

# Co-designing Services: Contextual Determinants of Shared Understanding and Stakeholder Commitment

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## Abstract

In service design projects, collaboration between design consultant and service provider can be problematic. The nature of these projects requires a high level of shared understanding and commitment, which providers may not be used to. We studied designer-provider collaboration in multiple real-life cases, in order to uncover determinants for successful collaboration. The case studies involved six service innovation projects, performed by Dutch design agencies. Independent researchers closely monitored the projects. Additional interviews with designers and providers gave insights in how both parties experienced their collaboration in the innovation projects. During data analysis, a coding scheme was created inductively. The scheme supported us in formulating 12 themes for designer-provider collaboration, amongst them four contextual determinants of shared understanding and stakeholder commitment in SD-projects. The insights from this study were then grounded in literature. Knowledge gaps were identified on themes about agreements of responsibilities, the open-endedness of an SD-process, an opportunity-searching approach, and organizational change that is required for the successful implementation of innovative service concepts.

**KEYWORDS:** collaboration, provider, shared understanding

## Introduction

Let's start with a practical example. Real-life, though slightly fictionalized for confidentiality sake:

*A Dutch design consultant of company Wasabi has a client at company Susbi: A large international service organization (which we refer to as 'service provider'). The design consultant helped his client develop tangible concepts for their new brand promise 'Value for Money'; a term Susbi was struggling with in their marketing strategies. In collaboration, the designer and 15 Susbi customers tried to understand how the expression shifts meaning for different situations. For instance, a simple sandwich at the train station could not be considered value for money, while an expensive Porsche could very well be. Wasabi conducted fieldwork amongst Susbi's potential customers, and organized a couple of workshops to jointly get a grip on the term, based on their research findings. The project concluded in a co-creation session that leads to a tool: a box of value-cards that describe the various ways to pronounce 'Value for Money', which Wasabi then further developed and produced.*

*The provider looks back at a pleasant collaboration, even though she had only partially be involved, since other more urgent matters required her attention to be directed elsewhere. She, as well as her co-workers, learned a lot in the process. Still, she was disappointed about the final result. Even though the team had been exhilarated about the concept at the end of the co-creation session, the client was not able to explain the concept to other colleagues. The project ended up with a product that was impractical and did not end up being used at all. The client had aimed for a more useful result, and thus ended up looking back at the project as a failure. Although the company had learnt a lot about both user-centered innovation and their brand promise, the process they went through in the project would not likely to be used in future innovation projects of the provider's organization.*

This example expresses some difficulties designers and providers encounter in their collaboration. These barriers are typical for collaboration between designer and client, although other problems occur as well. In the aforementioned example of an SD-project, two factors are remarkable in the process:

1. The client is frequently underestimated as a stakeholder and high client involvement is necessary throughout the process in order to successfully steer, design and implement a service innovation. In user-centered design, designers are increasingly used to involve the potential user of a product or service in the design process e.g., by interviewing or observing them, or involving them in co-design sessions (Buur & Larsen, 2010; Sanders & Stappers, 2008). The workshop activities of this anecdotal project focus on involving the user (what do people think of 'Value for money?'). But, in the heat of the process, the designers lost connection with the client. Blomkvist and Holmlid (2011) confirm that the client is a one of the most important stakeholders in SD-projects and in co-creating (Blomkvist & Holmlid, 2011).
2. Special attention needs to be given to developing shared understanding about the task, the process and the desired end-result. In the example: the designers, in co-creation created a cool toolbox that focused on the syntax rather than semantics of 'value for

money'. Because of time pressure and other reasons, the designers and service provider had omitted putting effort in understanding each other's points of view, of the task at hand, the ways in which to work together and the desired final result. The designerly ways of working were enticing, but also alien to the service provider, which made expectations difficult to manage.

The lack of awareness among both designers and providers about the aforementioned two factors in designer-provider collaboration form barriers for efficient and effective designer-provider collaboration. To help increase the success in such SD-projects, we studied barriers in designer-provider collaboration. In future research, we will develop a tool to support designers in their collaboration with service providers, based on the findings of this paper.

## Service design, service providers, design consultants

According to literature, service design (SD) is an emerging field for professional design consultants where they collaborate with service providers to improve services (e.g., Kimbell, 2011). As SD makes eclectic use of existing approaches rooting in different disciplines, design consultants, working at service design agencies have differences in background (Kimbell, 2011; Maffei, Mager et al, 2005). Some designers 'doing SD' have a background in design; others in social sciences, others in business and marketing administration. Service design consultants have in common that they all apply designerly skills, tools and methods (De Lille, Roscam Abbing et al, 2012) in the field of service innovation. In SD-projects, SD-consultants help service providers (organizations that deliver a service to customers); a service is something intangible that adds value to the customer (e.g., Miettinen & Koivisto, 2009); the client is the person or multiple persons within the company that is responsible for the success of the project, usually the person who gives the design brief.

## Literature review

The majority of literature on service design consists of descriptions of cases, in which SD methods and tools are applied. There is little literature analyzing the work of professional service designers in practice (Kimbell 2008) and there is limited theory building (Sangiorgi, 2009).

The majority of previous studies on SD and service innovation are approached by a specific discipline (e.g., Han, 2010). However, given the interdisciplinary character of SD, it is beneficial to view SD in the context of service development, management, operations and marketing (Holmlid, 2007). Only some recent work combines a design perspective with that of management

(e.g., Bergema, Kleinsmann et al, 2011), since there is a deep-rooted lack of attention to design within management and organization studies (Kimbell, 2011). As a result, there is even less design literature that specifically focuses on the collaboration between design consultant and service provider in SD-projects. Buur & Larsen (2010) claim a need for developing new formats of collaboration in participatory innovation, in which conflicting intentions are encouraged, but also they could not uncover any thorough study on how service providers and designers experience their collaboration in SD-projects (Buur & Larsen, 2010). Thus, theory building is required about the work of design consultants and their collaboration with clients. This knowledge gap will be filled with attention to design, management and organizational perspectives.

## Outline of this study

This paper identifies phenomena in the collaboration between design consultants and service providers, grounds some of these phenomena in literature, and indicates knowledge gaps. Based on six case studies, 12 themes regarding optimal designer-provider collaboration emerged, grouped in four categories (1. Context, 2. Shared understanding, 3. Stakeholder commitment, and 4. Deliverables). Categorization enables focus on parts of the results and indicates mutual relationships between themes. The 12 themes are presented in the Results-section. The study indicates that contextual themes influence shared understanding and stakeholder commitment in designer-provider collaboration. As a first study, the Discussion-section of this paper focuses on these contextual themes: themes about given characteristics of the relationship, project and organization. From there, specific knowledge gaps about designer-provider collaboration are identified, which are used to formulate future research directions.

## Methods

We closely followed six design agencies, each conducting a case within the scope of the so-called 'Innovation in Services' project (see Table 1). This government-funded project (August 2010-2013), attempts to demonstrate how SD can be optimally applied in practice in order to reach maximum value for all stakeholders involved. A mediator with a large network within both the service provider domain (public transport) and creative service industry coupled design agencies to service providers to formulate cases. Table 1 gives for each case insight in deliverables for important phases of the design process: the inspire, ideation and implementation phase. Not all cases were finished at the time of writing. Therefore, this paper reports only preliminary findings to formulate assumptions that will be verified in future studies.

Table 1. Cases overview

Case	Objective	Deliverables of phases in SD-process
1	Improve hospitality of a large, academic hospital by developing a service concept that reduces patients stress level within the hospital's entrance area	<b>Inspire:</b> Observation, contextmapping, and physiological stress measurements to fully understand the patient experience during a hospital visit <b>Ideate:</b> Personas representing patient segments, insight guidelines to address patients' needs during waiting, a conceptual roadmap to improve the reception area, and visualization of new service concepts
2	Increase visitor rate of museums in the city of Utrecht by meeting (potential) visitor's needs	<b>Inspire:</b> Workshop and museum tool for museum employees to experience the customer's perspective, customer journey mapping, visitor interviews, visitor stalking to detect their route to and from museum. All this in order to obtain visitor profiles <b>Ideate:</b> General insights to attract more visitors, customer journey map, scenarios and concepts for improvement, and personas
3	Improve passenger communication on a train platform under renovation	<b>Inspire:</b> Desk research and observation to identify role of communication (e.g., signs) in passenger movement on platforms <b>Ideate:</b> Panoramic visualizations (posters) of passenger movement, workshop with service provider to define problem, conceptualization of possible solutions and creative workshop to identify three possible concepts for improvement that will be prototyped in a subsequent case
4	Understand passenger movement patterns at railway platforms in order to identify directions for service improvement for stations being renovated	<b>Inspire:</b> Desk research, observation (same as case 3) and interviews (n=6) to reveal underlying motivations for passenger behavior <b>Ideate:</b> Six passenger portraits (posters), visualizations (see case 3), workshop (see case 3) and a list with barriers and challenges to improve services, and a proposal to conduct more specific user research to generate a traveler's segmentation model
5	Enable interfaculty collaboration at Utrecht University of Applied Sciences regarding research, education, and work practice	<b>Inspire:</b> Contextmapping among students and teachers to explore their ideas regarding the 'ideal' educational environment, creative session with users to process contextmapping results into personas, expert interviews, results presentation to Board of Directors <b>Ideate:</b> Visualization of possible service concepts which were presented to Board of Directors
6	Facilitate collaboration between two main service providers within public transport-industry in order to improve satisfaction of passengers traveling from stations under renovation	<b>Inspire:</b> 1-to-1 interviews with stakeholders of provider 1 and 2 <b>Ideate:</b> facilitating joint workshops for provider 1 and 2 and generating a "client grid" that enables providers to anticipate on customer satisfaction <b>Implement:</b> based on the 'client grid', co-designing interventions for a station under renovation together with provider 1 and 2, and confronting passengers with the designed interventions

## Data sources

Each case was closely followed by at least two independent, academic researchers (among whom were this paper's authors). Three kinds of data sources were collected, for analyzing on multiple levels:

» Within cases:

We registered the entire SD-process from the first orienting conversation to the presentation of service concepts and recorded or filmed, if possible, all designer-provider communication and case material (e.g., presentations, posters, movies). We helped the designers with

conducting interviews, performing desk research etcetera, but stayed as objective as possible and did not intervene in cases.

» Between cases:

From the early start of cases, all researchers in this study met each two to three weeks to jointly reflect on the themes identified regarding to designer-provider collaboration and to determine research focus, based on Grounded Theory. Also, we individually kept a 'reflective journal'. During cases, we interviewed both designers and providers several times to discuss emerging themes.

» Besides cases:

Next to the data generated from the cases, the first author conducted four complementary semi-structured interviews between March and May 2011 with two service providers (A and B) and two designers (C and D) not involved in any of the cases, in order to verify whether the results from the cases were representative for other SD projects.

Data was collected within cases to stay as close to the subject as possible; between and besides cases to view the insights in a broader perspective. In addition, research between cases was conducted to decrease the level of subjectivity by discussing data with other researchers, and data besides cases gave insights in projects that are already finished. Since not all cases were finished at the time of writing, data within and between cases will still be collected and analyzed until the end of 2012. If necessarily, additional interviews will be conducted as well.

## Analysis

Based on principles of Grounded Theory (Glaser & Strauss, 1967), an iterative and open-coding approach has been used to analyze the data on an ongoing basis throughout the cases. During our research meetings, we identified themes of interest within cases and verified whether these were valid between cases. Emerging constructs were continually refined through comparison between cases and eventually, 12 themes on provider-designer collaboration remained at the time of writing, which resulted into a scheme for coding the data (Table 2). On three different organizational levels, barriers and enablers are indicated: actor level, project level and company level (Kleinsmann & Valkenburg, 2008). The levels and four areas of interest (clusters of themes) enable a focus for analysis, e.g. a focus on project level or a focus on the contextual determinants. In this coding scheme, four areas of interest arose: 1) context of collaboration, 2) shared understanding between design consultant and service provider, 3) stakeholder commitment, and 4) deliverables.

Although the focus of this study is on shared understanding and stakeholder commitment, the areas of 'Context' and 'Deliverables' are explicitly mentioned in the coding

scheme and a results-table in this paper, because of their influence on shared understanding and stakeholder commitment. Subsequently, only results of contextual determinants of shared understanding and stakeholder commitment are extensively described and discussed, to create a focus in this paper.

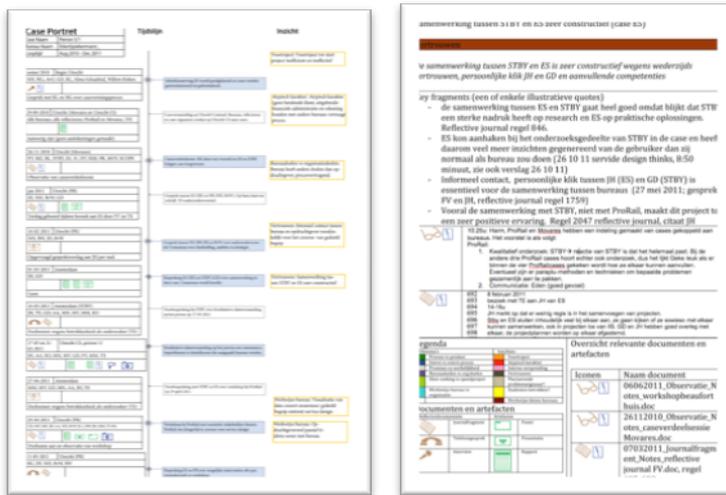
For each case, data was consolidated into a similar format consisting of a timeline with a short event description, next to a set of insight cards. A timeline for each case gives an overview of activities and events during the project and refers to all available documents related to the case. For each case, a set of insights cards gives per theme (different card-colors for each code) main insights grounded by data fragments of different sources, which are referred to on the cards as well. Thus, the insight cards are more specific than the timeline, which gives a more general overview.

Each insight card related to one of the 12 themes, and included one or more specific case events and the original data. The fixed format allowed us to systematically compare data between cases; otherwise we would have lost track in the enormous amount of qualitative data the cases generated. Transcripts of the four additional interviews were analyzed and coded according to the 12 themes found in the case study and for each interview a set of insight cards was made as well.

Table 2. Coding scheme: themes on designer-service provider collaboration in SD-projects.

<i>Organizational level</i>	<b>Context</b>	<b>Shared understanding</b>	<b>Stakeholder commitment</b>	<b>Deliverables</b>
<i>Actor</i>	Origin of relationship	Knowledge generation	Trust	Stakeholder interest
<i>Project</i>	Duration of relationship	Knowledge communication	Provider involvement	Evaluation
	Approach and focus		Ownership	
<i>Company</i>	Culture and organizational change	Internal communication		

Figure 1 and 2. Timeline (left) and insight card (right)



## Results

For each of the 12 themes presented in the coding scheme, main insights are given in Table 3. The Table shows determinants of stakeholder commitment and shared understanding between designer and provider in SD-projects. For each of the 12 determinants, main insights are given, completed with evidence from the data. The evidence consists of quotes as example and an indication in which cases the data occurs.

Since the focus of this paper lies on the contextual themes that influence designer-provider collaborations, the contextual determinants will be discussed in the next chapter.

Table 3. Main insights on designer (D) –provider (P) collaboration in SD-projects

<b>Determinant</b>	<b>Main insights</b>	<b>Evidence</b>
<b>1. Origin of relationships</b>	Beginning of relationship caused by: <ul style="list-style-type: none"> <li>• Similar or complementing personal D-P skills, e.g., creativity</li> <li>• D&amp;P are part of the same network</li> </ul>	Provider: "The advantage of [design agency in case 2] is being creative, out-of-the-box, really trying to come up with something you need." (Interview B).  Designer: "It is a very relational business. It's no option to search for a client by searching the phone book. That really doesn't work." (Interview D)
<b>2. Duration of relationships</b>	Different project time spans  Projects with satisfied P's: <ul style="list-style-type: none"> <li>• Long-term and open character</li> <li>• Learning about SD-processes</li> </ul>	Designer: "We have no idea how much workshops there will be. It depends on the process. We go on, until the client is able to do it all alone." (Case 6)
<b>3. Approach and focus</b>	SD is not a fixed approach: <ul style="list-style-type: none"> <li>• Uncertainty at P's side</li> </ul> Looking for opportunities for change, rather than problem solving	Provider: "I expected all agencies doing the same thing and that they would collaborate more" (Original client of case 3, 4 and 6).  A focus on process, instead of on results and

	Focus on results and responsibilities	responsibilities, occurred in multiple cases (2, 3, 5 and interview A and B) in which activities were tightly scheduled. As a result not enough time was left for “getting the final result really, really fine” (interview B).
<b>4. Culture and organizational change</b>	<p>Not always evident relevance of SD-deliverables for P’s organizations:</p> <ul style="list-style-type: none"> <li>• D not familiar with P’s organizational culture</li> <li>• Conservative attitude of P’s organization towards service innovation</li> </ul> <p>Frequently, organizational change is needed for implementing SD-concepts and is facilitated by:</p> <ul style="list-style-type: none"> <li>• Proximity and accessibility of D to important stakeholders in the organization</li> <li>• Formulation and communication of (design) problem after the orientation phase</li> </ul>	<p>“Providers are used to start with problems instead of opportunities. However, SD is all about defining a good question that can be tackled; finding the question behind the question” (interview D).</p> <p>Organizational change was in some cases goal of the SD-process (case 3, 4, and 6); Designers, who were operating close to, or even within the organization, were more successful in understanding the provider’s organizational culture and identifying real needs (case 1, 5, and 6).</p>
<b>5. Knowledge generation</b>	<p>Knowledge creation dependent on roles of the P:</p> <ul style="list-style-type: none"> <li>• <i>Co-creator</i> Jointly created knowledge by D&amp;P: collaboratively working towards common goal, involved at a similar level in process, intense and continuous communication</li> <li>• <i>Expert</i> Knowledge generated by D; P reflected on this. P consulted as expert of organization or incidentally present at workshops. Less intensive and no continuous communication</li> <li>• <i>Informant</i> Minimal provider involvement; D conducted entire project and only informed P at start and end of project</li> </ul> <p>This study suggests that collaboration with P in co-creator role led to higher shared understanding than when the provider acted as expert or informant.</p>	<p>Provider as:</p> <ul style="list-style-type: none"> <li>- Co-creator: case 6. Interviews B and D (long-term relations)</li> <li>- Expert: case 1, 3, 4, and 5. Interviews A and D (short-term relations)</li> <li>- Case 2. Informant: interview C</li> </ul>
<b>6. Knowledge communication</b>	<p>Quality of knowledge communication depended on:</p> <ul style="list-style-type: none"> <li>• <i>Artefacts</i> Highly appreciated by Ps. Enables P to better comprehend D and imagine the possibilities of SD</li> <li>• <i>Language</i> Language differences due to differences in background impeded efficient and effective communication in all cases</li> </ul>	<p>For example in case 6, D and P both used the word ‘customer experience’ within their organization, but with a totally different meaning. The P associated ‘customer experience’ with “coloring temporal dividing walls on a train station under renovation”, whereas the D meant the “sum of all experiences a customer has with the service provider” which means that dividing walls, colored or not, should be on the right places etc.</p>
<b>7. Trust</b>	<p>Cases showed that the level of trust can fluctuate during the process, and when trust is low, provider’s and/ or designer’s commitment also decreases, which is a risk for the continuation of collaboration</p>	<p>Example of repaired damaged trust: Higher management of the P’s organization lost trust in the D since they perceived the D being too commercial (given it was a government-funded project and providers did not pay designers). Therefore, the D adjusted his commercial future plans and the relationship was fixed after he had a</p>

		discussion with the business contact who explained the situation to higher management within the organization (case 1)
<p><b>8. Provider involvement</b></p>	<p>D involved their clients (Ps) in:</p> <ul style="list-style-type: none"> <li>• <i>Traditional vendor-buyer relationships</i> In first time, or once-only projects, the role of the provider was mostly restricted to absorbing findings from the designer. The end result is not always fitting the service P's organization</li> <li>• <i>Vendor-buyer relationship with higher buyer involvement than 'usual'</i> Designer performs the project and provider criticizes the results and incidentally is present during some SD events</li> <li>• <i>Partnership with shared responsibilities</i> P&amp;D have an equal amount of responsibilities. Relationship has intention to become long-term, in which P is able to apply the SD-process himself in future projects and in which D gains a facilitating and an increasingly advising role. Project deliverables really matched with the P's expectations</li> </ul> <p>It seems that higher provider-involvement enhances provider commitment in SD-projects</p>	<p>Case 2, and in some way case 1 and 3. Interviews A and C "It is very difficult as outsider to get grip on an organization, during just a project" (interview A) Case 1, 4 and 5. Interviews B and D Case 6. Interview B (intentions)</p>
<p><b>9. Ownership</b></p>	<p>In most cases ownership of problem and deliverables was unclear and changed during the process by:</p> <ul style="list-style-type: none"> <li>• Occupational changes</li> <li>• Narrowing problem focus</li> <li>• Government-funded project settings</li> </ul> <p>There were unclarities regarding intellectual property of project results</p> <p>Changing ownership both worked positively and negatively on P-commitment</p>	<p>Case 1-4, and 6</p> <p>When the D's contact person in the organization changed and was not replaced, P-involvement decreased (Case 1. Interview B). However, changing ownership could also imply that multiple people within the organization clinged to the project and eventually, the ideal owner was identified (case 1 and 6)</p>
<p><b>10. Internal communication</b></p>	<p>Important stakeholders in the P's organization have the power to stagnate the process at every moment. Contact persons operate as pioneers at mid-management level. Internal communication towards higher management was essential, but appeared difficult. Not only the contact person in the organization, but also the designer himself had an influencing role in convincing higher management of the added value of SD</p>	<p>"Please explain yourself the ideas to our bosses, that'll have more impact than when we do it ourselves." (Case 6)</p>
<p><b>11. Stakeholder interest</b></p>	<p>Stakeholder interests contributed to the project deliverables by:</p> <ul style="list-style-type: none"> <li>• When Ps changed function, sometimes interest in the case was lost, impeding the success and continuation of the SD-project</li> </ul>	<p>Case 1. Interview B. Case 1, 3, 4, and 6.</p>

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	<ul style="list-style-type: none"> <li>• The likelihood of successful project results appeared to be higher when they fit project outcomes generated in other projects of the Ps organization</li> <li>• Personal interests of D&amp;P gave direction to final project deliverables</li> </ul>	Case 1
<b>12. Evaluation</b>	<p>Agreements on process level (e.g., a couple of fixed workshops) with no explicit arrangements on outcome level are difficult to evaluate. Outcomes defined as “service concepts” or “prototypes” are very unclear, which made it hard for providers to assess their level of satisfaction with the results</p> <p>Evaluating to what degree (in-between) deliverables met P’s expectations was lacking, possibly influencing disappointment at the P’s side</p>	<p>Case 1-5</p> <p>Interview (D) demonstrated that making provider expectations explicit in the beginning of the project, next to in-between evaluations, contributed to provider satisfaction.</p>

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## Discussion and future work

Literature stresses that involving the client in an outsourced design process requires a different type of working relationship (Wognum, Fisscher et al, 2002; Bruce & Docherty, 1993), changing role of designers, and new tools and methods, than both designers and clients are used in more traditional projects (Sanders & Stappers, 2008). Design consultants in the cases perceived the collaboration with their clients as slightly changing; they mentioned their role as more ethnographic researchers than they are used to. Ethnographic research methods are used in design anthropology, which contributes to participatory innovation (Buur & Matthews, 2008). In this changing landscape of design, creating shared understanding and client commitment, and co-designing with stakeholders are important aspects (Kleinsmann & Valkenburg, 2008).

In order to facilitate shared understanding and client commitment in SD-projects, we identified themes of interest (coding scheme) with 12 themes, of which four contextual factors most significantly contribute to more effective and efficient collaboration: 1) Origin of relationships, 2) Duration of relationships, 3) Approach & focus, and 4) Culture & organizational change.

In this section, we ground the preliminary insights found in practice (see Table 3) with evidence from literature. If not enough evidence can be guaranteed assumptions are formulated of insights that should be evaluated in further research.

## Grounding insights

Apparently, personality and skills determine the degree of confidence parties have in each other and networking is even so much important in SD, that one design agency (case 6) primarily focuses its activities on networking by organizing events for potential clients, even without being paid, which sometimes takes up to a year or more before all this networking results into a paid order. For the designers in case 6 and of interview D, we observe more long-term relationships with clients than the other designers have.

Literature confirms that the origin of relationships (theme 1) in designer-client collaboration is caused by personal characteristics of stakeholders (Buur & Matthews, 2008), and by networking activities, or so called 'ongoing relationships' (Dawes, Dowling et al, 1992). Bruce and Docherty (1993) claim that the design profession is built upon personal relationships with personal 'chemistry' as a criterion and therefore has parallels with management consultancy. In client-supplier relationships in product development, Wognum et al. (2002) observed that suppliers are not pro-active enough in approaching potential clients and that they are not experienced enough in estimating the risks when applying on a design brief (when it is not sure yet if/ how much they will get paid).

Project duration varied between cases. Projects with satisfied providers regarding the project deliverables had a long-term and more open character (cases 1, 4, and 6); no agreements were made between provider and designer regarding specific activities (e.g., number of respondents, workshops, etcetera). Actively involving the provider and experiencing the SD-process was in these projects perceived as more important by designers than delivering tangible project results (case 4, and 6).

Bruce and Docherty (1993) claim that long-term relations between client and design consultant are particularly beneficial for both client and design consultant, implying that long(er)-term relationships are more plausible to lead to successful collaboration (theme 2). According to Bruce and Docherty (1993), personal 'chemistry' (theme 1) is one of the criteria to develop such long-term client-relationships.

Similarities in designer's approaches concerned the user-centered character and deployment of 'typical SD'-tools, like customer journey mapping, personas, and stakeholdermaps (e.g.,Stickdorn & Schneider, 2010), but the specific deployment of the tools along the process, differed very much among the design agencies. Apparently, SD is not a fixed approach, which caused uncertainty at the provider's side, like: "What is this design agency offering me?", and "What is the added value for my organization?" (case 2). Literature confirms that the focus should be more on results (theme 3) rather than on processes, because of the widespread understanding in co-design that innovation is a goal-oriented activity (Buur & Larsen, 2010).

The relevance of SD-deliverables for a provider's organization is not always transparent. Cases identified two potential reasons: First, the designer being not familiar with the provider's organizational culture and, second the conservative attitude of the provider's organization towards service innovation. The interviewed and involved providers acted as pioneers in their organizations and were very enthusiastic about SD-concepts and/ or the process, but higher management always had to sign for project approval or implementation of concepts, which frequently did not succeed. If higher management believes that the organization is not ready for the innovative concepts that anticipate on opportunities rather than on solving problems, continuation of the project is not very likely. Apparently, to make the provider's organization ready to implement SD-concepts, organizational change might first be required.

The assumption that complicated designer-provider relationships in this study are partially caused by a rather abstract problem definition, is shared by Bergema et al. (2011) who also expect that the design of product service systems has raised the collaboration problems to another level, because of ill-defined problems, which do not have a clearly defined solution space (Bergema, Kleinsmann et al, 200). This has to do with SD that is "all about defining a good question that can be tackled; finding the question behind the question" (interview D) which is confirmed by the providers from interview A and B. Together with managers that are not used (culture) to search for opportunities instead of solving problems (interview A), this suggests that designers should invest in finding the question behind the question, that managers should become less conservative and that organizations need a little change if they will be successful in implementing innovative SD concepts (theme 4). From this perspective, SD-projects frequently have an unclearly defined solution space.

The aforementioned findings should be taken into account when evaluating shared understanding and stakeholder commitment in designer-provider collaboration, since the contextual determinants will have influence. For example, an SD-project that started from an existing long-term relation cannot be compared with a project that started with a new relation.

## Knowledge gaps and future work

That innovation is a goal-oriented activity, according to Buur and Larsen (2010) says nothing about the form of results and agreements on responsibilities (theme 3). Holmlid (2009) claims that the outcome of an SD- or development process in itself is a process. Buur and Larsen (2010) also suggest that innovation is planned, which is in contradiction with our assumption that the open-endedness of an SD-process (theme 2) leads to a more successful collaboration.

The insight about clear agreements of mutual responsibilities, e.g., the client is responsible for "getting the final result really, really fine" (interview B), should be verified in

future studies. Such agreements on shared responsibilities have much to do with the role of the service provider and forms of collaboration (knowledge generation and provider involvement). Although Wognum (2002) concludes that clients are (in client–supplier relationships in product development) little aware of the fact that they have to adapt their organization, more research is needed to conclude that organizational change in SD-projects is required and appeared to be enabled by a) the proximity and accessibility of the designer to important stakeholders in the provider’s organization, and b) formulation of the design problem after the orientation phase.

Our assumption that SD-projects should focus on searching for opportunities for change rather than solving a problem should be verified in later studies. Although literature confirms that clients have to adapt their organization for optimal product/ service development (Bruce & Docherty, 1993), a required organizational change for the successful implementation of innovative SD-concepts (and the consequences we found for this) should also be verified in later studies.

Future work will also include further development of the coding scheme and analyzing more data from the case studies. As well the following themes will be further discussed:

- » Knowledge generation
- » Knowledge communication
- » Trust
- » Provider involvement
- » Ownership
- » Internal communication
- » Stakeholder interest
- » Evaluation of deliverables

## Conclusions

Based on preliminary insights of an extensive case study, this study presents an overview of themes of interest in order to facilitate collaboration in SD-projects (see Table 2). Findings on contextual determinants of shared understanding and stakeholder commitment are discussed and grounded in theory, leading to the following assumptions for successful implementation of service innovation:

In designer-provider collaboration:

- » Should be clear agreements about responsibilities
- » An open-endedness process is more plausible for success, than a well-defined and fixed process.
- » The service provider is not used to outsourcing ‘searching for opportunities’-projects.

- » Organizational change for the successful implementation of innovative SD-concepts is required.

Since this study shares preliminary results of a qualitative case study, implying insights being rather subjective, we tried to be as neutral and descriptive as possible. Therefore, we reflected and compared findings within our research group. By collecting data within the cases, we generated qualitative data in a narrow field. This leads to an enormous richness of data, but with a rigid focus. Therefore, more data of the cases will be analyzed after cases have been finished, and the preliminary findings will be evaluated in a broader field. Weick (1992: 177) mentions such a verification of “a relatively full explanation of a small region” that “is carried over to an explanation of adjoining regions” as “knowledge growth by extension”. Knowledge gaps for the 8 remaining themes will be identified, the aforementioned assumptions will be verified, and the twelve themes will be used for supporting shared understanding and stakeholder commitment between designer and service provider.

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