eater...", yani böyle birşey çok daha önceden bilmediğim için çizdim. Ona da eğililebilir. Bundan yeni birşey çıkabilir, emaotional eater için başka birşey.

"Commitment..." demiş, belki bunu da yeminli birşey falan kullanırsın. Hatırlatıyorsun ya, biraz duygulara oynamak gibi şeyler olabilir diye düşündüm.

Ö. Ç.: Evet...

DES9: İnsanların inançlarına ve duygularına oynamak falan.

"This journey...", yani bunun maintain, yani etmek için de kullananlar olabilir yani onlar açısından da kullanılabilir diye düşündüm. Çünkü bir sürü insan da aslında korumaya çalışıyor ya. Onların da düşünülmesi gerekir, onlar için ayrı bir motivasyon gerekli çünkü. Kilo verdirmek için bir insanı motive etmek farklı, onu korumak için farklıdır belki bu da bir done olabilir tasarım yaparken. Bir kullanıcı tipi, yani daha doğrusu, aslında persona'larından biri olur. Onun için başka türlü şeyler çalışman gerekir.

Ö. Ç.: Anladım...

DES9: "Ask yourself...", bu biraz aslında şey, hani her insanın motivasyonu farklı türde olabilir falan. Belki şey olabilir, bununla ilgili baştan bir soru sorulabilir o insanın nasıl şeylerden motive olduğunu anlayıp belki ona göre birşey vermek, hizmet vermek gibi. Atıyorum, sert davranılmasından rahatsız oluyorsa öyle bir tonda değil de, daha soft eğer disiplin seviyorsa daha sert tonda uyarılarla falan filan. Kişiden kişiye göre değiştirebilirsin falan.

"On treading water..."...

Ö. Ç.: Bu, ötekine benziyor demiştin ya...

DES9: Tamam, aynı şey evet.

"Subscribe...", bu da sadece şey diye, neler yapılabilir diye.

Ö. Ç.: Motivasyon gibi mi?

DES9: Evet, ya da öneriler "şu kitabı oku" ya da kitaptan alıntı, "şu magazine üye ol" falan.

"You'll make up... yani bunda da mesela işte öyle birşey yaptıysan kalorilerini günlerce bilmem ne yaptıysan daha ona yönelik şeyler. Bunu beraber yeniden şey yapabiliriz, buna bir dur diyebiliriz ☺ gibi motivasyonel şeyler de kullanılabilir.

"Lunch bag..." bunda şey diye, hani böyle servisler falan da var ya, sana yemek getiriyor falan. İnsanlar kullanıyor bunu gayet. Senin beslenmen için olan eniyi diyet şeyleri falan getiriyor. Böyle de birşey var, o yüzden çizdim onu da. Servis çıkarabilecek bir fikir diye.

Ö. Ç.: Senin app'le birleşebilir...

DES9: Evet, o da olabilir. App'te menü çıkarıyorsun ya, getir derse kendi yapmak yerine getirebildiğin bir menü olur mesela.

Ö. Ç.: Genel olarak baksak, özellikle faydalı buldum dediğin narrative içeriği veya içerikleri var mı?

DES9: Yani en çok herhalde insanların motivasyon noktalarına odaklandım. Yani görünüşleriyle ilgili mesela. En çok sanırım öyle şeyler dikkatimi çekti. Hani ne onları motive ediyor. Bu kilo verme sürecinde... Genelde kendi dış görünüşleri ya da onlara karşı olan tavırla alakalıydı.

Designer: DES10 (F)

Date: 29.05.2015

Duration: 25 min

Ö. Ç.: I always find it difficult...

DES10: Sanki ben çok kolay birşeymiş diye düşündürdüm.

Ö. Ç.: Chop it all...

DES10: Süreci basit hale getirecek birşey ya da servis tasarımı. Hazır halde onları alabilecekleri bir sistem ya da servis olabilir diye düşünmüştüm.

Ö. Ç.: Process easier yapacak olan gadget nasıl birşey?

DES10: Peeler'ın daha belki farklı versiyonu, belki hepsini bir arada yapan birşey olabilir.

Ö. Ç.: "My weight bounces...", "motivation..." ...

DES10: Belki de sorun sadece insanların kilolu olmalarında değil de, o halleriyle mutlu olabilecek birşey için çalışılabilir diye düşünmüştüm. İnsan sağlıklıysa, o durumda da mutlu olabilir. Bir app olabilir, o zaman düşünmemiştim ama.

Ö. Ç.: "Working on my desk all the time...", sen de şey demişsin...

DES10: Belki aklıma şey gelmişti, "flappy bird" diye oyunlar var ya, sana sürekli birşey yaptıran. O mantıkla hem bana sürekli egzersiz yaptıracak, masamda çalışırken de az da olsa hareket sağlayacak, aynı zamanda da eğlenceli hale getirecek. Tv izlerken yaparım diye aldım diye yazmış olan. Mesela, sadece bisiklet çevirmek sıkıcı birşey, onu zevkli hale getiren bir ürün diye düşünmüştüm.

Ö. Ç.: Application that motivates people to move..

DES10: Çok fazla insan sanki bu app'leri kullanıyor. Sadece app bile motive olmayı sağlayabilir, sonucu direkt görmek "bilmem kaç bin adım atmışım" diye görmek iyi olabilir.

Ö. Ç.: "Vigilant every moment of the day...", "something that reminds people stay vigilant" demişsin...

DES10: Yine insanları o kiloyu verdiyse eğer öyle kalabilmesi için birşey hatırlatacak. Motivasyon gibi. App, ya da şey de olabilir, üzerinde taşıyacağı bir ürün de olabilir belki de.

Ö. Ç.: 71 yaşında, "Lifestyle change... governmental service" demişsin...

DES10: Belki öyle bir servis olabilir diye düşündüm. Eğer hakikaten obezitenin çok fazla olduğu bir yerde sağlıklı ve diyet ürünler insanların ulaşımına kolay sağlanabilir diye düşündüm. Devlet tarafından servis, çok maliyetli olmayacak.

Ö. Ç.: Kiss rule... "Simple yet effective" demişsin..

DES10: Infographics galiba. Yani çünkü milyonlarca diyet yöntemi var ya, onların belki. Gerçi o şeyler de çıktı sanırım da çok basit bir şekilde ifade edilip sunulduğu daha basit bir sistem sunulabilir mi diye düşünmüştüm.

Ö. Ç.: "Which one is better" dediğin...

DES10: Orada şey diye düşündüm. Öyle şeyler var galiba. App olsa iki seçenek arasında kaldın, "bunu mu yesem, bunu mu yesem" diye düşünüyorsun. O sana hangisinin daha az kalorili olduğunu veya senin için hangisinin daha uygun olduğunu söylüyor. Belki kendi bilgilerini de giriyor olabilirsin. App.

Ö. Ç.: "It really works" diyor, "tracking app" demişsin...

DES10: Bu şey de olabilir, app değil de iyi düzenlenmiş bir günlük gibi birşey. Sadece diyet günlüğü gibi, mesela bahçecilik günlüğü. Şarap günlüğü gibi.

Ö. Ç.: Online mı?

DES10: Olabilir, direkt alacağım bir defter de olabilir.

Ö. Ç.: Tv addictions var...

DES10: İki aktiviteyi bağlayacak birşey.

Ö. Ç.: "Pretty strict" demiş, sen de "calorie scanner" demişsin. Bu nasıl birşey?

DES10: Öyle bir teknoloji olur mu, bilmiyorum ama. Mesela önümde elma var, onu telefonun kamerasıyla taradığımda ya da fotoğrafını çekip koyduğumda. Gerçi google görsellerde bile var direkt bana kalorisini verse. Hani insanlar yediklerini koyuyorlar ya. Öyle koyup yiyecek günlüğü yapsalar, işte günün sonunda ne kadar kalori yediklerini fotoğraflarla tutulmuş olsa.

Ö. Ç.: Online birşey mi?

DES10: Evet.

Ö. Ç.: Paylaşıyor mu?

DES10: Özel günlük diye düşünmüştüm, ama paylaşa da bilir. Gerçi diyet yapan insan paylaşmak ister mi...

Heo diyorlardı ya, kaydını tutmak çok işe yarıyor, ondan dolayı düşünmüştüm.

Ö. Ç.: "Seeing improvements" var Burada şey yazmışsın (d17)...

DES10: Geçen öyle bir video izlemiştik de, gerçekten bu yapılmış. Değişiklikleri falan abartıyor. Hatta, böyle yüzündeki kanı kalp atışına göre görebiliyorsun. Azıcık aldığı,

verdiği kilo ya da çalışırken kaslarının nasıl hale geldiği görünür hale gelse, bu da insanı motive edebilir diye düşünmüştüm.

Motivasyon için yani.

"Herşeyi yazıyorum" demiş. Az öncekilerle belki bağlantılı...

Ö. Ç.: Evet.

DES10: "Gym üyeliğim" var demiş... "Önceden zaman kaybı yaşıyordum" demiş... "Gün içindeki step'lerim de sayılıyor" demiş...

Ö. Ç.: Önceki fikirlerinle bağlantılı olabilir mi, masasında outran için önerdiğin gibi?

DES10: Zaten genelde birbirine yakın şeyler düşündüm okurken.

Ö. Ç.: Pair of jeans var..

DES10: Çok iyiymiş.

Ö. Ç.: "Go visual...", "app" demişsin buna...

DES10: Yine o görsel olarak kendini ifade etmekle ilgili birşey yapılabilir diye düşünmüştüm. Bir app var galiba her gün kendi fotoğrafını çekip sonra hızlandırarak gösteren. Bunun için uygulansa, giderek inceleme görmek motive edici olabilir.

Ö. Ç.: "Emotional eater"i duymuş muydun?

DES10: Onu duymuştum ama... Bu kırmızı da olabilir.

Ö. Ç.: Write down your goals...

DES10: Evet. Belki şey gibi yine bir app var öyle yapacaklarını yazıyorsun, sonra yaptıktan sonra tıklıyorsun falan. Bunu hep bunlar da motivasyon olarak düşünmüştüm yani. Böyle küçük küçük adımlarla ulaştıkça böyle. Belki bu hatta paylaşılan birşey de olur. Bir platform olur belki, herkes birbirinin ilerlediğini görür belki gaza gelir.

Ö. Ç.: "Ask yourself what you really want..." ötekisiyle bağlantılı herhalde?

DES10: Yine aynı, evet.

Ö. Ç.: "Lunch bag works best" demiş, "diet lunch bag" demişsin...

DES10: Belki onun için özelleşmiş birşey olursa. Detayını düşünmedim ama. Sürekli yanlarında taşımaları gerekiyor ya, herşeyi yiyemedikleri için diyet yapan insanlar hep böyle birşeyler taşıyorlar ya. Onu kolay hale getirirse, motive edici olabilir. Bir de, belki güzel bir ürünü çıkarıp ondan yemek keyifli bir hale getirebilir diye düşünmüştüm.

Ö. Ç.: Genel olarak baksak, özellikle faydalı buldum dediğin narrative içeriği veya içerikleri var mı?

DES10: En çok, galiba onların "şunu yaptım, bu şekilde faydalandım" dedikleri şeylerden çıkarım yaptım galiba en çok.

Tecrübelerinden işe yarayan.

Ne işe yaramadı.

Ya da ne onların bırakmalarına sebep oldu.

Designer: DES11 (F)

Date: 12.06.2015

Duration: 29 min

Ö. Ç.: Şimdi 2. sayfada I always find it difficult kısmını çizmişsin...

DES11: Evet. Orayı çizdim çünkü benim için tasarım şurda başlıyor, problemleri anlamakla başlıyor. Sonuçta o problem çözen bir ürün ortaya çıkarmak... Ya da ihtiyaç... Problem veya ihtiyaç... O yüzden de şey dikkatimi çekiyor hani bir insan bir konuda birşey yaparken zorluk çekiyorsa benim için başlangıç noktasını oluşturuyor tasarımda.

Ö. Ç.: Yani problem veya ihtiyaç tespiti yapmak gibi mi?

DES11: Aynen.

Ö. Ç.: Bir sonrakinde yine aynı sayfada, because I'm working kısmını çizmişsin...

DES11: Evet. Orada şuna baktım, yani, bir insanın vakti nasıl geçiyor; yani o ürünü kullanırken ya da işte kullanacakken nasıl bir zaman ve nerde konumu ona baktım. Yaşadığı çevre gibi... Bütün gün masada oturan bir insana bir ürün yapacağım. Öyle bir veri olarak aldım.

Ö. Ç.: Tamam. Bir sonraki sayfaya geçiyorum 3. Sayfaya. Burada en üstte when I got pregnant kısmını çizmişsin...

DES11: Bu da hamile olan insanların ihtiyacı olan bir mesele olacağı için. Yine aslında, bu sefer de yani hayatında öyle bir durum var. Burdaki hamile olan bir insanın bir ihtiyacı veya problemi var. Orada hamile olması en önemli olan özellik diye düşünerek onu çizdim. Yine bu bir done, tasarım yapılacak insan hamile olduğunu söylediği için... Çünkü tamamen başka şartlar, bambaşka bir gereksinim, fiziksel, duygusal... Herşey çok değiştiği için... Hani bir tasarım yapacaksam bir hamile için onun hamile olduğunu en başa koyarak yapmam gerek diye düşünürüm. Çünkü elinin büyüklüğü bile değişiyor yani tutma gücü bile değişiyor hamile olunca..

Ö. Ç.: Tamam. 4. sayfaya geçiyorum. Burada da ikincide track kısmını çizmişsin...

DES11: Evet burda yani diyet yapmak isteyen insanlar ne yediğini ne içtiğini izleme ihtiyacı duyuyor her zaman. Bu hep bir mesela zaten, her zaman böyle birşey var. O yüzden demek ki olay bu, diyetle bir tracking meselesi var. Hani, o bir veri ve böyle bir aslında tam olarak çözülmemiş birşey var. Zor da bir konu ama tracking diye birşey var insanların yapmak istediği, ihtiyaç duyduğu. Yine bir problem tespiti diyebiliriz aslında.

Ö. Ç.: Tamam. Sonra yine aynı sayfada counted var...

DES11: Yine aynı şey. Yine count etmiş işte control altına almak istiyor.

Ö. Ç.: Bunları çizerken mesela aklına ürün fikirleri geldi mi yoksa sadece böyle bir ihtiyaç ya da problem var onu belirlemek için mi çizdin?

DES11: Ben genelde öncelikle birşeyi her yönüyle anlayayım derim. O yüzden birşey görünce hemen buna şöyle birşey iyi olur diye birşeye girmedim aslında. Ama şunlar aklıma geldi tabii, hani okurken, insanlar ne yapıyor; işte bazı aplikasyonlar yüklüyorlar telefonlarına, adımlarını sayıyorlar mesela, ya da işte bir bardak vardı kalori ölçüyormuş işte. Onlar falan yani hatırıma geldi. Yani insanlar diyet yapıyorsa herkesin evinde bir tartı oluyor, bir baskül... Yani mevcut araç gereçler aklıma geldi ama bir ürün düşünmeye başlamadım.

Ö. Ç.: Tamam. 5. sayfaya geçiyorum. Burda walks with the baby in the stroller var çizdiğin...

DES11: Bu da önemli bir şey bence, bu da bir ihtiyaç. Birçok insan çocuk olduktan sonra daha az spor yapabiliyor ve bundan da çok problemlili oluyor genelde, dert yapıyor. Ama işte bebeğin hava alması için de mesela dolaşıyorsun parkta. Aslında bunun için yapılan çok fazla şey yok sadece bazı bebek arabaları var böyle tekerlekli, koşmaya uygun yapılmış.

Burda da o dikkatimi çekti. Gerçekten de insanların spor yapma imkanları çok kısıtlanıyor çocuktan sonra. Ben de hatta hep şey arıyorum işte, çocukla yapılan yoga var mı, mesela, çocukla gidilen pilates salonu var mı. Hani ben orda yapayım, çocuklar da orda yapıyor olsun mesela. Ya da hep birlikte yapalım. Var mı, niye yok, falan.

Ö. Ç.: Yok, değil mi?

DES11: Yok. Çünkü şey oluyor, hani, spor yapacağın zaman mutlaka çocuğunun vaktinden alman lazım. O yüzden ben de böyle birlikte yapabileceğimiz aktiviteler neler olabilir, mesela kampa gidiyoruz bazen. Öyle şeyler yapmaya çalışıyorum. Benim de yaptığım bir sürü spor vardı, şimdi yapamıyorum. O yüzden ne kadar birleştirilebilir şey olursa o kadar iyi, özellikle çocuğun ilk doğduğu zamanlar daha zor.

O yüzden işte baby stroller'ın scooter yapılabileni olsa çok güzel olur mesela, o ürün aklıma geldi. Yani bence böyle, ebeveyn için de biraz eğlenceli hale getirebilecek, spor yapılabilir ürünler bence daha fazla olmalı diye düşünüyorum. Yine burda büyük bir ihtiyaç var, pazar var, ürün yok.

Ö. Ç.: Bu ihtiyacı söyleyen çok insan var gerçekten...

DES11: Evet, gerçekten üzülerek gidiyorsun. İşinden alamıyorsun, nerden alacaksın? Gece de yapamıyorsun çocuk uyuduktan sonra 11-12de yapayım da pek olmuyor. Dolayısıyla çocuğunla geçirdiğin vakitten alman gerekiyor, o da üzüyor yani insanı. Ben mesela haftada 1 saat yapabiliyorum, o bile bazen değişebiliyor. O yüzden ne kadar çok alet varsa ürün, çocukla yapılabilir o kadar iyi olur bence.

Parklar güzel bunun için. Daha iyi ürünler tasarlanabilir, yani bir taraftan çocuk oynarken sen de sporunu yapabilirsin. Daha fazla etkinlik yapabilecek şeyler oluşturulabilir bence, bir sürü ürün geliştirilebilir bence, spor bile çıkar.

Ö. Ç.: Tamam. Bir sonraki sayfaya geçtim 6'ya. Measure var çizdiğin...

DES11: Yani çoğu insan bunu demiş ama ben çok inanmıyorum da daha alışkanlık değiştirmeye yönelik meseleler olması gerektiğini düşünüyorum. Ama tabii insanlar da hep bunu başardım gibi şeyler var. ama benim şahsi fikrim alışkanlık değiştirmeye yönelik... mesela alışveriş yaparken eve ne alıyorsun falan onları ölçmek lazım. Measure öyle birşeydi...

Ö. Ç.: En sonda reminders'ı çizmişsin...

DES11: Yani alışkanlık değiştirmeye yönelik bir ürüne bu, reminder'lar çok işe yarayabilir bence. Sana birşeyi cazip kılacak, yoldan çıktığın zaman seni uyaran böyle, cici ürünler olsa... Öyle bir başka yerde görüyorum bunu tracking yerine.

Ö. Ç.: Bu anlattığın şeyden üç boyutlu bir ürün gibi düşündüm ama...

DES11: Olabilir. Mesela bir mağazanın önünden geçerken cup diye sana indirim mesajları geliyor falan. Yani böyle sevmediğin şeyleri bile sana sevdirebilir birşeyler. Bilmiyorum tabii de nasıl olur şu an...

Ö. Ç.: Tamam. 7. Sayfaya geçiyorum. Burda motivation'ı çizmişsin...

DES11: Yani insanların motivasyonunu sürekli bir şekilde tutacak birşey gerekiyor. Hani o kırıldığı zaman onu tekrar tamir edecek. Yani motivasyon niye kırılıyor insanlarda, niye bir noktada devam etmiyorlar ya da mesela bir ay yapıyor kırılma noktasına ulaşmadan bıkıyor. Mesela orda motivasyonu bozan ne? Çünkü diyeti uygulandığı gibi yaparsan oluyor zaten yani burda asıl problem motivasyon. Peki ordaki problem ne, motivasyonu kıran ne, onu biraz deşmek gerekiyor galiba. Ordan birşeyler çıkabilir.

Ö. Ç.: Burda bir de lunch bag var çizdiğin...

DES11: Aslında lunch bag bazı kültürlerde var bazılarında yok bazılarında unutulmuş bizim gibi. Güzel bir alışkanlık bence çünkü evde yaptığın birşeyi işe götürüp işte yiyebiliyorsun. Güzel bir lunch bag tasarımı böyle işte sağlıklı besinler içinde olduğunu dışarıya veren... Evden sağlıklı şeyler, yemek götürebilirim, ofiste yiyebilirimi sağlayabilir. Bence burda direkt tasarlanabilecek ürünlerden biri. Bu konuda da işe yarar diye düşünüyorum.

Ö. Ç.: Genel olarak baksak, özellikle faydalı buldum dediğin narrative içeriği veya içerikleri var mı?

DES11: Kendim de çocuğum olduğu için o dönemde insanın bu tarz ihtiyaçları çok düşünülüyor oluyor. Spor konusu daha çok... Diyet konusunda da olabilir... O alanda bence her insanın bir sıkıntısı var. Burda okuyunca böyle aa evet ya böyle birşey var falan dedim. Orda ürün yapmak mesela benim için şey oldu. Orası dikkatimi çekti.

Bir de şey dikkatimi çekti, measurement, sürekli bir tracking meselesi... Burda da çok fazla insan onu demiş. O konuya çok inanmıyorum, hani, meselenin daha alışkanlık değiştirmek olduğunu, o tracking kısmını, tamam insanlar kendini motive etmek için ölçüyor ama, daha böyle kısa mutluluklar için...

Biraz insanların kafayı ona takmaları, buna böyle daha kısa vadeli, hemen sonuç almak için aslında belki gerekiyor. Temel ihtiyaçlar tracking ihtiyaçları çok da değil diye düşünüyorum. Biraz o, benim bu konuda düşünmeme sebep oldu aslında. Bunun çok kısa sürede hemen sonuç vermez, daha dengeli olması için daha alışkanlık değiştirerek, yaşam şeklini değiştirerek yapılabilecek birşey. O yüzden insanları daha o tracking şeyinden almak farklı birşeye motive etmek gerek.

Görüyorum ki insanlar daha çok bu konuda feedback vermişler ama tasarımcı olarak burda bir ürün yapsam ben hayat şekillerini, hayat akışlarını değiştirecek bir ürün yapmaya girerdim. Genelin şeyini burden da çıkan bozmaya çalışırdım, yani bu tracking'i. Aslında bunu deneyin, falan gibi, inovatif bir yaklaşımla yapmak isterdim yani. Hatta belki dalga geçen tracking meselesiyle...

Başka şekilde yaşamaya başlarsan her yediğini not etmene gerek kalmayacak. Sıkıcı da birşey... Çünkü yemek keyifli birşey aslında bunun 3 gram -5 gram'a dönüşmesi acı birşey, hep de üzülürüm böyle yaşamak zorunda olanlara.

Designer: DES13 (F)

Date: 05.06.2015

Duration: 57 min

DES13: Şimdi aslında ben genel fikrimi söyleyeyim. Ben de böyle spor yapmaya kalkıştım birkaç kere, yani yaptığım zamanlar da oldu mesela, yani sağlıklı besleneyim falan filan da diyorum, ama mesela motivasyonsuz olduğun için genel olarak böyle motive olduğum zamanlar da oldu. Bir sürü şeyi bahane ettim falan. O kendi içsel motivasyonunla ilgili olduğunu falan düşünüyorum ben bu kilo ve spor vs konularının. O yüzden de ne yaparsan yap, motive olmayan bir insanı bu işe başlatamayacağımı falan düşünüyorum, o yüzden de çok da birşey geliştiremedim.

Ö. Ç.: İkinci sayfada...

DES13: Meyve soyma kısmı, üsendiği için çok yakın hissettim kendimi yazan kişiye.

Ö. Ç.: Burada meyve soyucu mu yazmışsın...

DES13: Ya bilmiyorum, meyve soyucu da değil, aslında da nasıl bir çözüm bulunur bilmiyorum. Ben mesela yemek yapmayı severim, ama meyve soymaktan salata yapmaktan falan nefret ediyorum çok angarya geliyor, yani onu kesmek soymak falan böyle bana. Dilimlenmiş meyve de alıyorum arada satıyorlar da, onda da bekleyince bir gün falan, bütün meyve asitleri birbirine karışıyor. Yani donmuş meyve bir çözüm mü, onda da yani çok emin olamadım. Yani bilmiyorum, açıkçası ne çözüm olur geliştirilebilir mi, bir obje nasıl olur bilmiyorum burada da. Blender'lar falan da değil, belki bir bıçakla birşey böyle meyveleri daha kolay hazırlayacak bir robotumsu birşey falan olabilir. Blender, el mikseri falan değil de, daha böyle, gerçi var o tarz şeyler.

Ö. Ç.: Tamam...

DES13: Evde ananas gibi zor meyveleri kesmeye yarayacak. Sağlıklı meyveler daha zor zaten diğerlerinden.

Ö. Ç.: Burada doğrudan meyve sorununa yönelik birşey değil mi, alet ürün gibi...

DES13: Evet öyle birşey geldi aklıma. Yani hazır da sağlanabilir, ama yani genel bu süreçle ilgili şöyle birşey geldi aklıma. Yani hani sonuçta bir insan sağlıklı beslenmeye nasıl zorlanır falan, hani anladın mı, burada da bir sürü insan yazmış, hani bir diyete başlayıp yarım bırakma. Anca işte bir site, birşey olur sen ona üye olursun, o sana günde üç öğün yemek getirir, kapına gelir sürekli falan onu yemek zorunda kalırsın falan gibi böyle. Hani baştan ödersin parasını bir aylık, atıyorum günde üç öğün kapına gelir mesela. Ama baştan değil yani anlatabiliyor muyum, o dakika gelir yani "bu saatte gelsin" dersin o saatte gelir falan gibi. Daha zorlayıcı birşey, o yüzden yoksa alıp bir kenara koyabilirsin hepsini. O yüzden belki anca öyle bir servis olabilir diye düşündüm. Mesela juice satanlar var, ne bileyim sağlıklı bir sürü şey satan var, hazır

meyve de satılıyor doğranmış bir sürü şey var, ama onları almazsan almıyorsun yani. Ama baştan para verirsen, böyle bir sürelik falan o belki çözüm olabilir diye düşündüm.

Ö. Ç.: O anda kapına geldiği için başka birşey yeme şansın da olmayacak...

DES13: Aynen aynen. Saatleri sonuçta hepimiz çalışıyoruz, belli saatlerde yemek yiyoruz yani mesela öğlen 12'de ofise bu gelsin ya da sabah 8'de ofise bu gelsin diye. Böyle özel diyetisyenler tarafından hazırlanmış, mesela ya da direkt sana özel hazırlıyor falan da olabilirler. Öyle birşey belki tabi pahalı birşey olacak çok.

Ö. Ç.: Evet. Baştan bir program yapıyorsun...

DES13: Mesela bir diyetisyene gidiyorsun, bu mesela online çalışan bir şirket ama bir diyetisyenle çalışıyor. Sen diyetisyene gidiyorsun, o seni muayene ediyor. O şirket o diyetisyenin söylediklerine göre sana liste hazırlıyor falan.

Ö. Ç.: Tamam...

DES13: Bir ürün fikri değil de, şirket gibi.

Buradaki ürün fikrim, belki daha kullanışlı bir robot olabilir, mesela her meyveye farklı.

Altta sarı çizdiğim de, bilmediğim birşey, o son paragraftaki de. 12'de mesela şeyden bahsediyor, böyle bir korkusu olduğundan bahsediyor bir günde bütün kiloları geri almaktan korkuyormuş ya böyle bir psikolojik sorun olduğunu bilmiyordum yani.

Ö. Ç.: 3'e geçebiliriz...

DES13: Weight Watchers'ı bilmiyordum daha önceden, ondan çizdim.

Sonunda işte az önce anlattığım şey.

Ö. Ç.: Alttaki notun, değil mi?

DES13: Evet. İşte bu sorunların çoğunun hakikaten psikolojik kökenli olduğunu düşündüğüm için belki sadece buna özelleşmiş klinikler falan. Belki o tarz orada bahsettiğim oluşum gibi geldi, yaygınlaşabilir. Bir şekilde medical olarak destekleyici bir takım kuruluşlar falan olabilir belki bilmiyorum.

Ö. Ç.: Tamam. 4'e geçiyorum...

DES13: "keep it simple"ı anlamadım önce, sonra aşağıda okuyunca anladım.

Ö. Ç.: Buradaki notların...

DES13: Şey diyor, ya işte "so much conflict..." demiş ya, ona katılıyorum aslında, yani sonuçta profesyonel bir yardım almıyorsan eğer, internet hakikaten bilgi kirliliği yani. Yanlış diye yapıp ölen insanlar oluyor yani. Belki tabi o bilgi kirliliğini engelleyemezsin, ama herkesin güvendiği daha mesela, işte wikipedia'ya nasıl güveniyorsa herkes, herkesin güvendiği ve danışabileceği canlı insanların olduğu bilgi platformları olabilir diye düşündüm. Ücret karşılığı falan da olabilir, direkt böyle birilerine danışabileceğin ya da profesyoneller tarafından hazırlanmış birşey olabilir.

Ö. Ç.: Burada "app" demişsin, o değil mi?

DES13: Evet evet, benim düşündüğüm herşey app zaten, meyve dograyıcı dışında.

Burada şey varmış, mesela o benim hoşuma gitti, yayını kesmiş biri sadece orada izleyebildiği için gym'e gidiyormuş. Hoşuma gitti, yani bir önerim yok ama. Çok iyi yapmış hakikaten.

Mesela bununla ilgili bir ürün, servis birşey yapamazsın işte bilmem hangi saatte tv yayını kesilsin mesela öyle birşey olmaz. Her tarafımız o kadar donanımlı birşeylerle o yüzden iradeyle kısıtlamak lazım.

Bir de ben şeyi de biliyorum, bu tracker'ları falan satıyoruz, bizim aramızda da var onları alanlar ve çoğu kullanmıyor. Çoğu insanın kullanmadığını da bildiğim için, ben işe yaramadığını görüyorum. Onları eldim kafadan yani. Geçen bir arkadaş diğerine soruyordu, işte "niye takıyorsun" falan diye, o da diyor ki "aksesuar olsun diye takıyorum". Derece yani.

Ö. Ç.: Evet, ilginç yani...

DES13: Gerçekten dikkat eden bir insansan, kullanırsın. Kullananlar var aslında, ama onlar gerçekten spor yapan insanlar. Bir de fitbit'in ufak seyleri çıkmış, elbisene ilırtırıyorsun. İnsanın alası geliyor onları görünce, ama aldıktan bir süre sonra kimse kullanmıyor.

Ö. Ç.: 5'e geçiyorum...

DES13: "My problem is..." demiş. Burada çok tesadüfi birşey oldu. Ben bunu okudum, aynı gün işte "artık hangi devire geldik yemeğin fotoğrafını çekelim, tanısin, anlasın kac kalori olduğunu" falan diye düşündüm. Sonuçta tanıyabilir yani, google'a bir imaj atıyorsun, aynısını buluyor sana çıkarıyor yani. Mesela ıspanağı tanımak çok zor değil yani. Oraya bir fotoğraf gömeceksin birkaç farklı versiyonunu mesela görünce direkt algılar, yani düşünüyordum ki dün öyle bir haber okudum.

Ö. Ç.: Çıkmış mı?

DES13: "Yemeğin fotoğrafını çekiyorsun ve kalorisini hesaplıyorsun" diye. Ya, geliştirmişler ya. Geliştiriyorlar hala, daha dün gördüm yani.

Hakikaten yapılabilecek birşey yani bu arada. Mesela şu an sokaktaki insanın fotoğrafını çekip onun kim olduğunu bilme için şeyler geliştiriyorlar yani.

Çok kolay çünkü scan etmek. Barcelona'da bir mobile fuarına gittim, orada bir sürü teknoloji tanıtılıyor, işte yazılımlar fitbit'ler bir sürü şey var, bir tane firma öyle birşey yapıyorlar ki anında 3d scan yani. Tutuyorsun ve anında 3d scan ediyor. Hakikaten böyle acayip şaşırdık falan.

O kadar hızlanmış ki, o 3d scan olayı 2 sn falan sürüyor yani fotoğrafını çeker gibi.

Ö. Ç.: Çok iyiymiş...

DES13: Keşke biz öğrenciyken de olsaydı öyle şeyler.

Neyse sonuç olarak yemeği de tanıtırlar herhalde. Çok karmakarışık birşey yapmıyorsa lapa bilmem ne, herhalde anlaşılır diye düşünüyorum.

O hakikaten kalori notu almak falan çünkü ne yediğinin kalorisini ezbere nereden bileceksin de onu yazacaksın yani. O yüzden yediğin şeyin fotoğrafını çekip bir şekilde oradan öğrenmek daha mantıklı yani, hem de kaydeder mesela kendi kendine yapabilecek birşey senin yazman yerine, bünyesinde track edecek. Ya da belki sen oraya bir kalori sınırı gireceksin, onu geçince seni uyaracak falan. Yani böyle birşey geliştirilebilir.

Ö. Ç.: Tamam, sonraki 6...

DES13: Pedometer bu fitbit'ler herhalde değil mi?

Ö. Ç.: Evet, adımölçer yani...

DES13: Onun ne olduğunu anlamadığım için, yani tahmin ettim ama.

Ö. Ç.: Tamam. 7'de birşey yok zaten...

Ö. Ç.: Genel olarak baksak, özellikle faydalı buldum dediğin narrative içeriği veya içerikleri var mı?

DES13: Yani o tv olayı var ya, onu kimse gerçekten yapmaz, ama o tarz bir zorlamayı mantıklı buldum. O sporda bir ödül var yani. Spor salonunda bir ödül var yani, oraya gittiğin zaman birşey oluyor, atıyorum birine aşkınsın orada o var falan yani anlatabiliyor muyum öyle birşey yani. Ya da spora gidince sana ekstra birşey oluyor, birşey daha kazanıyorsun gibi benim aklıma öyle birşey getirdi o tv olayı. Kendini oraya push ediyorsun, yani orada birşey çünkü sporun dışında ama ne olur bilmiyorum yani.

APPENDIX C: CONVERSATION TRANSCRIPTIONS

Participants: Group 1 (STU1, STU2, STU3)

Date: 18.05.2015

Duration: 45 min

STU1: Did you watch TV on the treadmill?

STU2: Yeah I did but... But I didn't find that I concentrated as well, which was another thing. So if you really like Game of Thrones or one of those...

STU1: See game of finding fun for exercise would be like a real stimulus.

STU2: Or you know what else... I've gone on the elliptical here and watch the engineering lectures. I've done that.

STU3: You know what I'm really curious about, all the people who said that they were worried about their weight... Because I'm like okay, did you actually like record what you eat for every meal or are you saying this to the other person to sound like you have your...

STU1: Well, we have people who keep saying they're adding up points.

STU2: Okay that's Weight Watchers.

STU1: Weight Watchers is interesting because it's giving all these people what is said.

STU2: I've done Weight Watchers and the point system works.

STU1: Yeah...

STU2: I mean it worked for me.

STU3: I don't find that it works for me because I typically eat a lot of wholesome food anyway. So, for me I don't feel like I'm getting in that point system. Because a lot of the things I eat, don't count for anything anyway. So that's the funny thing for me where like I'll find the points throughout the day. I don't like should I be eating more bread or not.

STU1: The high school reunion one was interesting. That was a stimulus.

STU2: What, the test clothes I found really interesting.

STU3: I'm trying to find what do people forget. I do this if I don't forget. And then, they're saying they actually forget writing down, tracking what they eat.

STU2: I find those really interesting where even using that in like of internet things type of way where it gets recorded unobtrusively. I mean...

STU3: My brother has, like tracks what to eat.

STU1: That's wow... One thing I thought was really interesting why... You know like providing a means for people to figure out like a variety of different options, hold themselves how they enjoy, enjoy it and have fun, for time... And then another thing I've been with my research like externally. I found that setting goals it really that it makes you like happy and it makes you want to set more goals.

STU3: Serotonin...

STU1: Yeah.

STU2: So, that was something really interesting to set little goals I thought. Take the steps instead of elevator like simple little changes.

And I think some said something very similar on page 4 where they say recording but then comparing and understanding them is a bit trickier. So to do something you have the motivation, but you're not getting actually anything you understand.

STU3: Like someone told the valium you have to spend 3 more hours in gym.

STU1: Oh she kill her kids...

STU3: I think it's about like finding the thing that makes you and then...Like it was so interesting to me on page 3 closer to the bottom one person was like all it started working with her doctor saying the word obese, its just one word made a difference.

And then for the other person it was their parents and seeing family members sick they really. But he wasn't in the scale and he didn't weigh in but he knew that he didn't feel good. So utilizing the inner like awareness.

STU1: There's an interesting thing here people are doing term data and long-term data. And all the short term people are running into road lots in failures getting frustrated you've seen words like shutter when they see it, they're desperate, painful, mad at myself, all in one sentence. And usually people are doing short term I want to fit in this pair of pants, I have to go to this graduation event, high school reunion. The people who are all positive taking forward steps like really, I was just told I was obese. I understand that and they seem much more pleased with the results. I never got on the scale and the scale is immediate feedback the scale is yes or no. the number I like or not. Its like a long term health check. They say I watch my family and those are the long term problems I understand I'm happy I understand. Further there's the quote that kind of track kind of works that's like, higher page 4, everyone say something like collective unconscious like... They know they're not succeeding cause they're all setting immediate feedback and people don't actually need quick fast feedback that's why fitbits and things fail. No one cares. It's data, it's points, it's yes or no. Its 90 calories, can take 5 hours for people...

STU3: How do we get people remind?

STU2: Yeah, one thing it is on the page 4 it says in D17 2 weeks of test of being super consistent and actually seeing expected results and I know that it takes 21 days apparently to break a former habit. So, 2 weeks isn't 21 days but they learn the consistency and they learn what they need to put in to get results. And then it's not

immediate. So I think there's a way that channel that. What can you give to people that makes them wait for 21 days While still keeping them motivated.

STU1: Expectation...

STU3: I wish I knew that. I didn't even know the 2 week test. I feel like people enjoy being noticed and they're giving people words who wanna lose weight, and they're giving information they don't need, like numbers.

STU1: The mentality is like "I can go to run today" or "I can eat cheesesteak tonight". But I ran 5 miles this morning I earned it. When reality frustration especially forward frustration with that like approach.

STU3: Like I do this healthy thing, I earned this or I went idle because I've done a, b, or c. and how do we shift that expectation, again it's another change of... Or I can change the behavior where I can tell we will do this to that we're gonna tell people hey maybe there's another way of looking at this. If you look at it this way you're doing alright there's just a little more. So it's like all this fitbits and the like give you sort of counting downwards. Weight Watchers is counting downwards. It's counting down these pounds, counting down these miles, I'm almost there. But it's about adding it up. Really really really slowly. Like bicycling run.

STU1: No running? 'cause you have to get out for running. You leave the house that's it that's an hour of your life you're dedicated.

STU2: You can use a treadmill.

STU1: Treadmill, yeah you're done. Like I feel terrible right now I do another 20 minutes and I can get on it again tomorrow. If you force you a long time tomorrow to go on again.

STU2: Yes, I agree.

STU1: It's not like a solution it's just more an example though. I read a little too deep into summaries.

STU3: I think it's interesting and I think that's something that goes with that is understanding. It's like giving people the understanding and then someone else said, know where and how to educate ourselves. So you had the experience to do your bike where you get on your bike and you go. I thought that experience to when I run to where I just gone and ran and then I'm at the point like oh my god I have such hard ran I gotta get home now.

STU1: There's a great-terrible science fiction movie called Gattaca. There's these brothers in a rivalry about how far they can swim away. And the one brother always does better, always swims better. And the other asks him why are you always a better swimmer than me? He doesn't say anything, he puts it all out. You either come back or you die.

STU2: So it's really morbid but these people are talking about that. They either come back or 'I love my parents died'.

STU3: Or they stop and they retain their weight

STU1: We need to get that mentality because that's where we're stumbling. That's where they're getting angry, frustrated. First someone says angst speaking of perfection because perfection isn't the immediate result. To watch your pounds is just a number, to watch your pounds is nothing. 198 pounds, you're still overweight, just 2 pounds less.

STU2: So if there were to be something that could allow for like a flexible weight track yourself that is consistent for yourself that would like bring you back.

STU1: Some tracking solutions that don't give you bars or charts. It's a long process towards a long term.

STU2: So lets say you had your device on you one day. It'll track the fact that you wrote down what you ate, you exercised that one day but not tell you like what you did or how like intensive was but just the fact that you tracked that one day.

STU1: Yeah, no data points just 'Hey you wanna track? Good. doesn't matter where you are. Maybe you're still a little overweight maybe you're not happy. You'll work it out!'

STU3: It'll be better to do it tomorrow...

STU1: That's good.

STU1: So we shouldn't actually be tracking the specific number of calories you lost. We should be tracking whether or not you're taking any positive steps forward. Steps are what matters, not how build the steps. At the end of the day if you're taking steps everyday you're gonna get them. Like here what they're tracking is. If you track like every single step you take you eventually gonna get to this number. What needs to happen with this is you need to take a big step back focusing on the microcosm.

Why do people like looking at a good number on the scale, why do people like showing up their bachelor friends from high school, why do people like fitting in that pair of jeans, it's immediate, it's positive. It feels so good. I know this, I know this for fact, we step on the scale as soon as we want. It's amazing. But we can't get rid of that feeling and we can't overpower that. Nothing's better than achieving a goal that's in grain really deep. We can't change people that deep because society tells these things. How that happiness and that goal setting through other means. We give that same awesome job you did it for small things. And maybe we can drawn out the other easier positive feedback.

STU2: I feel like I know the immediate satisfaction you're talking about when you look at the scale, put the secondary or after week and you feel that really good feeling. I'm just so curious like what if instead of giving people numbers everyday we were giving people trackings every day. Like 'hey your exercise for the second day of the road, good for you, like, you maintain this.' And at the end of the week were like 'oh my goodness you've exercised for seven days, you've been trying an you haven't given up, you made progress.'

STU1: What if it does stop, 7 days I'm done!

STU2: But then a reminder maybe on that 8th day if they don't exercise keep up points, it says 'hey where have you been?'

STU3: I like that.

STU2: We'll just have a language that they understand like disconnect between the feelings I feel and the numbers I see, you know, I just want something talk to me as a human and be like good job or like not today, or nice.

STU1: Like a smart phone almost that makes me pay. You know it's like a trusted person.

STU3: Someone told the best choice he ever made was a trainer.

STU1: Yeah, and a nutritionist.

STU3: What if there's someone to hold them accountable? The accountability piece...

STU3: What if there's like a made up person it should be this thing where everyone was called Sam or what if my trainer was called Sam and your trainer was called Charlie...

STU2: Having a name is so real.

STU3: Yeah and having a personality and like you would design it. And then like it's yours it's like a friend of you and it tracks up on you.

STU1: There was a 10 day program for running a marathon and I never finish it. Warning me at the end. I hear this robot voice at the end that said you made it good job. I never finished the app. I never liked using the app. It would really make me feel good about making progress. If it was like yours a friend I would knock off. I do like my google system when it talks to me sometimes. She's a person. She's like 'hey you have meeting at 3 o'clock today you should leave ten minutes early.' She's saying that like responsive...

STU2: Really like a calendar...

STU1: 'Hey you need to go for a run today but see got a meeting at 4 maybe you should wake up early tomorrow and take care of that.'

STU3: It's like scheduling times for you.

STU1: Yeah.

STU3: I really liked that. I think if we're like to notice a gap in like how long it takes you to get ready it'll be like hey you have this much time you don't have anything scheduled why don't you go for a run or suggest

STU1: 'Cause that's like two people talk about that. You need a set when you install it. Eye contact. That is if he doesn't see you running is if he doesn't see you putting your shoes on like two day in a row cause it takes your friend. Hey Carly fell behind she's trying to make this goal if you could have give us a call and tell that she can do it. That'll be great. And you get a call from your friend and you're still forgetting hey Carly its your mom I know you work hard for this how about go for a run today that'll

be awesome. And you know what they gonna feel really terrible if not go to run. It's the emergency contact.

STU3: Right, but then you have the person like who you have that direct connection to and not just an animated person.

STU1: You tell it someone to call and they tell that person.

STU3: I like that.

STU2: I think that's a lot better.

STU3: Or like your automated person it doesn't even need to be automated person they can just be a picture like

STU1: It doesn't need to be a person. It just needs to be real. It needs to be feel like a person. I hate talking to someone like do-you-want-that

STU1: My person is just more real than any other fake persons because like it reads my email and it tells me the weather but knows like when to go biking, and in the mornings it actually talks to me. It says 'hey good morning there's traffic today on Spring Garden you should leave early.' And it's not what it looks like, it's how it responds everything around it.

STU2: Of this app like it can't have a standardized set of what its dialogue is. Week 1 with the user to week 10 with the user.

STU1: Hey do you wanna keep on scheduling around your work appointments. It's like quick watching yes or no because that's really how algorithms are. And if you reduce it to operations from the start its like you need artificial intelligence you need to be smart, do you want this yeah / no that's it.

But I think what do you else think about like it involves me and the way directly talks to changing over time. It's like it starts like 'hey how do you feel about your size today, you know in ten weeks you'll get more comfortable with this.' It's like interacting with a real person, we're more comfortable with that.

STU3: I think that's really interesting where in the beginning it acts as if you just meeting a new person. It's like hey I see you trying to get involved I'll do this with you. And then like as you're like 21 days in and to the point where like you schedule yourself in to going to the gym because you're feeling that and then they go hey like I see you really like this activity why don't you try this one too. Or...You can just pay 4-5 hours evening dialogue that's like probably a couple of thousand dollars.

STU1: And there are so many ways by the end of ten weeks to make you feel first class 'hey I noticed you enjoy yourself into it, Carly seems a little...

STU3: Yeah google does that.

STU1: Yeah, 'I'm going to start this playlist for you for good job' Even say 'I noticed what you're in to. Check these jams out.'

STU2: Yeah, I made this playlist for you. Because these are the songs you've been praying.

STU3: See you said emergency contact that reaches when you are near goals... One thing that I know when I have a lot going on I'm like on the phone by mom and... Because I have a lot of going on it's like on my schedule, on my calendar but she doesn't know that. So what if your person would have said 'hey I see you have a lot going on do you think maybe it needs like 10-15 minutes?' It's like they're so recognizing that you have a lot in your schedule.

STU1: Yeah, definitely acknowledging.

STU2: Yeah, like they acknowledge what you have going on. So it'll link with your schedule and it acknowledges like... Cause I feel like there's an app telling me I'm busy.

STU3: Exactly.

STU2: There's another thing... 'I can't do that'...

STU1: Maybe it's not all about the activity. Like hey you had a lot of good nutrition today you can do that. Because you're right you can't tell somebody go for a run but you can tell someone maybe you should try some cardio in your free hour.

STU3: Maybe the person utilizing this sets her starting point. They set their starting point and they like they can set their goal at the end or they can leave it open to their person. And what if be like in a mountain top that doesn't have a peak.

STU1: We can tell the goal and never bring it up again. It's like interactive experience. You have to like you manifest your goal by saying it. It still give that emotional kick in the fast forward the program ignores it. It never shows to your goal. It only show a linear path to a goal.

STU3: But it's still rewards for working out doing something that day.

STU1: A program to reward every little thing. I only told about my final goal. The final goal the program never looks at. It's just a text box. So you slowly go to your goal. You're being awarded for the computer.

STU2: What if you opened it up and it's just like 'hi how are you.' And that's it and then it kind of fades away if you don't answer.

STU3: You know that icon that keeps spinning when your computer's loading, what if that applied when you open the app it just keeps that thing and keeps talking to you and then in the moment when you succeed it finally goes back. Whenever you accomplish another goal it'll reward you with that

STU2: What if it senses your motion...Or what if it had Netflix pop up when you're running.

STU1: I don't know if that belongs in this mental model. A Netflix treadmill but this is a long term positive for small steps. Not immediately enforced and just for showing up. It's for long term showing up.

STU3: I think we have something pretty good here.

PRESENTATION

STU1: We made up an app that talks to you everyday...

Numbers about counting calories, the nutrition facts; it tracks how many days you've been on the right track. It doesn't track how many calories you had it just tracks how many day you've made an effort. So at the end it tells you like good job. After two days little bit like hey two goal days like good for you. Also it asks you its goal once in the beginning and then it never brings is up again.

The whole point is that a lot of people are getting frustrated and angry because they're not meeting immediate like goals like yes easy to hit that way goal once were not gonna hit it again it's just arbitrary to get that. Immediately like good feelings only once. You only put on that pair of jeans that fitted for once. So we wanna flip that expectation towards I wanna feel that good while putting that pair of jeans on with a schedule and setting small goals instead of big arbitrary goals. Cause little goals aren't random. They're built on the goals that are able for become real like simulacra are real to the simulating something so many times. So by asking the user to put in a goal first and the never bring it up again the user comes to a thinking I will achieve this big arbitrary goal. But then he receives this positive feedback for not that goal but just for the small things like hey you wrote down what you ate today keep that up. That how you'll make big changes it'll start replacing them

The big goal endorphin rush is actually the rush to just doing a good job of your time.

STU3: And this is funny but we just thought like a potential way where this could happen. You know that's green that comes up on your phone when you just plugged it in and still loading it. It's like imagine that app had that interface forever and then the only time it like showed the actual what you accomplished.

Hey I noticed you're not doing this is everything okay with that? It'll sync with your calendar. Hey you've got no meetings this afternoon maybe you should try getting your heart rate up a little bit. Or you've got 20 minutes or I noticed that you cancelled this from your email. Cause google now does that really

Now that you have it say good morning it's a great time to dismiss trashes today before work.

STU2: But more importantly it acknowledges if your schedule is too packed. Cause like I feel like a lot of our smart objects don't know especially fitness trackers and it doesn't that you're so busy.

It's not all lovely and friendly. It does get a little aggressive when it needs to like what is your skill level can you run can you do cardio and tell you to do this for a few weeks. You said an emergency contact that notices like you slip on like writing down what you eat for a day or you don't doing stretches it texts your emergency contact hey Charlie isn't doing that great right now if you set this really big goal for herself and ignore to make it. She needs you. Accountable...Someone you trust to keep going.

STU3: The product is a person or a system.

STU2: I think in this situation an app is appropriate.

‘Hey make a schedule keep working on it. And it doesn’t matter how much you weigh or how far you can run. It matters that you’re still trying.’ And that’s it.

STU1: It’s all societal but we can’t change that. For some people it doesn’t matter...That’s the ideal. If she wants to lose weight that’s always her decision.

Participants: Group 2 (STU4, STU5, STU6, STU7)

Date: 18.05.2015

Duration: 45 min

STU4: How about a lunch box that's like compartmentalized like in the actual appropriate portions of like what you're supposed to eat? It adds calories for you.

STU5: We kind of have something like that already called a "bento box". We could like modernize the "bento box" draw on this.

STU4: So what if that has compartments like better actually appropriately sized. Like if you literally can't eat like this is all that you get. And this is...

STU6: Each box has a weight center under it. And then you fill the appropriate amount and then it changes color something like that to show you. When people say measuring it's not like measuring the volume. Weight accurate –better calorie assumption. That would make more sense with this.

STU7: There are services to do that. They deliver you meals but no lunch box. But you still have to give the person the wisdom of self-accountability.

STU5: There's the motivation with Weight Watchers. Point system online, meetings... The weight centered "bento box" is a good idea it's like a smart "bento box", compartmentalized like a lunch box.

STU4: A smart "bento box" like has weight centers for the food. So that you can measure out the food, link it to the right portion. Because volumetric measuring food wouldn't make sense because food tend to differ in their volume. If you have a gram like weight of how much food you have to put in there. It tells you how much food you can put there when to stop.

STU6: A smart app kind of thing, which shows you like a diagram your food. And you can click on each one tell it what like you're putting in there. Tells you when it's actually too much.

STU4: Consider what you would actually bring to work. A sandwich is so many different things like what do you put in there. How does it that work? Tell you its actually easier add up the calories beforehand you put in.

STU6: How do you make someone remind themselves that every time they eat to write down what they're eating. Because like that's what everyone says. Break their routine. Maybe breaking the habit of like a meal is just a... I guess humans need to have a schedule. Like your morning when you wake up sleep schedule.

STU4: There are sensors tell you what you eating things measuring. It's too complicated now.

STU6: Every time you're eating it reminds you it pushes to your phone like records.

STU5: You can make it a habit. Like takes a lot of trial not to forget. How do you train somebody to always write to the book? Shock therapy ☺

STU6: A bunch of sweets and they just eat too much and that's one of the biggest problems. They just eat too much don't know when to stop. To focus on smaller sizes of dishes like things for carrying food so that people.

STU5: A lot of people also don't have a realistic idea of what a portion size looks like.

STU6: Yes it's encouraging you for certain food this is the size. You should only eat this much. If we start with an idea of a container for each type of food, with a line... Cooking system tells you if you pour in this into this then fill the bowl half way. You just can keep it in your house. It has amounts on it like don't... Design something, like a scoop, maybe just be a system of scoops... Scoop is to fill the plate.

STU5: But when you go to a restaurant you eat all because you paid for it.

STU4: Like after you finish your meal you're gonna go for it. If you just kept a notepad. It's meant for that. It's like carrying a notebook so you can't if you have it in your phone. A scoop is like you have it not necessarily all the time. It's also like if you're packing your lunch from the cafeteria you're not gonna give them here are the scoops.

Maybe the issue is motivation and actually getting people to consider. If they get a sense gets used to see of how much rice at home then they can have an idea for the restaurant.

You don't have to be proactive about logging everything you eat.

STU5: If it just a matter of being doesn't have to be like you could get a reminder for 3 h. You can eat and forget like 3 h later you're going to recall it. You don't have to do it at the time you eat.

STU6: They sometimes don't eat all day then they eat a lot at one time. That also can lead to obesity and unhealthy eating habits. You can set a goal like I wanna eat this much calories with this much food by this time and it will ask you if you did so then record it. Maybe it can suggest what to eat..."You probably shouldn't eat this" Like an application reminds you or asks. Like planning your meals for the week.

STU4: You preplan like put in all the meals maybe like a system for a week and the app asks you did you eat this now and you can just click yes or no.

STU7: It seems like these conversations are biggest drivers motivating someone to continue the weight loss process, getting into the emotions about exercises. The solutions are tools that can power people to keep on going.

STU6: Tools that can keep one going...

STU7: Seems like this makes somebody looking back, if they made a mistake, acknowledging this not necessarily, providing them with a tool to correct this. Because

you can go driving yourself or you can accept you did this and see there's a point to move on. Easy solutions like app design I see.

It's possible to design objects that are in simple form like notebook as least for the planning for writing planning things down. A lot of emotional, how do you design an object that serves as a tool for these insider things. App is an easier solution.

STU5: There are a lot of apps...

STU6: Physical device is like about the portion measurement like a spoon. You can pick up an object and it'll tell you how much calories it has and weighs the food. And then records that and keeps on recording on. Keeps recording all these weights for you...

STU4: Add it to the meal – 10 grams of rice, 15 grams of beans... All these data to put together later but not at the moment because if you're eating a meal its not a big deal but next thing to write it down next thing to push the button. You can transfer them later to something else. You can measure with the scoop how much food you're putting on your plate. You have something on your plate best for you. It's really a mystery the problem is the variation of the size.

STU6: These people seem to have already an idea of how many calories they need to eat. There's much more direct way like what that number is, or even if you get like there's so many databases that tell you the average calories it's already solved. What does make it more kind of interactive like I don't know if it was just something like you could just log everything you eat and then that's independent and that logging thing is kind of mobile.

STU7: We seem like we made a circulus now we've come all way back...

STU6: So what is the problem with the notebook?

P1: You can't carry it. It's kind of embarrassing carrying it. You have to remember to do it

STU7: It's not really the notebook. This is more like an inner kind of thing. Inwards came down to self-image. The problem is really with that. We're struggling to design something intangible part someone's mind, being unfit. We've got tools, notebooks, apps and everything. But how do you first. 'Cause a lot of different systems try to get you towards one ideal body image. Seems like the bigger problem is the image problem. How to bring to a mental state to make it easier for them. You gotta give them that Wisdom, confidence, to actually move forward, and also trust in their image of being fit. Different from everybody else's. Instead of someone at gym telling you "hey you need to go out and lift like 100 pounds" or something...

STU6: A lot of people talk about having goals. And some people said goals can be extremely discouraging. Failure. But then who also said that if you set a really small goal that you're almost certain to achieve you can go back and reflect on that goal and use that as motivation to move forward. So what if, there is a book reminding you accomplishing like on every page you succeeded in doing this today.

Biggest things are experts like nutritionist, dietitian. Works for you is not going to work for all. Some people need to workout but some need to change their eating habits.

I mean for the person is on the go if they just had one time when they check in and record their intentions and then the next day they look at their intentions they see what they did and didn't do. it can be the done first time in the morning. Takes 5 minutes in the morning. Just being somewhat cognizant and involved and self aware once a day at least can be helpful. its obviously ideal to track everything. The more likely to be successful.

Missing a meal, being in a public situation. You can do it once and then...Exercise calls, meeting calls,

STU7: A question like "why is it important to be healthy" then you can write it down.

STU4: Your emotional state can change every day and you can write it everyday. Maybe it's to show them their emotional state and when you're sad you need to workout more often. There's correlation between your sad or happy goals, emotions. How that can effect. So, little bit like a personal toy. How to be being realistic...Instead of saying I need to lose 20 pounds a month saying that "I make healthier changes with small adjustments".

STU5: They say they gonna do this buy these stuff and then do stupid things and they end up in nothing. Because they're not realistic.

STU6: The ideas you just record what you want to do and the next day you see whether you did or didn't and then you can change the expectations.

STU7: What if the question is what is good for you today, this changes everyday – one of the interviews here was we all inherently know. Teach them realistic change and then keep the change, small change of life. They might know what's good for them and help them up. And want to lose weight because I don't feel good about myself today, or to feel happier or accomplished like you need to derive that from your body image... It's about changing yourself without being bored, kind of slowly, that helps you figuring out on your own. Presenting you with everything you put in to it. you can check it every once a while. Kind of like presents what you've been saying about yourself, and then what you help to realize things like why you wanna change whether or not. Why do you want change your image?

STU4: Like you say the app says are you happy with yourself. Why do you want to do this? Like introspection for change. What's good for your health. Why do you want to be more healthier. If the question is different every time and it prompts you like. Even if there's no like the next question has nothing to do with previous question you keep toned.

STU6: You've seen these calendar books? It can be for dietary stuff and it ask you question.

STU5: My friend had like a giant he actually used everyday.

STU7: I think the ideas of connecting introspection with weight loss or body image is really important. I'm going to change my life is more about why you wanna do that.

Going to stay with it and if you're doing this because it's what everybody tells. It's not going to motivate you. Because it comes within. Maybe a product this is not so much like an actual more like the mental spiritual. It doesn't seem like shiny designer concept but wisdom is the best solutions.

PRESENTATION

STU4: We considered introspection and like for life changes.

Something that asks you I wanna lose weight today and it asks you about your feelings why you wanna do that and like what's important to you and what you expects to get out of this. Because one of the biggest problems is people not having the right reasons trying to make changes in life.

There's a really big importance in like why you wanna make a life change, and that will play a big part in whether or not you have success with that.

Because you're losing weight because someone made me feel bad about my body image or something made me not feel right. Then it's not gonna be the same as if you said like I don't feel healthy and I want to feel healthier. That the person be more likely distinct to because they're motivated by themselves not just some kind of negative comment or negative thing that happened to them. That kind of feared them into it in a way. I'm using like negative emotion to force them to do it rather than like to encourage them. And I think that's an important part of our product. Anything else?

STU6: Tear away day calendars basically everyday there are small goals. Overall goal of having better diet, better fitness and it asks some sort of question that force, not force, the person but it requires the person to think deeply about why or how they're going to actually accomplish this goal and it just provides like 5 mins of reflection where there they can deal with it like you know like in a very concentrated discernable way so that throughout the rest of their day they don't have to be strict... It's a kind of like an exercise of mindfulness.

STU4: There are solutions to all the specific needs already. Like If you want to know exactly how to lose weight you can go online check out your, the technical like macro intake or what you need you can record it in a notebook you can see if what you eat is less than what you burn and you put your age in and how much physical activity and you can know pretty definitely whether or not you're going to be losing weight. But our product instead deals with the like overarching issue which is why you want to be fit and why you want to lose weight and it's supposed to be a reminder and an opportunity for people to reflect on.

STU7: There's very specific ways you can accomplish things there's a variety of products and methodologies that like work for each one. But our thing is mindfulness. It's more like a mental spiritual solution than a physical. Like finding your right way, like stay on your path rather than just simply saying that you want to do something cause you can say something in times but not actually do it. But simply saying it won't make you feel good enough and if something is there like that kind of asks you and be your kind of like support systems saying "why do you wanna do this", "what is really making you to want to make this change" like how are you thinking about that coming

with your own ideas for really help you change yourself it is your change and you understand why its important to you.

STU4: I think like also if you're on your way to work and you pass you know McDonalds and you have the option to like get burger or not. If you took the time in the morning to really consider why you wanted to be healthier or who you would be helping or something like that and there's some exercise that you hashed that out. You might be a little slightly to make a bad decision. And then later the next day if you did make the bad decision you could confront that. You could put it in your spots and understand it.

APPENDIX D: RAW DATA MATRIX - DESIGNERS' CASE

Table D.1 : Raw data matrix - Designers' case

Units	C1: Difficulty	C2: Obstacle	C3: Manifestation	C4: Goal	C5: Purposive action	C6: Design implication
DES1(A2)				P		
DES1(A10)	P	P		P	P	P
DES1(A11)	P					
DES1(A12)	P	P				
DES1(B2)			P		P	
DES1(B6)			P	P		P
DES1(D5)	P	P		P	P	P
DES1(D11)					P	P
DES1(D13)		P		P		P
DES1(D14)					P	P
DES1(D16)				P	P	P
DES1(D17)				P		
DES1(E1)				P	P	P
DES1(E3)	P					P
DES1(E7)						P
DES1(F11)		P			P	P
DES1(H3)	P	P	P			P
DES1(G1)				P	P	P
DES1(G6)			P		P	P
DES1(G17)			P		P	P
DES1(G18)					P	
DES1(I1)	P	P		P		P
DES1(I7)					P	P
DES1(H7)	P			P	P	P
DES2(A2)				P	P	P
DES2(A5)				P	P	P
DES2(A7)				P		P
DES2(A12)	P	P				P
DES2(B3)			P			P
DES2(B9)			P	P		P
DES2(B11)			P			P
DES2(D5)				P	P	P
DES2(D11)					P	P
DES2(D13)		P		P		P
DES2(D14)				P	P	P
DES2(D16)			P	P	P	P
DES2(D17)					P	
DES2(E1)				P	P	P
DES2(E2)		P			P	P
DES2(F11)					P	P

Table D.1 (continued) : Raw data matrix - Designers' case

Units	C1: Difficulty	C2: Obstacle	C3: Manifestation	C4: Goal	C5: Purposive action	C6: Design implication
DES2(H3)				P	P	P
DES2(G6)					P	P
DES2(G18)					P	P
DES2(I1)		P			P	P
DES2(I3)				P	P	P
DES2(I7)				P		P
DES2(H7)				P	P	P
DES3(A2)	P	P		P		P
DES3(A5)					P	P
DES3(A7)	P	P				P
DES3(A10)	P	P		P	P	P
DES3(A11)	P	P		P		P
DES3(A12)	P	P				P
DES3(B2)	P		P		P	P
DES3(B3)	P		P			P
DES3(B5)			P			P
DES3(B9)			P	P		P
DES3(B11)			P			P
DES3(B13)	P		P			P
DES3(B14)	P		P			
DES3(D5)						
DES3(D13)		P		P	P	P
DES3(D14)					P	P
DES3(D16)	P	P			P	P
DES3(D17)			P	P		P
DES3(E1)				P	P	P
DES3(E2)				P	P	P
DES3(E7)			P			P
DES3(F11)	P	P		P	P	P
DES3(H3)				P	P	
DES3(G1)			P		P	P
DES3(G6)					P	P
DES3(G17)				P	P	P
DES3(I1)					P	
DES3(I3)					P	P
DES3(H7)	P			P	P	P
DES4(A2)	P	P		P	P	P
DES4(A5)			P		P	P
DES4(A7)	P	P	P			P
DES4(A11)	P		P			P
DES4(B3)	P		P			P

Table D.1 (continued) : Raw data matrix - Designers' case

Units	C1: Difficulty	C2: Obstacle	C3: Manifestation	C4: Goal	C5: Purposive action	C6: Design implication
DES4(B5)	P					
DES4(B6)			P	P	P	
DES4(B9)			P			P
DES4(B11)			P			P
DES4(B13)	P		P			
DES4(B14)	P		P			P
DES4(D5)				P	P	P
DES4(D11)				P	P	P
DES4(D13)		P		P	P	P
DES4(D14)					P	P
DES4(D16)	P	P	P	P	P	P
DES4(D17)				P	P	P
DES4(E1)				P		P
DES4(E2)		P		P	P	P
DES4(E3)	P	P				P
DES4(E7)	P					P
DES4(F11)	P	P			P	P
DES4(H3)	P	P	P			P
DES4(G1)					P	P
DES4(G6)					P	
DES4(G17)		P		P	P	P
DES4(I1)				P	P	P
DES4(I3)				P	P	P
DES4(I7)					P	
DES4(H7)	P			P	P	P
DES5(A2)	P	P		P	P	P
DES5(A7)	P	P	P			P
DES5(A10)	P	P		P	P	
DES5(A11)	P	P				P
DES5(A12)	P	P				P
DES5(B2)			P			
DES5(B3)	P		P			
DES5(B5)	P		P			
DES5(B6)					P	P
DES5(B11)			P			
DES5(B13)			P			
DES5(B14)			P			
DES5(D5)					P	
DES5(D11)					P	
DES5(D13)			P	P	P	
DES5(D14)					P	P

Table D.1 (continued) : Raw data matrix - Designers' case

Units	C1: Difficulty	C2: Obstacle	C3: Manifestation	C4: Goal	C5: Purposive action	C6: Design implication
DES5(D16)	P	P			P	P
DES5(E1)				P	P	
DES5(E2)		P		P	P	P
DES5(E3)					P	
DES5(E7)	P					P
DES5(F11)					P	
DES5(H3)	P	P			P	
DES5(G1)				P	P	
DES5(G6)				P	P	
DES5(G17)				P	P	
DES5(G18)				P	P	
DES5(I1)	P	P		P	P	
DES5(I3)				P	P	
DES5(I7)				P	P	
DES6(A2)				P	P	P
DES6(A5)					P	
DES6(A7)				P		
DES6(A10)				P	P	
DES6(A11)	P	P		P		P
DES6(A12)	P					P
DES6(B2)	P				P	P
DES6(B3)	P		P			P
DES6(B5)	P					P
DES6(B6)	P		P	P	P	P
DES6(B11)			P			
DES6(B14)			P			
DES6(D5)					P	P
DES6(D11)					P	P
DES6(D13)	P	P		P	P	P
DES6(D14)					P	P
DES6(D16)				P	P	P
DES6(D17)				P	P	P
DES6(E1)				P	P	P
DES6(E2)		P		P	P	
DES6(E3)	P	P				P
DES6(E7)	P					P
DES6(F11)		P			P	
DES6(H3)	P	P		P	P	P
DES6(G1)					P	P
DES6(G6)					P	P
DES6(G17)				P	P	

Table D.1 (continued) : Raw data matrix - Designers' case

Units	C1: Difficulty	C2: Obstacle	C3: Manifestation	C4: Goal	C5: Purposive action	C6: Design implication
DES6(G18)					P	
DES6(I1)				P	P	P
DES6(I3)					P	P
DES6(I7)	P				P	P
DES7(A2)	P	P			P	P
DES7(A5)				P	P	P
DES7(A7)	P					P
DES7(A10)	P	P		P	P	P
DES7(A11)	P		P			P
DES7(A12)	P	P				P
DES7(B2)					P	
DES7(B3)			P			P
DES7(B5)			P			
DES7(B6)	P				P	P
DES7(B9)			P	P		P
DES7(B11)	P		P			P
DES7(B13)	P		P			
DES7(B14)	P		P			P
DES7(D5)				P		
DES7(D11)					P	
DES7(D13)	P	P		P		P
DES7(D14)				P	P	P
DES7(D16)	P	P			P	
DES7(D17)			P	P	P	P
DES7(E1)					P	P
DES7(E2)		P		P	P	P
DES7(E3)					P	
DES7(E7)	P					P
DES7(F11)	P	P		P		P
DES7(H3)	P	P		P	P	P
DES7(G1)				P	P	P
DES7(G6)					P	
DES7(G17)				P	P	P
DES7(G18)					P	
DES7(I1)	P	P			P	P
DES7(I3)				P		P
DES7(I7)	P	P				P
DES7(H7)				P	P	P
DES8(A2)	P	P				P
DES8(A10)	P	P		P	P	P
DES8(B14)	P					

Table D.1 (continued) : Raw data matrix - Designers' case

Units	C1: Difficulty	C2: Obstacle	C3: Manifestation	C4: Goal	C5: Purposive action	C6: Design implication
DES8(D11)					P	P
DES8(G1)					P	
DES8(I7)	P	P			P	P
DES9(A2)	P	P		P		P
DES9(A7)	P	P				P
DES9(A10)					P	P
DES9(A12)	P			P	P	P
DES9(B3)	P		P			P
DES9(B5)			P			
DES9(B13)	P		P			P
DES9(D5)				P	P	P
DES9(D11)						
DES9(D14)				P	P	P
DES9(D16)			P	P	P	P
DES9(D17)				P	P	P
DES9(E1)				P	P	P
DES9(E2)		P		P	P	P
DES9(F11)	P	P				P
DES9(H3)				P	P	P
DES9(G1)				P	P	P
DES9(G6)					P	
DES9(G17)					P	P
DES9(I1)	P			P	P	P
DES9(I3)				P	P	P
DES9(I7)				P		P
DES9(H7)				P	P	P
DES10(A2)	P	P				P
DES10(A5)						P
DES10(A7)	P	P				P
DES10(A10)	P	P			P	
DES10(A12)	P				P	P
DES10(B2)					P	
DES10(B6)					P	
DES10(B13)	P			P	P	P
DES10(D5)					P	P
DES10(D11)					P	P
DES10(D14)					P	P
DES10(D16)			P	P	P	P
DES10(D17)				P		P
DES10(E2)					P	
DES10(E3)					P	

Table D.1 (continued) : Raw data matrix - Designers' case

Units	C1: Difficulty	C2: Obstacle	C3: Manifestation	C4: Goal	C5: Purposive action	C6: Design implication
DES10(G1)				P	P	P
DES10(G6)				P	P	P
DES10(G18)				P	P	P
DES10(I1)	P	P			P	
DES10(I3)				P	P	P
DES10(H7)				P	P	P
DES11(A2)	P	P				P
DES11(A7)		P				P
DES11(B2)	P		P			P
DES11(D11)					P	P
DES11(D16)					P	P
DES11(F11)					P	P
DES11(G1)					P	
DES11(G17)				P		P
DES11(G18)					P	P
DES11(I3)				P		P
DES11(H7)					P	P
DES12(A2)	P	P				P
DES12(A7)	P	P				P
DES12(A10)	P	P		P	P	
DES12(A11)	P					
DES12(A12)	P	P				P
DES12(B2)					P	P
DES12(B5)						P
DES12(B6)					P	
DES12(B9)			P			
DES12(B13)			P			
DES12(D5)	P	P				
DES12(D11)				P		P
DES12(D16)				P		
DES12(E1)				P		
DES12(H3)			P		P	P
DES12(G1)					P	P
DES12(G17)					P	P
DES12(I1)				P		P
DES12(I3)				P	P	P
DES12(I7)	P			P	P	
DES12(H7)	P					
DES13(A2)	P	P				P
DES13(A12)	P	P			P	
DES13(B2)					P	P

Table D.1 (continued) : Raw data matrix - Designers' case

Units	C1: Difficulty	C2: Obstacle	C3: Manifestation	C4: Goal	C5: Purposive action	C6: Design implication
DES13(D5)	P	P			P	P
DES13(D14)					P	P
DES13(E2)	P	P				P
DES13(E3)					P	
DES13(G1)					P	

APPENDIX E: RAW DATA MATRIX - DESIGN STUDENTS' CASE

Table E.1 : Raw data matrix - Design Students' case

Units	C1: Difficulty	C2: Obstacle	C3: Manifestation	C4: Goal	C5: Purposive action	C6: Design implication
STU1(A2)	P	P		P		
STU1(A5)				P	P	
STU1(A7)	P	P	P			
STU1(A10)					P	
STU1(A11)	P	P				P
STU1(A12)	P	P				
STU1(B2)	P		P			P
STU1(B3)	P		P			
STU1(B5)	P					
STU1(B6)	P	P			P	P
STU1(B9)	P		P	P		P
STU1(B11)	P	P	P			
STU1(B13)	P		P			P
STU1(B14)	P		P			P
STU1(D5)	P	P				P
STU1(D11)		P				
STU1(D13)	P			P		P
STU1(D14)				P	P	
STU1(D16)						
STU1(D17)	P	P				P
STU1(E1)				P	P	P
STU1(E2)	P					P
STU1(E3)	P	P		P	P	P
STU1(E7)	P					
STU1(F11)	P	P				
STU1(H3)	P	P				
STU1(G1)				P	P	P
STU1(G6)						P
STU1(G17)				P	P	P
STU2(A11)						P
STU2(B2)	P			P	P	P
STU2(B3)	P		P			
STU2(B6)						P
STU2(B9)	P		P	P		P
STU2(B13)	P		P			P
STU2(B14)	P					P
STU2(D5)	P	P			P	P
STU2(D11)				P	P	
STU2(D13)				P	P	P
STU2(D14)				P	P	

Table E.1 (continued) : Raw data matrix - Design Students' case

Units	C1: Difficulty	C2: Obstacle	C3: Manifestation	C4: Goal	C5: Purposive action	C6: Design implication
STU2(D16)				P	P	P
STU2(D17)	P			P	P	P
STU2(E1)				P		P
STU2(E2)	P			P	P	P
STU2(E3)	P			P	P	P
STU2(E7)	P					
STU2(F11)	P	P				
STU2(H3)	P			P	P	
STU2(G1)				P	P	P
STU2(G6)					P	P
STU2(G17)				P	P	P
STU2(G18)				P	P	
STU2(I1)	P	P		P	P	
STU2(I3)				P	P	
STU2(I7)	P	P		P	P	
STU2(H7)	P	P		P	P	
STU3(A2)	P	P				
STU3(A5)			P	P		
STU3(A7)	P	P				
STU3(A10)	P		P		P	
STU3(A11)	P					P
STU3(A12)	P	P				
STU3(B2)	P			P		P
STU3(B5)						
STU3(B6)					P	P
STU3(B9)	P		P	P		P
STU3(B11)	P	P	P			
STU3(B13)						P
STU3(B14)	P	P	P			P
STU3(D5)	P	P				P
STU3(D11)		P		P	P	
STU3(D13)				P		P
STU3(D14)				P	P	
STU3(D16)					P	P
STU3(D17)				P	P	P
STU3(E1)				P		P
STU3(E2)	P	P			P	P
STU3(E3)	P					P
STU3(E7)				P		
STU2(D16)				P	P	P
STU2(D17)	P			P	P	P

Table E.1 (continued) : Raw data matrix - Design Students' case

Units	C1: Difficulty	C2: Obstacle	C3: Manifestation	C4: Goal	C5: Purposive action	C6: Design implication
STU3(F11)	P	P				
STU3(H3)					P	
STU3(G1)						P
STU3(G6)						P
STU3(G17)						P
STU4(A7)	P	P				
STU4(A11)						P
STU4(A12)	P					P
STU4(B2)						P
STU4(B3)	P		P		P	
STU4(B9)	P		P	P		
STU4(D14)				P	P	
STU4(D16)				P	P	P
STU4(E1)					P	
STU4(E2)						P
STU4(E7)						P
STU4(H3)				P	P	
STU4(G1)				P	P	
STU4(G6)				P	P	
STU4(I1)						P
STU4(I3)				P	P	P
STU4(I7)						P
STU4(H7)						P
STU5(A2)	P	P		P		
STU5(A5)				P	P	
STU5(A7)	P	P	P			
STU5(A10)			P	P	P	
STU5(A11)	P			P		P
STU5(A12)	P	P				P
STU5(B2)				P	P	P
STU5(B3)	P		P			
STU5(B5)						
STU5(B6)					P	
STU5(B9)	P		P	P		
STU5(B14)	P	P				
STU5(D5)				P	P	
STU5(D11)						
STU5(D14)				P	P	
STU5(D16)						P
STU5(D17)				P	P	
STU5(E1)				P	P	

Table E.1 (continued) : Raw data matrix - Design Students' case

Units	C1: Difficulty	C2: Obstacle	C3: Manifestation	C4: Goal	C5: Purposive action	C6: Design implication
STU5(E3)	P			P	P	
STU5(E7)	P					P
STU5(F11)	P	P				
STU5(H3)				P	P	
STU5(G1)				P	P	
STU5(G6)				P	P	
STU5(G17)				P	P	
STU5(I1)	P	P		P		P
STU5(I3)				P	P	P
STU5(I7)	P	P		P	P	P
STU5(H7)	P	P		P	P	P
STU6(A2)	P	P		P		
STU6(A7)	P	P				
STU6(A11)						P
STU6(A12)	P					P
STU6(B3)	P					
STU6(B14)	P					
STU6(D5)				P	P	
STU6(D11)				P	P	
STU6(D14)				P	P	
STU6(D16)	P				P	P
STU6(E1)				P	P	
STU6(E2)				P	P	P
STU6(E7)	P	P				P
STU6(F11)	P	P				
STU6(H3)				P		
STU6(G1)				P	P	
STU6(G6)				P	P	
STU6(G17)				P	P	
STU6(G18)				P	P	
STU6(I1)	P	P		P	P	P
STU6(I3)				P	P	P
STU6(I7)	P			P	P	P
STU6(H7)	P	P				P
STU7(A2)	P	P		P		
STU7(A7)	P	P				
STU7(A10)	P					
STU7(A11)				P		P
STU7(A12)	P	P			P	P
STU7(B2)				P	P	P
STU7(B3)					P	

Table E.1 (continued) : Raw data matrix - Design Students' case

Units	C1: Difficulty	C2: Obstacle	C3: Manifestation	C4: Goal	C5: Purposive action	C6: Design implication
STU7(B9)	P					
STU7(B11)						
STU7(B13)	P					
STU7(D14)				P	P	
STU7(D16)				P	P	P
STU7(E1)				P	P	
STU7(E2)				P	P	P
STU7(E3)	P					
STU7(E7)						P
STU7(F11)	P	P				
STU7(H3)				P	P	
STU7(G1)				P	P	
STU7(G18)				P	P	
STU7(I1)					P	P
STU7(I3)						P
STU7(I7)						P
STU7(H7)						P

APPENDIX F: ANALYSIS SHEET WITH SUBCATEGORIES

Table F.1 : Analysis of designers' case

Units	C1: Difficulty	C2: Obstacle	C3: Manifestation	C4: Goal	C5: Purposive action	C6: Design implication
DES1(A2)				C4.1		
DES1(A10)	C1.4	C2.1		C4.2	C5.1	C6.3.2
DES1(A11)	C1.3					
DES1(A12)	C1.3	C2.3				
DES1(B2)			C3.1		C5.1	
DES1(B6)			C3.1	C4.1		C6.3.2
DES1(D5)	C1.3	C2.2		C4.2	C5.2	C6.2
DES1(D11)					C5.2	C6.3.2
DES1(D13)		C2.2		C4.2		C6.1
DES1(D14)					C5.3	C6.1
DES1(D16)				C4.2	C5.4	C6.3.2
DES1(D17)				C4.2		
DES1(E1)				C4.2	C5.1	C6.2
DES1(E3)	C1.2					C6.3.1
DES1(E7)						C6.1
DES1(F11)		C2.1			C5.3	C6.2
DES1(H3)	C1.4	C2.1	C3.2			C6.3.2
DES1(G1)				C4.3	C5.5	C6.1
DES1(G6)			C3.2		C5.5	C6.3.2
DES1(G17)			C3.2		C5.5	C6.2
DES1(G18)					C5.4	
DES1(I1)	C1.5	C2.3		C4.2		C6.3.2
DES1(I7)					C5.2	C6.2
DES1(H7)	C1.5			C4.3	C5.2	C6.3.1
DES2(A2)				C4.1	C5.2	C6.3.2
DES2(A5)				C4.3	C5.3	C6.3.1
DES2(A7)				C4.2		C6.1
DES2(A12)	C1.3	C2.3				C6.1
DES2(B3)			C3.2			C6.3.2
DES2(B9)			C3.2	C4.2		C6.3.2
DES2(B11)			C3.1			C6.3.2
DES2(D5)				C4.2	C5.2	C6.3.1
DES2(D11)					C5.2	C6.1
DES2(D13)		C2.2		C4.2		C6.1
DES2(D14)				C4.2	C5.3	C6.3.2
DES2(D16)			C3.2	C4.2	C5.4	C6.3.2
DES2(D17)					C5.2	
DES2(E1)				C4.2	C5.1	C6.2
DES2(E2)		C2.2			C5.2	C6.2
DES2(F11)					C5.3	C6.1

Table F.1 (continued) : Analysis of designers' case

Units	C1: Difficulty	C2: Obstacle	C3: Manifestation	C4: Goal	C5: Purposive action	C6: Design implication
DES2(H3)				C4.2	C5.3	C6.1
DES2(G6)					C5.5	C6.3.1
DES2(G18)					C5.4	C6.2
DES2(I1)		C2.3			C5.1	C6.2
DES2(I3)				C4.2	C5.4	C6.2
DES2(I7)				C4.3		C6.1
DES2(H7)				C4.3	C5.2	C6.3.1
DES3(A2)	C1.5	C2.2		C4.1		C6.1
DES3(A5)					C5.4	C6.2
DES3(A7)	C1.1	C2.3				C6.1
DES3(A10)	C1.4	C2.1		C4.2	C5.1	C6.3.2
DES3(A11)	C1.3	C2.3		C4.2		C6.2
DES3(A12)	C1.3	C2.3				C6.2
DES3(B2)	C1.1		C3.1		C5.1	C6.2
DES3(B3)	C1.3		C3.2			C6.1
DES3(B5)			C3.2			C6.1
DES3(B9)			C3.2	C4.2		C6.1
DES3(B11)			C3.1			C6.2
DES3(B13)	C1.1		C3.1			C6.2
DES3(B14)	C1.1		C3.1			
DES3(D5)						
DES3(D13)		C2.2		C4.3	C5.3	C6.1
DES3(D14)					C5.3	C6.1
DES3(D16)	C1.2	C2.1			C5.3	C6.2
DES3(D17)			C3.2	C4.2		C6.3.2
DES3(E1)				C4.2	C5.1	C6.1
DES3(E2)				C4.3	C5.2	C6.2
DES3(E7)			C3.2			C6.3.2
DES3(F11)	C1.2	C2.1		C4.2	C5.3	C6.2
DES3(H3)				C4.2	C5.3	
DES3(G1)			C3.2		C5.5	C6.3.2
DES3(G6)					C5.5	C6.1
DES3(G17)				C4.3	C5.5	C6.2
DES3(I1)					C5.1	
DES3(I3)					C5.4	C6.2
DES3(H7)	C1.5			C4.3	C5.2	C6.3.1
DES4(A2)	C1.5	C2.2		C4.1	C5.2	C6.3.1
DES4(A5)			C3.2		C5.3	C6.3.2
DES4(A7)	C1.1	C2.3	C3.2			C6.3.2
DES4(A11)	C1.1		C3.2			C6.1
DES2(H3)				C4.2	C5.3	C6.1

Table F.1 (continued) : Analysis of designers' case

Units	C1: Difficulty	C2: Obstacle	C3: Manifestation	C4: Goal	C5: Purposive action	C6: Design implication
DES4(B3)	C1.3		C3.2			C6.3.2
DES4(B5)	C1.3					
DES4(B6)			C3.1	C4.1	C5.2	
DES4(B9)			C3.2			C6.1
DES4(B11)			C3.1			C6.3.2
DES4(B13)	C1.1		C3.1			
DES4(B14)	C1.1		C3.1			C6.3.2
DES4(D5)				C4.2	C5.2	C6.3.2
DES4(D11)				C4.2	C5.2	C6.3.2
DES4(D13)		C2.2		C4.2	C5.3	C6.1
DES4(D14)					C5.3	C6.1
DES4(D16)	C1.2	C2.1	C3.2	C4.2	C5.3	C6.3.2
DES4(D17)				C4.2	C5.4	C6.2
DES4(E1)				C4.2		C6.2
DES4(E2)		C2.2		C4.3	C5.2	C6.1
DES4(E3)	C1.2	C2.1				C6.1
DES4(E7)	C1.4					C6.2
DES4(F11)	C1.2	C2.1			C5.3	C6.2
DES4(H3)	C1.2	C2.1	C3.2			C6.3.2
DES4(G1)					C5.4	C6.1
DES4(G6)					C5.5	
DES4(G17)		C2.2		C4.3	C5.5	C6.1
DES4(I1)				C4.2	C5.1	C6.1
DES4(I3)				C4.2	C5.1	C6.3.2
DES4(I7)					C5.4	
DES4(H7)	C1.5			C4.3	C5.2	C6.1
DES5(A2)	C1.5	C2.2		C4.1	C5.2	C6.1
DES5(A7)	C1.1	C2.3	C3.2			C6.1
DES5(A10)	C1.4	C2.1		C4.2	C5.1	
DES5(A11)	C1.3	C2.3				C6.2
DES5(A12)	C1.3	C2.3				C6.2
DES5(B2)			C3.1			
DES5(B3)	C1.3		C3.2			
DES5(B5)	C1.1		C3.2			
DES5(B6)					C5.1	C6.2
DES5(B11)			C3.1			
DES5(B13)			C3.1			
DES5(B14)			C3.1			
DES5(D5)					C5.2	
DES5(D11)					C5.2	
DES4(B3)	C1.3		C3.2			C6.3.2

Table F.1 (continued) : Analysis of designers' case

Units	C1: Difficulty	C2: Obstacle	C3: Manifestation	C4: Goal	C5: Purposive action	C6: Design implication
DES5(D13)			C3.2	C4.2	C5.3	
DES5(D14)					C5.3	C6.1
DES5(D16)	C1.2	C2.1			C5.3	C6.1
DES5(E1)				C4.2	C5.1	
DES5(E2)		C2.2		C4.3	C5.2	C6.2
DES5(E3)					C5.3	
DES5(E7)	C1.2					C6.3.2
DES5(F11)					C5.3	
DES5(H3)	C1.4	C2.1			C5.2	
DES5(G1)				C4.3	C5.5	
DES5(G6)				C4.3	C5.5	
DES5(G17)				C4.3	C5.5	
DES5(G18)				C4.3	C5.4	
DES5(I1)	C1.1	C2.3		C4.2	C5.1	
DES5(I3)				C4.2	C5.4	
DES5(I7)				C4.3	C5.4	
DES6(A2)				C4.1	C5.2	C6.2
DES6(A5)					C5.4	
DES6(A7)				C4.2		
DES6(A10)				C4.3	C5.1	
DES6(A11)	C1.3	C2.3		C4.2		C6.1
DES6(A12)	C1.3					C6.2
DES6(B2)	C1.3				C5.1	C6.2
DES6(B3)	C1.3		C3.2			C6.2
DES6(B5)	C1.3					C6.2
DES6(B6)	C1.1		C3.1	C4.1	C5.2	C6.2
DES6(B11)			C3.1			
DES6(B14)			C3.1			
DES6(D5)					C5.2	C6.2
DES6(D11)					C5.2	C6.2
DES6(D13)	C1.2	C2.2		C4.2	C5.3	C6.2
DES6(D14)					C5.3	C6.2
DES6(D16)				C4.3	C5.2	C6.2
DES6(D17)				C4.2	C5.4	C6.2
DES6(E1)				C4.2	C5.1	C6.1
DES6(E2)		C2.2		C4.3	C5.2	
DES6(E3)	C1.2	C2.1				C6.1
DES6(E7)	C1.2					C6.1
DES6(F11)		C2.1			C5.3	
DES6(H3)	C1.4	C2.1		C4.2	C5.3	C6.2
DES5(D13)			C3.2	C4.2	C5.3	

Table F.1 (continued) : Analysis of designers' case

Units	C1: Difficulty	C2: Obstacle	C3: Manifestation	C4: Goal	C5: Purposive action	C6: Design implication
DES6(G1)					C5.5	C6.2
DES6(G6)					C5.5	C6.2
DES6(G17)				C4.3	C5.5	
DES6(G18)					C5.4	
DES6(I1)				C4.2	C5.1	C6.2
DES6(I3)					C5.4	C6.2
DES6(I7)	C1.5				C5.2	C6.2
DES7(A2)	C1.5	C2.2			C5.2	C6.3.1
DES7(A5)				C4.3	C5.4	C6.1
DES7(A7)	C1.1					C6.1
DES7(A10)	C1.4	C2.1		C4.2	C5.1	C6.1
DES7(A11)	C1.3		C3.2			C6.2
DES7(A12)	C1.3	C2.3				C6.1
DES7(B2)					C5.1	
DES7(B3)			C3.2			C6.3.2
DES7(B5)			C3.2			
DES7(B6)	C1.5				C5.2	C6.1
DES7(B9)			C3.2	C4.2		C6.3.2
DES7(B11)	C1.1		C3.1			C6.2
DES7(B13)	C1.1		C3.1			
DES7(B14)	C1.1		C3.1			C6.1
DES7(D5)				C4.2		
DES7(D11)					C5.2	
DES7(D13)	C1.2	C2.2		C4.2		C6.1
DES7(D14)				C4.2	C5.3	C6.1
DES7(D16)	C1.2	C2.1			C5.3	
DES7(D17)			C3.2	C4.2	C5.4	C6.3.2
DES7(E1)					C5.1	C6.3.2
DES7(E2)		C2.2		C4.3	C5.2	C6.3.2
DES7(E3)					C5.3	
DES7(E7)	C1.2					C6.3.2
DES7(F11)	C1.2	C2.1		C4.2		C6.3.2
DES7(H3)	C1.2	C2.1		C4.1	C5.2	C6.1
DES7(G1)				C4.3	C5.5	C6.3.1
DES7(G6)					C5.5	
DES7(G17)				C4.3	C5.5	C6.3.1
DES7(G18)					C5.4	
DES7(I1)	C1.1	C2.3			C5.1	C6.1
DES7(I3)				C4.2		C6.1
DES7(I7)	C1.5	C2.2				C6.3.1
DES6(G1)					C5.5	C6.2

Table F.1 (continued) : Analysis of designers' case

Units	C1: Difficulty	C2: Obstacle	C3: Manifestation	C4: Goal	C5: Purposive action	C6: Design implication
DES7(H7)				C4.3	C5.4	C6.3.1
DES8(A2)	C1.5	C2.2				C6.3.1
DES8(A10)	C1.4	C2.1		C4.2	C5.1	C6.3.1
DES8(B14)	C1.3					
DES8(D11)					C5.2	C6.3.1
DES8(G1)					C5.5	
DES8(I7)	C1.5	C2.2			C5.2	C6.3.1
DES9(A2)	C1.5	C2.2		C4.1		C6.3.2
DES9(A7)	C1.1	C2.3				C6.3.1
DES9(A10)					C5.1	C6.2
DES9(A12)	C1.3			C4.2	C5.3	C6.2
DES9(B3)	C1.1		C3.2			C6.3.2
DES9(B5)			C3.2			
DES9(B13)	C1.1		C3.2			C6.3.2
DES9(D5)				C4.3	C5.2	C6.3.1
DES9(D11)						
DES9(D14)				C4.2	C5.3	C6.3.2
DES9(D16)			C3.2	C4.2	C5.4	C6.3.2
DES9(D17)				C4.2	C5.4	C6.2
DES9(E1)				C4.2	C5.1	C6.3.2
DES9(E2)		C2.2		C4.3	C5.2	C6.3.2
DES9(F11)	C1.2	C2.1				C6.1
DES9(H3)				C4.1	C5.3	C6.2
DES9(G1)				C4.3	C5.5	C6.3.2
DES9(G6)					C5.5	
DES9(G17)					C5.5	C6.3.1
DES9(I1)	C1.3			C4.2	C5.1	C6.3.2
DES9(I3)				C4.2	C5.4	C6.1
DES9(I7)				C4.2		C6.2
DES9(H7)				C4.3	C5.2	C6.2
DES10(A2)	C1.5	C2.2				C6.3.1
DES10(A5)						C6.1
DES10(A7)	C1.2	C2.1				C6.1
DES10(A10)	C1.4	C2.1			C5.1	
DES10(A12)	C1.3				C5.3	C6.1
DES10(B2)					C5.1	
DES10(B6)					C5.1	
DES10(B13)	C1.1			C4.2	C5.4	C6.3.2
DES10(D5)					C5.4	C6.2
DES10(D11)					C5.2	C6.3.2
DES7(H7)				C4.3	C5.4	C6.3.1

Table F.1 (continued) : Analysis of designers' case

Units	C1: Difficulty	C2: Obstacle	C3: Manifestation	C4: Goal	C5: Purposive action	C6: Design implication
DES10(D14)					C5.3	C6.1
DES10(D16)			C3.2	C4.2	C5.2	C6.3.2
DES10(D17)				C4.2		C6.3.2
DES10(E2)					C5.2	
DES10(E3)					C5.2	
DES10(G1)				C4.3	C5.5	C6.1
DES10(G6)				C4.3	C5.5	C6.1
DES10(G18)				C4.2	C5.4	C6.3.2
DES10(I1)	C1.5	C2.3			C5.1	
DES10(I3)				C4.2	C5.4	C6.3.2
DES10(H7)				C4.3	C5.2	C6.3.1
DES11(A2)	C1.5	C2.2				C6.2
DES11(A7)		C2.1				C6.2
DES11(B2)	C1.1		C3.1			C6.2
DES11(D11)					C5.2	C6.2
DES11(D16)					C5.2	C6.2
DES11(F11)					C5.3	C6.3.2
DES11(G1)					C5.5	
DES11(G17)				C4.3		C6.1
DES11(G18)					C5.4	C6.2
DES11(I3)				C4.2		C6.1
DES11(H7)					C5.2	C6.3.1
DES12(A2)	C1.5	C2.2				C6.1
DES12(A7)	C1.1	C2.3				C6.3.1
DES12(A10)	C1.4	C2.1		C4.2	C5.1	
DES12(A11)	C1.3					
DES12(A12)	C1.3	C2.3				C6.3.2
DES12(B2)					C5.1	C6.2
DES12(B5)						C6.1
DES12(B6)					C5.1	
DES12(B9)			C3.2			
DES12(B13)			C3.1			
DES12(D5)	C1.3	C2.2				
DES12(D11)				C4.3		C6.1
DES12(D16)				C4.3		
DES12(E1)				C4.2		
DES12(H3)			C3.2		C5.3	C6.3.2
DES12(G1)					C5.5	C6.2
DES12(G17)					C5.5	C6.2
DES12(I1)				C4.3		C6.2
DES10(D14)					C5.3	C6.1

Table F.1 (continued) : Analysis of designers' case

Units	C1: Difficulty	C2: Obstacle	C3: Manifestation	C4: Goal	C5: Purposive action	C6: Design implication
DES12(I3)				C4.2	C5.4	C6.1
DES12(I7)	C1.5			C4.3	C5.2	
DES12(H7)	C1.5					
DES13(A2)	C1.5	C2.2				C6.3.1
DES13(A12)	C1.3	C2.3			C5.3	
DES13(B2)					C5.1	C6.3.1
DES13(D5)	C1.3	C2.2			C5.4	C6.3.1
DES13(D14)					C5.3	C6.1
DES13(E2)	C1.5	C2.2				C6.3.2
DES13(E3)					C5.1	
DES13(G1)					C5.5	

Table F.2 : Analysis of design students' case

Units	C1: Difficulty	C2: Obstacle	C3: Manifestation	C4: Goal	C5: Purposive action	C6: Design implication
STU1(A2)	C1.5	C2.2		C4.1		
STU1(A5)				C4.2	C5.4	
STU1(A7)	C1.2	C2.1	C3.2			
STU1(A10)					C5.2	
STU1(A11)	C1.3	C2.3				C6.2
STU1(A12)	C1.3	C2.3				
STU1(B2)	C1.1		C3.1			C6.2
STU1(B3)	C1.3		C3.2			
STU1(B5)	C1.3					
STU1(B6)	C1.5	C2.1			C5.2	C6.2
STU1(B9)	C1.1		C3.2	C4.2		C6.1
STU1(B11)	C1.1	C2.1	C3.1			
STU1(B13)	C1.1		C3.1			C6.1
STU1(B14)	C1.1		C3.2			C6.1
STU1(D5)	C1.3	C2.2				C6.3.1
STU1(D11)		C2.2				
STU1(D13)	C1.2			C4.2		C6.2
STU1(D14)				C4.2	C5.4	
STU1(D16)						
STU1(D17)	C1.2	C2.3				C6.2
STU1(E1)				C4.2	C5.1	C6.3.2
STU1(E2)	C1.5					C6.2
STU1(E3)	C1.2	C2.1		C4.3	C5.3	C6.1
STU1(E7)	C1.2					
STU1(F11)	C1.2	C2.1				
STU1(H3)	C1.4	C2.1				
STU1(G1)				C4.3	C5.5	C6.2
STU1(G6)						C6.1
STU1(G17)				C4.3	C5.5	C6.3.2
STU2(A11)						C6.2
STU2(B2)	C1.1			C4.2	C5.1	C6.2
STU2(B3)	C1.3		C3.2			
STU2(B6)						C6.2
STU2(B9)	C1.1		C3.2	C4.2		C6.1
STU2(B13)	C1.1		C3.1			C6.1
STU2(B14)	C1.3					C6.1
STU2(D5)	C1.1	C2.2			C5.2	C6.3.1
STU2(D11)				C4.3	C5.2	
STU2(D13)				C4.2	C5.3	C6.2
STU2(D14)				C4.2	C5.4	

Table F.2 (continued) : Analysis of design students' case

Units	C1: Difficulty	C2: Obstacle	C3: Manifestation	C4: Goal	C5: Purposive action	C6: Design implication
STU2(D16)				C4.2	C5.2	C6.3.2
STU2(D17)	C1.2			C4.2	C5.4	C6.2
STU2(E1)				C4.2		C6.3.2
STU2(E2)	C1.5			C4.3	C5.2	C6.2
STU2(E3)	C1.2			C4.3	C5.3	C6.1
STU2(E7)	C1.2					
STU2(F11)	C1.2	C2.1				
STU2(H3)	C1.4			C4.2	C5.4	
STU2(G1)				C4.3	C5.5	C6.2
STU2(G6)					C5.5	C6.1
STU2(G17)				C4.3	C5.5	C6.3.2
STU2(G18)				C4.2	C5.4	
STU2(I1)	C1.1	C2.3		C4.3	C5.4	
STU2(I3)				C4.2	C5.1	
STU2(I7)	C1.5	C2.2		C4.3	C5.3	
STU2(H7)	C1.5	C2.2		C4.3	C5.2	
STU3(A2)	C1.5	C2.2				
STU3(A5)			C3.2	C4.2		
STU3(A7)	C1.1	C2.3				
STU3(A10)	C1.4		C3.1		C5.2	
STU3(A11)	C1.3					C6.2
STU3(A12)	C1.3	C2.3				
STU3(B2)	C1.1			C4.2		C6.2
STU3(B5)						
STU3(B6)					C5.2	C6.2
STU3(B9)	C1.1		C3.2	C4.2		C6.1
STU3(B11)	C1.1	C2.1	C3.1			
STU3(B13)						C6.1
STU3(B14)	C1.3	C2.3	C3.2			C6.1
STU3(D5)	C1.3	C2.2				C6.3.1
STU3(D11)		C2.3		C4.3	C5.2	
STU3(D13)				C4.2		C6.2
STU3(D14)				C4.2	C5.4	
STU3(D16)					C5.2	C6.3.1
STU3(D17)				C4.2	C5.4	C6.2
STU3(E1)				C4.2		C6.3.2
STU3(E2)	C1.5	C2.2			C5.2	C6.2
STU3(E3)	C1.2					C6.1
STU3(E7)				C4.2		
STU3(F11)	C1.2	C2.1				
STU2(D16)				C4.2	C5.2	C6.3.2

Table F.2 (continued) : Analysis of design students' case

Units	C1: Difficulty	C2: Obstacle	C3: Manifestation	C4: Goal	C5: Purposive action	C6: Design implication
STU3(H3)					C5.3	
STU3(G1)						C6.2
STU3(G6)						C6.1
STU3(G17)						C6.3.2
STU4(A7)	C1.1	C2.1				
STU4(A11)						C6.2
STU4(A12)	C1.3					C6.2
STU4(B2)						C6.2
STU4(B3)	C1.3		C3.2		C5.4	
STU4(B9)	C1.1		C3.2	C4.2		
STU4(D14)				C4.2	C5.4	
STU4(D16)				C4.2	C5.4	C6.3.2
STU4(E1)					C5.3	
STU4(E2)						C6.3.2
STU4(E7)						C6.2
STU4(H3)				C4.2	C5.3	
STU4(G1)				C4.2	C5.1	
STU4(G6)				C4.3	C5.5	
STU4(I1)						C6.2
STU4(I3)				C4.2	C5.4	C6.3.2
STU4(I7)						C6.2
STU4(H7)						C6.3.2
STU5(A2)	C1.5	C2.2		C4.1		
STU5(A5)				C4.3	C5.3	
STU5(A7)	C1.1	C2.1	C3.2			
STU5(A10)			C3.1	C4.1	C5.1	
STU5(A11)	C1.1			C4.2		C6.2
STU5(A12)	C1.3	C2.3				C6.2
STU5(B2)				C4.1	C5.1	C6.2
STU5(B3)	C1.3		C3.2			
STU5(B5)						
STU5(B6)					C5.4	
STU5(B9)	C1.1		C3.2	C4.2		
STU5(B14)	C1.3	C2.3				
STU5(D5)				C4.2	C5.4	
STU5(D11)						
STU5(D14)				C4.2	C5.4	
STU5(D16)						C6.3.2
STU5(D17)				C4.2	C5.3	
STU5(E1)				C4.2	C5.1	
STU3(H3)					C5.3	

Table F.2 (continued) : Analysis of design students' case

Units	C1: Difficulty	C2: Obstacle	C3: Manifestation	C4: Goal	C5: Purposive action	C6: Design implication
STU5(E2)	C1.5	C2.2				C6.3.1
STU5(E3)	C1.2			C4.3	C5.3	
STU5(E7)	C1.2					C6.2
STU5(F11)	C1.2	C2.1				
STU5(H3)				C4.2	C5.4	
STU5(G1)				C4.2	C5.4	
STU5(G6)				C4.2	C5.5	
STU5(G17)				C4.3	C5.5	
STU5(I1)	C1.5	C2.3		C4.3		C6.2
STU5(I3)				C4.2	C5.4	C6.3.2
STU5(I7)	C1.5	C2.2		C4.3	C5.2	C6.2
STU5(H7)	C1.5	C2.2		C4.3	C5.2	C6.3.1
STU6(A2)	C1.5	C2.2		C4.1		
STU6(A7)	C1.4	C2.1				
STU6(A11)						C6.2
STU6(A12)	C1.3					C6.2
STU6(B3)	C1.3					
STU6(B14)	C1.3					
STU6(D5)				C4.2	C5.4	
STU6(D11)				C4.2	C5.4	
STU6(D14)				C4.2	C5.4	
STU6(D16)	C1.4				C5.2	C6.3.2
STU6(E1)				C4.2	C5.1	
STU6(E2)				C4.3	C5.2	C6.3.1
STU6(E7)	C1.2	C2.3				C6.2
STU6(F11)	C1.4	C2.1				
STU6(H3)				C4.2		
STU6(G1)				C4.3	C5.5	
STU6(G6)				C4.2	C5.5	
STU6(G17)				C4.2	C5.5	
STU6(G18)				C4.2	C5.4	
STU6(I1)	C1.5	C2.3		C4.3	C5.1	C6.2
STU6(I3)				C4.2	C5.4	C6.3.2
STU6(I7)	C1.5			C4.3	C5.3	C6.2
STU6(H7)	C1.5	C2.2				C6.3.1
STU7(A2)	C1.5	C2.2		C4.1		
STU7(A7)	C1.1	C2.1				
STU7(A10)	C1.4					
STU7(A11)				C4.2		C6.2
STU7(A12)	C1.3	C2.3			C5.3	C6.2
STU5(E2)	C1.5	C2.2				C6.3.1

Table F.2 (continued) : Analysis of design students' case

Units	C1: Difficulty	C2: Obstacle	C3: Manifestation	C4: Goal	C5: Purposive action	C6: Design implication
STU5(E2)	C1.5	C2.2				C6.3.1
STU5(E3)	C1.2			C4.3	C5.3	
STU5(E7)	C1.2					C6.2
STU5(F11)	C1.2	C2.1				
STU5(H3)				C4.2	C5.4	
STU5(G1)				C4.2	C5.4	
STU5(G6)				C4.2	C5.5	
STU5(G17)				C4.3	C5.5	
STU5(I1)	C1.5	C2.3		C4.3		C6.2
STU5(I3)				C4.2	C5.4	C6.3.2
STU5(I7)	C1.5	C2.2		C4.3	C5.2	C6.2
STU5(H7)	C1.5	C2.2		C4.3	C5.2	C6.3.1
STU6(A2)	C1.5	C2.2		C4.1		
STU6(A7)	C1.4	C2.1				
STU6(A11)						C6.2
STU6(A12)	C1.3					C6.2
STU6(B3)	C1.3					
STU6(B14)	C1.3					
STU6(D5)				C4.2	C5.4	
STU6(D11)				C4.2	C5.4	

APPENDIX G: FREQUENCIES OF CO-OCCURRENCE OF SUBCATEGORIES IN DESIGN STUDENTS' CASE

Figure G.1 : Frequencies of co-occurrence with C1.1

Figure G.2 : Frequencies of co-occurrence with C1.2

Figure G.3 : Frequencies of co-occurrence with C1.3

Figure G.4 : Frequencies of co-occurrence with C1.4

Figure G.5 : Frequencies of co-occurrence with C1.5

Figure G.6 : Frequencies of co-occurrence with C2.1

Figure G.7 : Frequencies of co-occurrence with C2.2

Figure G.8 : Frequencies of co-occurrence with C2.3

Figure G.9 : Frequencies of co-occurrence with C3.1

Figure G.10 : Frequencies of co-occurrence with C3.2

Figure G.11 : Frequencies of co-occurrence with C4.1

Figure G.12 : Frequencies of co-occurrence with C4.2

Figure G.13 : Frequencies of co-occurrence with C4.3

Figure G.14 : Frequencies of co-occurrence with C5.1

Figure G.15 : Frequencies of co-occurrence with C5.2

Figure G.16 : Frequencies of co-occurrence with C5.3

Figure G.17 : Frequencies of co-occurrence with C5.4

Figure G.18 : Frequencies of co-occurrence with C5.5

Figure G.19 : Frequencies of co-occurrence with C6.1

Figure G.20 : Frequencies of co-occurrence with C6.2

Figure G.21 : Frequencies of co-occurrence with C6.3.1

Figure G.22 : Frequencies of co-occurrence with C6.3.2

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