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*Published in:*

Proceedings of DRS 2016, Design Research Society 50th Anniversary Conference

*DOI:*

[10.21606/drs.2016.305](https://doi.org/10.21606/drs.2016.305)

Published: 01/06/2016

*Document Version*

Publisher's PDF, also known as Version of record

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*Please cite the original version:*

Joutsela, M., & Roto, V. (2016). Introducing Experience Goals into Packaging Design. In P. Lloyd, & E. Bohemia (Eds.), *Proceedings of DRS 2016, Design Research Society 50th Anniversary Conference* (Proceedings of DRS; Vol. 1). Design Research Society. <https://doi.org/10.21606/drs.2016.305>

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# Introducing Experience Goals into Packaging Design

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**Abstract:** Consumer experiences are an increasingly important driving force for commerce, affecting also packaging design. Yet, experience design for packages is rarely studied. Specifically, there is a gap in research regarding the integration of experiential goals, Xgoals, into the packaging design process. Open questions include how to describe Xgoals in design briefs when package design is outsourced, how to deal with changes during the design process, and how to evaluate whether the delivered design evokes the intended experience in the target audience. In this explorative paper we present three package design cases in which Xgoals were integrated into the design briefs. The cases cover the process from brief formation to design and experience evaluation of the resulting packages. We analyse the process of integrating experience goals into the package design process, and provide topics for future research.

**Keywords:** Xgoals; packaging design; brief; design for experience

## 1. Introduction

Traditionally, the relationship between a package and its consumer focuses on the point of purchase, since packaging is seen as “the silent salesman” (Pilditch 1961). Today, the role of packaging design has expanded from the basic functions of containing, preserving, protecting, identifying, marketing and brand building towards providing meaningful experiences (Underwood 2003). Although basic usability improvements have become a norm in packaging design, good user experience consists not only of the pragmatic usability but also of the emotional, non-instrumental aspects of the design. While there are many good examples of experiential packages on the market, the experiential aspects of packaging design are still rarely studied by scholars.

Product manufacturing companies commission package designs usually from a team of designers (external or in-house). The tasks and objectives for the packaging design are



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defined in a design brief which is then regarded as a guiding document for the design process. It determines the design direction, boundary conditions as well as specifications for the expected outcome. There is lack of research on how to address consumer-packaging interaction or experience goals (Xgoals) in a packaging design brief and the subsequent design process.

Our present research studied the packaging design process, specifically in cases where packaging design is outsourced. It focused on both the first impression at the point of sale and the package interaction. The main research question was “How to integrate experience goals into the package design process?”, and the specific questions were the following: how to describe Xgoals in design briefs, how do packaging design teams interpret briefs during the design process, and how to evaluate whether the delivered design evokes the intended experience in the target audience. Since the problems related to expressing experiential goals in a packaging design brief are not yet well defined, we took an exploratory approach to study realistic means of integrating Xgoals into the brief in different company cases. Real-life design cases are necessary when studying briefing, as many external realities affect both the brief and the design process.

This paper presents three cases in which an experience-driven brief was developed collaboratively with brand owners, packaging design professionals and researchers, based on experience insights from consumers in the intended target group. The briefs were given to multidisciplinary design teams, unfamiliar with the case prior to receiving the assignment. During the design process the teams were interviewed about their use of the brief and implementation of the Xgoals. The experiential qualities of the resulting packaging prototypes were then evaluated by the consumers of the case-specific target group.

## 2. Related research

### 2.1 *Packaging as a source of experience*

Bloch (1995) discussed the impact of good design on user experiences already in 1995:

“The physical form or design of a product is an unquestioned determinant of its marketplace success. A good design attracts consumers to a product, communicates to them, and adds value to the product by increasing the quality of the usage experiences associated with it.” -Bloch (1995)

Appearance and visual communication of the packaging differentiates a product from competition and influences consumer choice (Creusen & Schoormans 2005). Seeing a package creates impressions and results in associations in consumers’ minds even before the consumers have actual experiences about the product, i.e., the packaging design builds expectations for the product. Packaging communication does not only happen at the point of sale, but continues at the consumer’s home after the purchase is made (Ampuero & Vila 2006). Packaging is a marketing medium voluntarily selected by consumers to be brought into their homes.

In summary, packaging is an effective tool for communication between the brand and the consumer. A proper focus on the package experience can result in improved product and brand experiences in the target audience. The packaging designer's role is to facilitate this communication process from the brand to its consumer. The designer composes aesthetic entities using design elements and styles that he or she believes will (best) communicate the appropriate message about the brand and product.

## *2.2 Packaging design process*

According to Orth & Malkewitz (2008), package design can be seen as a result of an intentional process where the designer has chosen and blended various elements into a holistic design in order to achieve a particular sensory effect. The appearance of a package can be constructed in numerous ways, but in order to create a successful and engaging design, the designer needs to have an awareness of what is important for the product's intended audience, as well as which aesthetic and stylistic choices might work for the target group (Rundh 2009). The design objectives are usually outlined in a brief provided by the client (Phillips 2004), but the means to actually accomplish the objectives, to convey and communicate intended ideas, meanings and messages are usually left for the designer to choose (Björklund 2013).

Briefing is also said to be a process of framing a shared view between the client and designer(s). It is important in order to develop a mutual understanding of what the project is about and to create an actionable view. (Paton & Dorst 2011) According to Hey et al. (2007), such a shared view ideally includes a description of the desired goal(s), a selection of relevant and prioritized features, the problem scope, solution scope and projected value(s). The brief also addresses resource constraints (Hey, Joyce, & Beckman, 2007). The brief can be (expressed/presented) in various formats, and according to Phillips (2004), there is no single format for a good design brief, as the preferred format depends on the company, case and the situation.

## *2.3 Experience goals*

Although user and customer experiences are considered important for business, there is a lack of research in the area of experiential design of packaging. Traditionally, pragmatic aspects such as production cost, standards compliance, utility and usability override the experiential (also known as emotional or non-instrumental) aspects of product design. According to Hassenzahl (2003), both pragmatic and hedonic aspects of product use can be found in the user experience (UX). Experience-driven design typically focuses on the non-instrumental aspects of experience, meaning that the design goal is not so much utilitarian as experiential (Hekkert et al. 2003). While much of the packaging design research has approached experiences from the needs of the company, experience design focuses more on the person who interacts with the package. As discussed in Lu & Roto (2014), it is not new that design requirements include experiential goals, but more can be done to ensure

that the emotional aspects are not forgotten in the pressure of the pragmatic or merely functional requirements.

As experiencing is personal, it is practically impossible to force people to have specific experiences, but designers can facilitate the emergence of particular experiences by using an approach called design for experiences (Sanders & Dandavate 1999). Kaasinen et al. (2015) introduce the concept of user experience (UX) goals and specify five different sources for collecting insight and inspiration for goal-setting: Brand, Theory, Empathy, Technology, and Vision. We adopted the idea of UX goals, but since packaging combines user, customer, and brand experiences, we prefer to use a more generic term *experience goal*, or *Xgoal* in short. In our study, Xgoals address the intended emotional experience of interacting with a product packaging. For instance, a pleasant surprise was used as an Xgoal in two of the design cases presented in this study, but the designers' strategies for designing for such an experience can vary. Pragmatic requirements of packaging are outside the scope of this study. As can be seen in Kaasinen et al. (2015), defining good Xgoals is not a straightforward task, but requires expertise. Not all companies have dedicated UX or CX experts, especially the companies that outsource package design. Yet, companies should give guidance to designers as part of the design brief. Specifically, we investigate how to integrate Xgoals into the package design process through the design brief.

### 3. Package design cases

This paper presents three case studies where Xgoals were integrated into the packaging design processes of three different products, each for a different company. The case companies varied in size, age, product offerings, markets, as well as their experience in briefing designers.

**Case 1:** A confectionery manufacturer commissioned a new packaging concept for wrapped chocolates. The packaging is expected to be casual, small and simple but versatile enough to suit different chocolate brands for year-round casual gift giving. The target group is men and women aged 20-35. As experiential aims, the package is expected to delight and surprise, demonstrate thoughtfulness and be somehow special or different. Stylistically, the packaging should convey quality, yet be casual enough for modest gifting. The company is a traditional one with a strong brand and local market dominance in the category.

**Case 2:** A corrugated cardboard manufacturer commissioned a gift packaging design for e-commerce based delivery; a combined delivery (transport) and gift box that from the experiential side would offer a unique personal experience and would delight and surprise the receiver. The package should be interesting and memorable and accommodate/suit many occasions. It is expected to promote high quality and delightful functionality to its users. As functional requirements, it should be easy to open and close as well as reuse or recycle later. The target group is frequent users of e-commerce services in their 20s and 30s.

**Case 3:** A food company commissioned a redesign of a vacuum-packed single meal package previously consisting of a tray, plastic film and cardboard sleeve. The packed food is traditional and high quality, made with real ingredients and it has no additives. The main goal was to help the product to stand out from its competitors while reducing the plastic look of the package. As emotional goals, the packaging should communicate the home-cooked feel of the product, convey trueness, deliciousness and reliability. The design should equally appeal to elderly people, younger single consumers, and families with young children.

## **4. Process overview**

In our paper, we examine experience design in three packaging design cases (part of a research project). The explorative process is separated into successive stages described as follows:

### ***4.1 Packaging Design Needs***

As a starting point, the companies provided a rough “preliminary packaging design brief” which was based on a recognized need in the company. Two of the case companies wanted to create a completely new packaging concept, while one company wanted to redesign an existing package to better suit their current targets. Each case had a different target group and a specified market. The design had to consider fit-for-product materials, markets and comply with technical production specifications. At this point the case descriptions were not very detailed, but included basic information about the product and the company’s need-state along with some objectives and design requirements. These preliminary briefs provided outlines for developing experience-enhanced briefs at a later stage.

### ***4.2 Consumer insight and experiences***

Following Kaasinen et al.’s (2015) approach, we collected relevant understanding about users and context of use prior to any experience goal setting. Before the start of the actual packaging design process, consumers from each case-specific target group participated in a small survey collecting information about the consumers’ wishes, needs, expectations and experiences related to the product and its packaging. Experience descriptions were collected with open-ended questions which covered issues such as motivation to use a product/package, typical context of use, product selection criteria, as well as descriptions of an ideal package and opening experience. Three different scales were used for measuring experiences related to appearance, packaging interaction, and brand image. The scales were AttrakDiff2 (Hassenzahl et al. 2004), Interaction Vocabulary (Lenz et al. 2013), and the brand personality measure by Geuens et al. (2009). The AttrakDiff2 scale contains measures for pragmatic and hedonic user experience, including appearance measures. The Interaction vocabulary was used to measure package interaction experience, which in our cases was focused on the opening experience. The brand personality measure collected data on packaging-generated brand perceptions/beliefs. The AttrakDiff2 and Interaction vocabulary

scales were modified to include only the best-fitting (easily comprehended) questions for packaging research after pre-testing them with some consumers and common packaging samples.

#### *4.3 Analysing consumer insight*

The collected data was analysed by using summative content analysis for the qualitative answers, while descriptive statistics were applied to the quantitative scales. To enable easy interpretation of the quantitative results, visual “experience profiles” were created depicting the mean values for each scale. A summary of the results was given to the brand owners who were then asked to select among the findings three most significant or relevant user experience-related results to be used as additional consumer-inspired Xgoals in the packaging design brief.

#### *4.4 Co-designing an experience-enhanced brief*

The authors organized a co-design workshop about briefing in order to explore the best way of integrating the consumer-inspired Xgoals into the case-specific design briefs. Participants of the workshop were the brand owners and packaging design professionals invited from various companies and design agencies. The brand owners’ briefing experience varied from relatively inexperienced to very experienced. The purpose was also to exchange knowledge about various briefing practices, experiences and challenges related to briefing from both brand owners and design practitioners’ point of view. The facilitators presented various alternative briefing formats as inspirational material to encourage discussion about different ways of briefing. A summary of the survey results, the Xgoals chosen in the previous phase, and the preliminary briefs were presented as source material for developing an experience-enhanced design brief.

#### *4.5 Finalizing the experience-enhanced briefs*

After the workshop, the experience-enhanced design briefs were finalized and approved by the brand owners in a format fitting the company’s own briefing culture. As various well working briefing practices and formats exist, we decided not to force companies to use any single one format. Briefing practices are company and culture specific, and according to Phillips (2004): “*There is no single correct or preferred format for a design brief.*” All three briefs were formatted for PowerPoint presentations, but the Xgoals were treated differently. In one approach, the Xgoals were treated as a part of a list of objectives, in another the Xgoals were linked to the target group description and values, and in a third approach the Xgoals were scattered in different parts of the briefs’ overall narrative.

#### *4.6 Creating an outsourced design team*

As packaging design involves a wide range of considerations from materials, engineering, ergonomics, and sustainability to visual communication and branding, it is rarely the responsibility of a single person. For this project, multidisciplinary project teams were

created for each case from university students who had applied for an interdisciplinary packaging design Master's course at the Aalto University. Students from various programs applied by submitting motivation letters six months prior to the course start, and a limited number of students with different backgrounds was selected in order to form diverse but functional project teams with varying level of experience with briefing and potential to manage the design challenge at hand. The teams consisted of six students, ranging in background from industrial design, graphic design, product and packaging design, material technology, engineering, sustainability to business studies. Each project team was custom-created by the course staff in order to match the team's background competences to the assumed case-specific requirements.

#### *4.7 Briefing the design teams*

The brand owners presented the design briefs to the project teams (previously unfamiliar with the case) at the beginning of a three-month packaging design course, and the students had an opportunity to ask questions and discuss details with their client. Each team worked with a different company and thus a different packaging design brief. Besides the PowerPoint presentation, some clients offered additional information to the students in the form of separate technical specifications, or templates; or additional information regarding the target group. The students met with their clients a few weeks after the initial briefing to verify that they had understood the brief correctly, to present their initial project plan, and to collect feedback. The project plan outlined various steps and milestones in the intended process. One student acted as the project manager and contact person in the team, presenting and discussing progress reports with the client at different stages during the project. The teams were expected to create an iteratively developed packaging design based on the brief, resulting in a physical prototype (a printed, functional packaging mock-up) and a project report.

#### *4.8 Studying brief comprehension and implementation of Xgoals*

Immediately after the briefing, the teams participated in a small survey on first impressions and the most difficult thing to understand in the brief. The students also rated different qualities of the brief on a scale of 1–7. Later during the design process, the teams were interviewed in groups about using the briefs, Xgoals and design challenges that they encountered. The results are presented in Chapter 5.

#### *4.9 Delivering the results*

The new packaging concepts and prototypes were presented to the companies by means of an oral presentation supported by a visual presentation depicting and justifying the design solution. Physical mock-ups were also shown. In addition, each design team produced a project report addressing the design issues in more detail. The final presentation materials and project reports were analysed (with content analysis) to see whether and how the



Xgoals described in the brief were addressed in the work descriptions, and to see how the project teams justified and communicated their design solutions.

#### 4.10 Consumer evaluations

The new packaging designs were assessed in a lab by consumers representing the target group of each product. The high fidelity prototypes were professionally printed on the final materials, but were not yet optimized for smooth interaction. The consumers examined the physical prototype in their hands and answered a survey measuring the experience. Experience descriptions were collected with open-ended qualitative questions addressing first impression, visual communication and opening experience, and by using the same three semantic scales as used in the first phase (AttrakDiff2, Interaction Vocabulary, and Brand Personality). This provided information on whether the design conveyed to its audience the intended experiences outlined in the brief.

### 5. Results

From design practitioners' point of view, we examined the use of Xgoals in the design process from three perspectives. Firstly, the project team reported their first impressions of the brief. Secondly, we interviewed the teams to collect feedback on the brief and use of Xgoals in the design process. Thirdly, the final presentations and project reports were analysed for notions of Xgoals. After this, the new prototypes were studied within the target group to observe the actual experiences consumers had with the packaging. The results were then compared to the Xgoals mentioned in the brief.

#### 5.1 First impressions of the briefs

Based on the first impressions, the students rated qualities of the brief on a scale of 1–7 (strongly disagree – strongly agree) in terms of how the brief was interpreted. Table 1 presents the results based on the average ratings in each team. All briefs were rated as clear and understandable as well as rather user-driven, production-driven, and designer-friendly; and they also addressed the end users' intended experiences.

*Table 1 Design teams' first impressions of the qualities of the brief*

Brief	Clear	Inspiring	User-driven	Production-driven	Designer-friendly	Considers UX
Confectionary	6,5	7,0	6,5	6,3	5,5	6,5
E-commerce	6,0	5,6	5,6	5,2	5,8	6,2
Ready meal	5,6	3,2	4,0	5,0	4,2	5,5

The questionnaire also asked the students to report what was difficult to understand in the brief. Most of the responses referred to information that was not related to the Xgoals. Two students in different teams reported that it was difficult to distinguish between the

primary and secondary requirements in the brief, which may have applied to the Xgoals as well.

## *5.2 Design team feedback of the project*

The design teams were interviewed two weeks before the delivery dates of the finished design concepts and prototypes. The members of each team were asked to reflect on the brief and describe how it was used in the design process. The interpretation and implementation of Xgoals was also discussed.

All briefs were considered clear in general, but some Xgoals were considered more actionable than others. The Xgoals were integrated into the briefs as expressions of the kind of experience, effect or interpretation the design should enable. In some briefs the goals were presented as requirement or wish lists, and in others the goals were hidden in a more narrative format. The concreteness of the Xgoals and abstraction levels were considered to have an impact on how easy they are to understand and act upon in the design process, as stated in the following quotes from the interviews.

“Ecological, branded, delightful experience... are big words that can be understood in a million different ways” (PD-5)

“To change user behavior. To make people buy more gifts to each other. It’s kind of a big target!” (PD-1)

“In our case, experience goals were easy to understand because they were physical ones and not abstract ones. They are physically seen.” (ED-3)

The balance between the goals and restrictions was also discussed. How can goals be adequately achieved with a number of restrictions and limited means?

“They (descriptions in the brief) were clear. The terms are really easy, they want this and this and this, and you would know what to do. But then you have these restrictions with production and colors and brands, and then it is kind of a lot to take in and still meet the target.” (PD-1)

In addition to the written brief, clear and frequent communication was considered important throughout the project, in order to have an adequate shared understanding of the expectations and limitations. Clients might have relevant tacit knowledge (Polanyi 1966), hidden expectations, and ideas about the case that are not explicitly communicated, i.e., things they have seen somewhere and like but that are left unspoken. If there are expectations that are not explicitly communicated, designers need to work out a solution that is either aligned with the clients’ (hidden) expectations or convince the client about another, hopefully better solution.

“The most difficult thing (in briefs) is that... nobody (referring to client) has a completely open mind when they go to a designer. Like they already have a thing in their head and they are giving you ideas on how you should do something for them and they are hoping that we would somehow end up with that result. But then you end up with something else, completely different, but still nice, and they are just

surprised that it can be so different... We can't read their minds but sometimes I wish I could." (PD-1)

The volatile nature of design projects was also mentioned. It is not uncommon in design projects that the focus shifts during the process as both designers and clients realize and learn more, see new opportunities to reframe the original problem in a new way while iteratively working towards the goal. In one of the cases the client decided to expand the target group from the original brief.

"When you start a project in a company, things still tend to keep developing and sometimes it is a scheduling issue that you go ahead and start a project without really thinking about what you actually want... it is not uncommon that things change in the process." (GD-3)

"I don't even think that the client would have been able to tell us in the beginning, even if we had asked, because I think their thoughts have also kind of evolved throughout the process." (GD-3)

The design process and solution are influenced by the information that the design team has on the target group and the context of use.

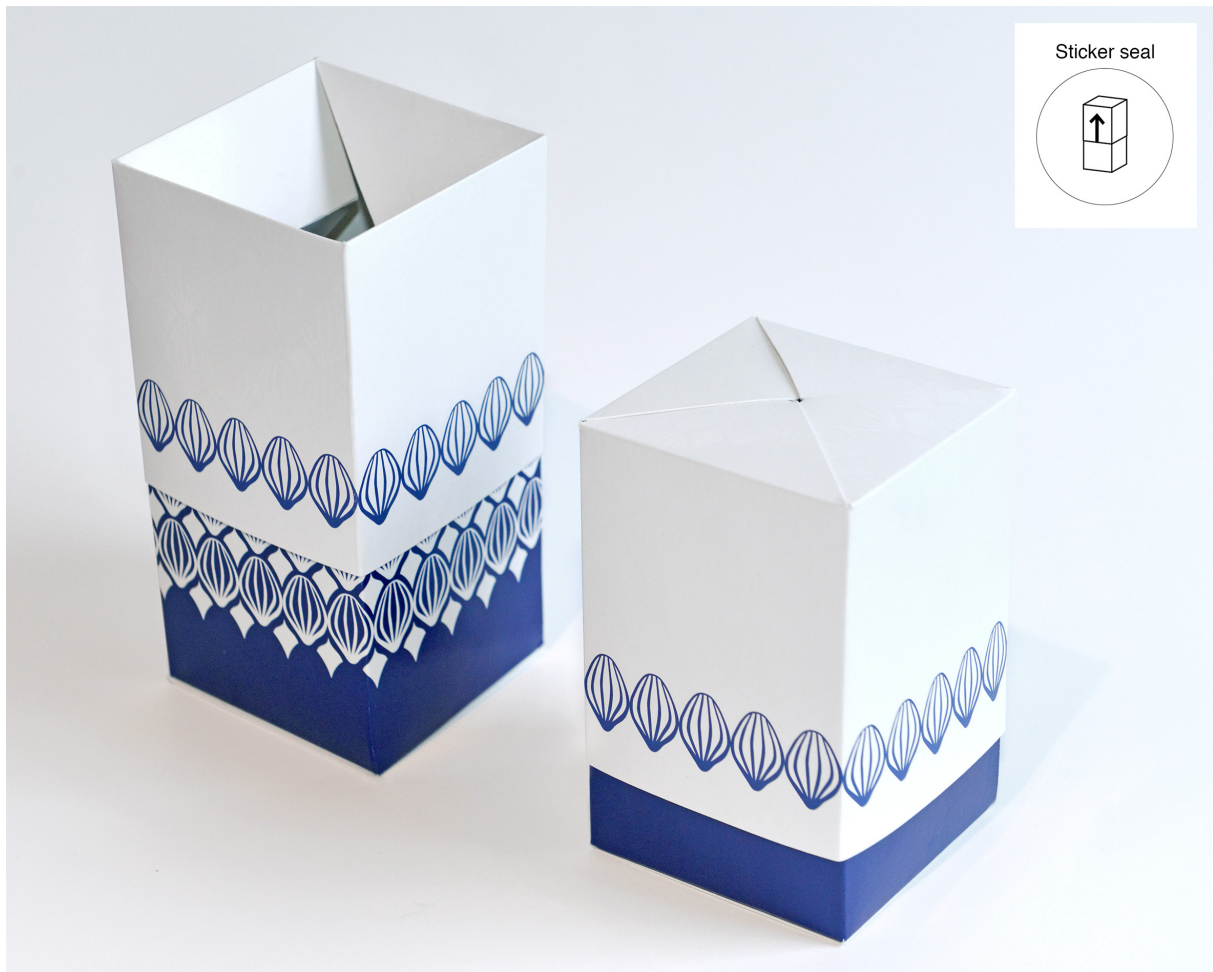
"The eating experience and opening of the package (was considered important) especially for the elderly, because in the beginning that was the focus, but I think we still have kept that although the focus group has changed. If it is easy to use for grandmas, it is easy to use for everybody." (GD-1)

### *5.3 User evaluation of packaging prototypes*

To see how the experiential qualities of the prototypes align with the Xgoals of the brief, the prototypes (Figures 1–3) were evaluated by consumers representing case-specific target groups. For each case, 30 prototypes were manufactured by a print house. Figures 1–3 present the package prototypes created by the teams. A marketing company was used to recruit 77 participants representing the target groups of the three products.

The evaluation took place in a lab-like environment, with 1–4 subjects at a time. Each participant had their own packaging prototype placed on a table, next to a computer with a survey. Each participant interacted with the prototype and evaluated related experiences individually and following the order specified in the survey. No interaction between participants was allowed, and visibility to the other testers was blocked. Experiences expressed in the participants' own words were first collected with open-ended questions regarding the first impression, visual appearance, and opening experience (for results, see Table 2). The first impression and appearance related questions were asked before opening the package, so the inside aesthetics of the prototype did not affect the appearance evaluations. In addition, qualitative information on the ideal context of use was collected. AttrakDiff2 (Hassenzahl et al. 2004), Interaction Vocabulary (Lenz et al. 2013) and brand personality (Geuens et al. 2009) scales were used to observe how the prototypes performed in terms of some quantifiable general (not case-specific) packaging-related experiential criteria. Scale-related data are excluded from our paper, as they are not core data related to

the integration of Xgoals into the design briefs. The results from the Interaction Vocabulary scale are reported in Joutsela et al. (in press).



*Figure 1 Chocolate package.*



Figure 2 E-commerce package.





Figure 3 Ready meal package.

#### 5.4 Addressing experience goals in different phases

Table 2 depicts in three columns how references to experiences are present in the different stages. The first column describes (emotional) Xgoals mentioned by the companies in the briefs, the second column describes targeted experiences mentioned by the designers in the final presentation or project report, and the third column describes the most frequent experiences spontaneously mentioned by the actual users in the evaluation phase of the prototype. The user experience descriptions summed up in the third column were collected with three qualitative questions: the first impression, visual appearance, and opening experience. If a description was mentioned in more than one of the questions, i.e. delightful both in terms of appearance and opening experience, only the question that had a higher frequency of the experience is reported. Note that in Case 1: Chocolate packaging, 12 of 34 test subjects could neither understand nor operate the unorthodox (surprising) telescopic opening mechanism of the packaging, and these subjects actually ended up breaking the packaging by forcing up something that remotely resembled dust flaps at the top of the package. We decided to exclude these 12 descriptions of the opening experience from the analysis, since the experience results address a different type of opening mechanism and structure.

Table 2 Experiences from briefs to consumer evaluation.

Xgoals Companies Mentioned in the Design Brief	Notions of Xgoals in Designers' Project Report & Presentation	Actual Experiences Reported by Consumers in the Target Group
<b>CASE 1: CREATE A CHOCOLATE PACKAGE CONCEPT FOR MODEST GIFTING</b>		
Surprise	Surprise	Stylish / attractive / beautiful 14
Delight and make happy	Delight	Finnish / domestic 11
Demonstrate thoughtfulness	Thoughtfulness	Different / interesting 10
Create enjoyable moment	Quality	Delight 8
Convey quality	Attractive	Surprise 8
Stylish / attractive	Modest gifting	High quality 7
Casual / affordable		Simple 6
Simple		Fitting the brand 6
Inspiring		Festive 4
Different		Smart / Innovative 4
Represent modest gifting		Classical 3
		Unique 3
		Fit for gifting 3
		Boring 3
		Ordinary 3
		N=34/22*
<b>CASE 2: DESIGN AN E-COMMERCE GIFT DELIVERY PACKAGE</b>		
Convey quality	Special opening moment	Delightful / pleasant 10
Delightful	Luxury	Ordinary / neutral 8
Surprise	Personal	Surprise 7
Special opening experience	Memorable	Stylish 6
Luxury	Unique	Dull 6
Personalized / individual	Color & emotions	Judicious 5
Secret	Reusability	Pragmatic 4
Memorable		Inventive / good idea 4
Good Conscience		Looks expensive 3
Happy customer		Exciting 3
		Original 3
		Unpleasant colour 3
		N=21
<b>CASE 3: REDESIGN READY MEAL PACKAGE</b>		
Appetizing / delicious	Stands out	Ecological 7
Real / genuine (not-artificial)	Real & Authentic	Stands out / different 5
Cozy home cooked meal	Healthy	Practical 5
Real tradition – not gourmet	Eating experience	Home cooked 4
Convey reliability	Appetizing & Home cooked	Pleasant feel 4
Convey high-quality food	High quality	Trendy 4
	Natural / Sustainability	Interesting 4
	Unique	Stylish 4
	Simple / clear	Clear 3
	Youthful	Informative 3
	Modern	Pleasant 3
		Natural 3
		Positive surprise 3
		Genuine 3
		N=22

\* In Case 1 the package had an unorthodox opening mechanism. 12 persons could not understand nor operate it without breaking the package so these 12 persons were excluded from the analysis of opening experience.

## 6. Conclusions

We have reported a study of three packaging design cases where Xgoals were integrated into the package design brief. Each case was tackled by an interdisciplinary project team on a packaging design course. The packaging design assignments came from real needs of real companies, who also set strict requirements for production feasibility. We learned that describing Xgoals as part of the brief is beneficial for the packaging design, but it is not simple. After analysing the brief formation process, studying the project teams using the briefs, and evaluating the resulting packaging designs, we can make the conclusions and answer our research questions as follows.

The primary research question was *how to integrate Xgoals into the packaging design process*. Our original idea of having a separate section or a unified format for Xgoals was found unrealistic, as companies have different briefing cultures, and as various brief formats are known to work. For the companies, it was most natural to integrate the Xgoals into the existing sections of the briefs. In the three cases under examination, each brief was designed differently and Xgoals were placed in different sections, depending on the brief (i.e. in the overview description, assignment definition, project objectives, experience objectives, target group description, and in a description of values to be addressed.) Integrating the Xgoals into these sections helps to convey a more coherent story of the client's vision.

Related to the primary question, we investigated three specific research questions. The first question was *how to describe the Xgoals in the design brief*. Based on the experience gained in the study, a list of standardized experience adjectives followed by an importance scale was considered too general. Since package designers want to create unique experiences, the format of an Xgoal should allow expressing unique experiential qualities that have the potential to differentiate the package on the market. In other words, the brand owners preferred qualitative experience descriptions over quantitative scales when specifying Xgoals. In the three resulting briefs, the Xgoals were described as adjectives (descriptors) or sentences that depict the desired experience in a more narrative format.

In addition to the Xgoals descriptions in the design brief, discussion between the client and the design team was needed to establish a shared understanding of the reasons behind and the specific nuances of the Xgoals. In two out of three cases, the assignment partially shifted during the packaging design phase as the parties' knowledge of the case and focus of the project developed. We conclude that the brief should be in a flexible format to allow easy updates.

The next secondary research question was concerned with *how the brief and its Xgoals were interpreted and used* by the project team during the design process. In the examined cases, the team members did not experience difficulties understanding the goals, but several students would have liked to have a more distinct differentiation between primary and secondary requirements in general. The briefs in our three cases under examination



suffered to some extent from too many objectives and Xgoals, and it might have been beneficial to pick e.g. three primary Xgoals and list others as secondary.

During the course, the student teams used various methods for developing, expanding, specifying and sharing the concept idea, involving its experiential aspects. Various mood boards and concept maps, personas and scenarios were used to help build a shared understanding of the intended users, their values and motivations as well as the context of use. Student teams worked iteratively. They generated several ideas, sketches and mock-ups to be internally assessed against the perceived requirements in the brief. The teams also presented their work in different stages to the client to collect feedback.

The final research question was *how to evaluate whether the delivered design evokes the intended experience in the target audience*. Despite some problems with smoothly opening and closing a package, the respondents spontaneously reported many of the intended experiences. Therefore, we conclude that open-ended questions such as “What kind of a first impression do you get of the package” can be used to see whether the experiences are realized. The most demanding task is the analysis of the open-ended questions, as it requires identifying semantic similarities of the terms used. The quantitative scales we used turned out to be too generic for testing whether the intended experiences were realized.

### 6.1 Future research

Our study raised many questions to be tackled in future research. Firstly, what formats are currently in use for Xgoal descriptions? We have not located any publications summarizing the different formats used for stating experiential goals, i.e. design goals that focus on emotional or non-instrumental aspects of UX, in a design brief. Comparison of the understandability and expressiveness of the different formats would be useful for briefing professionals.

Secondly, what kind of guidance would help inexperienced briefers describe Xgoals? In the packaging industry, not all companies can use professionals in defining a design brief, and the design assignment is often stated verbally in discussions. When the Xgoals are not formally defined, there is a risk that the intended experiences are not realized in the packaging design, although the subcontractor has performed the agreed job. Future research should address this risk and give guidance on stating experience goals in a measurable format.

Thirdly, how to evaluate experiences as early as possible in the design process? When the Xgoals are stated in a measurable format and reaching the target experiences is a must, the design agency wants to verify that the design work is progressing in the right direction as early as possible in the design process. However, early evaluation of experiences is challenging (Roto et al. 2009). Our study also faced difficulties in evaluating packaging prototypes, even when the prototypes were close to final. Production related issues, such as minor changes in the grades or stiffness of material can contribute to how easy or difficult a

package structure is to use and interact with. We support the call by Roto et al. (2009) for more research on early evaluation of experiences.

**Acknowledgements:** This work was supported by a Tekes-funded Valuepack research program. We thank various employees of Valuepack companies for all the help they provided during the study. We thank the teachers of the Pack-Age Interdisciplinary Packaging Design Project course, as well as our students for their packaging design contribution: Petriina Piihola, Heli Juuti, Oona Casalegno, Rodrigo Prieto Padila, Anu Penttinen, Janika Haataja, Anna Anc Ciechanowicz, Eriko Ishii, Sara Ceccherini, An-Ting Din, Terhi Isokuortti, Tatu Laakso, Mukundhan Kulur, Essi Huotari, Karoliina Heikkinen, Du Yuexin, Anna-Miia Suominen, and Jenna Virrankari.

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